

Non-timber forest products as a source of livelihood option for forest dwellers: role of society, herbal industries and government agencies

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Non-timber forest products (NTFPs) have attracted considerable global attention due to the significant role played in benefiting people and industries. It is a well-established fact that most tribals and villagers who live in forest regions depend on NTFPs as the source of their livelihood. In this context, we present here the role of stakeholders, viz. industry, society and government agencies in ensuring the livelihood options of NTFPs gatherers.

Keywords: Forest dwellers, livelihood, non-timber forest produce, rural economy.

DURING the past decades, public interest in natural therapies, namely herbal medicines has increased dramatically not only in developing countries but also in developed nations¹. In India, nearly 9,500 licensed herbal industries and a multitude of unregistered herbal units depend upon the continuous supply of medicinal plants for manufacturing of herbal formulations². In addition to industrial consumption, significant quantities of medicinal plant resources are consumed by traditional healers and practitioners of the Indian system of medicine. It is estimated that more than 2,400 traditional higher plant species are used in the codified Indian system of medicine and Western medicine system (Figure 1)³. The World Health Organization report indicates that more than 80% of the population of South Asia uses plant-based medicines for maintaining and improving its health⁴. People have benefited from these plants for many generations. Non-timber forest products (NTFPs) have played a significant role in progressive growth in benefiting people and Indian industries. NTFPs as defined by FAO refer to market or subsistence goods for human and industrial consumption derived from renewable forest resources and biomass⁵. They include fruit, seed, resin, medicinal plants, lac, honey and other by-products which are renewable unlike several other finite resources like petroleum. In addition to healthcare sector, NTFPs have wider industrial application value. Use of *Terminalia* species in tanneries, non-edible vegetable oils derived from *Pongamia* species and *Celastrus paniculatus* are a few examples. Collection of leaves from *Diospyros* species used as tobacco alternative

by means of beedi rolling has been one of the largest operations of NTFP collection in many states of India.

Contribution of NTFP to rural and local economy

NTFPs have attracted considerable global attention in recent years due to increase in recognition of their contribution to household economies and food security. NTFPs can provide important community needs for improved rural livelihood, household food security, local and regional economies. Several million households all around the world depend heavily on NTFP for both sustenance and regular income. Although individually NTFPs make a minor contribution, collectively they often represent a

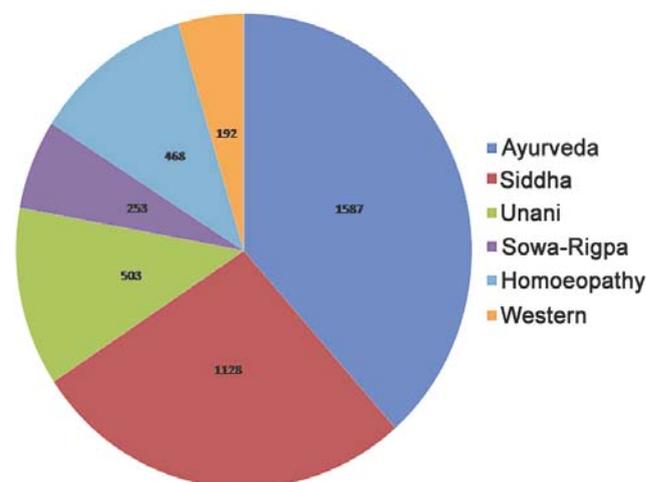


Figure 1. Plant species used in various codified Indian systems of medicine and the Western system³.

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larger proportion of the rural economy and can add significantly to export revenues. India is an agriculture-driven country where 70% of its population lives in rural areas; for tribals this is as high as 92%. It is a well-established fact that most tribals live in forested regions and their livelihood is either partly or fully derived from gathering from forests. Forest gatherers include, in addition to tribals, forest dwellers, women and other marginalized groups. Most of the botanicals are sourced from the natural growth found in the nearby forests, shrub lands, waste lands and field sides. Forest-based small-scale enterprise represents an opportunity for employment for rural, tribal and marginalized groups which are based mainly upon the collection and processing of NTFP.

