

## **Development of Agriculture in India**

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### **Introduction**

Agriculture is an important pillar of the Indian economy. It contributes 22 percent to the country's gross domestic product (GDP). Out of a total 329 million hector, the net cropped area is 142.5 million ha. More than 70 percent of Indians live in rural areas, and agriculture is the major livelihood for the majority of the rural population. Agriculture not only provides food security but also employment opportunities to the vast majority of the rural population and urban population. Agricultural sector plays a pivotal role in the economy. India achieved self-sufficiency in food grains particularly in rice and wheat due to green revolution. But, soon it was recognized that we have to move beyond green revolution as it has neglected rainfall areas, nutrition crops like millets, non-cereals and resource poor farmers. It has also created ecological and environmental sustainability problems. It is well known that although its contribution to gross domestic product (GDP) is now around one seventh, agriculture provides employment to 48 per cent of the Indian workforce. There are also substantial linkages between agriculture and non-agriculture sector . In the present context, there is a need to focus much more on agriculture due to low agricultural growth (2.5% per annum in the last four years) and agrarian distress in terms of low agricultural prices and farm incomes. Famers' suicides in some parts of India are another issue relating to agriculture. Low farm incomes led to famers' agitations in many states of India. Agriculture sector is already facing several problems relating to sustainability, stagnant yields, water logging, soil erosion, volatility in prices, natural calamities, and small size of the farms. Agriculture supports 115.5 million farm families. It also accounts for 13 percent of the country's exports (Ministry of agriculture, 2004). More than 250 different crops are cultivated in India's varied agro-climatic regions and under different cropping systems. India ranks seventh in total area among the countries of the world, but ranks first in irrigated area (Economic survey, 2007).

### **Objectives:-**

- 1) To study of nature of Indian Agriculture.
- 2) To understand problems of Agriculture.
- 3) To study of determinants of agriculture development.

### **Review of Literature:-**

- 1) According to NITI Ayog Report- Indian agriculture has been changing in recent years. Some of the changing factors are: urbanization, globalization/de-globalization, tariff wars, diversification within agriculture and fast growing rural non-farm sector, developments in value chains, start-ups, technological changes including IT, developments in climate change, and more emphasis on sustainability than earlier.
- 2) According to Dr. M.S. Swaminathan appealed to the farmers as early as 1968 not to harm the long term production potential for short term gain. He described this appeal in his own words as follows. “In order to ensure that a productivity based agriculture does not result in ecological harm due to unsustainable exploitation of land and water, adoption of mono culture and excessive use of mineral fertilisers and chemical pesticides, I appealed to farmers in January 1968 not to harm the long term production potential for short term gains. I pleaded for converting the green revolution into evergreen revolution by mainstreaming the principles of ecology in technology development and dissemination. I defined evergreen revolution as increasing productivity in perpetuity without associated ecological harm. I pleaded for avoiding the temptation to convert the green revolution into a greed revolution. Unfortunately, ecologically unsound public policies, like the supply of free electricity, have led to the over-exploitation of the acqifer in Punjab, Hayana and Western UP region. 18 The heartland of the green revolution is in deep ecological distress ...The need for adopting the methods of an evergreen revolution has therefore become very urgent” (p.20, Swaminathan, 2010)
- 3) The government announced a new Umbrella Scheme ‘Pradhan Mantri Annadata Aay Sanrakshan Abhiyan’ (PM-AASHA). The scheme is aimed at ensuring remunerative prices to the farmers for their produce as announced in the Union Budget for 2018. It has three components . (1) Price support scheme (PSS) (2) Price Deficiency Payment Scheme (PDPS). (3) Pilot of Private Procurement & Stockist Scheme (PPPS). There are some issues to be sorted out in each scheme for better implementation

### **Research Methodology of the study:-**

The study is based on the data and information collected from secondary sources include the data from various Article, Magazines, Newspapers, Journals, websites, Books and the Published Data / Reports of RBI and various authorities etc.

Growth in Agricultural GDP: In the decade of 1960s, agricultural growth rate was around 1% per annum (Table 1). In other periods, the growth rates range from 2.2% to 2.7% per annum. In the post-reform period, growth rate of services was more than 8% per annum. Industry also recorded 7 to 8% during 2004-05 to 2017-18. The highest growth rate of GDP from agriculture was 3.7% per annum during 2004-05 to 2013-1415 . The growth rate in agriculture in the period 2009-10 to 2013-14 was 4.3% per annum. This is one of the highest growth rates recoded in independent India.

