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NON-TIMBER FOREST PRODUCTS: A ROUTE TO THE TRIBAL ECONOMY AT KONDAGAON FOREST DIVISION, CHHATTISGARH, INDIA

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ABSTRACT

Key performance indicators, such as NTFP production and beneficiary involvement, were carefully examined to understand program evolution. Key findings emphasize the necessity for continual monitoring to sustainably balance economic empowerment of local communities with conservation objectives. Further study is essential to discern the factors underpinning these fluctuations and optimize resource allocation for program efficacy. The tribal economy in the Kondagaon Forest Division of Chhattisgarh heavily relies on non-timber forest products (NTFPs). This study, spanning from 2019-20 to 2021-2022, meticulously examines the dynamics of NTFP collection and the involvement of beneficiaries through the Minimum Support Price (MSP) scheme. This study delves into the dynamics of non-timber forest product (NTFP) collection and the impact of the Minimum Support Price (MSP) scheme on beneficiary involvement in the Kondagaon Forest Division of Chhattisgarh from 2019 to 2022. NTFPs, including Harra, Baheda, Baheda Kachariya, Imli, Mahua flower, Imli flower, Karanj seed, Imli seed, and Sal seed, form a vital economic pillar for tribal communities. Over this period, production and beneficiary numbers exhibited significant variation. In 2019-20, 15,119.86 quintals of NTFPs supported 16,369 individuals. In 2020-21, production surged to 107,105.52 quintals, benefitting 67,991 beneficiaries, only to decrease to 49,431.37 quintals and 42,729 beneficiaries in 2021-22.These findings highlight the importance of continuous monitoring to strike a balance between economic empowerment and conservation goals. The fluctuation in NTFP figures is attributed to ecological conditions, policy changes, and market dynamics affecting NTFPs production. This research underscores the intricate relationship between NTFP-based livelihoods and conservation efforts and emphasizes the need to adapt strategies for sustainable economic development while preserving the forest ecosystem. Policymakers and stakeholders will find this study instrumental in guiding the sustainable growth of NTFP-dependent tribal economies in the Kondagaon Forest Division.
Keywords : Non-Timber Forest Products, NTFP Collection, Chhattisgarh, Sustainability, MSP Scheme, Conservation.

Introduction

In Chhattisgarh state, by supplying a wide range of commodities and services, non-timber forest products (NTFPs) play a key role in the livelihoods of communities who depend on forests, particularly indigenous populations. Among these goods are herbs, spices, fruits of the wild, resins, handicrafts, and other non-wood forest items. NTFPs provide enormous promise for economic emancipation and sustainable development in the setting of Kondagaon, Chhattisgarh, India, where tribal tribes are largely present. NTFP's is the next major alternative (Maske *et al.,* 2011) to foster the tribal's economy in study area. Along with this value addition increases NTFPs' economic viability by extending their market reach and generating employment and income-generating opportunities. Additionally, at global level more than 2 billion people dwelling in forest, depending upon NTFP's (Vantomme, 2003) because it offers an opportunity for indigenous communities to claim their autonomy, boost their level of independence, and actively engage in the larger economy.

The significance of Non-Timber Forest Products (NTFPs) in enhancing rural livelihoods and alleviating poverty in Chhattisgarh is well-established (Shrey *et al.,* 2017). It is easily observed that active participation of tribal women in the collection, marketing, and conservation of NTFPs has been seen (Dixit *et al.,* 2005). This study, through an extensive review of existing literature, aims to lay the theoretical foundation for comprehending the pivotal role of NTFPs within tribal communities, the concept of value addition, and its contribution to economic empowerment. NTFPs have garnered global attention due to their multifaceted impact, ranging from supporting household livelihoods and ensuring food security to reducing poverty and conserving biodiversity (Ahenkan & Boon, 2011; Opaluwa, Onuche, & Sale, 2011). Notably, NTFP markets are often characterized by imperfections, where collectors do not receive equitable compensation for their labour (Prasad *et al*., 1999), many challenges and opportunities inherent in NTFP markets. NTFPs have long been recognized for their potential to enhance rural livelihoods and alleviate poverty, particularly among tribal populations.

