

Role of Agriculture in Economic Development

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Agriculture occupies a very important place in the economic life our country. It is the backbone of our economic system. Agriculture has been the major source of livelihood in the Indian economy. India is primarily an agricultural country. The fortunes of the economy are, even now, dependent on the course of agricultural production. The importance of agriculture in the national economy can be best explained by considering the role of agriculture under the following heads.

1. Contribution to National Income

Agriculture contributes even now a major share of the national income in India. The distribution of national income by industrial origin for the period 1950-51 to 1979-80 shows that the share of various agricultural commodities, animal husbandry and ancillary activities has always been more than 40 percent. As a matter of fact, during the fifties, it contributed around half of the national output. During eighties and nineties, a further fall in this proportion took place. During 2002-03, it stood at about 25 percent.

2. Major source of Livelihood

The main source of livelihood is agriculture. Six out of every ten persons in India depend upon agriculture. In industrially advanced countries like U.K., U.S.A., etc, the number of people dependent on agriculture is very low as compared to India. Over the years 1921-2001, the size of labour force dependent on agriculture had more than doubled. The sector is plagued by evils such as underemployment, disguised unemployment and low productivity employment.

3. Provider of Employment

Agriculture provides employment and work to an overwhelming majority of the Indian masses. In villages, about seventy per cent of the people earn their livelihood from cultivation and allied agro-industries. In absolute terms, agriculture provided employment to 97 million persons in 1995; the number of people working on land (cultivators and agricultural labourers) increased to 235 million.

4. Industrial development

Agriculture provides raw materials to the industries. Cotton and Jute textile industries, sugar, vanaspathi and plantations - all these depend on agriculture. Many of our small scale and cottage industries like handloom weavings, rice husking, coir, khadi etc., depend upon agriculture for their raw materials. There are many other industries, which depend on agriculture in an indirect manner.

5. International Trade

Indian agriculture plays an important role in the country's international trade. The main exported agricultural commodities are tea, oil cakes, fruits and vegetables, spices, tobacco, cotton, coffee, sugar, raw wool and vegetable oils. Agriculture contributes to a sizeable part of exports and it is an important segment of imports of the economy. The agricultural sector is a net earner of foreign exchange.

6. Capital Formation and Investment

The major part of production assets of the country is in the form of agricultural assets like land, irrigation facilities, tractors, agriculture implements, ploughs, pump sets and storages. Since agriculture contributes about 25 percent of the national income, this sector is the primary source of savings and hence capital formation for the economy.

7. Food and Fodder

In India, agriculture meets almost the entire food requirements of the people. Agriculture also provides fodder to sustain livestock whose number runs to several crores.

8. Economic Planning

Agriculture is the backbone of the Indian economy and prosperity of agriculture can also largely stand for the prosperity of the Indian economy. Importance of agriculture in the national economy is indicated by many facts.

For example, agriculture is the main support for India's transport system, since railways and roadways secure bulk of their business from the movement of goods. Internal trade is mostly in agricultural products. Agricultural growth has direct impact on poverty eradication.

9. International Ranking

At the global level, Indian agriculture has ranked in certain commodities. In the case of groundnuts, India stands first in the world, for rice production it ranks second and in the case of tobacco it occupies third rank in the world.

The significance of India arises also from the fact that the development in agriculture is an essential condition for the development of the national economy. According to Ragnar Nurkse, surplus population in agriculture should be removed and used in newly started industries and public works in rural areas. By doing so, agricultural productivity will be increased on the one hand and on the other, new industrial units would be set up with the use of surplus labour. Agriculture is not only the largest and most important sector of the Indian economy, but also the most backward one. The growth of agriculture, therefore, is of vital importance for the growth of the entire economy.

Contribution of Agriculture to Economic Growth

Simon Kuznets identifies four possible types of contribution that the agricultural sector is capable of making for overall economic development. These are:

1.Product contribution i.e., making available food and raw materials.

