

REVIEW ON GEOGRAPHICAL STUDY ON STATUS OF AGRICULTURAL CONTEXT

Intekhab Alam ¹, Dr. Suruchi Pachori ²

¹ Research Scholar, Department of Geography, Dr. A.P.J. Abdul Kalam University, Indore, M.P., India

² Assistant Professor, Department of Geography, Dr. A.P.J. Abdul Kalam University, Indore, M.P., India

ABSTRACT:

Agriculture has become crowded even though production hasn't really increased. Due to low or almost zero marginal labor productivity, there has been a significant rise in covert unemployment or underemployment in the agricultural industry. The ability to produce their own food and do so in a way that ensures their own food security makes agricultural development essential for overall development because it provides underdeveloped areas with access to food security, employment opportunities, income generation, and raw materials for the manufacturing industry. In this article, review on geographical study on status of agricultural context has been discussed.

Keywords: Geography, Agriculture, Production

INTRODUCTION:

Agriculture has become overcrowded despite no discernible growth in production. With low or almost zero marginal labor productivity, there has been a dramatic rise in disguised unemployment or underemployment in the agricultural industry. The land-man ratio has been worsening over time with the growth in population, despite the cultivable land area remaining more or less constant.

REVIEW OF LITERATURE:

Climate change, unusual rainfall patterns, temperature swings, hailstorms, cyclones, floods, and hailstorms can all endanger India's agriculture, claim K. C. Ramotra and S. P. Divate (2018). Poor rural infrastructure, fluctuating market prices, a lack of funding, and a lack of crop insurance are further problems. These problems endanger not only the livelihoods and incomes of the farmers but also the agriculture sector's profitability and capacity to contribute to the reduction of the pervasive poverty that afflicts the farming community. One of the primary concerns of decision- and policy-makers in agriculture is risk management and mitigation. Poor farm production has several causes, including natural disasters, farmers' illiteracy and lack of advanced agricultural equipment, and low farm investment, which generates agrarian distress. Understanding the scope of variations in agricultural output and overall agricultural development is crucial in a district like Satara in the state of Maharashtra, where rainfall variability and water scarcity are frequent natural risk factors that jeopardize farmer livelihoods and occasionally endanger farmer lives. This situation requires careful and meticulous handling. In order to identify any areas that require improvement, the current article's objective is to assess the situation of agricultural development at the tahsil level in Satara district using 10 pertinent indicators. It is found that the tahsils of Karad, Phaltan, and Khatav are moderately developed when compared to the other 8 tahsils. In order to boost agricultural production and improve farmers' overall living conditions, irrigation and other necessary and appropriate inputs must be made available in less agriculturally developed areas. [1]

H. Siddiqui (2016) examined the Stunting Growth of Crop Diversification Index: A Block Level Study from Malda District using Jasbir Singh's (1976) agricultural diversification zones. Wheat, rice, oilseeds, jute, and pulses were the main crops in 2004–2005, with a mix of musur, maskalai, grame, and occasionally khesari or even til. In the aforementioned crop year, one can diversify between two and six crops. The study year of 2004–05 indicated a grouping of thirteen blocks; however, the study year of 2014–15 recoded a reduction in blocks under the high crop diversification category. [2]

H. Siddiqui (2016) looked at the West Bengal crop diversification pattern using the Gibbs-Martin agricultural diversification index. According to the report, boro rice, potatoes, sugarcane, jute, and

oilseeds have all greatly profited from crop diversification. Diversification seems to have helped high-value crops, which give farmers a larger relative return. [3]

The importance of crop diversification, especially the usage of highly nutritious and high-value crops, has been discovered by S. Chatterjee (2016). The study proposes that after examining the agricultural scenario of water-scarce regions in several nations of Africa and India, including states like West Bengal (Bankura District) and Tamil Nadu, water use efficiency in Indian agriculture can be greatly boosted (Annavasal village in the Kodavasal block in Thiruvarur District). In order to manage and conserve water, crop diversification is therefore necessary in India's rural areas based on the local climate and soil type. [4]

