



Chhattisgarh economic growth depends on agriculture

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Abstract

Agricultural research is a ray of hope for the farmers of Chhattisgarh. It leads them towards a strong and self-reliant agricultural system by protecting them from natural disasters, low productivity and losses. Chhattisgarh is a major agricultural state of India, where the livelihood of most of the population is based on agriculture. The state is called the "rice bowl", which reflects its fertile land and abundant rice production. But in today's time, only farming is not enough, but to make farming profitable and sustainable, it has become very important for farmers to have awareness about agriculture.

Awareness in agriculture means giving information to farmers about modern techniques, scientific methods, improved seeds, irrigation methods, soil health, pest control, and government schemes. Even today, many farmers of Chhattisgarh are doing farming in traditional ways, due to which they do not get the expected profit. If farmers are given information about modern agricultural science, then they can produce more at less cost, and increase their income. The challenges of changing weather and climate change are becoming a big crisis for farming. Crops are destroyed due to irregular rainfall, drought, flood, and new diseases. In such a situation, only awareness about agriculture can show the right path to the farmers. They can solve these problems by adopting new crop varieties, organic farming, and water conservation methods. Along with this, schemes run by the government, such as Kisan Samman Nidhi, Crop Insurance Scheme, and various grants, are to help farmers, but due to lack of awareness, many farmers are unable to take advantage of these schemes. If farmers get the right information and training on time, they can not only improve their economic condition, but can also strengthen the state's economy. Only farmers aware of agriculture can lay the foundation of self-reliant Chhattisgarh. Therefore, it is quite appropriate to say that agricultural awareness among farmers is very important to strengthen and advance agriculture in Chhattisgarh. An aware farmer is a prosperous farmer, and a prosperous farmer is the basis of the state's prosperity.

Keywords: Agriculture, Awareness, Farmers, Chhattisgarh

Introduction

Agricultural research in Chhattisgarh. Agricultural Research in Chhattisgarh Indira Gandhi Agricultural University (IGKV) at Raipur is the main center of agricultural research in Chhattisgarh. It is operated by, which has its three-regional agriculture Research Station (ZARS) as well as four Regional Agricultural Research Stations (RARS) The contribution is made in Bilaspur, Kavdha, Bhatapara and Raigarh, and two farms are located in Bilaspur and Raigarh. Research carried out in the University covers a wide range of crops and crop components. Various research projects are carried out through All India Coordinated Research Projects. which include rice, linseed, mung bean, lentil, litharge, kidney bean, peas, potato, soybean, gram, rapeseed and Crops like mustard, makka, masala, tur are included. , safflower, castor, low use crops Tubers, Fodder, Palm, Cashew, Medicinal Aromatic Crops, Mushrooms, Weed Control, Agro-Meteorology, Long term fertilizer use, agroforestry, and honey beekeeping. The history of agricultural research in Chhattisgarh is almost It is older than 100 years. Indira Gandhi Agriculture University, Raipur The Principal Research Institute was established in 1903, which later became the National Research Centre in 1961.

developed into an agricultural college and Established in 1987 as Indira Gandhi Agricultural University.

Agricultural Research: The Center conducts research on various aspects of agriculture, such as improvement of crop

varieties, development of better irrigation techniques, and effective management of natural resources.

Agricultural Education and Training

It provides agricultural education and training to farmers so that they can understand new techniques and practices and use them effectively.

Chhattisgarh: Towards reforms in agriculture sector

Chhattisgarh is a major agricultural state of India, where 70 percent of the population is engaged in agriculture or related work I am busy in this. There are about Out of 37.46 lakh farmers, 80 percent are small and marginal farmers.

Apart from farming, the main sources of income for the residents of Chhattisgarh are hot catchment, animal husbandry, and forest products. Tribal people earn their livelihood by saving forest products like straw etc. Farmers of Chhattisgarh mainly grow rice, wheat, millets, pulses and oilseeds. The Central Government Under the directions of the Agriculture Department, the state government makes the agriculture related chemicals, manures, and fertilizers easily available to the farmers in the villages. The Central Government has constituted the Farmer Producer Organization (FPO) has been started, which helps small farmers in agriculture. These organizations provide relevant information and assistance. Through these organizations, farmers are provided with technical Services, food processing, publicity, product sales information and other

types of assistance. Apart from this, With the help of FPO, farmers can get agricultural chemicals, seeds at affordable prices. And other equipment is also available.