2. Market contribution i.e., providing the market for producer goods and consumer goods produced in the non-agricultural sector.

3. Factor contribution i.e., making available labour and capital to the non-agricultural sector and

4. Foreign Exchange contribution.

Causes of Low Agricultural Productivity in India

1. Heavy Burden of the Population

In India, the burden of the population is too much on the agricultural land; due to which the agricultural activity cannot be properly controlled. In India, about 70% of people are dependent on agriculture. The increasing burden of the population on agricultural land is one of the main reasons for low productivity.

2. Illiteracy, Superstition, and Malnutrition

The agricultural productivity depends much on the efficiency, skill, and sincerity of human resources. In India, unfortunately, the human resources are suffering from various deficiencies, the Indian farmer is illiterate and superstitious, their health is also frail. In the environment of superstition and conservatism, the backwardness and low productivity of agriculture is natural.

3. Defective Social Organisation of Farmers

The Indian Social organization of the farmers has been defective. The casts system and joint family system have not provided that encouragement and power by which they can increase their productivity. Due to cast-ism, proper cooperation of all in the agricultural activity is not possible. The family tensions and differences have very much responsible for minimizing the productivity of the farmer.

4. Traditional Methods of Farming

In India, farming is done by traditional methods even today. By using good seeds, fertilizers and modern machinery per hectare production can be increased. But, here the same old seeds and traditional methods of farming are used. For irrigation, the farmer still depends on the monsoon. Due to the shortage of, stores, the farmer either sells his harvest in the fields or is forced to sell it at low prices, in the market.

5. Size of Fields

The average size of the fields in India is between 2 acres to 5 acres, which is too less. The agricultural field is not only less but also dispersed. In some areas, the size of the field is so small that they can't even be plowed easily. Due to the small size of the field, the machines, etc. cannot be used on it and the farmers have to expend more labor, time, and energy. Even of these circumstances, the land disputes between the farmers make them incur the major part of their income on court cases.

6. Insufficient irrigation Facilities

One of the major reasons for low agriculture productivity in India is that the farmers still depend on rain and very few farmers have their own irrigation means. Like before partition the total irrigated area was 24%, but after partition, it has fallen to 19%, even though the government has started big and medium irrigation schemes, during the planning period from time to time. Thus, now in the ratio of total land, the irrigated area has increased to 36%. This shows that India requires artificial irrigation methods.

7. Uncertainty of Rain

From the point of view of both time and result, rain is uncertain. Due to this reason, Indian agriculture is called a gamble of rains. Scanty rainfall causes droughts, and heavy rains destroy the crops by floods.

8. Faulty and Tenancy System

Though the "*Zamindari System*" has ended in India and the Land Development Act has been implemented yet still most of the farmers have not been provided land. Since they don't have their own land, they do not work sincerely. Thus, productivity is low.

9. Lack of Good Quality manure

The number of animals in India is so much that each year 165 crore tons of manure can be produced from their urine and dung. Other wastes and useless articles can produce 8.6 megatons of manure. But, the valuable manure from cow dung is dried and burned in case of a shortage of wood. Thus, due to a lack of good manure productivity decreases.

10. Lack of Finance

The claims of loans have discouraged the Indian farmer. He lacks funds to buy good quality manure, seeds, and machines. He fulfills his financial requirement by taking loans from the moneylender. The moneylender exploits him, taking advantage of his condition. Thus, the farmer unable to invest in agriculture. As a result, production falls.

11. Crop Diseases and Animals

The crops get various diseases like termite, redcoat, etc. which destroys the crop. Secondly, the various wild animals like Pigs, Neel-Gaye (wild-cows), etc. damage the standing crop. Thus, production falls.

12. Defective Marketing

One of the reasons for the backwardness of the Indian farmer is the defective marketing system. Due to this defective marketing, the Indian farmer is unable to get a fair price for his produce, and as a result, he is discouraged from performing his production activity, skillfully. Due to the defective marketing system, the farmers do not earn sufficient income and are unable to succeed in the agricultural activity.