Materials and Methods

Study area

In Chhattisgarh, India, the Kondagaon Forest Division, overseen by the Chhattisgarh Forest Department, is renowned for its rich biodiversity and extensive forest cover. Situated between latitudes 19.6000° and 19.9000° N and longitudes 81.7000° and 82.1000° E, with the gps coordinates of 19° 36' 0.0000" N and 81° 40' 11.9928" E. These opportunities encompass the study of unique soil compositions, Non-Timber Forest Products (NTFPs), and the diverse flora and fauna that thrive within the division. There are numerous rare and endangered species among the many different kinds of plants and animals. The division's forests play a key role in the natural harmony of the area and are crucial for wildlife conservation. The region is particularly renowned for its indigenous communities (Gonds, Abujhmaria, Muriya, Doriya, Dhruva, Bhatra, and Halba, etc.), which have long lived in harmony with nature. The indigenous groups living around and in the forests have a long history. The area is well-known for its wide variety of non-timber forest products (NTFPs), such as Mahua flowers used in alcoholic beverages, Tendu leaves used to make Beedi, Sal seeds used to extract oil, Harra fruits with medicinal characteristics, and Chironji seeds used in cooking, etc. By raising the value of forest resources, the commercialization of edible NTFPs has the potential to create more jobs, income, and possibilities for NTFP-based businesses (Sivaji, 2009).