Prime Minister Shri Narendra Modi has advised all the states and farmers to adopt Indian natural farming system. He has also advised the farmers to promote organic farming. Impact of agricultural reform. Chhattisgarh, known as the 'Rice Bowl', is undergoing many significant changes in the agriculture sector. Many schemes have been implemented by the state government for the farmers, due to which some positive effects are being seen in the agriculture sector of the state. per acre in the State this year as compared to last year 21 quintals of paddy was procured and outstanding paddy bonus of Rs 3716 crore was paid. Along with this, Kharif marketing in the year 144.92 lakh metric tonnes of paddy was purchased, which is a new record.

The State Government does not provide any relief to the farmers. Payment of 32 thousand crore rupees and Kisan Samridhi Yojana under Rs 13,320 crore has been distributed.

Role of Chhattisgarh in agriculture

Chhattisgarh, which ranks second in paddy production in the country, is the main state purchasing paddy from farmers. It has been made. The state government has not given any relief to the farmers. Paddy was purchased at the rate of Rs. 3100 per quintal, which It was an important decision for the farmers. 2. Big Data and Analytics Data is becoming a fat family, where sensors and other technologies are combining thousands of points of data about everything from soil quality to laboratory and crop conditions. Big data and analytics can help farmers decide when to use how much water or fertilizer to grow and how much seed to plant. agricultural work is linked to changes in climate and the environment, which can be reached This is difficult, especially for senior management. Using large scale data and analytics in agriculture helps farmers to predict water cycle or rainfall patterns.

Agriculture is very important in Chhattisgarh (C.G) as it is the main basis of the state's economy and life. Below are its main points:

1. Economic basis: About 70% of the population of Chhattisgarh depends on agriculture. A large part of the state's economic income comes from agriculture and related activities.

2. Rice bowl: Chhattisgarh is called the "rice bowl" because many varieties of rice are cultivated here and the production is very high.

3. Main source of employment: Agriculture is the main source of employment in rural areas. It also provides employment to agricultural laborers, agricultural equipment sellers, and those working in mandis.

4. Cultural importance: Agriculture is also associated with the culture and festivals of Chhattisgarh, such as Hareli, Pola and Navakhai - all of which are festivals related to agriculture.

5. Food Security: Agriculture ensures food security of the state, providing grains, pulses, vegetables etc. to the local people.

6. Biodiversity and Traditional Farming: Traditional seeds, organic farming and mixed farming are also given importance in farming here, which also benefits the environment.

7. Laboratory Technology: In today's information-communication world, agriculture production and data-handling are at the forefront Farmers should be able to communicate with each other, entrepreneurs and traders. This can be done through pipelines. Technology such as mobile, satellite technology and internet-based platforms are needed by farmers to share information to make better decisions about their crop cultivation or the way they rear their crops. These technologies help farmers to take the final steps or directly to the documents. It also makes me capable of demonstrating We have been told time and again that the world's population is increasing at a very fast pace. As a result, there is a need for new innovations in agriculture.

Objectives

- To increase production and productivity in Chhattisgarh.
- To know the increase in the income of farmers.
- To reduce agricultural costs.

Review Literature

Pandey, S. & Kumar, R. (2021) ^[12]. reported that the area under cultivation in c.g nearly tripled during the period 1966/67 to 1985/86, while production increased nearly eightfold during the same period.

Singh, R. & Verma, N. (2023) ^[15]. During the same period, the share of paddy in the total area under food grains increased from 5.45% to 14.55%, and in total rice production from about 9% to nearly 20%. This paper examines the economics of paddy cultivation on farms of different sizes.

Rao, P. S. & Singh, A. (2022) ^[13]. The use of human and bullock labour generally decreased with increase in farm size, while mechanical labour increased. The share of fixed costs in the total cost of cultivation was higher on large farms than on small farms.

Dr. Surendra (2020) Both the use of yield enhancing inputs and the yield per hectare increased with increase in farm size, as did the returns on variable costs. Net returns were negative over almost all farm size groups for dwarf coarse and fine variety groups, but positive for superfine varieties.

Sriwastav (2022) Production cost decreased with increase in farm size for dwarf coarse and fine varieties, but increased in case of superfine varieties. Input-output rates increased with farm size for all types of varieties Singh and the relationship between cost of cultivation and level of yield.

Dr Lavanya (2020) factors affecting the level of paddy yield in different agro-climatic zones of Indian Punjab. The results of the study based on data collected from 300 agricultural holdings showed that yield per hectare increased with cost of cultivation.

K.S Singh (2023) ^[15] Marginal productivity became negative with additional use of resources beyond a certain point. Although fertilizers and irrigation affected yield, management is also very important. Extension strategies need to be re-formulated to guide farmers in rational use of resources.

Pallavi Agrawal (2021) Investigated the cost and returns, resource use efficiency and optimum level of resource allocation on chickpea (rainfed).