13. Decline in Fertility

The decline in fertility is also responsible for lower productivity in India. Continuous agricultural activity on land has activated the Law of Diminishing Returns on it. No effective resolutions have been made to restrict the continuity of this law.

GREEN REVOLUTION

Green Revolution

The Green Revolution started in 1965 with the first introduction of High Yielding Variety (HYV) seeds in Indian agriculture. This was coupled with better and efficient irrigation and the correct use of fertilizers to boost the crop. The end result of the Green Revolution was to make India self-sufficient when it came to food grains.

After 1947 India had to rebuild its economy. Over three-quarters of the population depended on agriculture in some way. But agriculture in India was faced with several problems. Firstly, the productivity of grains was very low. And India was still monsoon dependent because of lack of irrigation and other infrastructure.

There was also an absence of modern technology. And India had previously faced severe famines during the British Raj, who had only promoted cash crops instead of food crops. The idea was to never depend on any other country for food sufficiency.

So in 1965, the government with the help of Indian geneticists M.S. Swaminathan, known as the father of Green Revolution, launched the Green Revolution. The movement lasted from 1967 to 1978 and was a great success.

Features of the Green Revolution

- The *introduction of the HYV seeds* for the first time in Indian agriculture. These seeds had more success with the wheat crop and were highly effective in regions that had proper irrigation. So the first stage of the Green Revolution was focused on states with better infra – like Punjab and Tamil Nadu.
- During the second phase, the HYV seeds were given to several other states. And other crops than wheat were also included into the plan
- One basic requirement for the HYV seeds is *proper irrigation*. Crops from HYV seeds need alternating amounts of water supply during its growth. So the farms cannot depend on monsoons. The Green Revolution vastly improved the inland irrigation systems around farms in India.
- The *emphasis of the plan was mostly on food grains* such as wheat and rice. Cash crops and commercial crops like cotton, jute, oilseeds etc were not a part of the plan
- Increased availability and use of *fertilizers* to enhance the productivity of the farms
- Use of *pesticides and weedicides* to reduce any loss or damage to the crops

- And finally the introduction of *technology and machinery* like tractors, harvesters, drills etc. This helped immensely to promote commercial farming in the country.

Market Surplus

The Green Revolution by and far was a success. But now there was another aspect to it. The government had to ensure that the benefit of the higher productivity was passed on to the general public. If the farmers kept the grains for themselves then the benefit of the higher productivity would be lost.

But thankfully this did not happen. Due to the high yield and productivity of the farms, the farmers started selling their produce in the markets. The portion of the produce which is sold by them is known as market surplus.

And so the higher output caused due to the Green Revolution started benefiting the economy. There was a decline in the prices of grains and such food products. The common man was able to easily afford to buy them. The government was even able to stock grains and build a food bank in case of future food shortages.

Impact of the Green Revolution

- ***Increase in Agricultural Production:*** Foodgrains in India saw a great rise in output. It was a remarkable increase. The biggest beneficiary of the plan was the Wheat Grain. The production of wheat increased to 55 million tonnes in 1990 from just 11 million tonnes in 1960.
- ***Increase in per Acre Yield:*** Not only did the Green Revolution increase the total agricultural output, it also increased the per hectare yield. In case of wheat, the per hectare yield increased from 850 kg/hectare to an incredible 2281 kg/hectare by 1990.
- ***Less Dependence on Imports:*** After the green revolution, India was finally on its way to self-sufficiency. There was now enough production for the population and to build a stock in case of emergencies. We did not need to import grains or depend on other countries for our food supply. In fact, India was able to start exporting its agricultural produce.
- ***Employment:*** It was feared that commercial farming would leave a lot of the labour force jobless. But on the other hand, we saw a rise in rural employment. This is because the supporting industries created employment opportunities. Irrigation, transportation, food processing, marketing all created new jobs for the workforce.
- ***A Benefit to the Farmers:*** The Green Revolution majorly benefited the farmers. Their income saw a significant raise. Not only were they surviving, they were prospering. It enabled them to shift to commercial farming from only sustenance farming.