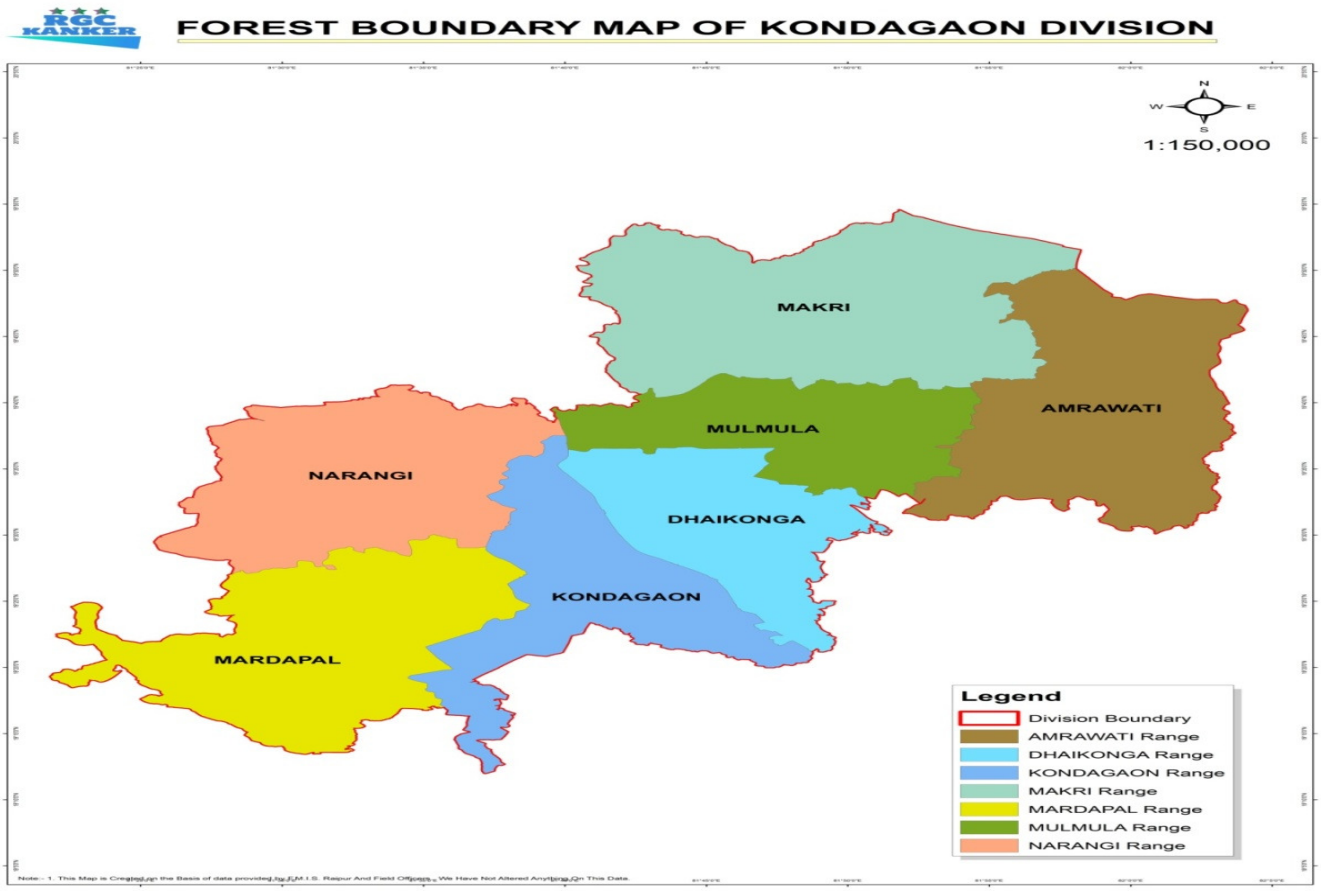

Fig. 1 : Map of Kondagaon, Chhattisgarh (Source :RGC Kanker office)

This study's methodology involves a theoretical and methodical analysis of the data that was gathered. Both primary and secondary sources were used to support it. Research was conducted in 7 ranges- Makri, Amravati, Mulmula, Dahikonga, Kondagaon, Narangi, Mardapal of Kondagaon forest division. With the use of a carefully planned interview schedule, the core data were gathered. The secondary data were gathered from Forest department MSP record sheets and a variety of publications and government websites and local offices.

Results and Discussion

In our study of non-timber forest product (NTFP) dynamics in the Kondagaon Forest Division from 2019-20 to 2021-22, notable trends emerged.

Production Trends: Significant heterogeneity was seen in NTFP production. A total of 15,119.86 quintals were harvested in 2019–20, helping 16,369 people. The production surged to 107,105.52 quintals the next year, feeding 67,991 recipients. However, in 2021–2022 only 42,729 people benefited from the production, which fell to 49,431.37 quintals.

Table 1 : Factors Influencing NTFP Production Variations

Factors	Explanation
Ecological and Seasonal Factors	NTFPs are influenced by natural growth, cycles and environmental conditions, Different NTFPs have varying growth seasons.
Climatic Conditions	Extreme weather events, such as droughts or floods, can impact NTFP abundance and availability.
Resource Depletion	Overharvesting and unsustainable collection practices can deplete NTFP

	resources, leading to reduced availability and lower production.
Market Demand	Market demand and pricing influence collection efforts. Higher demand or prices can lead to increased production.
Policy and Incentives	Government policies, such as the MSP scheme, can influence collector, motivation. Changes in policy, incentives, or support programs impact production.
Technological Advances	Improved collection, processing, and value addition technologies can enhance production efficiency.
Community Engagement	Community involvement and awareness about sustainable practices can affect NTFP production levels.
Natural Phenomena	Pest outbreaks, diseases, or ecological disruptions can affect NTFP-bearing species and reduce yield.
Cultural Practices	Cultural and traditional practices may influence NTFP collection timing and extent.

Beneficiary Involvement: Beneficiary numbers followed a parallel pattern. They increased from 16,369 in 2019-20 to 67,991 in 2020-21, subsequently decreasing to 42,729 in 2021-22. The decrease in beneficiaries of non-timber forest products (NTFPs) in the Kondagaon Forest Division from 2020-21 to 2021-22 could be attributed to several factors:

1. **Ecological Variability:** NTFP availability is often influenced by ecological conditions, including climate, weather patterns, and the natural growth cycles of NTFP-bearing species. If there was a decline in NTFP abundance due to unfavourable ecological conditions during 2021-22, it could lead to fewer beneficiaries as there would be fewer resources to collect.
2. **Policy Changes:** Government policies and interventions can impact NTFP collection and distribution. Any changes in the MSP scheme, regulations, or incentives for NTFP collectors could affect the number of beneficiaries. A reduction in support or changes in eligibility criteria may result in fewer people participating. The Ministry of Tribal Affairs has revised the MSP for MFP list and has included 14 additional MFPs in the list.
3. **Market Dynamics:** The demand and market value of certain NTFPs can fluctuate over time. If the market for specific NTFPs was less favourable in 2021-22, collectors might have been less motivated to participate, leading to a decrease in beneficiaries.
4. **Resource Depletion:** Over-exploitation of NTFPs without proper sustainable management practices can lead to resource depletion. If certain NTFPs were over-harvested in the previous years, it might have reduced their availability in 2021-22, resulting in a decrease in the number of beneficiaries.
5. **Awareness and Participation:** Awareness about the MSP scheme and NTFP collection opportunities can also influence beneficiary involvement. Changes in awareness campaigns or outreach efforts could impact the number of individuals engaging in NTFP collection.
6. **Local Factors:** Local factors such as community dynamics, migration patterns, and socio-economic conditions can also play a role. Changes in these factors may affect the willingness and ability of local residents to engage in NTFP collection.

