

# Non –Timber Forest Products (NTFPs) for sustainable livelihood of Indian Tribals

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## Abstract

Tribal people and forest are known as the best combination ever. Non-timber forest products (NTFPs) are essential to the livelihoods of communities around the world as well as the sustainable management of forests. NTFPs include a wide variety of plant and animal-based resources that are taken from forests and other natural landscapes, with the exception of wood. These resources support ecosystem services, biodiversity preservation, and community well-being. Poor harvesting methods and overexploitation in the face of rising market demand, however, are endangering the sustainability of these resources and, consequently, the livelihoods of tribal groups that depend on the forests. As per estimates, 275 million poor rural and tribal people in India depend at least in part on NTFPs for their daily needs and source of income. The NTFPs can act as a crucial safety net for a living during difficult times. This chapter aims to describe the scope, dependence, and livelihood importance of NTFPs for communities that depend on forests. The challenges and NTFP management tactics that will aid in the sustainable exploitation of resources and the creation of livelihood chances for the most disadvantaged members of society are covered in the following chapter.

**Key words:** Tribal,Forest,Non-timber,Livelihood

## I. Introduction

India is the home to a wide variety of forest ecosystems, each with its own distinctive traits, vegetation, and animals. The nation's forests are home to a diverse range of wildlife and offer a variety of ecological services, such as carbon sequestration, water balancing, and habitat for different species. Non-Timber Forest Products (NTFPs), which have played a significant role in the lives of indigenous and local populations for many years, are abundant in India's forests. NTFPs are important for sustaining livelihoods, advancing cultural traditions, and preserving biodiversity. Timber, food, fodder, medicine, and building materials for sustenance are just a few of the various goods that may be found in forests. Forestry is crucial to improving rural communities' quality of life, especially for indigenous people. India has had recent tremendous economic growth, but poverty still represents a huge development concern. In the country, more than 380 million people are considered to be below the poverty line. India's forests are home to a diversity of aromatic and medicinal plants, fruits, leaves,gum,bamboos,seeds, canes and resins. In India, nearly equal to 3,000 plant species produce NTFPs that are valuable economically. From small-scale forest based industries, up to 50% of the income of around 25% of India's rural labour population is generated, which basically depend on NTFPs. To sustain rural economy and rural livelihoods NTFPs play a key role in India, still their potential is woefully underutilized , and they have made little progress in reducing poverty. The income of those who collect and process NTFPs is quite low., In some cases even less than they would from wage labour. It is crucial to remember that we require information on levels of production, extraction, and regeneration in order to use forests, and NTFPs in particular, in a sustainable manner. Tribal people depend on forest products and there is an ambiguity due to on even nature of forest composition deforestation and seasonality. The Forests Right Act of 2006 grants tribal people, who are legally referred to as "Schedule Tribes" in India, the rights to gather forest products, enter forest areas, use forests as pastureland, and to maintain and safeguard communal forest resources. To utilize timber-based forest products forest dwellers only require the consent of the Forest Rights Committee, according to the "Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Amendments Rules, 2012".Therefore, Scheduled Tribes have particular constitutional rights regarding the use and harvesting of NTFPs. However, as a result of development activities, unrestrained and illogical deforestation, mostly for the extraction of timber from India's dense forest areas, The amount of NTFPs being collected has decreased as a result of the forest becoming fragmented or being lost totally (Dutta et al. 2017).

## II. NTFP

The term "non-timber forest products" (NTFPs) refers to all biological items derived from forests for human use but not including timber. With an annual revenue of more than 6000 cores of rupees, it is one of the largest unorganised sectors. Despite the fact that over 275 million people in India (27% of the population) depend on this sector for their lives in cash and for survival, it is still unrecognised. In the state like Odisha, NTFPs make for between 10 and 55 percent of total household income, and about 80 percent of forest residents rely on forests for 25 to 50 percent of their food requirements. Since women typically collect NTFP, this indirectly promotes women's financial empowerment. According to estimates, the NTFP industry alone can generate around 10 million new workdays per year for the nation. According to many experts, it is believed that encouraging the sustainable use of NTFPs could result in a situation where biodiversity preservation and poverty reduction are both achieved. Forest conservation and poverty reduction can result from raising awareness of the benefits of forests among local users. Basically Non-Timber Forest Products divided into two groups. In

