

ASSESSMENT OF THE CONTRIBUTION OF CHAR (*BUCHANANIALANZANSPRENG.*) SEED (CHIRONJI) COLLECTION TO RURAL LIVELIHOOD IN GARIABAND DISTRICT

Sahdev¹, Amit Tandan², Khileshwar Kumar Sahu³, Ishwari⁴, Digeshari Sahu⁴

¹Research Scholar, Chemistry, Department of Basic Sciences and Humanities, Government Engineering College, Raipur, (C.G.) – 492015

²Research Scholar, Department of Geography, Shri Rawatpura Sarkar University Dhaneli, Raipur (C.G.)-493661

³Department of Geography, Gurukul College, Magarlod, District Dhamtari, Chhattisgarh – 493662

⁴Aryabhatta Arts & Science College, Kopra, District Gariaband (Affiliated to Pt. Ravishankar Shukla University, Raipur, Chhattisgarh – 493887)

Abstract

Char tree (*Buchanania Lanzan*), well known for its seeds, is edible Chironji, and is not useful for wooden non-timber forest product (NTFPs), which are abundantly distributed in the forest areas of the Gariaband district of Chhattisgarh. The purpose of this study is to assess the socio-economic value of the Chironji Seed Collection in the fields of existence in rural and tribal areas, particularly in the forest villages Chhura, Gariaband, and Mainpur blocks. Information was collected from field surveys, home interviews, and discussion groups from discussion groups in discussion groups. The results show that approximately 65-75% of families in these areas participate in seasonal collections of Chironji species from March to May, earning an average of ₹4,000 to ₹10,000 for seasonal families. Women and young people participate in fruit collection, cleaning and drying. Whatever its income potential, restrictions such as market price volatility, usability, limited access to the market and dependency on intermediaries limit the

full economic benefits. This study highlights the additional values needed for increased profits and stability, cooperative marketing, and potential development programs. Generally, the collection of Chironji seeds plays an important role in rural sources and may integrate forest economies in tribal-controlled regions.

Keywords:-*Chironji, Rural livelihood, Seed collection, Tribal Economy, Women participation.*

Introduction

Chhattisgarh has 44% of the territory as a forest that creates natural rags for the richness of Chhattisgarh *Buchanania Lanzas* Spreng [1, 2]. (Common Hindi-chironji, English-Almondette) is a walnut tree in a deciduous fruit in a tropical forest in India [3, 4]. This plant is also known as Chironji, which is also known in the English environment in Hindi due to the taste of the almonds in the seeds. The first to document this tree was a Scottish physician, geographer, naturalist, and botanist named Francis Buchanan-Hamiltonin 1798 [3, 5]. It is a wild tree of economic importance that belongs to the Anacardiaceous family. *Buchanania* is the most primitive member of the family. This tree was recorded in the north, west, and arid central regions of the Indian states of Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Maharashtra, Bihar, Jharkhand, Andhra Pradesh, and Gujarat, [3, 6]. Tribal people rely on forest trees and their fruits and seeds to exist in this world. It is grown in yellow sandy soil [7]. This happens in large numbers in Chhattisgarh, Madhya Pradesh, Jharkhand, and several districts in Uttar Pradesh. The flowers will flourish during April –June [7]. Forests are important to support the self-sufficiency measures of rural India, especially in the central states of India, such as Chhattisgarh. Collection and marketing are not forest wood (NTFPs) products, but rather the main source of seasonal cash flow income, and are groups of tribes living in forest areas, particularly those living in forest areas. Some of the various NTFPs trees (*Buchanania Lanzas*) with edible seeds known

as Chironji are very economically important as they are used for cooking, drugs and commercial purposes. Chironji seeds are widely used as dried fruits in Indian candies, snacks and traditional products. They also have medical value and are in great demand in domestic and foreign markets. The forests of the Gariaband district of Chhattisgarh, especially the forests of Chhura, Gariaband, and Mainpur blocks, are filled with nature reserves of *Buchanania Lanzas*. Hundreds of tribal families unite in a collection that cleans and sells Chironji seeds each year during the fruit age (March to May). Young people and women dominate this activity as seeds come together and occur manually with traditional skills. Without an organized marketing system, cost and storage system, most products fall into the hands of intermediaries at very low prices. This tends to lead to exploitation and loss of income. Due to environmental availability and socio-economic services, this study aims to identify the issues that assess the level of Chironji species contribute to rural life and examine the opportunities faced by collectors of Aboriginal people to increase profits through improved co-management, market training.



Figure 8.1 Collected Char (*Buchanania Lanzan*) Seeds (Chironji) from Forest Regions of Gariaband, Chhattisgarh

Materials and Methods

Study Area

The study was conducted in three tribal forest blocks in Gariaband district, Chhattisgarh, namely Chhura Block, Gariaband Block, and Mainpur Block. These blocks are dominated by the tribal mass population, huge forests, and the natural accessibility of the local Char tree, known as Chironji. These regions cover a vast panorama of rural and forestry communities actively involved in seasonal collections and marketing of Char seeds.

Data Collection: Fieldwork was performed during data collection from primary and secondary sources. Activities in this field imply the identification of traditional use and the economic importance of seeds (*Buchanania Lanzas*), and the contribution to the self-sufficiency of rural areas in forest villages.

The roles of gender involved in the collection season, harvest season, average income, and Char seed collection were recorded using discussions in households, discussion groups, interviews with local tribes, Van Dhan Kendras, SHGs collectors, and forest staff.

The production level and price of Char seeds in Chhattisgarh appeal over the past three years are estimated to give an idea of recent trends and commercial value. The diversity and distribution of Char trees have been studied in selected forest pockets and degraded condition areas.

