

# Potentiality of Coconut in non-traditional Bastar Zone of Chhattisgarh

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## Introduction

Chhattisgarh lies within 17045' to 20034' N latitude and 80015' to 82015' E longitude with an altitude ranging from 550 to 850 meters above mean sea level (MSL). The State covers a geographical area of 1,37,360 sq km. Nearly 65.9 % of the total area is covered by tribals and hence it is often said as a tribal dominated state. The 'Bastar Plateau Zone' of Chhattisgarh includes the districts viz., Bastar (Jagdalpur), Bijapur, Dantewada, Kanker, Kondagaon, Narayanpur and Sukma. This zone includes the Dandakaranya region, plains of Mahanadi, Indravati and Sabri rivers tract, which are separated by the hills of Abujhmar, Bailadila, Tikampalli, Usoor and Gola-palli and is surrounded by the states of Maharashtra, Andhra Pradesh and Odisha on three sides. Except Indravati river plains, most of the area is covered by evergreen dense reserve forests and hilly tracts. The

major landforms are high-level plateaus, structural hills and valleys and pediments and pediplains. The sub agro-ecological region of Bastar Plateau includes the North Lowland, Keshkal Escarpment, Abujhmad Hills, North-East Plateau, Southern Plateau and Southern Lowland.

The region has a sub-tropical monsoon climate with three distinct seasons i.e. summer, monsoon and winter. The southwest monsoon starts from June and continues till middle of September, winter season spreads from October to February whereas; summer season extends from March to middle of June. Rainfall is the major source of ground water recharge in the area and receives maximum (85%) rainfall during the southwest monsoon season. The winter rainfall is meagre (10-15%). The zone receives high rainfall coupled with comparatively lower temperatures and higher humidity. The average



Field view of Shailesh Atami Kasoli (Dantewada)



Shri Ganga Ram Karanji (Jagdalpur)

annual rainfall (mean of 50 years) ranges from 1200 to 1600 mm mostly received from June to September with its peak in July and August. The maximum and minimum temperatures during peak summer and winter touch upto 43<sup>o</sup>C and 5<sup>o</sup>C, respectively. The soil of Bastar region is mostly Entisol, Inceptisol and Alfisol wherein organic material like FYM or compost improves the water retention and storage capacity of soil with a pH range between 5.5 and 6.8. Such conditions promote the probability of raising horticultural and plantation crops in the area.

### Present status of coconut

Chhattisgarh covers nearly 1561 ha under coconut with an annual production of nearly 126.17 lakh nuts out of which 1289 ha area is covered by the Bastar zone. The areas under Bastar Plateau viz., Jagdalpur, Kondagaon, Narayanpur and Kanker along with Dhamtari accounts for nearly 81.61 per cent of the total area and 93.32 per cent of the total production

of coconut in the State. Bastar region of Chhattisgarh is a non-traditional coconut growing area yet there is tremendous scope of its production and exploration in the area. The quality factors of planting palms in non-traditional areas mainly depend on selection of seed nuts, storing, time of sowing, method of sowing, irrigation source, weeding etc. But with the advent of time the farming community of the region has started adopting the cultivation of coconut as one of the component of their farming system.

Coconut is mainly planted in the bunds and borders in Bastar region. The area under the crop is increasing rapidly in Chhattisgarh by regular research approaches, activities, farmer training programmes and government efforts that are continuously increasing the farmer's active participation and interest in the crop. With the advent of time more farmers are getting involved in coconut farming in their farming system. According to Ministry of Agriculture and Farmers Welfare, GOI (2019) during the last 5 years there is an increase of approximately 500 ha area under coconut in the tribal belt of Bastar region. The maximum area expansion has taken place in the Narayanpur district followed by Kondagaon. The feasibility of soil and agro climatic conditions promotes the growth and vigour of the plant which is now attracting the farmers to raise the crop in their farming system and growing intercrops in between the spaces. Matured nuts are mainly consumed in the zone.

### Potential area available for area expansion and utilization of coconut

Present area under coconut in the Bastar division is given in the Table 1. By looking into the data, there is no authenticity of the data over the period of years for Chhattisgarh state. Hence, it needs to be re-looked into the area of coconut in the state and in Bastar division in particular.

