



Agricultural Development in India - A Review

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Abstract:

Agriculture is the basis of the Indian economy. Improving agricultural productivity has an impact on the social and economic sector. There is development in the means of prosperity and income of the farmers. After the Green Revolution, there has been an unprecedented development in the field of agriculture due to the increase in production of crops, intensification of crops, agricultural techniques, high yielding seeds, chemical fertilizers and means of irrigation. But due to climatic and physical disparities, regional imbalance also arose in the agriculture sector. Many programs were run from time to time for the development of agriculture in India, due to which the contribution of agriculture in the Indian economy was high. Through the presented research paper, an attempt has been made to express the phase and changing pattern of Indian agricultural development. Through the results of the research, the imbalance of agricultural productivity can be studied.

Keywords: Agricultural productivity, Green revolution, fertilizers, imbalance, disparities.

1. Introduction:

The Indian government's commitment to agriculture is a global success story. Since Independence in 1947, India has succeeded in significantly reducing the number of people living in poverty. In the early 1960s, India introduced "Green Revolution" technologies: high-yielding grain varieties, fertilizer, pesticides and irrigation. By the early 1990s, India was self-sufficient in food-grain production. But not everyone has enough access to the food produced, and India is still the country with the poorest people on our globe: of India's 1028 million people (in 2001), around 300 million people were classified as "poor". A pathway out of poverty for India's rural poor these live in rural areas. India's ability to reduce poverty. Most people in rural India depend directly or indirectly on farming for their livelihood. Despite this, not enough attention has been given to agriculture to overcome poverty. The importance of agriculture to stimulate rural growth



is generally accepted, but politicians have failed to establish the necessary frame conditions for rural economic growth. It is widely accepted that agricultural growth and human development (in the fields of education, health and women's issues) are key factors for rural development.

The World Bank, the Food and Agriculture Organization of the United Nations, the International Fund for Agricultural Development, as well as bilateral development agencies agree that investment in agricultural growth helps reduce poverty and ensure pro-poor growth more than any other form of intervention. The agricultural sector has potential to create economic growth in rural areas. It generates job opportunities in adding value (as in the food processing industry), in bringing agricultural products to the consumer (market linkages), and in providing support (infrastructure, information, quality control and training). Rising populations mean more demand for food. Improved standards of living in much of the world also mean greater demand for quality food (more meat, dairy products and organic food). If these demands are to be met, national farm outputs must rise, and farmers must produce different types of products. In addition, access to food must be improved for those who still cannot meet their basic needs, wherever they live – in remote rural areas, marginal areas or urban slums.

1.1 Determinants of Agriculture Development:

The performance of Indian agriculture depends on numerous factors viz., economic, technological and environmental factors. Economic factors are most important for agricultural production, such as size of operational land holding. Technological factors, such as use of machinery (tractors), use of chemical fertilizers and pesticides are employed. Environmental factors, such as rainfall and temperature are used. The present study investigates the change in use of the various factors at national level in India during post green revolution and economic reform period.

1.2 Agricultural Research in Post-Colonial

India Since independence, there has been a substantial growth in the Indian NARS. ICAR is the chief public body at the national level for synchronizing, directing, and endorsing agricultural research and education in the country. Likewise, State Agricultural Universities are responsible for doing the same at the state level. After independence, agricultural research was given much



emphasis which in turn led to increased agricultural production and near self-sufficiency in food grains in the country. The greater emphasis given to the agricultural research could be established by the fact that the system guided by the ICAR now has

- 101 ICAR institutes
- 17 national research centers,
- 6 bureaux,
- 25 project directorates,
- 79 All India Coordinated Research Projects (AICRPs) and AINPs
- 731KrishiVigyanKendras (KVK)
- 63 State Agricultural Universities (SAUs),
- 3 Central Agricultural University,
- 4 Central Universities having faculty of Agriculture.

he National Academy of Agricultural Research Management is yet another exclusive institution under ICAR to conduct research and training in agricultural research management.