H. Siddiqui (2015) examined the impact of socioeconomic disparities on agricultural development in West Bengal using the composite Z score of 24 components (12 for social disparities and 12 for agricultural development). The central areas of the region appear to be further along the development scale than they actually are, according to the study. Given these elements, the north-central regions show a lack of development. [5]

Crop diversification trends toward high-value crops were examined in a study by S. Kumar and S. Gupta (2015), which also identified the major factors affecting crop diversification from 1990–1991 to 2011–2012. The Simpson Index of Diversification (SID) and Fixed Effect Model revealed that the three key variables that affect crop diversity are cropping intensity, average annual rainfall, and gross irrigated area. According to the paper, farmers should get government assistance in the form of higher cropping intensity, gross irrigated area, insurance coverage, expenditures in agricultural research and education, and technology development in order to achieve vertical integration of agricultural growth. [6]

According to N. Gomatee (2014), crop diversity is fueled by increasing population, expanding irrigation infrastructure, fertilizer use, and fair market value. In Jasbir Singh's (1976) technique, primary and secondary data sources were used to show the spatiotemporal change in crop diversity level for three points in time: 1990–1991; 2000–2001; and 2010–2011. As a result of these advances, new legal frameworks for agricultural diversity, communication accessibility, and soil capacity enhancements have all been suggested. [7]

S. Dasgupta and S.K. Bhaumik (2014) examined crop diversification and agricultural growth in West Bengal from 1980–1981 to 2009–2010 using secondary data. The trends and patterns in crop diversification and their consequences on agricultural growth have been taken into consideration after evaluating the West Bengali land holding situation. Use the Herfindahl Index to determine the degree of agricultural diversification. The study found that crop variety generally boosted agricultural development. Although this study has suggested institutional strategies, infrastructure and technological advancement remain essential preconditions. [8]

P. Chakraborty (2013) used secondary data to investigate the relationship between the quantity of irrigation and the variety of crops in the Murshidabad District between the years 1996–1997 and 2006–2007. For crop diversification and irrigation intensity, the study used the Jasbir Singh (1976) agricultural diversification index and Ram's approach (1979) irrigation intensity, respectively. The study found that irrigation intensity tends to increase the variety of agriculture. [9]

M. Ratnaparkhi (2012) Crop diversification patterns are important in studies of agricultural land use and are essential to comprehending the geography of crops in a specific region. In developing countries, crop diversification has emerged as a key alternative for attaining the objectives of production growth, job creation, and resource sustainability. Recent events imply that governments and planners are emphasizing crop diversification more to assist agricultural development in Southeast Asia, the Middle East, and North Africa. In general, crops are grown in combinations, which reduces the likelihood of crop failure in a particular location. Specialization is preferred by wealthy farmers, whereas crop variety appeals to poor and replacement farmers since it reduces risk and offers advantages over specialization. Both imported and exported commodities will be subject to the price risk brought on by changing exchange rates. Such variations in commodity prices result in variations in agricultural revenue, which favorably affects employment in non-farm jobs. Agriculture generates more income from new employment since agricultural workers are always involved in planting, weeding, harvesting, and marketing crops throughout the year. Intensifying farming and raising yields per unit area are the main options for future food supply for a growing population. Farmers and their families benefit from more food variety and better nutrition. By increasing nitrogen

in the soil, diversity restores soil fertility. It increases the likelihood of sustainable arable land as a result. [10]

Crop diversity was investigated by W. Mestfin et al. (2011) using sampling data from randomly chosen families. The modified entropy index of the Tobit model is used to depict the crop diversification index. [11]

D.S. Suryawanshi and P.S. Dagu (2010) discussed crop diversification in Maharashtra's Nasik District at two different points in time using secondary data (1970–1971 and 2004–2005). The Singh and Dhillon (2006) method is used to depict the spatial pattern of crop diversification. [12]

Agricultural diversification is a way to promote agricultural development, according to B.K. Ghosh (2009). The study was carried out in 2005–2006 using primary data, and logit analysis was employed to look into the pattern of diversification. Because they lack access to better socioeconomic and infrastructure facilities, small and marginal farmers find it challenging to diversify their crops; as a result, it is advised that transportation spending be increased as well as the establishment of innovative institutions. [13]

