

# A Study on State of Agriculture in India Before 1947

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**ABSTRACT:** *Agriculture is the backbone of the Indian economy. The geographical position of India has been very beneficial for agricultural activities. The physical factors found in India such as climate, soil, and relief were very helpful in the cultivation of so many crops. So from ancient times, the Indians had chosen agriculture as their primary means of livelihood. In the coming years it would be essential to increase food production in developing countries especially India. This however involves finding viable solutions to several of detailed technological, organizational and policy matters including market economies, study on seeds and inputs: agricultural extension, credit, rural infrastructure, storage connection to markets, rural nonfarm work opportunities and food price normalization. This article analyzes the state of agriculture in the past 100 years in India. Furthermore it debated the agricultural development and the part played by agricultural production in the development phase and the interrelations between agriculture and other sectors of the economy, the predictors of the Green revolution and explain the underpinnings of agricultural production growth in India, the regional development including the effect of green revolution in the economic development of the country.*

**KEYWORDS:** *Agriculture, Crops, Green Revolution, Production, Wheat.*

## 1. INTRODUCTION

Agriculture is the backbone of the Indian economy. The geographical position of India has been very beneficial for agricultural activities. The physical factors found in India such as climate, soil, and relief were very helpful in the cultivation of so many crops. So from ancient times, the Indians had chosen agriculture as their primary means of livelihood. Over a period of 190 years, there was hardly any change in the kind of technology in India from 1757 to 1947. For most of the farmers, agriculture was a means of life, nearly 70 per cent of the total people made their living from agriculture alone. The inhabitants were self-sufficient to exchange their products with each other, grain being the usual value. There existed a natural economy and the money economy lagged behind. There was a rapid change in the structure of the rural economy as money entered the market through the process of commercialization of agriculture in the middle of the 19th century [1].

The commercialization of agriculture was increasingly evident when the British became the primary ruling power in India. However, from the beginning of 19th-century, agriculture did not contribute significantly in the economic growth of India. Before the beginning of the planning era in 1951, the growth of India's agriculture was extremely dismal. For the long period of 47 years from 1900 to 1947, the trend growth rate in the agricultural sector had stagnated at about 0.2 per year but, from 1950-51 to 1985-86 India agriculture had grown yearly at a compound rate of 2.66 per cent. Then from mid-1960 onwards the traditional agricultural techniques were continuously replaced by new technologies and agriculture practices in India. The Green Revolution started in India during the 1960s to increase the food production and feed the millions of people across the country. It was also credited with improvement in agricultural production in many regions where the method was implemented. The Green Revolution started with the aid of the Rockefeller Foundation which is a United States-based organization and was focused on high-yielding varieties of wheat, rice, and other grains which

were developed in Mexico and in the Philippines. In the early years of 1960 the area under the high yielding variety program was only 1.9 million hectares which increased to about 15.4 million hectares, 43.1 million hectares and 63.9 million hectares in the first years of 1970, 1980 and 1990 accordingly [2].

Between 1965 and the early 1980s, northern and north-western states of India got the biggest benefits of this revolution. The effort led to a significant increase in the production of food grains, particularly wheat and rice. High yielding varieties of wheat were planted about 75 per cent of the total farmed area in 1980s. Growth in agricultural GDP showed considerable volatility since the beginning of economic reforms in 1991. It varied from 4.8 per cent each year in 1992-96 to a low of 2.4 per cent during 2002-06 before recovering to 4.1 per cent in 2007-12. In 2013-14, the area and production under wheat increased to 30.47 million hectares and 95.85 million tonne in contrast to 27.99 million hectares and 75.81 million tonne in 2006-07. In 1950-51 wheat covered 9.75 million hectares which expanded to 330.42 million hectares in 2015-16, rice climbed from 30.81 million hectares in 1950-51 to 43.50 million hectares in 2015-16. The area under maize and pulses in 1950-51 were 3.16 and 19.9 million hectares in India which were increased to 8.81 and 24.91 million hectares in 2015-16 accordingly. The production of wheat and rice was 6.46 and 20.58 million tons which increased to 92.22 and 104.41 million ton respectively, while the yield of wheat in 1950-51 was 663 kg/ha and it's grown to 3034 kg/ha in 2015-16. The yield of rice increased from 668 in 1950-51 kg/ha to 2400 kg/ha in 2015-16. The yield of maize increased from 547 kg/ha in 1950-51 to 2563 kg/ha in 2015-16. The yield of pulses increased from 441 kg/ha in 1950-51 to 789 kg /ha in 2012-13 and in 2015-16 again it fell to 656 kg/ha [3].