INDIAN ECONOMY/UNIT-II

ADVANTAGES AND DISADVANTAGES OF MECHANIZATION

Farm mechanization is the use of large farm implements like tractors heavy machinery disc Harrows and Ploughing vehicles to telegram to ensure that the land is cultivated in large quantity for the purpose of producing the crops for commercial services farm mechanization ensures that all farm operation are done and completed within a given period of time.

Mechanization at the system level is one of the most important aspects required to reform Indian agriculture. India has made significant progress in field preparation by using tractors with matching implements for plowing and puddling.

I. ADVANTAGES OF MECHANIZED AGRICULTURE

Farm mechanization has the following advantages

1.TIMELINESS OF OPERATION

farm mechanization ensures that all farm operation are done and completed within a given period of time

2.MECHANIZATION SAVES TIME

in farm mechanization, all most human efforts are substituted with machines. Hence labour saved could be employed somewhere else

3.MECHANIZATION REDUCES HEALTH HAZARDS

farm mechanization reduces health hazards including those posed by the use of cutlass, hoe, digger, knives, stumps and pests

4.MECHANIZATION REDUCES DRUDGERY

farm mechanization makes it easy to avoid unpleasant manual jobs

5.MECHANIZATION INCREASES FARM YIELD

as a result of mechanization, farmers become richer due to increased yield

6.IT ENCOURAGES LARGE SCALE FARMING

with the use of machine which reduces labour and thereby making the work faster and easier, farmers tends to go into large scale farming activities

7.INCREASE IN OUTPUT

mechanization makes it possible for farmers to have increase in output

8.IT MAKES SPECIALIZATION OF LABOUR POSSIBLE

farm mechanization enables people to become specialized in certain operations within the farm.

9.CO-OPERATION AMONG FARMERS

mechanization enables many farmers to come together and pool their resources together, thereby promoting or encouraging co-operation among farmers.

10.IT SAVES TIME:

mechanization translates quickly the products of man's brain into reality.

11.REDUCTION IN COST OF OPERATION

we cannot actually finished the topic of Farm mechanization mentioning that farm mechanization helps in creating job opportunities:mechanization leads to reduction in the cost of agricultural operations per unit output.

12.IMPROVEMENT IN QUALITY OF PRODUCE:

mechanization usually improves the quality of some farm produce, e.g., rice processing.

13.AVAILABILITY OF LABOUR FOR OTHER SECTORS:

mechanization also helps to release labour to other sectors of the economy.

14.USE OF LESS HUMAN LABOUR:

mechanization helps to accomplish lots of work with less human labour.

II. DISADVANTAGES OF FARM MECHANIZATION

1.HIGH COST OF RUNNING:

farm mechanization, due to the high cost and numerous machines involved, is very expensive to operate

2.DISPLACEMENT OF WORKERS :

in farm mechanization, very few workers are required. Hence many people will be out of job when mechanization is introduced

3. COMPACTION OF SOIL:

mechanization lead to compaction of soil due to the movement of heavy machines

4.MECHANIZATION CAUSES ENVIRONMENTAL POLLUTION

mechanization causes environmental pollution due to smokes emanating from engines of these machines, chemicals and the use of fertilizer

5.MECHANIZATION LEADS TO DEGRADATION OF LANDSCAPE:

mechanization leads to degradation of landscape due to or as a result of continuous excavation

6.LAND TENURE SYSTEM CAUSES PROBLEM FOR FARM MECHANIZATION:

land tenure system may hinder efficient use machines like tractors, bulldozer due to small holdings of farmland

7.MECHANIZATION LEADS TO DESTRUCTION OF SOIL STRUCTURES:

the soil structure can easily be destroyed due to continuous use of heavy machines

