

COMMENT

What isn't an NTFP?

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INTRODUCTION

What is a Non-Timber Forest Product (NTFP)? This debate has raged since the term was coined by de Beer and McDermott (1989)¹. At every meeting where NTFPs are discussed there will be some discussion about the terminology and about what should be included and what should not be included in the definition. There are many alternate terms that are used more or less as synonyms, each with its proponents. Terms such as 'wild products', 'natural products', 'non-timber forest and grassland products', 'veld products' and 'sustainably produced wood products' (ostensibly distinct from industrial timber) and many others have entered the vernacular.

While in some ways this interminable debate can appear trivial, the fact is that it reflects ambiguity and confusion that inhibits understanding and progress in research and development. There are major differences in the understanding of what an NTFP is and, more importantly, in the expectations of how and why NTFPs are important. Different individuals/organisations use the same term, but have modified the definition in different ways to suit their needs. The term and the underlying concepts have different meanings to different people, so both agreements and disagreements can be false. On the positive side, this ambiguity has made it possible to bring together ideas about rural development and conservation that might otherwise have seemed incompatible. However, similarities in the terms often disguise real differences in understanding and in assumptions, values and beliefs. There is a risk that the 'NTFP concept' will be seen to have failed if it does not meet the unattainable expectations that have been raised because of improper or inconsistent interpretation.

In this paper I analyse the elements of the terminology by looking at the underlying assumptions and beliefs of

users, based on my experience in the field. Two recent activities have heightened my awareness of the need for clarification. Some of the conceptual ambiguities were revealed in a recent survey of donor and development agencies working on NTFP issues (Profound and CIFOR unpublished). And, as the coordinator of a large project doing a comparative analysis of cases of commercial NTFP production and use, I have been challenged on the appropriateness of including certain products in our set of cases. In the process I have refined my own ideas about what an NTFP is.

This discussion begins with a brief history of the term 'NTFP' and the evolution of the definition. It is readily apparent that the definition used depends on the interests and the objectives of the user. There is a highly eclectic group of stakeholders interested in NTFPs as subjects of research, as tools for conservation and for development, and as commercial products. Each brings different assumptions and interests, both implicit and explicit. I analyse the elements of the definition of the term against these different ideas and conclude that there is no perfect term to encapsulate all of these ideas.

What do you mean by 'NTFP'?

The problems begin with the term itself. 'Non-timber forest products' is a negative term. It includes, literally, all products other than timber that come from forests. In their groundbreaking publication on the economic value of NTFPs in South East Asia, de Beer and McDermott (1989) used the term Non-Timber Forest Products as an alternative to the 'dismissive epithet 'minor forest products'' and proposed the following definition:

The term 'Non-Timber Forest Products' (NTFPs) encompasses all biological materials other than timber, which are extracted from forests for human use.

The authors clearly recognised problems with the definition. They addressed them by setting out what they saw as the key point of distinction between timber and non-timber

¹ This is the first reference to the term 'non-timber forest product' in the English-language literature recorded in TREECD. References to the term 'non wood forest products' date back to 1980.

forest products: that timber is managed on an industrial scale for interests located outside the forest, while NTFPs 'are extracted using simple technologies by people living in or near forest.' They dismissed the alternative term 'non-wood forest products' as being too exclusive. And they also offered a definition of forest:

By 'forest' we refer to a natural ecosystem in which trees are a significant component. However, forest products are derived not only from trees, but from all plants, fungi and animals (including fish) for which the forest ecosystem provides habitat.

This kind of clarity is helpful, and many authors offer definitions and examples to clarify their own use of the term NTFP in a given publication (e.g. Wickens 1991; Peters 1997). However, the various definitions are inconsistent.