NTFP collectors form an important stratum of the value-chain pyramid

Forest gatherer communities who rely on NTFPs for their livelihood are often poorly organized. Sometimes they have great difficulty in selling NTFPs even at local markets. It requires marketing sophistication, and an institutional and administrative infrastructure that is far beyond their reach. Most NTFPs are by-products or end-products such as seeds, fruits and leaves which will go waste if not collected at the appropriate time. By promoting collection by gatherers we not only assure their income, but also allow proper utilization of NTFPs.

There are systematic efforts towards implementation of quality, safety of herbal products and conservation, cultivation and resource management. However, little has been done at the level of NTFP gatherers who form the mainstay of environment management and herbal industry. They form the most important stratum of the bottom of the pyramid (Figure 2). Focusing on and promoting

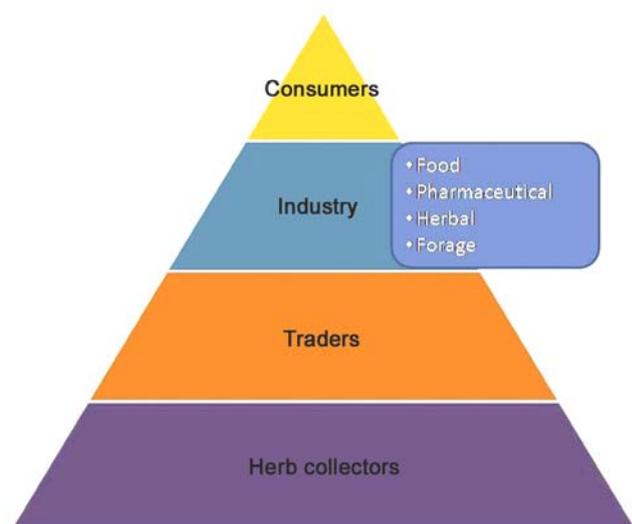


Figure 2. Relationship between NTFP collectors, traders, industry and consumers.

their livelihood options not only improves the economic status but also prevents further degradation of land and helps maintain forest cover. Income generated by NTFP gatherers is bare enough to meet their needs. The price paid to gatherers for NTFP collection is often very low. The gatherers often mine the plants excessively to generate more income. For forest collection labour and time are invested. However, for NTFP gatherers investment of time and labour is never returned proportionately. They are the people who live 'on the edge'. Till recent times, there have been ambiguities with reference to their rights or ownership on the resource. However, the enactment of Recognition of Forest Rights Act, 2006 (No. 2 of 2007; The Gazette of India, Extraordinary, Part-II, Section-I Dated 2 January 2007) was the first milestone in clarifying their rights over the forest produce. Yet, there have been issues in its implementation. These issues were resolved by the amendments to the related rules through a recent notification (The Gazette of India; Extraordinary, Part-II-Section 3(i) dated 6 September 2012). Accordingly, the Gramsabhas have been empowered to assign the forest resources to the dependent communities.

Models implemented for the welfare of NTFP gatherers

Recently, the Central Government had announced the constitution of minimum support price (MSP) commission for forest produce to fix assured price to tribals, which is a welcome move⁶. This is similar to MSP for agricultural produce. In order to establish long-term market linkages, aggressive buying of NTFPs by state agencies, cooperative agencies, NGOs, Girijan cooperatives or producer companies is recommended. But government agencies should have sufficient mechanisms to dispose the collected NTFPs, otherwise it might lead to wastage. In this case, the government can consider collaboration with socially committed private sectors. While price-level interventions as a welfare measure seem to be a workable option, enforcement of such interventions may remain an issue. On the other hand, promotion and strengthening of producer companies and collectors' cooperatives can augment the opportunities for local value addition by the community. Further, production of non-edible oils and primary extraction of dye-yielding species by the producer companies/collectors' cooperatives, offer ample opportunities to enhance the economic returns to the collectors' communities. There are several producer companies and cooperative federations that are supporting organized NTFP trading. Some examples include Uttarakhand Forest Development Corporation, Chhattisgarh Minor Forest Produce (T&D) Federation (CGMFPPED), Madhya Pradesh Minor Forest Produce (T&D) Federation, Girijan Cooperative Corporation, AP and Gram Mooligai Company Ltd, Tamil Nadu. CGMFPPED has a