Table 1. Growth Rates in Agriculture , Industry and Services(%)

Periods	Growth Rates of GDP (%)		
	Agriculture	Industry	Services
1960-61 to 68-69	1.04	5.05	5.03
1968-69 to 75-76	2.24	3.92	3.37
1975-76 to 88-89	2.27	5.53	5.40
1988-89 to 95-96	2.76	5.97	6.15
1995-96 to 2004-05	2.28	4.87	7.86
2004-05 to 2014-15	3.72	8.44	8.96
2014-15 to 2017-18	2.55	7.15	8.71

Source: GOI (2017) upto 2014-15; Calculated from National Accounts Statistics for the period 2014-15 to 2017- 18.

The growth rate in agricultural GDP was 2.5% per annum in the last four years of NDA period 2014-15 to 2017-18. To be fair to the government, the first two years had growth rates of -0.2% and 0.7% due to drought. The growth rate in 2018-19 is expected to be around 3.2%.

#### **Causes of low agriculture Productivity:-**

Productivity express the varying relationship between agricultural output and one of the major inputs, like land or labour or capital other complementary factors remaining the same- Dewett K.K. and Singh, The productivity level of India in major agricultural crops is very disappointing. There are many reasons for low productivity in agriculture in India.

- 1) Degradation of land
- 2) Excess burden of population on land
- 3) Social factors

- 4) Small and Marginal land holding
- 5) Inadequate Irrigation facilities
- 6) Lack of HYV seeds
- 7) Unscientific Fertilizer consumption
- 8) Labour intensive farming
- 9) Subsistence Nature of farming
- 10) Weakness in Agricultural Policy

### **The Policies and Reforms for Agriculture Development:-**

In order to achieve the goals of agricultural development, there is a need for a medium term strategy and action plan. This section examines the policies and reforms needed to raise farm incomes, equity and sustainability in the medium term.

**1) Macroeconomic policies:-** Agricultural economists generally restrict to the policies relating to farm sector. However, there is a need to look at policies related to macro policies and non-agriculture. Macroeconomic policies, relating to fiscal, monetary, trade, tariff, exchange rate, have direct and indirect impacts on agriculture. Although the primary objectives of macroeconomic policies are aimed at controlling inflation, sustaining public expenditure and attaining fiscal balance, but these policies through fiscal and monetary policies may have significant impact on agriculture. In order to influence agriculture, fiscal policies have to improve tax revenue and public investment on infrastructure and other supply constraints.

**2. Doubling Farm Income (DFI)** Several studies have examined the feasibility of attaining doubling farm incomes (DFI) by 2022. NITI Ayog (2017) and the Ashok Dalwai Committee (GOI, 2017) have given several suggestions for DFI<sup>34</sup>. Chand (2016) discusses sources of growth and strategies for DFI<sup>35</sup>. According to him there are 6 sources for DFI. These are:

- (a) Increase in agricultural Productivity;
- (b) Rise in total factor productivity;
- (c) Diversification to high value crops;
- (d) Increase in cropping intensity;
- (e) Improving terms of trade for farmers;
- (f) Shifting cultivators to non-farm and subsidiary activities.

The Government has introduced several programmes covering irrigation, crop insurance, minimum support prices and agricultural markets to improve agricultural growth and farmers' incomes. Dalwai committee says "on an average 60 per cent of farmers' income is from agricultural output (including livestock), the targets are designed to double this component of

income and also improve the ratio between farm and non-farm income from 60:40 as of now to 70:30 by the end of target period.

**3. Price and Marketing Policies:-** Price factor was important even during green revolution time along with technology. We have not been able to provide remunerative prices for farmers in the last 70 years since independence. Farmers have been getting low prices in normal, drought and good years because of distortions in price and market policies. Also see BIRTHAL et al (2017) Variation in agricultural prices across regions is quite high in India. Chatterjee and Kapur (2017) examine spatial price variation using high frequency price and quantity data from the Agriculture Market portal of Government of India. The National Export policy is formulated in line with the goal of doubling the farmers' income and increase agriculture exports from present \$30 billion to over \$60 billion by 2022.

**4. Do not forget basics:** Water and technology. Basics like seeds, fertilizers, credit, water, technology etc. are important for agriculture and they should not be forgotten. Similarly investment in irrigation, rural infrastructure, R&D is important for raising productivity and incomes.

**5. Agricultural Education**

**6. Credits facilities to the farmers**

**7. Control of population pressure on agriculture**

**8. Improvement in irrigation facilities**

**9. Land Reforms**

**10. Mixed Farming**

**11. Scientific Cultivation**

**Conclusion:-**

The key challenges include low crop yield and high risk, biotic and abiotic constraints, small size of holdings, inadequate infrastructure and weak institutions while opportunities include good soil and ground water potential. The study also says that appropriate policies, institutions and infrastructure should be developed in favor of high value sectors such as dairy, poultry, horticulture and inland fish. Today we need to reform the cultivation system along with irrigation facilities, agricultural marketing management which would bring a drastic change in the low productivity and enhance the improve quality of agricultural products, Then possible development of agriculture smoothly and speedily in overall India.

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