

NON-WOOD FOREST PRODUCTS CONTRIBUTION IN TRIBAL ECONOMY

(A case study in South Bihar and South West Bengal)

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Introduction

Forests in India offer to mankind, in addition to timber, many valuable forest products like leaves of commercial importance, bamboos and canes; gums, resins and oleo-resins, oil seeds; essential oils, drugs and spices, fibre and flosses; tans and dyes, animal products and edible products. These are collectively known as Non-Wood Forest Products (NWFP) which are derived from about 3000 species of plants growing in forests of India (Goel, 1990). Apart from its contribution to forest revenue, NWFP contribute significantly in tribal/rural economy as about 60% of the products are consumed locally. Besides this it offers employment to about one million people every year and has potential to almost double it. Hence employment generation, poverty alleviation and increase in productivity are the three major considerations behind undertaking NWFP extension programmes. With this view, a case study was undertaken in predominantly tribal region of South Bihar and South West Bengal to determine the contribution of NWFP in augmenting the income of tribal family.

Methodology

The data on socio-economic status and

collection of Non Wood Forest Products were collected in pre-designed format in tribal dominated villages located in South Bihar and West Bengal. For this purpose ten selected tribal villages were taken in Bihar, five in Palamau District and five in Singhbhum District, and five in Midnapore District of West Bengal. Villages were selected randomly after selecting three tribal dominated districts, two in South Bihar and one in West Bengal. The survey was conducted in pre-designed format in selected villages and every data was recorded on Non-Wood Forest Products collected by them. The trend in the monthly/seasonal collection of NWFP by the tribals, was statistically examined and the results viz average income per family based on NWFP and average quantity of NWFP collected by each family etc. in different villages were tabulated.

Results and Discussions

The average quantity of NWFP collected by the villagers in the selected villages alongwith average earnings from the collection of NWFP are summarised in Table 1. From the data collected in the tribal regions of Bihar and West Bengal, it is clear that Bihar, being rich in NWFP, has higher dependence of population on it.

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Table 1

Average quantity and earnings per family of Non Wood Forest Products collected from the selected tribal villages

NWFP	Average quantity collected per family	Average earnings per family (Rs.)
(a) Bihar		
<i>Maduca latifolia</i> (Mahuwa)	254 kg	501
<i>M. latifolia</i> seeds	38 kg	179
<i>Diospyros melanoxylon</i> (Kendu) leaves	330 kg	3169
<i>Shorea robusta</i> (Sal) leaves	529 kg	454
<i>S. robusta</i> seeds	37 kg	66
Mushroom (Edible fungi)	93 kg	628
<i>Tamrindus indica</i> (Tamarind)	221 kg	514
<i>Cytisus</i> Spp. (Brooms)	579 nos	2745
(b) West Bengal		
<i>Maduca latifolia</i>	14 kg	63
<i>M. latifolia</i> seeds	27 kg	257
<i>Diospyros melanoxylon</i> leaves	68 kg	675
<i>Shorea robusta</i> seeds	58 kg	62
<i>S. robusta</i> leaves	95081 nos	1675
Mushroom (Edible fungi)	3 kg	39

Table 1 reveals that the average income from collection of tendu leaves is maximum in Palamau District of Bihar and second important is broom, which is a popular NWFP in Singhbhum District of Bihar. Third in the order is sal leaf, which is collected mostly in Midnapore District of West Bengal and part of Singhbhum District of Bihar.

Table 2 shows the percentage of families involved in collection of different NFWP in the selected villages of this tribal region. About 41% families in Palamau District collect mahua flowers and 31% families in Singhbhum District collect the material for Brooms. About 73% families in Midnapore District of West Bengal collect sal leaves. In Palamau District about 31% the families are engaged in collection of kendu leaves for supply to Bihar State Forest Development Corporation as it is a nationalized forest

produce. About 59 and 56 per cent families of Midnapore District of West Bengal collect sal seeds and mushrooms respectively. The above information clearly shows the impact of Non-Wood Forest Products on the tribal economy and their dependence on such products.

Table 2

Percentage of families involved in collection of different NWFP in the selected villages of tribal region

NWFP	Bihar	West Bengal
Mahuwa	41	28
Mahuwa seeds	23	7
Kendu leaves	31	4
Sal leaves	6	73
Sal seeds	3	59
Mushroom	23	56
Tamarind	55	-
Brooms	31	-

Economy

The life of tribal and rural population is intricately linked with the NWFP. Their basic needs and livelihood earnings are partly but significantly supported from collection and processing of these items. The cattle population living in and around forest areas depend on the forest for grazing and fodder. Forest dwellers need bamboos for hut construction, wood for agricultural implements, oil for cooking and burning and medicinal plants in cases of petty sickness and injuries. There are many products which are not extracted fully and are left in forest due to their occurrence in remote and inaccessible localities. Some products like mahua flowers, mushroom and fruits collected by tribals are consumed by them. It has been estimated that out of total forest revenue of Bihar, about 17% is contributed by NWFP whereas in West Bengal the figure is only 1.7%. Some of the items like, lac and tasser have been major revenue earner for the Chotanagpore area

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of Bihar and so their collection, processing and grading have assumed significance.