scheme to share 80% of profit from NTFP trading as incentive wages to collectors of tendu leaves, 15% for collection, sale and the warehousing and the remaining 5% for temporary reimbursement of costs to Societies. CGMFPFED has nationalized certain NTFP for organized trading. Organized trading has led to proper payment of collection prices to the herb collectors and sustainable harvesting from forest areas. However, while deciding the price for NTFP, the policy makers need to evolve the basis for arriving at a 'fair price'. This should ideally be based on specific species-wise studies conducted on the cost incurred in sustainable scientific collection. Under the Biological Diversity Act 2002, India, it is required to ensure prudent and sustainable utilization of the bio-resources. The need of the hour is to work on the improvement in collection practices in line with the Standards for Good Field Collection Practices (GFCP) as stipulated by the Quality Council of India (<http://www.qcin.org/CAS/NMPB/>). This process must be followed by assessment of cost involved in practising the same. A suitable margin can then be added to the cost incurred for arriving at the fair price.

Role of stakeholders in supporting livelihood options of NTFP gatherers

Educating NTFP gatherers is a priority issue. Ignorance of gatherers about plant biology and selective harvesting might lead to over-exploitation. For example, collection of immature plant parts might lead to reduction in quality of raw material and subsequently its wastage. Similarly, quality of raw material reduces due to collection and accidental mixing of foreign material along with the material of interest. According to the authors' estimate, 20–50% loss can occur due to presence of soil, sand, mud, foreign material and excess moisture. One of the factors is the lack of knowledge in collection practices and timing of harvesting. These issues can be sorted out through periodic training programmes. Proper training on scientific methods of collection can be imparted by stakeholders. Such awareness programmes not only improve the quality of raw material, but enhance the income of herb collectors. Premium is paid for good quality material by the end-users.

Certain remedial measures have been proposed that effectively equip NTFP gatherers with sustainable source of livelihood. This is the responsibility of the society, industries, government agencies and other stakeholders. Providing insurance facility to the herb collectors is one such option. Sometimes, the gatherers' families depend on a single source of income. Providing insurance can protect the rest of the dependents. This is similar to the farm insurance for agricultural farmers. Proper identity cards may be issued to enable them to carry the collected herbs. This can be implemented in collaboration with

local NGOs with financial help from government agencies and other developmental funds.

It is also essential to arrange regular workshops/awareness programmes on good harvesting practices. The National Medicinal Plant Board (NMPB) in collaboration with WHO published a document on good field collection practices for Indian medicinal plants⁷. While preparing awareness programmes one needs to consider the above guidelines for popularizing the best harvest practices. Relevant traders or industries can also organize the same. Currently, NMPB has provision for financial assistance to organize awareness programmes under the National Mission on Medicinal Plants. Safety protection gears may also be supplied to them to avoid minor accidents. There are some incidents when herb collectors, especially women are encountered with risky job of climbing trees, as well as snake and scorpion bites. Frequent health check-up programmes for their families are necessary to minimize occupational health diseases. Responsible society leaders can volunteer such programmes. One such noteworthy example is that of Dabur's initiative and its impact on the living standards of local people in Nepal. The company evolved a model for sustainable collection coupled with concurrent plantations of Himalayan Yew leaves from the Nepal Himalaya region. An independent study established that the initiative could help the communities in improving the quality of life due to an enhanced income (Susan Howard, personal commun.).