group 1- NTFPs that derived from plant origin i.e. Medicinal plants ,Spices & condiments, Aromatic plants, Fatty oil yielding plants, Bamboo,Canes,Fuel wood,charcoal making, Bidi wrapper Leaves, Beads for Ornaments, Saponin and Making nut plant. And in group 2 - NTFPs of animal origin which includes Honey,Lac,Tussar etc.India's various ecosystems, rich biodiversity, and cultural legacy make it an important source of a wide range of non-timber forest products (NTFPs). For many centuries, NTFPs have been essential to the well-being of indigenous and local communities. In India 24.62 % of areas are covered by forest. In those forest many non-timbers forest products like Kendu leaves,Sal leaf,Sal dammer,Mahua,bamboo,Genduli,Dhatki,Amla,Chia seeds,Broom grass,Bael, Nagarmortha,Kutaj,Siris,Bahad,Harida,Tejpatta,Karanj,Kusum,Siali are available . From this products various plant parts like leaves,flower,gums,fruits,roots has been used for various purpose. In northern parts of India hill broom,sonapatha,medicinal plants,makoi,Talispatra,Gilloe,Palasha flower.In west products like myrobalan,karanj,kokum,bantulsi are available .In south parts of the country , shatavari,kalmegh,tamarind,amla,vavdingwild honey,neem seeds are various kind of non timber forest products that has been shown.

### **III. NTFPs current scenario**

There are about 100 million individuals who live near or in forest. Most of the 70 million tribal people live in the forests. The majority of NTFP gatherers and earners are women. According to estimates from the World Bank, 275 million rural, underprivileged Indians depend on NTFPs.In India, NTFPs employ 55% of the forestry industry's workforce and bring in \$2.7 billion annually.. About one-third of India's rural population depends on forestry sector for 50 percent of their household income. Additionally, 50 percent of forest incomes and 70 percent of forest-based export revenues originate from these resources. In the states like Odisha, Chhattishgarh, Madhya Pradesh, Andhra Pradesh and Maharashtra more than 75 percent of the traded NTFP in India has been produced.Tribal populations and other people living in and around the forest are fed by minor forest crops. With adequate consideration for the creation of jobs and revenue, such produce should be safeguarded, developed, and their production should be increased. The communities residing in and surrounding forest regions, especially the indigenous groups, should legitimately exploit the rights and concessions from the forest. Besides that some of the focused objectives of the policy are preservation and, if necessary, restoration of the ecological balance that has been negatively impacted by the significant loss of the nation's forests will help to maintain environmental stability, maintaining the country's remaining natural forests and their various flora and fauna, which serve as a representation of the incredible ecological diversity and inherited treasures of the nation, reducing soil erosion and denudation in the catchment areas of rivers, reservoirs and lakes in order to "conserve water and soil, to minimize droughts and floods, and to hold-up reservoir silting, extensive afforestation and different programs on social forestry notably on all degraded, denuded and infertile lands, to significantly increase the country's forest/tree cover, Women should be included in the creation of a large-scale people's movement to pull off these ambitions and diminish the damage on already-existing forests.

