



Role of non-timber forest products (NTFPs) in livelihood of the Tribal community living in hilly area of Kamrup district, Assam.

Debraj Sarma

Department of Geography, Rangia College, Rangia, India

Abstract

Apart from few hillocks in the northern Part, hilly areas of Kamrup District are mostly located in the southern part of the Brahmaputra River. Hilly areas cover with forest continues towards the Meghalaya boarder. Inhabitants of tribal community in this area mostly are Rabhas, Karbis and Bodos. Non-Timber forest products (NTFPs) plays an important role in the livelihood of households living in and around forest area of the District, providing a source of food, fuel, services, materials for household implement, building materials and to some extent income. NTFPs often become the imperative resource accessible to the Tribal community within their vicinity. The non-timber forest products hold very important part of the subsistence economy, utilisation of fuel wood, wild edible vegetables bamboos, thatch are common phenomenon to all community. The total contribution of NTFPs to annual household income varies from 9 percent to about 20 percent depending on agricultural landholding of the household.

Keywords: Non-Timber forest product, livelihood, Tribal community

1. Introduction

Across the globe there is no clear cut definition of NTFPs. People who work on this issue have defined it as per their interest and nature of work. The term Non Timber Forest Products (NTFPs) encompasses all biological materials other than timber which are extracted from forests for human use.

Non Timber Forest Produce (NTFP) besides meeting subsistence needs it is also source of cash income for many tribal community, during the lean season, especially in areas where agriculture is rain fed and a single crop is taken. NTFPs often become the imperative resource accessible to the Tribal community within their vicinity. These products are available almost throughout the year and many of these are sustainably harvested at low levels without damaging the forest or affecting forest regeneration. NTFP based activities are mostly household based and low volumes are involved, use simple technologies.

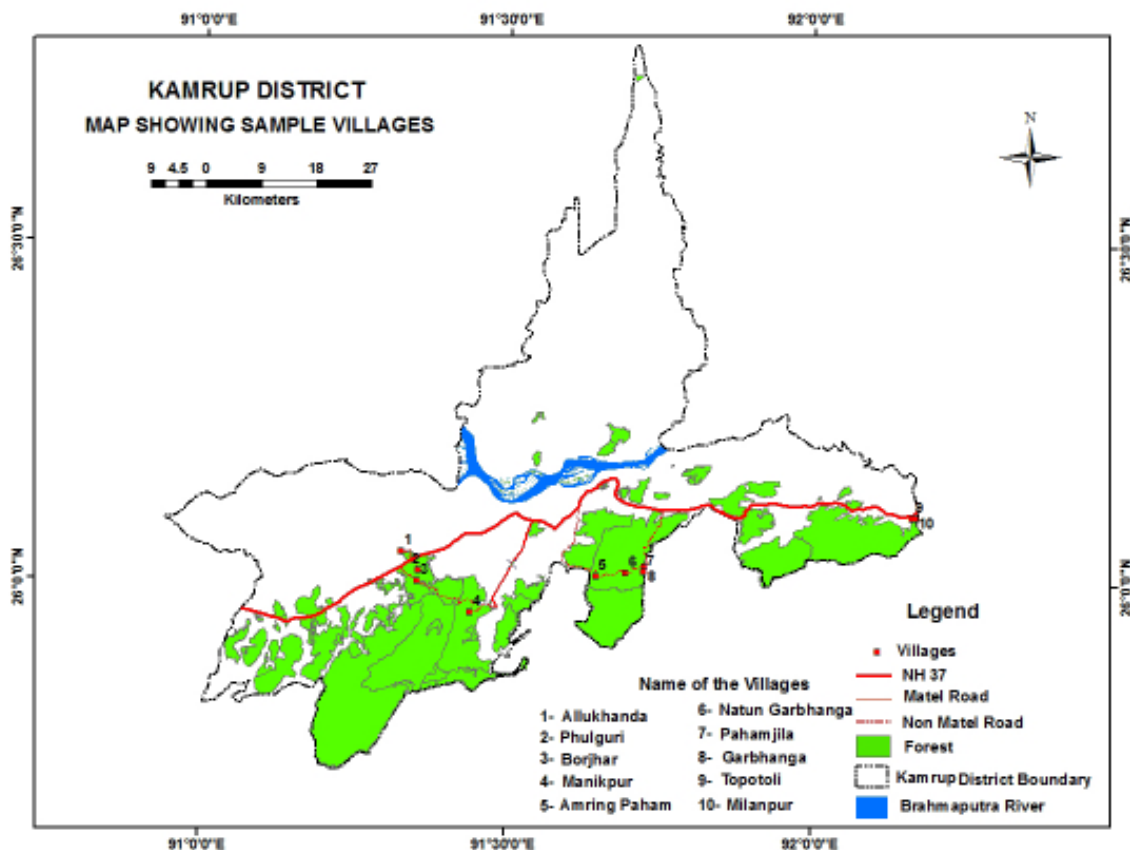
Northeast India is an epitome of unique cultural histories of different indigenous and ethnic communities. Each community has its own distinct socio-political realities. Agriculture is the main source of livelihood and most of the communities strongly dependent on forest and its resources. Increase population and continued diversion of forestlands for unsustainable land use has resulted in serious consequences on the natural resources (Vijaylakshmi 2007-08).

