

A coconut farmer's journey of enhanced profitability from Chhattisgarh's Bastar region

Beena Singh*, **Rajesh Kumar Patel****, **B. Augustine Jerard***** and **Sumitha S.******

*Scientist (Horticulture), AICRP on Palms, S.G. College of Agriculture & Research Station, IGKV, Raipur, CG,

**JRF, AICRP on Palms, S. G. College of Agriculture & Research Station, IGKV, Raipur, CG

***Project Coordinator, AICRP on Palms and

**** Scientist (Horticulture), AICRP on Palms, ICAR-CPCRI, Kasaragod, Kerala

The Bastar district of Chhattisgarh covering an area of 10577.7sq km, is considered a remote place. The normal annual rainfall of the district is 1386.77 mm. The annual temperature varies from 10.6°C in winter to 46°C in summer. The relative humidity varies from 90% in rainy season to 30-40% during winter. The soils in the district have wide variations. Red gravelly, red sandy and loamy soils cover the most parts of the district as reported by Ministry of Water Resources, Govt of India. Red soils are predominant in the area as the most prevalent crystalline and metamorphic rocks in the area produce red soils upon weathering.

Despite being a non-traditional coconut growing zone, the Bastar region of Chhattisgarh offers enormous potential for coconut production and exploration. Farmers were growing it in bunds at first, but now that people are aware of it, they are enthusiastically cultivating it in their fields. The AICRP on Palms centre at Jagdalpur in Bastar region has disseminated knowledge on the scientific cultivation of coconuts in the region with the improved production techniques and high yielding varieties. Jagdalpur centre comes under Zone VII eastern ghat and plateau zone of Indian Agro climatic Zone. This Zone includes Dandakaranya region, plains of Mahanadi, Indravati and Sabri rivers tract and is a part of continuous tribal belt and known for special tribal culture and whole region is known as unique name "Bastar Plateau Zone" comprising of seven districts: Jagdalpur, Kanker, Dantewada, Bijapur, Narayanpur, Kondagaon and Sukma. The longitude of the centre 200 34' N and latitude 820 15'E with mean sea level 850 m MSL.

Generally, the selection of seed nuts, storage, sowing date, sowing techniques, irrigation supply, weeding and other crop management aspects are the primary determinants of the quality of coconut



Kera Bastar Crown view

plantations in non-traditional areas. Over time, the local agricultural community has begun to include coconut cultivation as a part of their farming system, considering the importance of coconut farming for enhanced income.

In the village of Chokar, District Bastar, Jagdalpur, there are about eight acres owned by one of the farmers in Bastar, Shri Somaru Mourya. He had been farming vegetables until about 14 years ago when he was advised to grow coconut in his field. To improve productivity, efficiency and sustainability of the traditional farming practices, he was suggested to plant intercrops alongside a drip irrigation system in the coconut plantation. By adopting the proper techniques, he was able to increase productivity and sustainability, hence boosting livelihood. In this manner he could keep the intercrops profitable until the coconut trees started bearing fruit. He planted about 150 KeraBastar saplings, which are currently producing an abundance of coconuts.

The variety Kera Bastar has been released and



Kera Bastar Bunch

recommended by ICAR- AICRP on Palms centre, Jagdalpur for growing in the Chhattisgarh state considering its performance during the year 2007 in the XVIII Biennial workshop of the All India Coordinated Research Project on Palms. Kera Bastar, a selection from Fiji Tall, proposed by CRS, Jagdalpur as a national variety for cultivation in the states of Chhattisgarh, Tamil Nadu, Andhra Pradesh, Maharashtra. Kera Bastar was subsequently released and notified for cultivation by the Central Sub-committee on Crop Standards, Notification and Release of variety vide Notification of Ministry of Agriculture (Department of Agriculture and Co-



operation) S.O. 1714(E) dated July 18, 2009.

- Characters : Excellent coconut variety with wide adaptability.
- Nut yield : 110 - 117 nuts/palm/year
- Copra yield : 2.5 - 3.1 tonnes /hectare
- Tender nut water : 332 ml
- Total sugar content in tender nut is 6.2 g/ 100 ml.

The farmer started following coconut based multitier farming system and started cultivating vegetables including tomato, chilli, pumpkin and bitter gourd utilizing mulching and drip irrigation. Once the coconut started to bear fruits, he started to earn more money than he did from simply cultivating vegetables alone. The KeraBastar palms are now also being utilized as mother palms to produce seed nuts which gives additional income to him by selling to the needy farmers in the region. The spacing adopted for coconut was 7.5 x 7.5 m accommodating 175 palms/



ha. The intercrop spacing for chillies is (60 x 60cm or 50,000 plants/ha for tomato its (75x 60 cm x cm or 40,000 plants/ha and for bitter gourd it is 1.5 x 2m or 6250 plants/ha)

Scientific crop management practices such as micro irrigation, mulching, green manuring, organic manures, waste recycling, eco friendly crop pest management practices are being followed by him. His income increased drastically after the sale of tender nuts from his field. He previously made about 1.5 lakhs from the variety of vegetables, including around Rs 40,000/- from cole crops, Rs 25,000/- from chillies, Rs 25,000/- from bitter gourd and Rs 50–60,000/- from tomatoes. But now he makes over two lakh rupees a year by the sale of tender coconut alone. In the neighborhood market, he sells both mature and tender nuts. On realising the good income being generated from the sale of coconuts, the farmer is planing to plant another 300 coconut seedlings. He has been advised to follow multitier cropping system in his field by growing cinnamon,

papaya and banana as intercrops in the coconut orchard along with vegetables and flowers as well. Moreover, he has also been advised to construct a vermicompost unit in his field in order to utilize the fallen leaves of coconut.

Besides, some other farmers in the region have established fruit crops systems under coconut with crops viz., pineapple, strawberry, mango, papaya, avocado, rambutan, mulberry, rose apple etc in a very systematic way.

The success of coconut-based cropping models in this remote part of the country with the released variety Kera Bastar highlights the potential of coconut cultivation for enhanced income from Rs. 1000s to lakhs. The success of contribution of the intercrops with addition of coconut not only ensures food and nutritional security but also promotes the utilization of land and water resources from maximum productivity and his field has become a model for other farmers in the region.

International Agriculture and Horti Expo



Coconut Development Board, CDB, MDIC participated in International Agriculture and Horti expo held from 20th to 22nd July 2024 at Pragati Maidan New Delhi. CDB displayed detailed charts and posters on the schemes and activities of the Board. Various coconut based value added products were displayed in the Board's stall. A small sales counter was also arranged at the stall.

Departments of Horticulture, Agriculture from many states alongwith other govt organisations such as HAL, MoH& FW, IIMs, B&R, BHEL, CSIR, ICAR etc. took part in the fair. Visitors included farmers from neighbouring states, schools, colleges and other visitors. Prof. Lalnilwama Hon'ble Minister of State for RD, Horticulture & PHED, Govt. Of Mizoram visited the CDB stall alongwith the Director of Horticulture, Additional Director and other senior officials.