Amit Agrawal (2023) The study was based on secondary data collected from “Comprehensive Plan” reports to study the cost of cultivation of major crops in during 1985 to 1987. The study concluded that the optimal level of resources used for cultivation of chickpea crop is 100%.

Data analysis Main crops of Chhattisgarh: Fields, production and yield Main crops of Chhattisgarh: Fields, production and yield

Types of farming are involved in this, which contributes to the agricultural sector of the state. At the same time, there are many types of farming which are important for the agricultural sector. It covers 68.8% of the area.

Other Tivara in Makhu Masal (6.5%), gram (4.6%), paddy (2.6%), kodo-kutaka (2.3%), and Yajna (1.9%) included Apart from these main crops, farmers of Chhattisgarh also devote their work to the cultivation of maize, urad, najeer, soybean, tur, mustard, kuthi, linseed, groundnut, sesame, lentil, peas, mango, lentil, sorghum, urad, sunflower, horse gram, horse gram, and safflower, though in smaller proportion. It is the main agricultural sector of the state. It makes a significant contribution to its economy and food

security.

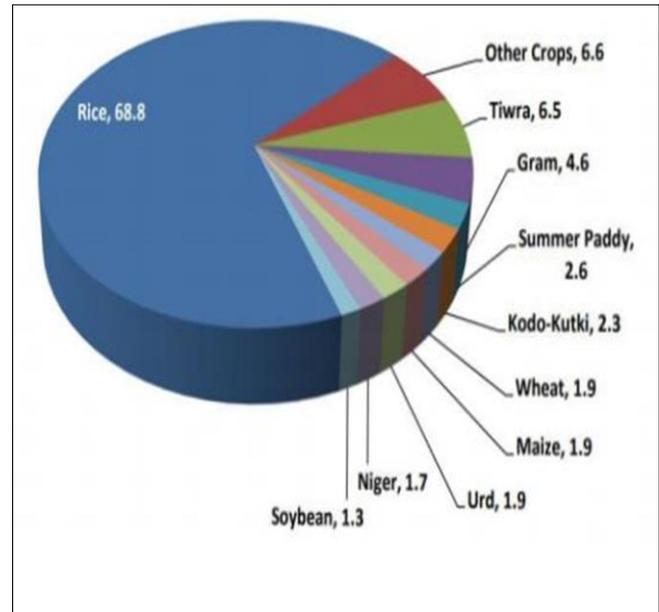


Fig 1: Agriculture in Chhattisgarh is an important base of the state's economy, employment and social structure. Following are some key statistics and information related to the agriculture sector in the year 2024:

Table1: Agriculture Data Chhattisgarh

Category	Value
Gross Value of Agriculture Sector	Rs. 1,07,038 Crore
Number of Farmer Families	37.46 Lakh
Cultivable Land	46.77 Lakh Hectares
Irrigated Land	23% of Agricultural Land
Paddy Procurement (2023-24)	14.492 Lakh Metric Ton @ Rs. 3100/Quintal
Fertilizer Production (2022)	8.9 Million Ton
Vegetable Production Area (2023-24)	4,91,459 Hectares
Vegetable Production Quantity	68,00,310 Metric Ton
Horticulture Area (2024)	24,274 Hectares
Horticulture Production (2024)	1.780 Lakh Ton
Rajiv Gandhi Kisan Nyay Yojana Assistance	Rs. 5,750 Crore (Since 2020)
Cow Dung Purchase Rate under Godhan Nyay Yojana	₹325 per Kilogram
GI Tag for Jeeraphool Rice	Received GI Tag in 2019

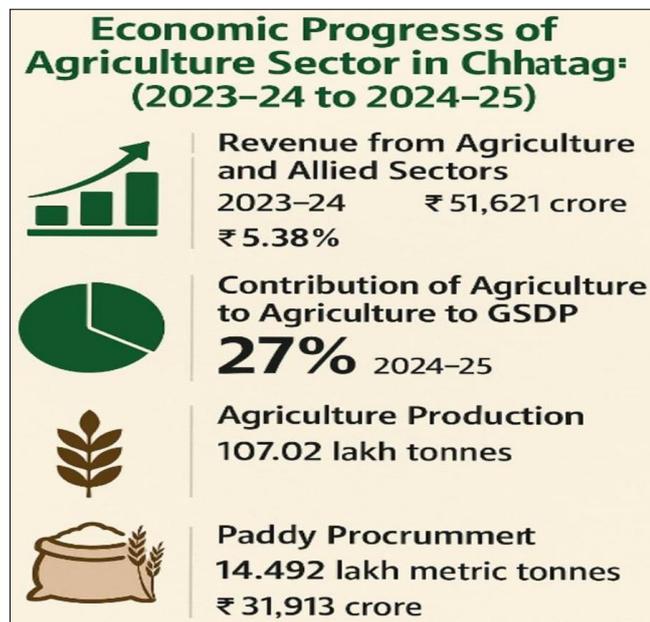
- **Economic contribution of agriculture sector:** The gross value of agriculture and related sectors of Chhattisgarh in the financial year 2024-25 is estimated at ₹ 1,07,038 crore, which was ₹ 97,958 crore last year. This shows an increase of 9.27%.
- **Farmer families and land use:** There are about 37.46 lakh farmer families in the state, of which 80% are small and marginal farmers. The total cultivable land 46.77 lakh hectares, which is about 35% of the total geographical area of the state.