In some early discussions resources such as gravel and rocks were included, and many currently working in this field would include services (e.g. watershed functions, carbon sequestration, ecotourism). Peters (1997) considered both 'natural or managed forests'. Wickens (1991) excluded 'industrial roundwood and derived sawn timber, wood chips, wood-based panels and pulp' and left the possible sources wide open ('...extracted from natural ecosystems, managed plantations, etc.'). In addition, many more authors leave the term undefined. As a literature on NTFP has built up the variations on what is included (or, more correctly, excluded), in combination with the inconsistent use of the term 'forest', has left enormous scope for ambiguity. This is particularly worrisome as governments and development agencies undertake projects and policy changes in the 'NTFP' sector, possibly based on false understanding of the actual and potential role of NTFPs.

What are 'Non-Wood Forest Products' for FAO?

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In previous decades a large number of governmental and non-governmental organisations, individuals and private companies have become involved in the promotion and utilisation of 'Non-Wood Forest Products' (NWFP). A great deal of new information has been compiled on the resources, and better insight has been achieved on the socio-economic contribution of NWFPs to livelihoods and on the impact of their use on the environment. However, little progress has been made in the meantime to clarify and/or harmonise terms and definitions in relation to NWFPs. On the contrary a proliferation of new terms is being introduced (such as: 'non-wood goods and benefits', 'non-wood goods and services', 'other forest products', 'secondary forest products', 'special forest products', 'wild crafted products', 'biodiversity products', 'natural products', 'minor forest products', 'non-timber forest products', 'non-wood forest products', 'forest products other than wood/timber' and 'tree-crops'). In English, the most common term presently used is 'Non-Timber Forest Products' (NTFP), while other languages may have terms that differentiate between 'wood' and 'timber' (French and Spanish for example), or refer to different concepts which are not easily translated into other languages or understood in different cultural contexts. The term 'NWFP' will be used throughout this paper for reasons of consistency and clarity and not because any value judgement has been attached to the term.

All these terms emerged to encompass the vast array of both animal and plant products harvested in forests in a 'non-industrial' or 'informal' way. They were introduced to get this

vast, but so far hidden or poorly known aspect of forest use into the open and to facilitate a shift of focus towards the economies of forest-dependent peoples and to more 'environmentally-friendly' use of the forest. It was hoped to encourage a more balanced management and utilisation of forest resources in order to shift away from the prevalent industrial timber production focused approach. In this sense each of the terms mentioned above highlights the *way* the products are obtained rather than specifying what *kind* of products they are.

Although there is nothing wrong in having many terms used in different countries or by different language groups, the scope and coverage of all these terms are frequently different and sometimes vague. All these terms cover different aspects, species and products according to the focus of work of the respective author or organisation and few propose clear definitions of the terms used. In some cases, their coverage varies depending on the situation (covering only those gathered from forests or those from any vegetated land if gathered from wild sources, while others include domesticated species). The lack of clear terminology, and the fact that in spite of their differences, these terms are often used interchangeably within and among languages, causes serious problems for the NWFP sector in general, i.e.:

- **Communications and reporting among countries/languages is problematic and ambiguous:** people are using the same terms with different definitions, or without providing any definition at all. Translation of terms from one language to another often changes the concept.

As part of an effort to better understand current activities in the NTFP area, CIFOR and Profound conducted a worldwide survey of 84 organisations that support or carry out NTFP-related activities. These included conservation organisations, multilateral and bilateral development agencies, international development NGO's and foundations, local development NGO's and international and national research organisations. Representatives of 51 organisations (61 %) responded. In most cases the responses represent the personal perspectives of the individual that responded rather than the official position of the organisation. Nevertheless, it provides an interesting overview of perceptions².

The survey quoted the de Beer and McDermott definitions of 'NTFP' and 'forest' and requested respondents to indicate whether or not they agree with it. While 76% of respondents agreed with the definition, there

were also substantial reservations and disagreements. In addition, the list of products and services that respondents are working with includes many that do not fit the proposed definition. They would need a more inclusive definition. Some respondents prefer a more restrictive definition. And several indicated a preference for the well-established FAO definition.