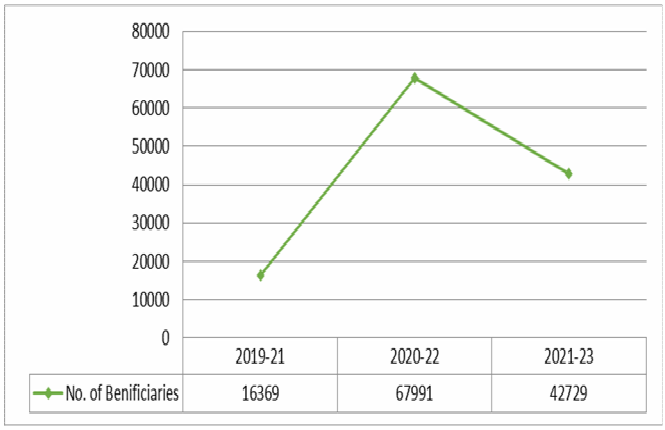

Fig. 1 : Graph showing No. of beneficiaries under MSP scheme

It's essential to conduct a more in-depth analysis and potentially collect additional data to pinpoint the specific reasons for the decrease in beneficiaries accurately. Such an analysis would involve examining ecological, policy, market, and social factors that might have contributed to the observed decline in NTFP beneficiaries during the specified period.

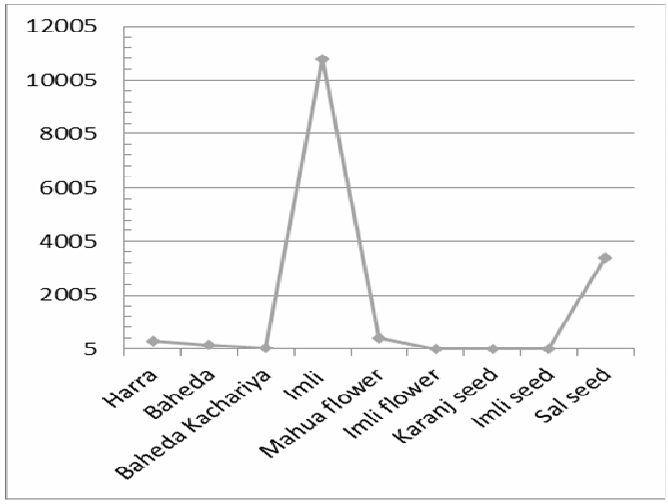

Fig. 2: NTFP Procuction in 2019-20(In Quintals)

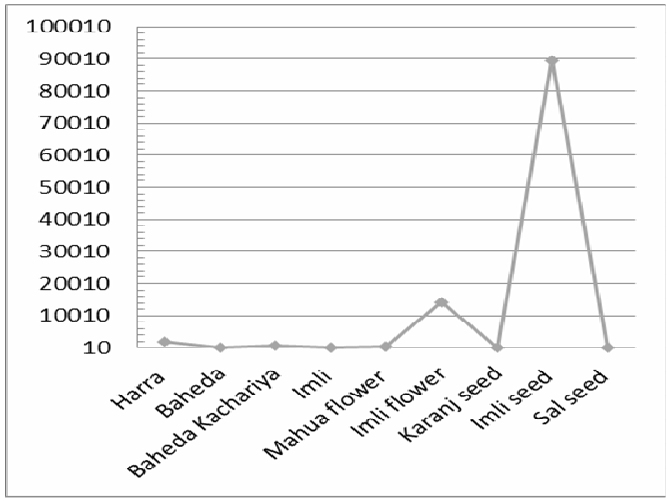

Fig. 3: NTFP Procuction in 2020-21(In Quintals)