### **IV. Impact of NTFPs on Tribal Livelihood**

Tribal populations' means of subsistence are significantly impacted by non-timber forest products (NTFPs), notably in India. The socio-economic, cultural, and ecological facets of tribal populations' life are significantly shaped by NTFPs. NTFPs have many kind of significant effects on tribal livelihoods Over 80% of forest dwellers in Madhya Pradesh, Odisha, Bihar and Himachal Pradesh deepened completely on NTFPs. 39 percent of landless people work in NTFP collecting as a secondary activity, and 17% of them are dependent on daily wage labour, mostly the collection of NTFPs. According to a rough estimate, the percentage of family income made by selling of NTFPs varies among different states and from one location to another. It ranges from 5.4% to 55%. More than 60% of households in Odisha's tribal regions rely on revenue from forests that ranges from 15% to 50% of their annual income. According to estimates, NTFPs account for 1.6 million person-years of employment in India, whereas the forestry industry as a whole employs 2.3 million people. Instead of this in livelihood diversification, for indigenous groups, NTFPs offer a significant source of revenue and a way to diversify their sources of subsistence. They provide an alternate source of income and lessen reliance on traditional pursuits like agriculture.For food security numerous NTFPs, including edible fruits, nuts, and tubers, help tribal households maintain a sufficient supply of food, particularly when there are shortages in the agriculture sector. They add to diets and supply necessary nutrients. For income generation the sale of goods in adjacent marketplaces, local trade, and the provision of businesses that employ these resources as raw materials for diverse products are all ways that NTFPs bring in money for tribal communities.In addition to within tribal tribes, NTFPs frequently hold cultural and spiritual value. They are included into ceremonies, rituals, traditional healing, and other cultural practises, which strengthen the bond between a community and its surroundings.Gender role is an important aspects in every field, men and women work together in many indigenous groups to collect, process, and market NTFPs. By giving them opportunities to earn money and a greater say in home decisions, this can empower women.NTFPs also make a big impact on communication cohesion . Collective efforts are frequently used in the gathering and management of NTFPs, which strengthens tribal members' sense of community and collaboration. The impact of NTFPs on tribal lives can, however, vary depending on a number of variables, including the availability of resources, market access, institutional arrangements, and outside forces. In order to maintain the good effects of NTFPs on tribal livelihoods while preserving the ecological and cultural integrity of their ecosystems, it is imperative that sustainable management practises, community involvement, and supportive policies be implemented.

### **V. Problem and challenges**

When gathering Non-Timber Forest Products (NTFPs), tribal groups frequently encounter a variety of difficulties and problems. These difficulties may significantly affect their livelihoods, general wellbeing, and the long-term viability of NTFP resources. Problems and challenges like deforestation, in some places outsiders are collecting NTFPs, barrier caused by different forest rules and regulations regarding collection of NTFPs from restricted forest area, Injury caused by attack of wild animals are few of them.Marketing is a major

aspects in NTFPs. No proper sustainable harvesting, old and traditional production technology and methods, communication and transportation facilities, less availability of good market, erratic and lower prices, Commercialization in production of the NTFPs, no suitable research on market development, tribal communities' capacity to efficiently administer and profit from NTFPs may be hampered by a lack of support from governmental organisations and institutions.. Tribal communities could not have access to fair marketplaces or strong bargaining positions, leaving them open to intermediaries and dealers who might take advantage of their ignorance or lack of market access. In the tribal areas there are less knowledge regarding production, use and the way of marketing, lacking of value added NTFPs, absence of definite and proper action plan at state and national level for extraction and marketing are some of the major issues in NTFPs management. Furthermore unsustainable collection methods can result in the overharvesting of NTFPs, diminishing local resources and affecting future availability. This is frequently the result of growing demand and external market pressures. For many tribal populations, the forests and resources they rely on are not subject to strong tenure rights. Conflicts with other stakeholders, such as governmental organizations and commercial interests may happen. The timely collection and transfer of NTFPs might be hampered by inadequate infrastructure, such as transportation and storage facilities, which can result in spoiling and lower economic returns. Many tribal communities struggle to increase their revenue from NTFPs because they lack the knowledge and resources needed for processing and value addition. The availability and quality of NTFPs can be impacted by changes in climate patterns, habitat destruction, and environmental degradation, which can have an effect on tribal populations' means of subsistence. Tribes frequently don't have access to credit or other monetary services which can make it hard for them to participate in NTFP-related projects or react to market changes. Tribal collectors may face health and safety issues when collecting some NTFPs, such as medicinal plants or resins, which may expose them to harmful plants. Access to NTFPs may also be hampered by encroachment on tribal territory, deforestation, and displacement brought on by construction projects. Legal frameworks governing NTFPs that are unclear or inconsistent can lead to confusion and disagreements over administration, access, and ownership.