S.H. Siddiqui et al. (2008) assessed agricultural development and its impacts on socioeconomic change during the years 2001–2002. The composite index for agricultural innovation and socioeconomic transformation was developed using secondary data by integrating 12 socioeconomic development indicators and 17 agricultural innovation variables. In their research titled "Diffusion of Agricultural Innovation and its Impact on Socio-economic Transformation in Aligarh District, India," they found a significant positive link between agricultural development and socio-economic development. [14]

S. Pal (2008) aims to ascertain the changing pattern of agricultural diversification during 2002–2003 and 2004–2005 using secondary data. Understanding the regional characteristics of crops is crucial for policymakers now more than ever because of the growing competition between economically and ecologically advantageous crops. It is advised to boost irrigation, introduce HYV seedlings, and use fertilizer liberally because monoculture prevents crop diversification. [15]

Crop diversification is recommended by S.A. Ray et al. (2005), who used a spatial database of many agro-physical variables (rainfall, soil texture, physiography) to back up their claim. Based on the incorporation of remote sensing data through GIS, these distinct agricultural zones were established for the cultivation of various crops. Agrophysical factors dictate that crop diversification is necessary in order to achieve a new cropping pattern. [16]

Following the green revolution, West Bengal expanded its land allocation for boro rice, potatoes, and wheat for the reasons that U.K. De (2005) described. According to research titled "Economics of Crop Diversification: An Analysis of Land Allocation towards Different Crops," the region's altering institutional, institutional, social, and economic systems have enhanced agricultural production diversification. [17]

M. Girish (2004) evaluated the relationship between crop diversification and socio-economic parameters (farm size, land tenure, education, distance from town or market, and other key factors) using both primary and secondary data sources. The findings show that agricultural diversification is higher in developed villages and lower in backward (completely non-irrigated) villages based on economic (farm size, extent of tenancy, bullocks, tractors, farm income, and non-farm income) and social (like family size, age, education of the farmer, and distance from the market) indicators of the Herfindhal and Entropy indices. Economic variables mostly explain the diversity indexes. [18]

T. Kurosoki (2003) investigated specialization and Diversification in Agricultural Transformation: The Case of West Punjab, 1903–1992. Redistributing land among different crops and districts resulted in altered land production, according to the study. The infrastructure has occasionally changed, which has resulted in a fast specialization of cropping patterns. A more varied agricultural region increased the concentration of high-value crops over low-value ones. [19]

Using time series analysis from 1980–1982 to 1996–1997 and the Herfindal Entropy index, D. P. Malik and I. J. Singh (2002) analyse agricultural diversification from an economic perspective. The bulk of Indian farmers are small and marginal farmers; therefore, increasing income from present crops is not possible. A study conducted in the state of Haryana found that the demand from the market pushes farmers to diversify their crops more when they are close to a large city. The diversification of rural areas away from cities is made possible by sprinkler irrigation. The lack of infrastructure has led to a specialization in agriculture. [20]

The myths and realities of agricultural modernization in rural Maharashtra were explored by B.B. Mohanty (2001), who also looked at new strategy packages (water, seed, fertilizer, and technology) of agricultural modernization while maintaining equity and growth as their top priorities. The Satara area of Maharashtra was chosen as the research location in order to assess the benefits of modernity for rural people and investigate the effects on their socioeconomic level, which is elevated by agricultural output. The spirit of agricultural modernization is frequently disregarded when it is connected to farmer inequality. [21]

H. Ansari et al. (2000) employed a case study of the Indira Gandhi Canal command region to analyse the evolving farming patterns in the Thar desert. The area currently produces crops as a result of effective irrigation techniques. The canal modifies the local agricultural climate and raises the possibility of higher production. [22]

CONCLUSION:

While the percentage of all major workers who are cultivators is declining, the percentage of labor working in agriculture is rising. The main factors contributing to this rise in landlessness and near-landlessness are population growth and the division of land holdings among legal heirs. Due to the slow pace of industrialization, a sizable portion of the population still depends on agriculture for their primary source of income. Therefore, agricultural development is essential for overall development because it enables the underprivileged areas to produce their own food and have access to food security as well as employment opportunities, income generation, and raw materials for the industrial sector.

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