Collection, processing and marketing of NWFP provide significant employment to the rural communities. Since many NWFP are seasonal, most of these products provide employment during different parts of the year. Improved technology for processing NWFP will improve the employment opportunity for longer periods during the year. It had been estimated that the employment generation from collection, processing and marketing of NWFP is more than half of that available in the forestry sector. Kendu leaves, sal seeds and mahuwa flowers provide bulk of employment in Bihar.

NWFP

The production of lac and tassar in the State of Bihar ranks very high among the other States of the country and hold a great potential for improving the rural economy of the State. The other NWFP like kendu leaves and oil seeds, mahuwa, sal leaves, tamarind, medicinal herbs and plants, honey and wax play a critical role in the livelihood of forest fringe dwellers. They generate employment, mostly self-employment, and are capable of bringing quick financial returns. Kendu leaves and oil seeds are nationalised items and are collected departmentally by Forest Development Corporation. Collection is done through LAMPS and other agencies.

In West Bengal tribals have been given the right to collect some NWFP items for their consumption. Monopoly rights for collection of Kendu leaves, oil seeds are given to LAMPS. West Bengal Tribal Development Corporation provides financial help and assists in marketing.

The following items of NWFP available in the forests of Palamau and Singhbhum Districts of Bihar and Midnapore District of West Bengal are being collected by tribals of this region.

Lac : Lac is one of the most important NWFP in the tribal regions of Bihar and West Bengal, cultivation of which is confined mostly to the fringes of the forests and village wastelands. The hosts are *Ziziphus mauritiana*, *Butea monosperma* and *Schleichera oleosa*. Bihar produces over 66% of the total sticklac production in India. Lac is predominantly grown in Chotanagpur Division and Santhal Parganas of Bihar. Palamau and Singhbhum Districts produce on an average 28 and 16% respectively of the total sticklac produced in the State. Lac cultivation is prone to adverse impact of extreme heat and predator attacks causing scarcity of broodlac. Some broodlac farms were established in the State with the object of producing sufficient broodlac to the potential cultivators at the appropriate time and also serve as centres for demonstration of improved scientific methods of lac cultivation. But most of the farms are today dormant or reported to be uneconomic. The revival of these farms would give a tremendous boost to the production in the State and bring good economic returns to the tribal people and weaker sections. The State of West Bengal on an average produces about 7.4% of the total sticklac production in the country. It is mainly produced in Midnapore, Purulia, Murshidabad and Bankura Districts of which Purulia District accounts for 90.5% of sticklac produced in West Bengal. Most of the processing units of West Bengal are located in Purulia District only (Anon., 1992-93).

Tassar : Bihar is the largest producer of

tassar silk in the country. Large scale plantations of *Terminalia arjuna* and *T. tomentosa* were taken up in Palamau and Singhbhum Districts. It plays a very vital role in the rural economy, particularly of the tribals. It generates self employment and brings quick financial returns. In West Bengal, State Forest Department is associated with tassar cocoon collection. This industry is developing well with the participation of local people.

Kendu leaves : This is one of the important NWFP of Bihar for making biris. It is not only a major revenue earner but also plays a significant role in the economy of local people particularly the tribals. Its collection and sale is nationalised and the Bihar Forest Development Corporation engages the local villagers for collection. The annual collection is about 7 lakh standard bags (one standard bag=50000 leaves) (Anon., 1990). About 31% of the tribal families of Palamau and Singhbhum Districts of Bihar are involved in collection of kendu leaves. In West Bengal the kendu leaves are collected through auction from Govt. forest land.

Sal leaves : These are collected by the women for making thali plates. It is estimated that a woman with the help of her children can earn Rs 100/- per week. No royalty is charged by the Forest Deptt. About 73% of the families of Midnapore District of West Bengal are involved in collection of these leaves.

Oil seeds : Sal seeds, Mahuwa seeds etc. are also nationalised items and Forest Development Corporation in Bihar and West Bengal, Tribal Development Corporation in West Bengal gets them collected directly from primary collectors who are tribals. About 59% families of Midnapore District of

West Bengal are involved in collection of Sal seeds. In Palamau District of Bihar, about 25% families are engaged in collection of Mahuwa seeds.

Mahuwa flowers : The flowers are collected by the tribal women and children during the season. It has a lot of food value. In Palamau District of Bihar, about 41% families are involved in the collection of Mahuwa flowers.