Of this, only 23% of the land is irrigated, which makes clear the need for expansion of irrigation facilities.

- **Main Crops and Production:** Paddy is the major crop of the state. Under the 'Krishi Unnati Yojana' in 2023-24, the government procured 14.492 lakh metric tonnes of paddy from 24.75 lakh farmers at the rate of ₹3,100 per quintal.
- Food grain production in 2022 was recorded at 8.9 million tonnes, higher than 8.23 million tonnes in 2021.

- **Horticulture and Vegetable Production:** The area under vegetable cultivation in the state in 2023-24 was 4,91,459 hectares, producing 68,00,310 metric tonnes. The area under cauliflower cultivation was 24,274 hectares in 2024.
- **Spices and other crops:** The production of turmeric in 2024 was 0.780 lakh tonnes, which is less than 1.081 lakh tonnes in 2023.
- **Rajiv Gandhi Kisan Nyay Yojana:** Under this scheme started in 2020, assistance of ₹5,750 crore was provided to 19 lakh farmers in four installments.
- **Godhan Nyay Yojana:** Under this scheme started in 2020^[5, 6], the government buys cow dung from cattle rearers at the rate of ₹2 per kg, which produces organic manure.
- **Special crops and GI tag Jeera Phool Rice:** This aromatic rice variety of Chhattisgarh has received the GI tag in 2019 and is mainly grown in Surguja district.

Revenue from agriculture and allied sector: Increased from ₹48,987 crore in 2023-24 to ₹51,621 crore in 2024-25, an increase of 5.38%. Contribution of agriculture to Gross State Domestic Product (GSDP): The contribution of agriculture sector is 27% in 2024-25. Agriculture production: Food grain production stood at 107.02 lakh tonnes in 2023-24.



Paddy procurement: 14.492 lakh metric tonnes of paddy was procured in 2023-24, in which ₹31,913 crore was paid to farmers.

The economic progress of the agriculture sector in Chhattisgarh, in which the government schemes and the contribution of farmers have played an important role.

Conclusion

Chhattisgarh is an agricultural state of India, also known as the "rice bowl". About 70% of the population here is directly or indirectly dependent on agriculture. The economy, culture, society and traditions of Chhattisgarh are deeply linked to agriculture. In such a situation, it is appropriate to say that Chhattisgarh is incomplete without

knowledge of agriculture. Contribution of agriculture to the economy of Chhattisgarh:

The role of agriculture in the economy of Chhattisgarh is extremely important. A large part of the total income of the state comes from agriculture and related industries. Crops like paddy, wheat, kodo-kutki, oilseeds, and pulses are produced here on a large scale. Agriculture-based industries such as rice mills, fertilizer-seed centers, and agricultural machinery manufacturing units provide economic strength to the state. The cultural identity of Chhattisgarh is also linked to agriculture. The major festivals here like Hareli, Pola, Navakhai are directly related to agriculture and animal husbandry. Rural life, folk dances, songs and traditions revolve around agriculture. This cultural heritage can slowly disappear if there is no knowledge of agriculture. Agriculture is the backbone of food security of any state. Sustainable and adequate food grain production is necessary to satisfy the hunger of the large population of Chhattisgarh. If farmers are not aware of modern techniques of agriculture, food grain production will decrease, due to which the state will have to depend on other states. In today's time, only traditional farming is not enough. Farmers should be aware of modern agricultural techniques to deal with challenges like climate change, pests and diseases, and soil erosion. Advanced seeds, organic farming, scientific methods of irrigation, and mechanization not only increase production, but also double the income of farmers. The soul of Chhattisgarh resides in agriculture. Agriculture is not just a profession but a way of life here. If farmers do not have proper knowledge of agriculture, then the economy, culture, and society of the state will weaken. Therefore, it is absolutely correct to say that "Chhattisgarh is incomplete without knowledge of agriculture."

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