1.3 Other Organizations Involved in Agricultural Research:

- General universities, about 23 of which are involved in agricultural research,
- Scientific organizations such as the Council of Scientific and Industrial Research, the Bhabha Atomic Research Centre,
- Government departments such as the Department of Science and Technology, the Department of Biotechnology,
- Private and voluntary organizations,
- Scientific Societies

The following table presents the twenty most important agricultural products in India. Included in the table is the average productivity of India's farms for each produce. For context and comparison, included is the average of the most productive farms in the world and name of country where the most productive farms existed in 2020. The table suggests India has large

potential for further accomplishments from productivity increases, in increased agricultural output and agricultural incomes.

Table 1: Production of major crops (million tonnes/bales)

Crop	Season	2005-06	2010-11	2015-16	2020-21	2025-26
						Final Estimates
Rice	Kharif	82.66	84.91	75.92	80.65	92.75
	Rabi	14.03	14.27	13.18	15.33	12.56
	Total	96.69	99.18	89.1	95.98	105.31
Wheat	Rabi	78.57	80.68	80.8	86.87	94.88
Coarse Cereals	Kharif	31.89	28.54	23.83	33.08	32.46
	Rabi	8.86	11.49	9.72	10.32	9.58
	Total	40.75	40.03	33.55	43.4	42.04
Total Cereals	Kharif	114.55	113.45	99.75	113.73	125.21
	Rabi	101.46	106.45	103.7	112.52	117.02
	Total	216.01	219.9	203.45	226.25	242.23
Pulses	Kharif	6.4	4.69	4.2	7.12	6.06
	Rabi	8.36	9.88	10.46	11.12	11.03
	Total	14.76	14.57	14.66	18.24	17.09
Food grains	Kharif	120.96	118.14	103.95	120.85	131.27
	Rabi	109.82	116.33	114.15	123.64	128.05
	Total	230.78	234.47	218.1	244.49	259.32
Oil seeds	Kharif	20.71	17.81	15.73	21.92	20.69
	Rabi	9.04	9.91	9.15	10.56	9.11

	Total	29.75	27.72	24.88	32.48	29.8
Sugarcane		348.19	285.03	292.3	342.38	361.04
Cotton*		25.88	22.28	24.02	33	35.2
Jute & Mesta**		11.21	10.37	11.82	10.62	11.4

Source: Directorate of Economics & Statistics, Ministry of Agriculture.

Table 2: Cropping Pattern in India (Area in Million Hectares)

Years	1990-91	2000-01	2010-11	2020-21
Total Area Under Crops	185.74	189.67	192.2	196.83
Net Area Sown	143	140.71	140.02	143.18
Cropping Intensity (percent)	129.89	134.8	137.26	136.46
Area under Food Crops	141.03	142.12	141.06	140.19
Area under Non-Food Crops	44.71	47.55	51.1	53.2
Net Irrigated area	48.02	57.05	63.26	69.56
Total	63.2	78.04	86.42	88.86
AL/Gross Irrigated Area				

Source: Agriculture Census 2020-21

2. Conclusion:

Indian farming is at a cross-roads and climate change is one more factor adding to the existing agrarian and agriculture crisis in the country, that requires a decisive direction shift at the policy level; Fundamental changes have to come from the acknowledgement and realization that unilateral, top- down, prescriptive “knowledge generation and transmission” models of agriculture development adopted in the country so far have in fact resulted in an ecological, economic and social crisis in the farming sector of the country within 40 years of adoption and



that climate change is one more imperative for drastic change to address the situation. As the International Assessment of Agricultural Science & Technology for Development (IAASTD) concluded, business as usual is not an option any more. In fact, this paper concludes that there are no options in front of the Indian government and Indian farmers but to establish, promote and adopt sustainable agriculture for all of India.

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