# **Academic Script**

#### Introduction

Economic reforms initiated in India during 1991 have put Indian economy on a higher growth trajectory. Annual growth rate in gross domestic product (GDP) has accelerated from below 6 per cent during the initial years of reforms to more than 8 per cent in the recent years. The more challenging than growth in GDP, is the sectoral composition of growth, which is related to the well-being of a very large segment of population. There is empirical evidence of agricultural growth induced by the Green Revolution technologies having benefited the rural and urban poor through reduction in food prices. Agriculture, which accounted for more than 30 per cent of GDP in the beginning of reforms failed to maintain its pre-reform growth or keep pace with growth in the non-agricultural sector. On the contrary, it witnessed a sharp decline in growth after the mid-1990s. This happened despite the fact that agricultural productivity in most of the states was quite low and there was a lot of scope and potential for the growth of agricultural output. Right from the Ninth Five-Year Plan (1996-97 to 2001-02) onwards, India has been targeting a more than 4 per cent growth rate in Indian agriculture, but the actual growth rate has not turned out to be even half of this target.

The poor performance of agriculture against the background of an impressive growth of the overall economy is having serious implications.

- One, it is causing wide disparities between income in agriculture and non-agriculture. The slow growth of agriculture would not have caused an increase in disparities, if there was a commensurate decline in population dependent on agriculture. But this is not happening and the population dependent on agriculture is increasing.
- Two, as more than 50 per cent of the workforce and about same proportion of the total population of the country

depends on agriculture for income and livelihood, slow growth in agriculture is putting them in distress.

The agricultural sector was not targeted directly by the reforms for a couple of years, but it was affected indirectly through changes in the exchange rate, export liberalisation and terms of trade resulting from dis-protection to industry.

On one side, the country is the largest producer, consumer and exporter of spices and spice products. It ranks third in farm and agriculture outputs. Agricultural export constitutes 10 per cent of the country's exports and is the fourth-largest that exported principal commodity. The agro industry in India is divided into several sub segments such as canned, dairy, processed, frozen food to fisheries, meat, poultry and food grains. But, on the other hand, when the Indian economy is growing at about eight to nine per cent per annum and moving towards the double-digit figure the agricultural sector was facing a downward trend.

# Early years of reforms

The only measure taken during the early years of reform had a direct impact on agriculture was decontrol of fertilisers and reduction in the fertiliser subsidy. The dis-protection to industry resulted in improvement in terms of trade for agriculture during the initial years of reforms. Another factor, which contributed positively to agricultural growth during the initial years of reform, was a substantial hike in minimum support prices, given by the government, mainly to reduce the gap between domestic and international prices, that resulted largely from devaluation of the overvalued exchange rate. The impact of these changes and various other factors was a small acceleration in the growth rate of agriculture during the first six years of reforms. The growth rate of GDP in agriculture and allied sectors turned out to be 3.64 per cent during 1990-91 to 1996-97 which was 0.5 percentage points higher than the previous decade. In fact, during the early years of reforms, gap in the growth rate between agriculture and non-agriculture slightly narrowed down.

Disaggregation of agriculture into sub-sectors shows that fisheries and horticulture, which accounted for 4.6 per cent and 19 per cent of the value of output of agriculture and allied sectors were the main sources for the acceleration in growth rate of agricultural output in the initial years of reforms.

In the 1980s, the agricultural output grew at about four per cent per annum. India has attained self-sufficiency in wheat and rice. But after liberalisation and towards the end of the 90's the rate of growth declined to 2 per cent. The rate of growth of agriculture and allied sectors was just one per cent per annum during the year 2002-05. As a result, per capita availability of food grains decreased; the growth rate of population became higher than that of food grains and India started to import food grains at a much higher price than that in the domestic market.

As incomes have risen, consumer demand has shifted from staple grains toward higher valued foods, such as horticultural and livestock products. Indian farmers appear to be meeting these new growth opportunities. But as production shifts, questions are being raised about agriculture's ability to meet the basic food needs of India's 1.24 billion citizens.

Rapid expansion of the banking system had a positive effect on rural farm and non-farm output, income and employment, especially after the green revolution — it helped farmers to avail services and credit facilities and a variety of loans for meeting their production needs. But the expansion and promotion of the rural banking sector has taken a backseat after reforms.

Agriculture loan default rates have been chronically high and many studies reveal that about 50 per cent of the defaulters were categorised as 'wilful defaulters', which is a threat to the smooth functioning of the banking system and needs to be controlled.