The FAO has been a strong proponent of a clear and consistent definition. They have elected to use the term 'Non-wood Forest Products' or 'NWFP' [See Box]. In a 1992 document prepared by Chandresekharan, the following definition was proposed:

² This discussion of the definition and underlying assumptions is just a small part of the overall survey. The results of the survey are, as yet, unpublished.

- **Studies, methodologies, product quality standards and statistics are not comparable from one country (or author) to another:** because of the different definitions, terms and classifications used some products are included while others are excluded.
- **There is no comprehensive, globally acceptable and consistent classification system for NWFPs:** an agreed and mutually recognised terminology, including clear terms and corresponding definitions, is needed. Well defined terms, definitions and product classifications are a crucial prerequisite for compiling statistics or improving legislation on NWFP in a country.

Initiatives and attempts towards standardising, translating or correlating terminologies used in the forestry sector go back as early as the founding of IUFRO in 1892, or the Yangambi Conference in 1956, which recommended a unified nomenclature of types of vegetation of tropical and subtropical Africa. The latest among those efforts are the Experts Meetings on Harmonising Forest-related Definitions for Use by Various Stakeholders, held at FAO Rome, in 2002 and 2003 (proceedings at: <http://www.fao.org/forestry/climate>). However, neither of those covered NWFP-related terminology.

As part of its mandate to facilitate information exchange at the global level, FAO made a first step in 1995 to improve terminology related to the concept of 'NWFP' at the International Expert Consultation on Non-Wood Forest Products in Yogyakarta, Indonesia. During this meeting, 120 participants from 26 countries, NGOs and UN agencies discussed several options and agreed on the use of the term NWFP and its corresponding definition. (See <http://www.fao.org/docrep/V7540e/V7540e08.htm>).

The definition of the term NWFP has been further refined in 1999 and the FAO working definition of NWFP is:

'Non-wood forest products consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests.'

According to this definition, the three components of the term 'non-wood forest products' are interpreted as follows:

- **Non-wood:** The term NWFP excludes all woody raw materials. Consequently, timber, chips, charcoal and fuelwood, as well as small woods such as tools, household equipment and carvings, are excluded.
- **Forest:** NWFP should be derived from forests or similar land uses. FAO has elaborated definitions of 'forest', 'other wooded land' and 'trees outside forests' in a working paper on terms and definitions for the Forest Resources Assessment 2000. (See <http://www.fao.org/forestry/foris/webview/forestry2/index.jsp?siteId=101&langId=1>).
 - *Forest:* Land with tree crown cover (or equivalent stocking level) of more than 10% and an area of more than 0.5 ha. The trees should be able to reach a minimum height of 5 m at maturity *in situ*.
 - *Other wooded land:* Land either with a crown cover (or equivalent stocking level) of 5–10% of trees able to reach a height of 5 m at maturity *in situ*; or a crown cover (or equivalent stocking level) of more than 10% of trees not able to reach a height of 5 m at maturity *in situ* (e.g. dwarf or stunted trees); or with shrub or bush cover of more than 10%.
 - *Trees outside forests:* Trees outside forests and other wooded lands: – stands smaller than 0.5 ha – tree cover in agricultural land, e.g. agroforestry systems, homegardens, orchards – trees in urban environments – along roads and scattered in the landscape.
- **Products:** the term 'product' corresponds to goods that are tangible and physical objects of biological origin such as plants, animals and their products. Forest services (e.g. ecotourism, grazing, bioprospecting) and forest benefits (e.g. soil conservation, soil fertility, watershed protection) are excluded. Services and benefits are even more difficult to assess and quantify than NWFP. A clear definition of forest services and benefits is still lacking. It is likely that these terms will continue to be used in a general way in describing different situations, and that new ones may still emerge. The outcome is that, whatever term is used, scope and coverage is well clarified and the selected term is defined for the context of its use.

Non-wood forest products include all goods of biological origin, as well as services, derived from forest or any land under similar use, and exclude wood in all its forms.

In the same paper, Chandrasekharan offered a detailed breakdown of the term NWFP and related terminology (Table 1).