Land application designs, physical topographies of the land, the country cultural unity and the colonial administration before independence were the factors that impacted agriculture in India. The partition of the India in 1947 resulted in a major blow to the Punjab agriculture, as a large percentage of productive and irrigated fields went to West Punjab in Pakistan and also led to the pull-up and migration of a good-sized proportion of the population across the border. Since the beginning of planning in 1950-51, Punjab attained a very high rate of agricultural development. Through the many land reforms and public investments throughout 1950s essential institutional and economic infrastructures were created in Punjab. The agricultural and economic growth of Punjab was connected with the Green revolution. The increase in wheat output of Punjab from 1.9 in 1965 to 5.6 in 1972 and equally high rice production. After adoption of modern agricultural technology made up of hybrid seeds, chemical fertilizer, insect repellent, and new agriculture techniques in mid-1960 Punjab achieved amazing development and in a few years, the state established itself as a heartland of India's successful green revolution program. The annual rate of increase in production of food grains during the period 1961-62 to 1985-86 for the state was more than twice than that of the country as a whole. In 1974 the percentage of high yielding varieties of seed in the whole area under food grains in Punjab was as high as 73 per cent while all India it was 31 per cent, which rose to 95 per cent in 1983-85, while it was 54 per cent in all India [4].

## **2. LITERATURE REVIEW**

S. Gillespie et al. presented in the article that India is home to one-third of the world's malnourished children. This figure that stays consistently high, despite the country having the second-fastest growing economy in the world, with agriculture accounting for a significant part of that growth. Agriculture continues to be the primary source of livelihood for the majority of nutritionally disadvantaged households in India. In order to improve the nutrition-sensitivity

of agriculture, we need to first uncover current evidence of the many linkages, pathways and disconnects between agriculture and nutrition. We start with a narrative review of the background literature for India, including an assessment of changes in nutrition and agricultural indicators. A conceptual framework is then put forward to help in the systematic search for linkages and disconnects, detailing seven main pathways between agriculture and nutrition. Evidence is then connected to these pathways through a review of the literature for each pathway as well as a fully annotated bibliography. A data audit analyses gaps and overlaps in survey data including information on agricultural and nutrition indicators, on which future studies may be built. Overall, the authors think that the conceptual framework is useful in this process, and conclude that there are some significant gaps in the literature and in the data currently available to investigate links between agriculture and nutrition. Data and policy disconnects need to be addressed to enhance the nutrition sensitivity of agriculture in India [5].

R. Kapur presented in the article that agriculture continues to constitute the backbone of the Indian economy. Agriculture is regarded as the support of Indian economy primarily because of three reasons. First, agriculture institutes major portion of the country's national income, although the share that has fallen from 55 percent in early 1950s to approximately 25 percent in early 2000s. Second, more than 213 of the workforce of the country were involved within the agricultural sector until 1971. Recent census data for the year 2001 indicates that agriculture workers, which includes the farmers and agricultural labourers account up 58.4 percent of the workforce of India. Third, development of other sectors and whole economy depends on the performance of agriculture to a significant degree. Agriculture has also given a major function as foreign exchange payee [6].