## Slowdown and poor growth of agriculture

The situation for agriculture turned adverse with beginning of 1997-98 and this covered all the sub-sectors of agriculture. The growth rates in output of fruits and vegetables decelerated from 5.92 per cent to 3.28 per cent, while fisheries witnessed a decline from 7.41 per cent to 4.30 per cent. The deceleration is also seen in the livestock sector. Output of non-horticulture crops and cereal groups experienced nil growth after 1996-97. Output of the total crop sector showed an annual growth rate of mere 0.79 per cent while the agricultural sector excluding fisheries showed a growth rate of 1.65 per cent per annum. These growth rates are lower than the growth rates in rural population and workforce employed in agriculture. A clear implication of this growth trend is that per worker income in agriculture is declining.

There has been a decline in the trend growth rate of production as well as productivity for almost all crops from the midnineties. Further, the value of output from agriculture has been declining from late nineties. This has been given by CSO. There is an excessive dependence of a large section of the population on agriculture.

# Production and productivity crisis in agriculture

Agriculture production has two components-

- Food grains
- Non-food grains

Food grains contributes two-third of total agriculture production. The weights assigned to food grains and non-food grains are 50.7 and 49.3 respectively. The most important component of food grains is wheat followed by rice and in non-food grain category is oilseeds, sugarcane and cotton.

However, as compared with other countries actual productivity levels in agriculture continued to be very low. India happens to be one of the largest growers and producers of most of the agricultural crops but ranks very low in terms of yield. The crisis started manifesting themselves in certain parts of India during the late 1980s, the crisis has assumed a serious dimension since the middle of the 1990s. There is a general perception that unbearable burden of debt and augmented competitions from imports are indicative of a crisis in Indian agriculture.

## **Causes of low productivity**

The causes of low productivity in Indian agriculture can be divided into three categories:

- 1) General
- 2) Institutional
- 3) Technical

#### **General Causes**

#### 1. Social environment

The social environment of villages is often stated to be an obstacle in agricultural development. The Indian farmers are considered illiterate, superstitious, conservative and unresponsive to new agricultural techniques. However, the fact is that given the limitation of present production relations, the farmers are using their resources efficiently.

## 2. Pressure of population on land

There is heavy pressure of population on land. In fact, since the non-agricultural sectors of the economy have not been able to expand at a sufficiently rapid pace over the period of last six decades, this pressure has continuously increased. In 2011 about 263 million workers or three-quarters of the rural working population was employed in the agricultural sector. Increasing pressure of population on land is partly responsible for the subdivision and fragmentation of holdings. Productivity on small uneconomic holdings is low.

## 3. Land degradation

Government of India has recently estimated that nearly half of the country's 329 million hectares of soil could be categorised as degraded. Almost 43 per cent of the land suffers from high degradation resulting in 33-67 per cent yield loss while 5 per cent is so damaged that it has become unusable. The human induced water erosion led to irreversible soil productivity losses of 20 per cent or more in some of India. A glance reveals that soil degradation is a major factor accounting for low agricultural productivity in many regions of the country.

#### **Institutional Causes**

### 1. Land tenure system:

Perhaps the most important reason of low productivity has been the zamindari system. Highly exploitative in character, this system drained out the very capacity, willingness and enthusiasm of the cultivators to increase production and productivity. Legislations passed for abolition of intermediaries in the post-Independence period did not break the stranglehold of the zamindars on the rural economy. Exploitative practices continued. Regulation of rent, security of tenure, ownership rights for tenants, etc. did not make the position of tenants better. Tenancy of most of the tenants continues to be insecure and they have to pay exorbitant rates of rent. In this land tenure system, it is difficult to increase productivity only through technological means. In fact, land reforms should precede technological changes. If investment in agriculture has to be increased, it is necessary to eliminate the rentier class of zamindars and usurious class of money lenders.

# 2. Lack of credit and marketing facilities

On account of lack of marketing facilities or non-availability of loan on fair rate of interest, the cultivators are frequently not able to invest the requisite resources in agriculture. This keeps the level of productivity on land and per cultivator low. If the Government can revitalise the credit cooperative societies and the regional rural banks to grant more credit to the small

farmers, the level of productivity can undoubtedly increase.

## 3. Uneconomic holdings:

According to the National Sample Survey, 52 per cent holdings in 1961-62 had a size of less than 2 hectares. In 2010-11, 85 per cent of total holdings fell under this category. Most of these holdings are not only extremely small; they are also fragmented into a number of tiny plots so that cultivation on them can be carried out only by labour-intensive techniques. This results in low productivity.