The forests are valuable not only for the timber they produce, but as an important source of livelihood for many poor and land less people who do not have alternate livelihood options. Substantial quantities of Non-timber forest products (NTFPs) are extracted for on a daily basis for diverse use, as well as subsistence purposes like food, fodder, fuel wood, household articles and implements (Tiwari and Lynser 2007-08).

2. Study area

The Kamrup district is situated in the lower Brahmaputra valley of Assam between 25°44'2" N and 26°51'2" N latitudes and 90°56'2" E and 92°10'2" E longitudes. It occupies a total area of 4,35,009 hectares

(4345 sq km) which accounts for 5.5 percent of the state. Hilly area of the southern part of Kamrup district comprises East and West Forest Division. The total area of southern part of Kamrup district is recorded 2,82,800 hectares (2828 sq km).



3. Objectives

1. To understand role of Non-Timber forest products in the hill tribal livelihood.
2. To identify factor for relying on NTFPs.

4. Methodology

The basic purpose of the present study is to assess role of NTFP in household livelihood. Since secondary data is not available greater emphasis is laid on to the collection of primary data from the field through randomly selected villages. Building familiarity and trust with the local people, village head man (Gaon bura) and responsible person of the locality has been applied. Familiarity and trust with villagers helps to great extent to get the desired information from the household. In order to obtain a broad and representative picture of the village, households were selected on the basis of economic status (land holding), ethnic group and

occupation. Keeping these points in mind a sample of 40 percent from each village was taken and a total of 298 sample households were considered. Household interviews were conducted using a prepared questionnaire.

The quantity of forest products collected by each household taken into account on the basis of daily, weekly and seasonally. NTFPs use is focused on collected products such as fuel wood, wild foods and building materials used within the household and NTFP is sold for cash. The quantity is brought up together on annual basis collection for both consumption and income. Consumption of NTFP accounted on percentage while income generated accounted in Rs. then converted in to percentage. Price of NTFP taken from the weekly market where commodities are sold directly by the village dweller. Income from other than the NTFP is also taken into account to find the share

of income from NTFP.

The various stages involved in designing the sample are presented below.

b. Selection of Villages: Villages are selected giving emphasis on accessibility of transportation and road condition. On the basis of accessibility villages are classified in to two groups as followed:

i) Accessible, ii) Inaccessible

Accessible means access to transportation facility and all season motorable road from the concern village.

Inaccessible means lack of access to transportation facility and all season motorable road facility.

5. Estimation and Calculation of household earning and consumption

Data collected from the sample households was in raw form. Most of the data of forest and agricultural products were in the local terms like bundle, *mutha*, *bhag*, *bhar*, *thela*, *mond* etc. These were then standardised to kilograms and then converted to monetary terms and finally in percentage terms. While estimating Percentage of consumption of NTFPs taken in to account the similar items of household consumption from other then forest sources.