T. Kurosaki presented in the article that in the background of economic liberalisation during the 1990s, we analyse the performance of agriculture in India and Pakistan, 1900-95, from historical and comparative perspectives. Based on a new data set that corresponds to the current border, we show a distinct turnaround at the time of partition in 1947 - the stagnant performance of agriculture in India and Pakistan during the colonial period was turned into a sustained growth since 1947, with a stronger performance in India especially in terms of per capita food production. Empirical research in this article lends support to the idea that institutional changes have significant effect on agricultural production in India and Pakistan. Farmers have responded to changes in institutions and laws, altering their crop mix and production technology [7].

D. J. Murphy presented in the article that this book provides an overview of human-plant interactions and their social consequences, from the hunter-gatherers of the Palaeolithic Era to the 21st century molecular manipulation of crops. It integrates the latest findings in molecular genetics, climate science, and archaeology to give a new perspective on the development of agriculture and complex human civilizations across the world. Even today, our technologically advanced civilizations still rely on plants for basic dietary needs, not to mention clothing, shelter, medicines, and tools. This unique relationship has tied together people and their chosen plants in mutual dependence for well over 50,000 years. Yet despite these millennia of intimate contact, humans have only tamed and cultivated a few dozen of the tens of thousands of edible plants. Crop domestication and agriculture then led straight to the development of the sophisticated urban-based civilizations that have dominated much of human history over the past ten millennia. Thanks to the newest genomic studies, how, when, and where some of the most important crops came to be domesticated can now be explained, and the critical roles of plant genetics, climatic change, and social structure in these processes. Indeed, it was their

unique genetic structures that eventually determined which plants finally became crops, rather than any intentional decisions by their human producers [8].

### **3. DISCUSSION**

The history of modern agriculture in India begins in 1757. In that historic year the Indians lost the war of Plessey to the East India Company of the British soldier-traders. As a result of the failure, the income rights of a district in Bengal, the 24-Paragannahs, had to be ceded to the company. The position was held by British in the civil and tax administration of India expanded quickly. By, 1765, large parts of India, especially in the provinces of Bengal, Bihar and Orissa was under the control of the company and agriculture in India had been subjected to the British administration and its modernizing impacts.

Wheat, barley and jujube were grown in the Indian subcontinent by 9000 BC. After that sheep, goat and elephant were domesticated, barley and wheat agriculture combined with the domestication of animals, especially sheep and goat was apparent in Mehrgarh about 8000-6000 BC. By the 5th millennium BC agricultural societies were prevalent in Kashmir. Moreover, the primary technique of production of cotton has already developed and it was cultivated by the 4th and 5th millennia BC. The Indus cotton industry was well developed and some techniques used in cotton rotation and production remained to be used till the present Industrialization of India. Among the fruits mango and muskmelon are native to the Indian subcontinent and hemp was grown by Indians which they used for a number of reasons such as manufacturing medicines, fiber and oil. Peas, sesame and dates were grown by Indus Valley farmers. Sugarcane was primarily from tropical South Asia and Southeast Asia. Different species presumably invented in different locations with *Saccharum barberi* starting in India and *Saccharum edule* and *Saccharum officinarum* coming from New Guinea. Wild *Oryza* rice existed in the Belan and Ganges valley regions of northern India as early as 4530 BC and 5440 BC respectively. Agricultural activity during the second millennium BC included rice cultivation in the Kashmir and Harappa regions. Mixed farming was the basis of the Indus valley economy. In 1857 few Indian commercial goods such as cotton, indigo, opium, and rice arrived to the global market under the British Raj in India due to the construction of Rampur canal on Sutlej River as reported by Roy. The second half of the 19th century witnessed some increase in the cultivated area at a usual rate of around one per cent per year by the later 19th century. Punjab, Narmada valley, and Andhra Pradesh became centers of agricultural advancements due to substantial irrigation through canal networks. The world conflict also affected Indian agriculture system [9].