#### **Technical Causes**

### 1. Outmoded agricultural techniques:

Most of the Indian farmers continue to use outmoded agricultural techniques. Wooden ploughs and bullocks are still used by majority of farmers. Use of fertilisers and new high yielding varieties of seeds is also extremely limited. In summary, Indian agriculture is traditional. Therefore, productivity is low.

## 2. Inadequate irrigation facilities:

Gross cropped area in India in 2011-12 was 195 million hectares of which 91 million hectares had irrigation facilities. Thus, 46% of gross cropped area had irrigation facilities in 2011-12. This shows that even now 53 per cent of the gross cropped area continues to depend on rains. Rainfall is often insufficient, uncertain and irregular. Accordingly, productivity is bound to be low in all those areas which lack irrigation facilities, and are totally dependent on rains. Even in areas having irrigation facilities, potential is not wholly utilised because of defective management. The costs of irrigation are also increasing continuously and the small farmer is therefore, unable to make use of available irrigation facilities.

## **Regional differences**

Despite progress in irrigation, the level of crop intensity continues to be quiet low in most of the states. In Andhra Pradesh, Karnataka, Tamil Nadu, Madhya Pradesh, Maharashtra, Gujarat and Rajasthan more than one crop is taken on less than 30 per cent of area under cultivation. This shows there is considerable scope to raise output through an expansion of area under double cropping.

Most of the states have witnessed either a slowdown in growth or a negative growth in the area under irrigation, application of fertiliser, use of electric power used in agriculture and cropping intensity. Even the net cultivated area is also showing a decline in some of the states. Agricultural diversification, which is generally considered as a shift in resources from low value crops to high value crops, also shows a slowdown after 1995-96. In some places diversification seems to be moving in a reverse direction - with crop pattern shifting to low value crops.

Today, the contribution made by the agricultural sector to the overall GDP has declined and the service sector has emerged as the primary contributor to GDP growth. This clearly indicates that income generation is not occurring in the agriculture sector or is taking place at a dismal rate. Indian agriculture is heading for a crisis as food output stagnates and millions of poor farmers struggle with high debt and crop failures, economic growth averaging 9% a year, fuelled manufacturing and services, is covered the crisis in the countryside. While the contribution of manufacturing and services is laudable, it is still the farm sector that provides the largest employment in the subcontinent.

## **Emerging Alternate Marketing Channels:**

# **Self-Help Groups**

Recently, Self-Help Groups (SHGs) have emerged to fill the gap in the formal credit system because the formal credit delivery mechanism has not only proven inadequate but has also not been fully integrated into the overall rural social and community development. Since some kind of collateral is required, vast proportion of poor rural households were

automatically out of the credit network. The SHGs promote thrift in small proportions by a minimum contribution from each member. From the pooled money, credit is given to the needy members to be repayable in small instalments at reasonable interest rates. By March end 2003, more than seven lakh SHGs had reportedly been credit linked. Such credit provisions are generally referred to as micro-credit programmes.

It has been realised that if farmers directly sell their produce to consumers, it increases their share in the price paid by the consumers. Some examples of these channels are Apni Mandi (Punjab, Haryana, Rajasthan); Hadaspar Mandi (Pune); Rythu Bazars (vegetable and fruit market in Andhra Pradesh) and Uzhavar Sandies (farmer's markets in Tamil Nadu). Further, several national and multinational fast food chains are increasingly entering into contracts and alliances with farmers to encourage them to cultivate farm products such as vegetables, fruits, etc. of the desired quality by providing them with not only seeds and other inputs but also assured procurement of the produce at pre-decided prices. Such arrangements will help in reducing the price risks of farmers and would also expand the markets for farm products.

## Summary

The growth rate analysis shows that the initial years of were somewhat favourable for agricultural growth, but the post-WTO period witnessed a sharp decline in the growth rate of almost all sub-sectors and commodity groups in the agricultural sector. Another disquieting aspect of the recent growth process is that the agricultural and non-agricultural sectors on a distinct growth rate.

The relative contribution of agriculture to the GDP has been declining over time, whereas there is not much decline in the percentage of people depending on this, it could be inferred that the performance of the sector is depressing. In general, the poor performance of agricultural production and food production is not a healthy sign for the economy.

As agriculture is already overcrowded, a major proportion of the increasing labour force needs to find alternate employment opportunities in other non-farm sectors. Expansion into other sectors is essential to provide supplementary gainful employment and in realising higher levels of income for rural people to overcome poverty and other tribulations.