

CHAPTER 3

**ECONOMIC EVALUATION OF SARAI BODA FUNGUS FOUND ON SAL
TREES (*SHOREA ROBUSTAROTH*) IN THE FOREST AREAS OF
GARIABAND, CHHATTISGARH**

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Abstract

The forests of Chhura, Gariaband, and MainpurBlock - The core of the Gariaband district of Chhattisgarh is populated with Sal trees (*Shorea robusta*), which is needed by the local ecosystem and economy. One of the most undiscussed but economically valuable products, the Sal tree is Sarai Boda, a natural fungus found in bark or dead *Shorea robusta* Wood. This fungus is traditionally assembled and is used in the community for a variety of types of uses, as a source of drugs, dietary supplements, and local self-sufficiency. This work will document the presence, collection of habits, traditional use, and economic value of Sarai Boda fungi in separate forest villages. Ethno botanical research and interviews were

conducted with local tribes to discover the location of this fungus in a self-sufficiency system. Early results show that Sarai Bodamay is a high product obtained from forests due to market prices, local demand, and perceived medical costs. This study highlights the need for scientific validation, the enduring practice of collecting cultures and developing a chain of creation at the marketing costs of border hangars. The promotion of awareness of the importance of the environment and inclusion in forest policy planning can be expressed by a stable model for improving the presence of rural areas while maintaining biodiversity.

Keywords:- *Forest-based Livelihoods, Sal Tree, Sarai Boda, Tribal Economy.*

Introduction

Chhattisgarh is 44% covered in forest areas, making natural resources important. Chhattisgarh Forest is extremely abundant with insignificant forest products [1-2]. The forest has always been a cradle of diversity and has been an important source of existence for the Indigenous peoples. Non-timber forest products (NTFPs), but of all different forest resources has a huge environmental, cultural, and economic significance. The two pterostrophite Sal tree (*Shorea robusta*) family is one of the main types of lush forest tropical forests in central India, located in the forest areas of the main blocks of Chhura, Gariaband, and Mainpur blocks of Chhattisgarh. In the region, tribal groups win. This relies heavily on forest products for means of existence and the receipt of income. One lesser known but exciting biological resource associated with Sal trees is a type of wild fungus known at the local level as the Sarai Boda. Fungi grow naturally on bark, roots, or rotten wood, especially in habitats in wet forest areas. Fungi cannot be noticed, but are chosen for diligence by indigenous inhabitants for doubts of medicinal, nutritional, and economic value. Traditional tribal knowledge systems retain the means of identifying, collecting, and using mushrooms of generation to generation. Sarai Boda, originating from Sarai Boda, is part of a family of wild

mushrooms and mushroom species. It naturally grows under the forests of Chhattisgarh, especially the dry leaves of Dhamtari (*Shorea robusta*). Indigenous populations have also historically depended on the profitability of forests like Sarai Boda as a source of production and nutritional means. Sarai Boda is a seasonal fungus that only occurs once a year, immediately after monsoon rains first soul. High humidity tested after the rain, combined with special monkey juice radiation, provides optimal conditions for fungal development under the hangar leaf cover. The combination of these environmental conditions is unique, making its growth unpredictable and not grown for a large commercial cultivation. Therefore, it is a truly wild product, explaining its rarity and its strong demand [3]. Edible mushrooms are an important food source because they are extremely nutritious and easy to digest. They eat not only because of their natural flavor and taste, but also because of their immeasurable medicinal properties. Edible mushrooms have been discovered as an excellent source of proteins, lipids, amino acids, glycogens, vitamins, and minerals [4-5]. Fresh weight, mushrooms are superior to protein content over all fruits and vegetables [5-6]. The purpose of this study is to study the development, traditional use, and economic potential of Sarai Boda fungi in specific forest blocks. Writing about indigenous knowledge and current practices of Sarai Boda, this study would like to highlight its importance as a stable forest product that can increase the improvement in rural presence. Furthermore, knowledge of forest ecosystems and their functioning in market systems can provide a new perspective on the value of fungal diversity in Sal-dominated forests.



Figure 3.1 Sarai Boda Collected from Sal Trees (*Shorea robusta*) in Gariaband Forest Area, Chhattisgarh

Materials and methods

Study Area

This study was conducted in three forestry districts in Gariaband district, Chhattisgarh: Chhura, Mainpur, and Gariaband blocks. These blocks are tightly packed in natural forests in Sal (*Shorea robusta*) and contain a huge amount of products non-timber forest products (NTFPs), such as Sarai Boda fungus, which is seasonal in the case of Sal and wood leaves. Tribal groups in the region, such as Gond, Kamar, and Halba, rely on collecting Sarai Boda as a source of seasonal income and diet. The ecosystem in this region is adapted to the spontaneous development of mushrooms due to wet, broad-leaved forests, strong humidity, high humidity and the rainy season.

Data Collection: In addition to collecting data from primary and secondary sources, fieldwork was conducted for research. Work in this field included the identification of the economic importance and traditional applications of Sarai Boda mushrooms, and the contribution to the maintenance of the survival measures of forest village tribes.

The roles of collection programs, harvest season, household income level, and gender in the Sarai boda collection were recorded using discussions in households; focus group discussions (FGDs), and interviews with local tribal collectors, Self-Help Groups SHGs, Van Dhan Yojana, and forest department officials.

The market values of Chhattisgarh and trends in Sarai Boda production in recent years have been assessed to determine commercial viability and storage, transportation, and marketing issues. The distribution and accessibility of Sarai Boda in selected locations and degraded forest areas of Sal forests have also been studied.