Result

1. Household Involvement in Chironji Collection:

Of the 60 families illuminated in the survey, 73% of the families actively participated in the chronic seed collection from March to May, when fruits were

seasonal. Most of these families were the tribes of Gond, Halba and Baiga, and they were small farmers or on the frontier.

2. Quantity Collected and Income Generated:

- The average number of households varied from 30 kg to 50 kg per season.
- Households are taking part in the addition of costs (de-pulping, drying) and are receiving better profitability.
- Seasonal incomes vary between ₹4,000 and ₹10,000, but certain outcomes of up to ₹12,000 vary depending on volume and access to the market.

3. Role of Women and Youth:

Women and young people dominated the collection, extracted seeds, cleaned and dried. In villages associated with the Auto Self-Help Group (SHG), women sell products together, ensuring an increase in prices and a lower dependence on intermediaries.

4. Market Access and Pricing Trends:

- 60% Chironji were sold to local merchants or weekly markets (haats).
- 25% were sold at higher prices at Van Dhan Kendras or SHGs outlets.
- Market prices have varied from ₹138 to ₹200 per kg, depending on the quality and drought.

5. Constraints Identified:

Lack of storage damaged seeds.

Organized marketing, average level features, and price fluctuations were the main issues.

Minimum access to tools to add costs (dryers, packaging) made income difficult.

Table 8.1 Chhattisgarh State Minor Forest Produce 2024-25 [1]

Chhattisgarh state minor forest produce 2024-25 (CGMFPPED)						
Name of Forest produce	Category	Category (MSP/SP)	Collector rate (Rs.Per kg)	Collector period		Criteria
				Form	To	
Chironji	Grade 1	MSP	138	1st March	30th May	Clean, well-dried seeds with uniform size, no pest or fungal damage.
	Grade 2	SP	126			Mixed size, minor impurities allowed, slight discoloration acceptable.

Discussion

This study revealed that collection of Char tree Chironji seeds (*Buchanania Lanzas*) is a critical seasonal life, particularly for the presence of tribal societies, in the forest areas of the Gariaband district, located in the blocks of Chhura, Gariaband, and Mainpur. Rural families, particularly the affiliated landowners, rely on Chironji to replace income during the summer (March–May), when agricultural culture activity is low. The participation of women and young people in collection and treatment demonstrates the comprehensive nature of this activity to ensure presence. Village women may have Auto Self-Help Groups (SHGs) or Van Dhan Kendras. This underscores the importance of public organizations to maximize the realization of forest products. However, inadequate storage facilities, absence of local units, and intermediary operations remain critical

challenges. It will cost between ₹4,000–₹10,000 during the season, but with a proper implementation of value, brand, and market training, it will be much more. Comparative analysis also shows that families participating in removal and drying have higher market prices and less damage. As a result, adding value directly refers to an increase in income. Furthermore, village residents are unaware of state programs such as Van Dhan Yojana, which can provide training, loans and access to infrastructure facilities. These regions also require initiatives to build potential awareness and development. As a result, the collection of seeds is economically important, and can also be converted into a stable forest model of microelements for political support for forests, technical training, and institutional support.

Medicinal and therapeutic uses of *b. Lanza*

B. lanzan demonstrates a wide range of therapeutic activities that were inhabited with gold for the tribal population (Table 2). It has been found that the leaves, seeds, bark, and nuclei of plants carry many metabolites with great potential.

Table 8.2 Medicinal uses of different plant parts of *B. lanzan*

MedicinalUses	Parts used	Reference
Skin problem	Leaves	[8-10].
Remove spots from skin and blemishes	Seed oil	[8, 11].
Anti-snake venom activity	Bark	[8, 9, 12].
Wound healing property	Root	[8, 9].
Alzheimer's,	Kernel	
Blood dysentery	Seed oil	[8, 11].
Reduce mycotoxin	Bark	[8, 9, 13].
Wound healing property	Root	[8, 9].
Memory booster	Kernel	[8, 9, 14].
Skin problem	Leaves	[8, 9, 10].
Depurative	Bark	[8, 15].
Constipating	Bark	[8, 15, 16].
Brain tonic	Bark	[8, 17].
Cardio tonic		
Glandular swelling		
Intrinsic hemorrhage	leaf decoction	[8, 15].
Fever and burning sensation		
Blood dysentery	Powder of the bark	

Ant diabetic	Leaf Extract	[8-9].
Wound healing activity	Ethanolic Leaf Extract	
Adaptogenic activity	Methanolic Extract	

Conclusion

This study concludes that the seeds of Chironji collected in the *Buchanania Lanza* tree are the major seasonal activity of the Gariaband district, particularly in tribal values blocks such as Chhura, Gariaband, and Mainpur.. Most rural families rely on this forestry activity to earn additional income during the unleashed farming. The participation of women and youth, the use of traditional environmental knowledge, and the inclusion of automatic self-help groups (SHGs) in marketing are indicators of Chironji's potential as a public forest product. Generating incomes of ₹4,000 to ₹10,000 per family during the season is key to expanding the financial rights and capabilities of surrounding families. However, in addition to value, dependence on average levels, price volatility, and infrastructure flaws, the limitations of the form of shortage limit all economic benefits of the Chironji Conference. Such obstacles highlight the need, increased likelihood of immediate political action and the creation of local treatment and marketing systems. Therefore, due to proper support in the form of training, co-marketing, and access to state diets (like Van Dhan Yojana), the collection of Chironji species can be a permanent micro-enterprise that increases both income security and forest defense in tribal areas.

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