Since NTFP collectors' living standards are poor, a common, shared drying yard can be provided for drying the herbs. Further, arranging the nearest collection/distribution points can reduce the time and money spent on transportation. Having the facility of distribution points is ideal if the material is of perishable nature, for quick transportation.

Benefits of value addition can be translated to NTFP collectors

Creating value in the existing value chain by scientific and technical intervention can benefit NTFP collectors (Figure 3). Value addition at the grassroot level, e.g. primary processing of herbs such as cleaning, drying and sorting at the level of collection is important both in terms of quality and value addition. Value addition to 'spent material' or processed NTFP is another important area. Spent material is generally discarded without realizing its potential. In addition to technical contribution product value can be enhanced by understanding and complying with regulatory requirements of major world markets. Such value enhancement to value chain will empower all actors of the supply chain pyramid such as primary producers, traders, industry and consumers. Benefits thus obtained will get translated to herb collectors who are at the bottom of the pyramid. However,

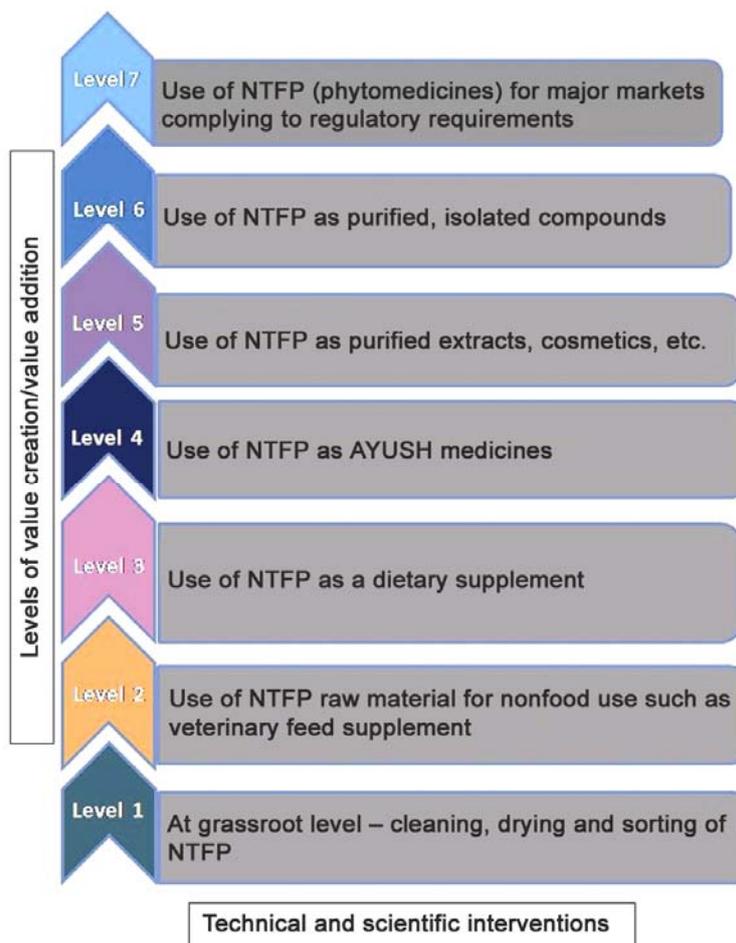


Figure 3. Levels of value addition to NTFPs. Value addition to value chain will empower all actors of the supply chain pyramid such as primary producers, traders, industry and consumers. Benefits will get translated to herb collectors, due to value addition, who are at the bottom of the pyramid (see Figure 2).

there is little effort in the area of identification of the value chain, and value creation at various levels by industry stakeholders.

Therefore, it is a collective responsibility of all stakeholders, including government agencies to support livelihood options of NTFP gatherers. As long as the bottom of the pyramid is supported, enriched and equipped, rest of the strata can sustain for a long time.

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