In the near future nearly 1800 ha area can be brought under coconut cultivation. Matured nuts are mainly consumed in the zone (Table 1), mainly as a component crops in the existing cropping system of the region. Hence encouragement should be given for bund planting in the area where irrigation facility exists.

In the region, coconut is mainly used for religious, culinary and tendernut purpose and usage as a oil for food consumption is not noticed. There is no coconut processing unit in the Bastar zone till date. However, as the area is expanding some mini oil



Shri Kaudi Ram Dewangan, Bhanpuri (Bastar)



Shri Peelu Ram, Tahkapal (Jagdalpur)

Table 1: Land use and potential area for coconut in Bastar Division

S. No.	District	Geo-phraphical area (ha)	Net sown area (ha)	Double cropping (ha)	Total area (ha)	Area under coconut (ha)*	Potential area for expansion of coconut (ha)
1.	Bastar	392092	169723	5863	175586	261	500
2.	Bijapur	655296	64890	39	64929	14	50
3.	Dantewada	341050	99712	1412	101124	32	250
4.	Kanker	643268	209906	16437	226343	172	250
5.	Kondagaon	605073	137010	6834	143844	671	450
6.	Narayanpur	692268	31522	317	31839	121	250
7.	Sukma	576702	104479	1067	105546	18	50
To-tal	3905749	817242	31969	849211	1289	1800	

Commissioner Land Records, Raipur, Govt of Chhattisgarh, 2017 & \* Ministry of Agriculture and Farmers Welfare, Government of India (2019)

processing units should be established in the zone to utilize the nuts for extraction of oil as well as virgin coconut oil production apart from using the nuts for value added products. The marketed oil is mainly imported to the zone which usually increases its cost. If oil processing units will be established in the zone it will help to meet the requirement of oil in the local market and would also help in the consumption of the produced nuts besides creating employment generation for the tribal youth.

### Success story of coconut planting

Apart from being a tribal dominated area, Bastar is often considered as a naxal affected and sensitive zone of Chhattisgarh. The initial approach of convincing the rural youth is the major factor that determines the possibilities of raising any crop in the farmer's field. Most of the rural population

being illiterate and staying in remote areas are not interested in changing their cropping pattern easily. But due to the constant efforts of the researches and scientists working in the area, recently few farmers have taken up the cultivation of coconut as part of their farming system. By frequent trainings they are taught about the modernization in farming that is now-a-days convincing them to adapt the technologies that could help them improve their standard of living. One of the most progressive coconut growing farmers of the area is Shri Shailesh Atami from Kasoli (Dantewada). Due to the constant guidance of scientists and research officials he has planted nearly 500 coconut seedlings in his field and growing

banana as intercrop. In near future he is planing to plant another 500 coconut seedlings in his farm. Being a non-traditional area this figure matters a lot to generate the interest of other growers as well to raise coconut in their farming areas as mostly coconut is grown in the bunds in Bastar. Similarly another resourceful farmer is Shri Kaudi Ram Dewangan who has raised nearly 110 coconut seedlings in his field and is interested in increasing its number in near future. These farmers are growing other fruits and vegetables as intercrops in the coconut field. There are many farmers also who have planted coconut seedlings on similar lines (Table 2). There is ample scope for area expansion in the region and there is greater role of the AICRP on Palms centre and CDB, DSP Farm for providing quality seedlings and necessary guidance regarding the planting and management of coconut gardens.



Shri Roop Singh Madawi Bhanpuri (Bastar)



Shri shalesh Atami Kasoli (Dantewada)

S. No.	Name of farmers	Place	No. of seed-lings
1.	Shri Shailesh Atami	Kasoli (Dantewada)	500
2.	Shri Kaudi Ram Dewangan	Bhanpuri (Bastar)	110
3.	Shri Peelu Ram	Tahkapal (Jagdalpur)	50
4.	Shri Roop Singh Mandawi	Bhanpuri (Bastar)	50
5.	Shri Ganga Ram	Karanji (Jagdalpur)	55
6.	Shri Raju Chauhan	Jagdalpur	80
7.	Kamal Kishore Kashyap	Bade Chakwa	50
8.	Somaru Mourya	Chokar	80
9.	Shyam Ghan	Tahkapal	50
10.	Dharam das	Jamawada	60
11.	Tulsi	Bakawand	50

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