From 1891 to 1946 the annual growth rate of overall crop output was 0.4 per cent and food grain production remained practically stagnant. There were substantial local and intercrop changes; however, non-food crops response was better than food crops. Among food crops the most significant source of standstill was rice. Bengal had under average production rates in both food and non-food crop output, while Punjab and Madras were the smallest stationary states. Population rose in the interwar era while food production slowed, most notably reduced the availability of food per person. The issue was most acute in Bengal, where food output dropped at an annual pace of about 0.7 per cent from 1921 to 1946, while population grew at a yearly rate of nearly 1 per cent. Agriculture performance in the interwar period was poor. Cotton, indigo, opium and rice were the profitable crops which reached the worldwide market under the British Raj in India. The yearly increase rate of overall agricultural production was 0.4 per cent while food grain yield stayed steady from 1891-1946. There were substantial regional and intercrop variations, and non-food crops were doing better than food crops. In the

background of economic liberalization throughout 1900s, studied the performance of agriculture in India and Pakistan, from historical and comparative perspectives. Based on a new data set that corresponds to the current border, the stagnant performance of agriculture in India and Pakistan throughout the foreign period was transformed into a continuous development since 1947, with a stronger performance in India particularly in terms of each capita food invention. The author claimed that the changes had significant effect on agricultural production in India and Pakistan. Farmers have responded to changes in institutions and tactics, managing their crop mix and production technology [10].

Many significant improvements were seen in the agricultural statistics of India after the First World War. The Royal Commission of Agriculture was formed in 1926 by Government of India to investigate the conditions of agricultural and rural economy and the results were published in 1928. The Commission proposed the creation of the Imperial Council of Agricultural Research which was renamed after independence as the Indian Council of Agricultural Research. The economic history and the degree of development of Indian agriculture from 1891 to 1947, which meticulously examined the output, area and yield for eighteen crops that comprised most of agriculture in India. Author utilized the production and trade data to identify trends in the availability of crops. Also, these trends were compared with demographic statistics to detect changes in India's wealth. Close study was given to variations of output, intensity of cultivation, agricultural technology and physical environment.

#### **4. CONCLUSION**

Over a period of 190 years, there was hardly any change in the kind of technology in India from 1757 to 1947. For most of the farmers, agriculture was a means of life; nearly 70 per cent of the total people made their living from agriculture alone. Since the beginning of 19th-century, agriculture did not contribute significantly in the economic growth of India. Before the beginning of the planning era in 1951, the growth of India's agriculture was extremely dismal. Then from mid-1960 onwards the traditional agricultural techniques were continuously replaced by new technologies and agriculture practices in India. The Green Revolution started in India during the 1960s to increase the food production and feed the millions of people across the country. It was also credited with improvement in agricultural production in many regions where the method was implemented.

Soil Health Care initiative is under implementation in India from 2015 to provide soil health treatment to all farmers in India. Through this method farmers would receive information on soil nutrient status of their soils and advice on suitable amount of fertilizer application for improvement of soil fertility and soil chemical characteristic.

Agriculture is the backbone of the Indian economy. The geographical location of India has been extremely helpful for agricultural operations. The physical elements present in India such as climate, soil, and relief were extremely beneficial in the growth of so many crops. So from ancient times, the Indians had chosen agriculture as their main source of subsistence. In the future years it will be necessary to boost food production in emerging nations particularly India. This however involves finding viable solutions to several of detailed technological, organizational and policy matters including market economies, study on seeds and inputs: agricultural extension, credit, rural infrastructure, storage connection to markets, rural nonfarm work opportunities and food price normalization. This article examines the status of agriculture throughout the last 100 years in India. Furthermore it debated the agricultural development and the part played by agricultural production in the development phase and the interrelations between agriculture and other sectors of the economy, the predictors of the Green revolution

and explain the underpinnings of agricultural production growth in India, the regional development including the effect of green revolution in the economic development of the country.

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