

## ROLE OF AGRICULTURE IN INDIAN ECONOMY

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Agriculture is the basic foundation of the Indian Economy. Agriculture is the only means of living for almost two-thirds of the employed class in India. The history of agriculture in India dates back to the Rigveda. Today, India ranks second worldwide in farm output. Agriculture and allied sectors like forestry and fisheries accounted for 13.7% of the GDP (gross domestic product) in 2013, about 50% of the workforce. The economic contribution of agriculture to India's GDP is steadily declining with the country's broad-based economic growth. Still, agriculture is demographically the broadest economic sector and plays a significant role in the overall socio-economic fabric of India. India exported \$39 billion worth of agricultural products in 2013, making it the seventh largest agricultural exporter worldwide and the sixth largest net exporter. Most of its agriculture exports serve developing and least developed nations.

In the earlier times, India was largely dependent upon food imports but the successive stories of the agriculture sector of Indian economy has made it self-sufficing in grain production. The country also has substantial reserves for the same. India depends heavily on the agriculture sector, especially on the food production unit after the 1960 crisis in food sector. Since then, India has put a lot of effort to be self-sufficient in the food production and this endeavor of India has led to the Green Revolution. The Green Revolution came into existence with the aim to improve the agriculture in India.

### **Importance of Agriculture in Indian Economy**

**Economic Growth:** Agriculture is the backbone of Indian economy. Though, with the growth of other sectors, the overall share of agriculture on GDP of the country has decreased. Still, Agriculture continues to play a dominant part in the overall economic scenario of India.

**Source of Food for domestic consumption:** Food is essential for life. We depend on agricultural outputs for our food requirements. India produces large quantity of food grains such as millets, cereals, pulses, etc. A major portion of the food-stuffs produced is consumed

within the country. Our farmers' works day and night to feed our population that counts over 1.21 billion.

Besides agriculture with a commercial bias, subsistence agriculture with its emphasis on the production of food for the cultivator's family is widespread. Traditionally, Agriculture is followed as the simplest method of obtaining food for the family. Agriculture in India is more a 'way of life' than a 'mode of businesses.

**Importance in International Trade:** India's foreign trade is deeply associated with agriculture sector. It helps in increasing the foreign exchange. India is ranked seventh in terms of agricultural exports. Agriculture accounts for about 14.7 per cent of the total export earnings. India exports excess food and agricultural products. A large proportion of India's export trade is based on the agricultural products, such as jute, tea, tobacco, coffee, spices, and sugar. Besides, goods made with the raw material of agriculture sector also contribute about 20 per centn Indian exports. In other words, agriculture and its related goods contribute about 38 per cent in total exports of country. In 2013, India exported agricultural products valuing around 39 billion dollars.

**Basic occupation of millions:** Agriculture is the basic occupation for majority of main-workers in India. A large number of rural women are also engaged in agriculture. According to 2001 census, over 56.6% of the main workers in India are engaged in agricultural and allied activities.

**Agro-based industries:** A number of industries are agro-based industries, such as jute, cotton, sugar, tobacco, etc. Raw materials for such industries are supplied from agricultural produce.

**Green revolution:** Green revolution began in India with an objective to give greater emphasis on Agriculture. The era of Green revolution that began in 1960s witnessed significant increase in the production of food crops. The introduction of improved methods of agriculture and high yielding varieties (HYV) seeds, mainly wheat, had resulted into remarkable improvement in agricultural outputs. The productivity of land increased tremendously giving huge economic boost to the nation.

## Future prospects

Agricultural productivity is becoming increasingly important as the world population continues to grow. India, one of the world's most populous countries, has taken steps in the past decades to increase its land productivity. Forty years ago, North India produced only wheat, but with the advent of the earlier maturing high-yielding wheat and rice, the wheat could be harvested in time to plant rice. This wheat/rice combination is now widely used throughout the Punjab, Haryana, and parts of Uttar Pradesh. The wheat yield of three tons and rice yield of two tons combine for five tons of grain per hectare, helping to feed India's 1.1 billion people.

### Agricultural productivity and sustainable development

Increase in agricultural productivity are often linked with questions about sustainability and development. Sustainable agriculture is in fact the successful management of resources for agriculture to satisfy the changing human needs, while maintaining or enhancing the quality of environment and conserving the natural resources.

The modern agricultural practices which are heavily dependent on the use of chemical pesticides, inorganic fertilizers and growth regulators has raised the agricultural production manifold but at the cost of resource depletion, environmental deterioration and loss of crop diversity. Therefore it was realized that the modern agriculture is not sustainable in long run, hence the concept of sustainable agriculture emerged which not only emphasizes on the conservation of the natural resources but also maintains the quality of environment. Often there is misconception that sustainable agriculture and organic agriculture is the same thing.

The National Agricultural Policy (Ministry of Agriculture, 2000) of the Government of India aims at agricultural growth (4% annually to 2020) with sustainability, by a path that will be determined by three important factors: technologies, globalization, and markets. Agricultural research and education of the future must therefore address two related challenges: increasing agricultural productivity and profitability to keep pace with demand, and ensuring long-term sustainability of production.

Reduced use of synthetic chemical inputs, biological pest control, use of organic manures, soil and water conservation practices, crop rotations, biological nitrogen fixation, etc., are all

relevant and important technological components of sustainable agriculture. But central to the concept of sustainability is the integration of these components in a systems framework at specified levels and to meet specified objectives.

The World Bank estimates that biotechnologies can help increase crop yields in rice by 10-20 percent in the next 10 years (Serageldin, 1999). But they have the potential for speeding up the research (for example biotechnology permits faster transfer of genes), and doing "maintenance research" which is research that helps prevent losses in yield and allows crop to use fewer inputs. Examples are the incorporation of genes for pest resistance, improved storage and packaging, fixing nitrogen from soil, etc. Similarly improved resource management through the use of information technologies permits more efficient use of inputs for the same level of crop yields, thus reduces the deterioration of natural resource quality. Whereas the green revolution technologies led to quantum jumps in crop yields, the new biotechnologies and information technologies, as well as the indigenous technologies and knowledge, are tools for achieving incremental advances in yields and maintaining the yields in a sustainable fashion.

## Conclusion

In short, agriculture occupies a central place in the Indian economy. Its performance sets the pace of growth in the economy as a whole. It should, however, be noted that Indian agriculture is still in the state of backwardness, the per capita productivity in agriculture is less than in industry. Therefore for increasing agricultural productivity, sustainable agriculture practices should be adopted. Sustainable agriculture has several benefits over modern agriculture as it is cheap, conserves water, soil and environment, maintain crop diversity and the food grains produced are nutritious and free from pesticide residues. Therefore shift from modern agriculture to sustainable agriculture is the need of the hour for the conservation of natural resources, environment, crop diversity and production of nutritious food grains.

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