Others : Tamarind, mushrooms and material for brooms are mostly collected by the tribals of Bihar. About 31% families in Singhbhum District of Bihar collect material for Brooms. As regards collection of Mushrooms, about 56% families of Midnapore District of West Bengal are involved. In case of Tamarind, about 25% families of Singhbhum District of Bihar are involved in collection of this item. Most of the Tamarind produced in this area is exported to Southern part of the country.

Scope for augmenting economy through NWFP

Collection and processing of several Non Wood Forest Products like Kendu leaves, Sal leaves, Mahuwa, Sal seeds give substantive income to the people. In Palamau District of Bihar, Kendu leaves collection is the major occupation providing considerable employment during lean period of agriculture. Hence its role in augmenting economy of rural people in this area is major and scope is good. During April-June, mostly women and children of tribal families engage themselves in collection of Mahuwa flowers. There are good markets for Mahuwa in Palamau and Singhbhum Districts of Bihar and so there is good scope for augmenting economy through this product. In

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Singhbhum District of Bihar, there is very good scope for sal leaves and brooms as they are major source of revenue in this District. Mushroom production in Singhbhum District is increasing as it has got good scope for fetching more income. Similarly in case of Midnapore District of West Bengal, Sal leaves have got good scope for augmenting economy. Next in order are Mahuwa seeds, Sal seeds, Mahuwa flowers and Mushrooms. Most of these are available for collection in a particular season but they are utilised all the year round. There is very good scope for augmenting economy through these NWFP.

Conclusion

NWFP are a significance source of subsistence production, income and employment to tribal people in and around forests. A large population of tribals and other forest dwellers depend on various NWFP which have great socio-economic significance in the context of employment and income generation for very large population especially the weaker section of the society including tribals. In south Bihar

and South-western part of West Bengal the Non Wood Forest Products namely Mahuwa flowers and seeds, Kendu leaves, Sal leaves and seeds, Mushrooms are most common items which are collected by the tribals in different seasons for their livelihood regularly. Some of these items namely Kendu leaves and Sal seeds are nationalised and these are collected and supplied to Forest Development Corporation/Tribal Development Corporation in Bihar/West Bengal. In South Bihar about 41% families collect Mahuwa flowers and in south western part of West Bengal about 73% families collect Sal leaves for augmenting income. Most of the NWFP are collected in difficult conditions in the remote tribal areas where it is difficult to maintain the quality so that the user agencies readily accept the NWFP as raw material. By developing simple processing unit for making ropes from *Agave sisalana* which are made by decortication of leaves. *Agave* planting is providing self-employment and quick returns to forest fringe dwellers. Thus all possible steps need to be taken by different State Governments, for ensuring fair share to tribals and other forest dwellers from collection and processing of NWFP.

SUMMARY

NWFP contribute significantly in tribal/rural economy. It offers employment to about one million every year. In South Bihar and South Western part of West Bengal the NWFP viz. Mahuwa flowers and seeds, Sal seeds and leaves; Kendu leaves, Tamarind and Mushrooms emerged as major products collected by tribals of this region. Out of total forest revenue of Bihar, about 17% is contributed by NWFP and in West Bengal it is only 1.7% of total forest revenue. In South Bihar about 41% families collect Mahuwa flowers and in South Western West Bengal about 73% families collect Sal leaves for augmentation of their income. However, processing technology is lacking in these States which needs to be developed.

दक्षिण-पश्चिम में खेप देने वाले गैर काष्ठ वनोपज (दक्षिण बिहार व दक्षिण पश्चिमी बंगाल) कियौं गया अध्ययन)

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सारांश

गैर वनोपजों का आदिवासी/ग्रामीण अर्थव्यवस्था में काफी योगदान रहता है। इनसे प्रतिवर्ष लगभग 25 लाख रुपये का राजस्व मिलता है। दक्षिण बिहार, और पश्चिमी बंगाल के दक्षिण-पश्चिमी भाग में गैर काष्ठ वनोपजों के मुख्य रूप से फूल और बीज, शाल के बीज और पत्तियाँ, केन्दु की पत्तियाँ, इमली और खुम्बियाँ इस भूभाग के प्रमुख वन एकलिंग की देने वाली मुख्य उपज के रूप में सामने आई हैं। बिहार के कुल वन राजस्व का लगभग 1.7% गैर काष्ठ वनोपजों से मिलता है तब पश्चिमी बंगाल में यह कुल वन राजस्व का केवल 1.7% ही है। दक्षिण बिहार में लगभग 41% परिवार महुए के फूल इकट्ठा करते हैं तथा दक्षिण-पश्चिमी बंगाल में लगभग 73% परिवार का आमटन बढ़ाने के लिए शाल की पत्तियाँ इकट्ठी करते हैं। तथापि इन राज्यों में विधायन प्रौद्योगिकी का ज़रूरत जिसे विकसित करने की आवश्यकता है।

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