Result

1. Occurrence and Distribution of Sarai Boda Fungus: Seasonal observations on the ground of 5 forest sites show that they are most frequently observed in old and rotten sales (*Shorea robusta*), mainly in wet, moist woodlands. The fungus was present in approximately 28% of the monkey squid inventory of a 10 m x 10 m square. The highest density was found in the intact portion of the Mainpur block, followed by Gariaband and Chhura.

2. Seasonal Availability: Local informants indicated that Sarai Boda was found primarily after Monsoon (from October to January). Dense fungal bodies generally occur in 3-4 weeks and are collected during this short season.

3. Traditional Knowledge and Utilization:

- **Drug Use:** 72% of informants claimed that Sarai Boda is considered a natural medicine for diseases such as skin, digestive issues, and internal inflammation.
- **Use of culinary:** 39% of respondents stated that accidental consumption of the barn in the body, edible objects, deep fry or powder, mixed with traditional chutneys or decoctions.
- **Ritualistic or Cultural Use:** In certain tribal groups, the Border Hangar is used in religious or genetic rituals.

4. Collection and Processing:

- Bacteria are collected manually by small tools or by hand. Wash, dry in the sun, and store in a clay or bamboo container to avoid damage.
- Collection mainly brings together older women and their families.

5. Economic Value:

- The price in the dry Sarai Boda market is between ₹700-1200 per kilogram, depending on the quality and market conditions.
- On average, collectors receive 1-3 kilograms per season.

- The product is sold at local haats (weekly markets), sometimes by urban merchants and Ayurvedic practitioners.
- Collector's seasonal income: ₹2,500-3,500, additional household income.

6. Conservation and Availability Issues:

- Respondents feared reducing recovery, deforestation, and access to climate change.
- The healthy presence of mushrooms was only seen in 42% of the visited plots, warning of potential dangers to its stability.

Discussion

The results of this study are highlighted by the broader but lesser-known possibility of Sarai boda rather than useful and non-timber forest product (NTFPs) associated with *Shorea robusta* (Sal trees) in forests of Chhura, Gariaband and Mainpur. The presence of rotten or supported Sal trees indicates environmental specificity, which is optimal in wet forest conditions, consistent with searching for wood-shaped mushrooms in hosts of Dipterocarpaceae species (Shiva *et al.*, 2020). Ethno botanical knowledge maintained among indigenous groups is important for determining location, collecting, and using barn hangars. The use of fungi in general medicine for the treatment of infectious diseases, inflammation, and gastrointestinal diseases indicates that pharmacological studies are needed to prove these declarations. This follows previous research on traditional fungal medicines in the heart of India. From an economic standpoint, the seasonal income accumulated from the Sarai boda collection is modest in terms of monetary value, but it is a reliable and important supplement, especially for older women and residents. The fungus can become a commercially viable forest product during a stable meeting, as prices can reach ₹700-1000per kg in the local market. Nevertheless, the lack of formal market channels and the addition of value limit its general economic contributions. A famous local problem is the reduction in the

number of Sarai Boda. This can be caused by excessive, uncontrolled manipulation by reducing salting and changing microclimate factors. This corresponds to the increased environmental trends in forest mushroom environmental losses and sensitivity to climate change.

It is necessary to reach the full environmental and economic value of a Sarai Boda hangar:

- Sustainable harvest telephone practices at the community level
- Recognition of local documents and traditional knowledge.
- Development and development of scientific verification and marketing costs.
- Integrate Sarai Boda in policy to maintain biodiversity in forests and NTFPs management.

In general, this study highlights interdependence on forest ecology, a means of indigenous and fungal biodiversity, and is represented by Sarai Boda as a potential subject for future interdisciplinary research.

Nutritional value and health benefits

As much as Sarai Boda barn is famous for its unique taste, it is also very nutritious. Studies have shown that fungi contain substantial levels of proteins, carbohydrates, and important minerals. These nutrients make good foods to combat malnutrition. This is always a problem in most of India, especially in tribal regions. Additionally, Sarai Boda Barn includes, for example, medicated properties of heart health and the digestive tract. This has been reported to help weaken stomach problems and protect against heart disease. Given its nutritional profile, it is no surprise that the tribal community of Chhattisgarh has been completely for the barn for centuries. The fungi not only provide support to them, but also serve as a source of income during the monsoon season. As soon as

families have collected enough for consumption, they sell the remaining products in adjacent markets [3].

Conclusion

This study shows that Sarai Boda, a forest fungus associated with *Shorea robusta* (Sal trees), has important ethno botanical, medicinal, and economic importance in forest areas of the major blocks of Chhura, Gariaband, and Mainpur blocks of Chhattisgarh. Despite the fact that it is not often reported in the scientific literature, this fungus plays an important role in systems for the presence of tribal people, particularly in areas where there is a high level of dependence on forest resources. Sarai Boda is traditionally grown for treatment and nutrition, giving households a seasonal income. The fungal environmental niche - related to mature or rotten sales - contributes to the fact that it is vulnerable to forest degradation and unstable use. Field observations also show a slow decline in its accessibility, and urge significant management and maintenance. This study defines the possibility of delivering Sarai Boda as non-timber forest product (NTFPs) that should be included in stable forest funding. However, the lack of scientific awareness, commercial channels of value, and the main principles of harvesting have always limited its global economic potential.

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