8.MECHANIZATION LEADS TO REDUNDANCY OF FARM LABOUR

with farm machines working on the farms, the work can easily be completed and this situation can create redundancy in farm labour

9.FEW CROPS CAN BE MECHANIZED

very few crops like maize, rice, millet and guinea corn that easily be mechanized

10.INADEQUATE TECHNICAL KNOW-HOW

there is always inadequate technical know-how in handling the farm machines and equipment in most developing countries of the world

11.MECHANIZATION CAUSES DAMAGE TO CROPS

most crops are easily damaged during mechanize farm operation

12.INADEQUATE SPARE PARTS IS A MAJOR PROBLEM TO MECHANIZED FARMING

most of the spare parts or replacement parts for most of these machines are not readily available

13.HIGH COST OF MAINTENANCE OF MACHINES IS A PROBLEM OF MECHANIZATION

there is usually high cost of maintenance of machines involved in mechanized agriculture especially for the heavy duty machines

14.MECHANIZATION CAUSES SPREAD OF PEST AND DISEASES

mechanization help to spread diseases through contaminated machineries

15.HUMAN CONTROL

mechanization needs human labour to control it

16.UNSTABLE FUEL SUPPLY

unstable supply of fuel in the international market can easily affect the use of these machines in mechanized agriculture

Agricultural Marketing

Agricultural marketing refers to all those processes which relate to taking the agricultural product from the farmers to the consumers. Agricultural marketing includes gathering the agricultural produce, their standardization, and grading, their storage, sending them to the market through various middlemen, selling in the market and arranging the required finance, etc.

Defects/Problems

Even though [India is an agricultural country](#), still its agricultural marketing has been defective. The Indian farmers are unable to get reasonable prices for the products even after their hard work and are fully exploited by the middlemen.

1. Too Many Intermediates

The one main defect of Indian Agricultural marketing is the presence of too many middlemen and the exploitation of farmers by them. On one hand, these middlemen exploit the farmers by purchasing the produce at lower prices, and on the other hand, they exploit the customers by demanding higher prices from them. The only aim of a number of commission agents, brokers etc. is to derive a higher income from the middle processes. These middlemen take undue advantage of the poor farmer on the basis of their financial resources.

2. Defective Weights and Scales

One of the biggest defects of agricultural marketing arises due to weights and scales. Usually, in rural areas bricks, etc. are used as weights and in urban markets also defective weights are found. Thus, the grain of the farmer is weighed by a heavier weight for their own gain. Most of the traders keep separate weights for purchase and sale of grain.

3. Illiteracy and Lack of Unity among Farmers

The Indian farmers are illiterate who are easier to be fooled by the money lenders, traders, middlemen, due to their simple nature. Similarly, lack of unity among farmers also causes their exploitation because Indian farmers are spread in distant areas in rural places. They are unable to meet with each other and resolve their problems, as a result, they do not get a fair price for their produce.

4. Lack of Financial Resources

In rural areas, there is a lack of financial resources, due to which even their emergency requirements are not fulfilled. In such conditions, the farmers sell their produce before its ripening. Similarly, some financial facilities, like, installments on loans for pumping-set, tractor, thrasher, etc. have to be paid on a monthly or quarterly basis due to which they have to sell the product as soon as possible. Thus, as the lack of financial assistance, is a problem for the farmers; so does the receipt of loan also puts them in the problem.

5. Lack of Organised Marketing System

Agricultural marketing is also very defective in India because here organized marketing is not in vogue, like, cooperative societies, government marketing activities, regular markets, etc. As a result, the farmer remains entangled in exploitation. Thus, the lack of an organized marketing system is harmful to the farmers. That is -why; the farmer sells his product personally to different people. The middle takes full advantage of the unorganized farmers.