The findings of this study, conducted in the Kondagaon Forest Division, Chhattisgarh, resonate with a growing body of research focused on Non-Timber Forest Products (NTFPs) and their pivotal role in the context of sustainable development, conservation, and tribal livelihoods aligning with Ahenkan and Boon's (2011) emphasis on NTFPs as a source of livelihood support. These findings reinforce the importance of ongoing monitoring and adaptive management to harmonize economic empowerment with conservation objectives, echoing the principles of sustainable NTFP management highlighted by Pandey, Tripathi, and Kumar (2016) and Sivaji (2009). Moreover, they underscore the potential for community-based conservation efforts, as exemplified by Dixit and Ekka's (2023) work on mushroom diversity conservation by tribal women, and contribute to our understanding of the ethnobotanical significance of NTFPs in regions like Chhattisgarh, as emphasized by Sinha *et al*. (2016). Effective capacity building programs are vital for local empowerment (Maske *et al*., 2011). Prioritizing locally demanded NTFP species in afforestation and reforestation ensures sustainable production (Islam & Quli *et al*., 2016). Bridging knowledge and community needs supports both livelihoods and conservation.

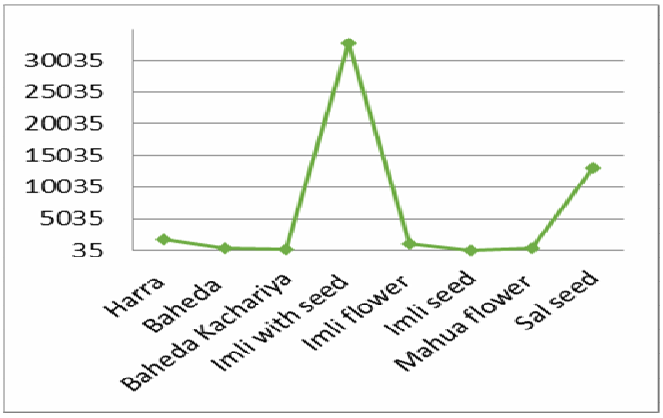

Fig. 4: NTFP Production in 2021-22

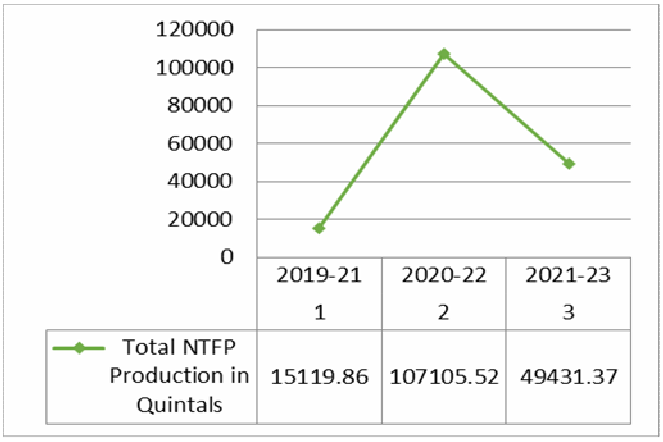

Fig. 5: Total NTFP Production in Quintals

Conclusion

The study shed light on the dynamic relationship between NTFP production, beneficiary involvement, and the complex web of ecological, economic, and policy factors that influence these trends. Our findings reveal a notable fluctuation in NTFP production and beneficiary participation over this three-year period. While the year 2020-21 witnessed a substantial upsurge in both production and beneficiaries, with production levels reaching 107,105.52 quintals and beneficiaries numbering 67,991, 2021-22 saw a significant decline in production to 49,431.37 quintals and a drop in beneficiaries to 42,729. These variations can be attributed to a multifaceted interplay of factors. Ecological conditions and seasonal variations impact NTFP availability, while market dynamics and government policies, including the Minimum Support Price (MSP) scheme, affect economic incentives for collectors. Resource depletion, climatic events, technological advances, and community engagement also play significant roles in shaping NTFP production patterns. This study underscores the importance of continued monitoring and an adaptive strategy in the sustainable management of NTFPs. Balancing economic empowerment with conservation objectives requires a nuanced understanding of the factors driving production variations. Our research underscores the need for further investigation to discern the precise causes of these fluctuations, optimizing resource allocation for program efficacy.

In conclusion, NTFPs remain a vital economic pillar for tribal communities in the Kondagaon Forest Division. Sustainable management and community engagement are imperative to ensure the long-term viability of NTFP-based livelihoods while preserving the forest ecosystem. The findings from this study contribute to the broader discourse on NTFP management and offer insights to guide policymakers, stakeholders, and local communities toward sustainable development and conservation goals.

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