## **VI. Minimum Support Price Scheme on NTFPs**

At the conclusion of 2013–14, the Indian government unveiled the "Mechanism for Marketing of Minor Forest Produce (MFP) through Minimum Support Price (MSP) and Development of Value Chain" programme. By paying MFP gatherers a reasonable price for the MFPs they gather, the programme is intended to improve their quality of life. This programme primarily covered 10 Minor Forest Produces in 9 different states. Afterwards, it was extended to include all States and 24 Minor Forest Produces. The State Level Agency (SLA), which is selected by the State Government, take all responsibility for proper implementation of the Scheme. The Ministry of Tribal Affairs provides the SLA with a revolving fund. Instead of a demand/supply system, traders most frequently decide the price of MFP. Extremism on the left is prevalent in significant parts of the MFP states. The plan, titled "Marketing of MFP through MSP and Development of Value Chain for MFP," was jointly suggested by the Planning Commission and Expenditure Finance Committee. MFPs are utilised for household needs and offer individuals who live in wooded areas with basic nourishment, making up a significant portion of their non-cash income. MFPs are also a source of financial income for many indigenous groups who engage in agriculture, particularly during lean seasons. The programme serves as a form of social protection for MFP gatherers, the majority of whom are ST members. The plan established a framework for ensuring that the gatherers received reasonable financial compensation for their efforts in gathering, primary processing, transportation, storage, packing etc. The plan aims to provide gatherers a portion of the sales revenues once costs are subtracted. The programme intends to address further sustainability-related challenges. Different objectives of this schemes are (i) To raise the MFP gatherers' level of income by paying them a deserve price for the produce they pull together (ii) To ensure sustainable harvesting of MFPs (iii) In accordance with the requirements, 75% of the working capital must be provided by the Centre as revolving funds. for the first two years and divide any losses 75:25 with the state.

## **VII. Conclusion**

These NTFPs play a crucial role in India's traditional knowledge systems, cultural practises, and rural livelihoods. To secure their availability for future generations while preserving the health of the forest ecosystem, sustainable management and conservation initiatives are essential. The edible NTFPs are essential to tribal and rural residents' for food and nutritional security. The expansion of NTFPs is however being hampered by several problems, such as the devastation of natural territory, haphazard pricing, and uncontrolled population expansion. Enhanced harvesting and suitable processing techniques, sustainable and proper management of forest resources and bettering the way of livelihood of mankind all contribute for the better use of Non timber forest products. The woods of India are a rich source of NTFPs that support economic growth, ecological preservation, cultural heritage, and traditional knowledge. For the welfare of both local populations and the environment, it is crucial to acknowledge the significance of NTFPs and promote sustainable practises. To eliminate different problems a multifaceted strategy that combines community empowerment, capacity building, sustainable resource management, regulatory reforms, market linkages, and the acknowledgement of tribal rights is needed to address these issues. The emphasis should be on striking a balance between the economic advantages of NTFPs and their conservation, as well as the maintenance of tribal customs and traditional knowledge. It's vital to keep in mind that the NTFP picture can fluctuate significantly throughout different parts of India, and local contexts have a big impact on how these resources are used and conserved. I advise checking recent publications, research, and official sources connected to forest and biodiversity management to gain the most latest and region-specific information on the present situation of NTFPs in India. To guarantee their ongoing availability and the health of both communities that depend on forests and the ecosystems they inhabit, proper management of NTFPs is essential. A challenging task that calls for the cooperation of local communities, policymakers, and conservation organisations is balancing economic use with conservation initiatives. Recognising the value of NTFPs and promoting their sustainable usage helps to reduce poverty and preserve India's distinctive forest ecosystems. If people and Government collectively take different actions to utilize this kind of hidden treasures of the forests, than it will enhance the economy of India in a better way. To protect this both everyone need to come forward.