6. Role of NTFPs in local livelihood

Livelihood comprises the capabilities, material and social resources and activities required for a means of living. Non-timber forest products (NTFPs) are some of materials derived from forests includes forest vegetables like roots, tubers, leaves, flowers, seeds, fruits etc, house building materials thatch, bamboo, cane, mud broom grass. Other materials are honey, fungi, bark, aquatic life and completely depending on firewood. NTFPs are collected from a wide range of ecotypes such as high forest, farm fallow, otherwise disturbed forest, and farmland (Peters 1996) for use as food, medicine, and barter. In some cases, they are the only means for residents of remote forests to participate in the cash economy (Arnold and Ruiz-Perez 1996). People throughout the tropics rely on the harvest and sale of NTFPs for their economic well being.

Many local communities have been experiencing difficulties in accessing livelihood items yet these 'common' (forest) resources have been shown to be 'safety nets' especially in reducing the impact of poverty (Adhikari *et al.*, 2004). In reaction, most countries especially in the developing world have lately been increasing the area of forest under the management of communities (Agrawal, 2007).

From the observation point of view forests provide mainly for subsistence and few household go for sale to meet their household needs. The following analysis been forwarded to understand the benefit derived from NTFPs of two different location of households i.e. accessible and inaccessible.

7. Subsistence Earnings from NTFPs and Tribal Community

The ethnic communities living in the villages' adjustment to the forest are mostly Rabha, Karbi and Bodo beside these three tribal communities in majority other scattered along with them few in number are Garo, Nepali and particularly in the eastern part of East Forest Division Tiwa, Koch, Tea tribe and Muslim household has been found along with the common tribe. In the present context Tribal communities' household in majority been consider for analysing the role of NTFPs in their livelihood. Table no. 1, indicates that tribal household away from the vicinity of road communication are significantly relying more on forest resources for their subsistence household income which virtually lead to depend more on consumption also. Rabha community is found more dependent on forest then the Karbi and Bodos.

The main forest products sold as well as consumed by households are firewood, wild vegetable, aquatic life, bamboo and thatch. Forest vegetable includes all wild edible leaves, root, bamboo and cane sooth, and different types of flowers other materials are honey, fungi, bark, fruits etc. Following tables emphasizes the income generated from NTFP by the tribal households of two different locations.

Table 1 : On the basis of Ethnic community annual household income from NTFPS in Rs. and share in % of total income

Location	Community					
	Rabha		Karbi		Boro	
	In Rs.	In %	In Rs.	In %	In Rs.	In %
Accessible	1376.09	2.56	-	-	416.67	1.06
Inaccessible	5909.09	22.29	3637.5	15.12	-	-

8. Subsistence Earnings from NTFPs and landholding

NTFPs collected from forest for sale is in small volume irrespective of location. It has been observed that the purpose of collection of forest products is for subsistence not for commercial. Table no.2 indicates role of NTFP varies according to location as well as

size of land holding of household. Household of remote area has less access to earning other than forest which forces them to depend more on NTFP. Share of earning from NTFP which is shown in % is significant from the point of view of the role of NTFP, at the same time it also indicates economic condition of the household in the particular environment.

Table 2 : On the basis of land holding annual household income from NTFPS in Rs. and share in % of total income

Location	Land holding in Bigha									
	0—5		6—10		11—15		16—20		Above 20	
	In Rs.	in %	In Rs.	In %	In Rs.	In %	In Rs.	In %	In Rs.	In %
Accessible	2027.66	7.02	3250.00	5.96	682.50	0.80	384.62	0.33	0.00	0.00
Inaccessible	3921.05	21.23	4323.53	18.77	4068.18	15.72	2727.27	9.08	3100.00	9.31

1 Bigha = 0.33058 acres = 0.13387 hectares

9. Consumption of NTFPS and land holding

Utilization or consumption of NTFPs very much depends on access to NTFP within the vicinity of household. Consumption of bamboo, thatches and other forest products are not much in the accessible area. As reported by local household these products are gradually declining for which they have to look for other than the NTFP uses for their building as well as

household implement. Table no.3 shows the share of various forest products consumed by the households in accessible area according to size of land holding. It is significant to mention that irrespective of size of land holding required household energy for cooking and heating is derived from forest. Consumption of other products like wild vegetable, aquatic life, bamboo and thatch varies according to size of land holding.