6. Lack of Transport Facilities

The roads from Villages to cities are usually unmade which are not capable of transport during the rainy season. The bullock carts can take the product only up to a limited area. During a lack of transport facilities, the farmer is unable to take his produce to the appropriate market and is unable to receive a fair price for his product.

7. Lack of Store Houses

An important deficiency of Indian agricultural marketing is the lack of storehouses. Due to lack of this facility, the farmer is unable to keep his product safely until it can fetch a fair price, and he is forced to sell his product at a low price. The insufficient and unscientific facilities of shortage which are available, waste large quantities of grains. Approximately 20% to 30% gains are lost due to rats, insects, etc. and the farmers have to bear crores of loss due to lack of these facilities.

8. Lack of Standardization

The lack of standardization and grading is clearly visible in the Indian Agricultural marketing, due to which fixing a deal in relation to these products becomes difficult.

Due to the lack of proper standardization and grading the customers have a problem in purchasing the product.

9. Lack of Awareness of the Market

The Indian farmer has no knowledge about marketing. He believes in information acquired from the businessmen and money lenders of the village. Mostly, the Indian farmers are illiterate so they cannot read the newspaper. Thus, they do not have sufficient knowledge about the market. Now, government transmits the rates of the market on the radio, which has definitely benefited them.

10. Corrupt Policies of the 'Mandis'

If we observe the condition of the mandis, this fact is no more hidden that the middlemen and the traders jointly make fool the simple farmers. The Indian Organizing Society has clarified the following facts relating to the corrupt policies of the mandis

- The inappropriate marketing system is so deep laden in India that about 5% of the amount is deducted from the farmer's produce in the name of donations, 'dharmada', 'chanda' etc.
- The farmers are paid low prices, as they lack appropriate knowledge about market prices, their fluctuations, government policies, etc. Thus, by keeping the rates secret, the farmers are cheated.
- Before the sale, large amounts of grains are taken from the farmers as samples. By declaring the product to be of substandard quality minimum prices are paid for it.

Features Of Agricultural Marketing

Agricultural marketing possess several features such as perishable products, regular demand, price fluctuation, inelastic demand, presence of intermediaries etc.

The features of agricultural marketing can be discussed as follows:

1. Perishable Products

Agricultural products are dealt with in agricultural market. Most of the agricultural products are of perishable nature. Fruits, green vegetables, fish, meat, milk, other

dairy products etc. perish within shorter time. But some other remain fresh for a little longer. So, proper management of storage, distribution and transportation should be made according to the nature of products.

2. Continuous Demand

Continuous demand is another important of agricultural marketing. Most of agricultural goods are produced in certain seasons. But they are necessary for consumption round the year. So, warehouse management should be made effective for regular supply of such goods.

3. Fluctuation In Price

Since balance cannot be maintained in demand and supply of agricultural products, price remains fluctuating in agricultural markets. Supply rises high and price falls low in harvesting time. Bu in off-season, supply falls low then prices rise high.

4. Presence Of Intermediaries

Producer's predominance prevails over industrial products but intermediaries' predominance prevails over agricultural products. Intermediaries buy agricultural products at low price directly from the farmers at the time of harvest. They keep the collected products in warehouse and sell them at high prices. So they take responsibility of market management. They perform all the functions of marketing such as collecting, standardizing, pricing, storing of agricultural product. So, farmers cannot get reasonable price for their products.

Also Read: Problems Of Agricultural Marketing

5. Inelastic Demand

Agricultural products are of compulsory for daily life. Any change in their price does not affect much. An increase or decrease in prices does not affect demand for agricultural products. So, demand remains inelastic in agricultural market.

6. Elastic Supply

Supply of agricultural products remains elastic, even if demand remains inelastic. Supply is affected by the change of price of agricultural products. If price of agricultural products rises, then supply also increases together. If price decreases, supply also decreases.

In this way, buying and selling of perishable goods, continuous demand, fluctuation in prices, presence of intermediaries, elastic supply etc. are the important features of agricultural marketing.