## Reference

- [1] Dash, S. S., & Misra, M. K. (2001). Studies on hill agro-ecosystems of three tribal villages on the Eastern Ghats of Orissa, India. *Agriculture, ecosystems & environment*, 86(3), 287-302.
- [2] Dinda, S., Ghosh, S., & Chatterjee, N. D. (2020). Understanding the commercialization patterns of Non-timber Forest Products and their contribution to the enhancement of tribal livelihoods: an empirical study from Paschim Medinipur District, India. *Small-scale Forestry*, 19(3), 371-397.
- [3] Dutta, S., Sahana, M., & Guchhait, S. K. (2017). Assessing anthropogenic disturbance on forest health based on fragment grading in Durgapur Forest Range, West Bengal, India. *Spatial Information Research*, 25, 501-512.
- [4] <http://www.cifor.org/NTFPcd/pdf/NTFP-current.pdf>.
- [5] <https://forest.odisha.gov.in/sites>.
- [6] [https://mpforest.gov.in/img/files/Policy\\_NFP.pdf](https://mpforest.gov.in/img/files/Policy_NFP.pdf)
- [7] Islam, M. A., & Quli, S. M. S. (2017). The role of non-timber forest products (NTFPs) in tribal economy of Jharkhand, India. *International Journal of Current Microbiology and Applied Sciences*, 6(10), 2184-2195.
- [8] Mahapatra, A. K., & Shackleton, C. M. (2011). Has deregulation of non-timber forest product controls and marketing in Orissa state (India) affected local patterns of use and marketing. *Forest Policy and Economics*, 13(8), 622-629.
- [9] Mallik, R. M. (2000). Sustainable management of non-timber forest products in Orissa: Some issues and options. *Indian Journal of Agricultural Economics*, 55(3), 384-397.
- [10] Manikandan K, Prabhu S. 'Indian Forestry (A breakthrough approach to forest service)', Jain brothers (New Delhi), 2012, 453-455.
- [11] Pandey, A. K., Tripathi, Y. C., & Kumar, A. (2016). Non timber forest products (NTFPs) for sustained livelihood: Challenges and strategies. *Research Journal of Forestry*, 10(1), 1-7.
- [12] Panigrahi, S., Meher, D., & Siri, P. (2019). Reliance and livelihood significance of non-timber forest products available in Odisha: A review. *Journal of Pharmacognosy and Phytochemistry*, 8(1), 2427-2433.
- [13] Prabakaran, R., Kumar, T. S., & Rao, M. V. (2013). Role of non timber forest products in the livelihood of Malayali tribe of Chitteri hills of Southern Eastern Ghats, Tamil Nadu, India. *Journal of Applied Pharmaceutical Science*, 3(5), 056-060.
- [14] Rasul, G., Karki, M., & Sah, R. P. (2008). The role of non-timber forest products in poverty reduction in India: Prospects and problems. *Development in practice*, 18(6), 779-788.
- [15] Rout, S. D., Panda, S. K., Mishra, N., & Panda, T. (2010). Role of tribals in collection of commercial non-timber forest products in Mayurbhanj District, Orissa. *Studies of Tribes and Tribals*, 8(1), 21-25.
- [16] Saxena, N. C. (2003). *Livelihood Diversification and Non-Timber Forest Products in Orissa: Wider Lessons on the Scope for Policy Change?*. London: Overseas Development Institute.
- [17] Shit, P. K., & Pati, C. K. (2012). Non-timber forest products for livelihood security of tribal communities: A case study in Paschim Medinipur district, West Bengal. *Journal of Human Ecology*, 40(2), 149-156.
- [18] Talukdar, N. R., Choudhury, P., Barbhuiya, R. A., & Singh, B. (2021). Importance of non-timber forest products (NTFPs) in rural livelihood: A study in Patharia Hills Reserve Forest, northeast India. *Trees, Forests and People*, 3, 100042.
- [19] Ticktin, T. (2004). The ecological implications of harvesting non-timber forest products. *Journal of Applied Ecology*, 41(1), 11-21.
- [20] Wagh, V. V., Jain, A. K., & Kadel, C. (2010). Role of non-timber forest products in the livelihood of tribal community of Jhabua district (MP). In *Biological forum-An Int J* (Vol. 2, No. 1, pp. 45-48).