Table 3 : On the basis of land holding share household consumption of forest products in % of accessible area

Land holding	Share of Forest products in %				
	Firewood	Wild Vegetable	Aquatic life	Bamboo	Thatch
0—5	100	46.28	67.66	6.38	2.13
6—10	98.75	35.63	66	5	2.5
11—15	100	25.77	58.46	30.77	0
16—20	100	25	53.33	33.33	0
Above 20	100	25	50	0	0

On the other hand consumption of NTFP of inaccessible area is more prominent which indicates the more access to forest products and availability within the vicinity of the households. It has been observe that, the way household utilize the NTFPs is not destructive, they

use mostly only those products which are regenerated. These household has to rely on forest for wild edible, house building material and household implement on forest since they do not have easy access neither they can afford to pay for their essential from the market.

Table 4 : On the basis of land holding share of household consumption of forest products of inaccessible area in %

Land Holding	Share of forest products in %						
	Fire wood	Wild Vegetable	Aquatic life	Broom	Bamboo	Thatch	others
0-5	100	86.32	86.84	100	100	100	100
6—10	100	87.06	84.41	100	100	100	100
11—15	100	86.36	85.00	100	100	100	100
16—20	100	85.45	82.73	100	100	100	100
Above-20	100	82.00	80.00	100	100	100	100

Conclusion:

It is evident from the above description that non-timber forest products (NTFPs) play an important role in the livelihood of Tribal Community in hilly area at subsistence level. NTFP substitutes in various domestic uses as well as contributes a substantial amount in the tribal economy of the area. Lack of linkages, access to transport and communication facility, public services and other avenue make the community rely more on NTFP. NTFP is the only source to traditional agriculture to meet the deficit of requirement of livelihood for mere living of the tribal community. It is observe that inadequate agricultural land, low

agricultural production, remoteness and lack of avenues are the important among other factors to depend more on NTFPs. Irrespective of location and landholding household energy for cooking and heating is totally depends on forest. Role of NTFP is more on Tribal community living in the area of inaccessible then the accessible area. Share of household income of inaccessible area from NTFP is 9.31 to 21.23 percent according to size of landholding. On the other hand income from same of accessible area 7.02 percent is the highest with smallest size of land holding. Among the tribal community the Rabhas has highest share of income from NTFP.

References

- Adhikari B.S.Di Falco and C.J. Lovett. 2004: Household Characteristics and Forest Dependency. Evidence from Common Forest Management in Nepal. *Ecological Economics*, 48(2004) 245-257.
- Agrawal A. 2007 : Forests, Governance, and Sustainability: Common Property Theory and its Contributions. *International Journal of the Commons*, Vol 1 (1)111-136.
- Arnold J. E. M. and M. Ruiz-Perez. 1996 : Framing the issues relating to non-timber forest products research. Pp. 1-18 in J. E. M. Arnold and M. Ruiz- Perez (eds.). *Current Issues in Non-timber Forest Products Research*, CIFOR, Bogor.
- Peters C.M. 1996 : Observations on the sustainable exploitation of non-timber forest products: An ecologist's perspective. Pp. 19-40 in: J. E. M. Arnold and M. Ruiz-Perez (eds.). *Current Issues in Nontimber Forest Products Research*, CIFOR, Bogor.
- Tiwari B. K. & Lynser M. 2007-08 : *Status of Forest Products Market in Meghalaya and Strategies for Making Forest Product Market work for the Poor: In Livelihoods from Forestry in North East India*, V. Darlong, S. K. Barik, B. K. Tiwari, C. Kumar, S. Phanbuh (eds.), published By Cognet- Bhabani Offset and Imaging Systems Pvt. Ltd.
- Vijaylakshmi B. N. 2007-08 : *Paving the way for all Inclusive Institutions: Some Livelihood Alternatives: In Livelihoods from Forestry in North East India*, V. Darlong, S. K. Barik, B. K. Tiwari, C. Kumar, S. Phanbuh (eds.), published By Cognet- Bhabani Offset and Imaging Systems Pvt. Ltd.