The definition was revised in 1995 (FAO 1999), based on a series of regional and global consultations:

Non-wood forest products consist of goods of biological origin other than wood, derived from forests, other wooded land and trees outside forests

The key elements of the FAO definition are: that it *excludes* all woody raw materials such as timber, chips, charcoal and fuelwood, as well as small woods used for tools, household equipment and carvings; that it *excludes* services, and; that it *includes* products derived from both natural forests and plantations (all of which are included in the FAO definition of 'forest'). It seems clear. However, many organisations continue to use their own definitions, and their own terminology. Other terms in the current vernacular include:

- minor forest products
- other forest products

TABLE 1 *Components of the FAO Definition of NWFP*

<i>Forest</i>	A plant association predominantly of trees and other woody vegetation.
<i>Wood</i>	Stem, branches and roots of plants/trees characterised by lignified, water-conducting, strengthening and storage tissues.
<i>Timber</i>	Wood in forms suitable for heavy construction; sawn wood of more than a specified width and thickness; excludes fuelwood, wood for carving, pulp wood, small wood.
<i>Goods</i>	Things, articles, objects worth attaining; movable properties; merchandise; wares; services of value. An economic good is defined as any physical object, natural or man-made, or service rendered, which could command a price in a market.
<i>Services</i>	Provision of assistance; act of serving; work done to meet some needs; intangible, non-transferable economic goods, as distinct from physical commodities.
<i>Products</i>	Things/substances/articles produced by a process; output of goods and services resulting from the input of resources or factors of production used to produce them.
<i>Benefit</i>	Advantage; favourable effect; output; profit. In forestry, includes products and favourable influences.
<i>Non-</i>	As a prefix, it is freely used as a short form to mean <i>other than</i> and does not imply lack of importance or other negative connotations.*

(from Chandrasekharan 1992)

* This assertion notwithstanding, there are negative connotations associated with the term 'non'.

- forest biological resources
- other economic forest products
- special forest products
- non-wood forest benefits
- non-wood goods and services
- forest garden products
- wild products
- natural products
- non-timber forest and grassland products
- veld products
- sustainably produced wood products
- by-products of forests
- non-wood goods and benefits
- secondary forest products.

Why such a proliferation of terms? It seems that none of the terms are truly able to capture the full range of ideas that are encompassed in the NTFP concept. Many have difficulty with the FAO NWFP definition precisely because it excludes wood. Others prefer alternate terms because the idea of 'forest' is too restrictive (they would like to include products originating in grasslands, for example) or that it is not restrictive enough (they would exclude plantation forests). Some focus on wildlife and faunal resources while others exclude them, deliberately or not. Some would include environmental services (e.g. tourism, carbon sequestration, water from protected catchments). More than that, there are some very different ideas about why NTFPs are important and about the role they can or do play in poverty alleviation, economic development, or conservation. The variety of terms reflects an interesting diversity of ideas and assumptions, and to progress in this area we need to understand this diversity.

Why are NTFPs interesting?

Beginning in the late 1970s/early 1980s, in conjunction with the 'sustainable development' movement, there was increased recognition of the actual and potential value of forests to provide many different products and services, to many different people. There was a renewal of academic interest in 'minor forest products', with recognition that the collective trade value of forest products other than timber was large (e.g. de Beer and McDermott 1989), and possibly larger than the total trade in tropical timber (Peters *et al.* 1989; see also Sheil and Wunder (2002) for a critique of those arguments). Neumann and Hirsch (2000) provide a thorough review of the literature. Re-christened 'NTFPs', these forest products were seen as valuable commodities and important tools to achieve conservation and local development. Moreover, the terminology and the 'non-timber forest products' development agenda carried a political message – NTFP development was advanced as a mechanism for poverty alleviation and conservation, the antithesis (it is often implied) of timber development. (And of course, while international interest waxed and waned and waxed again, forest people continued to use and trade a wide range of products).

This is the crux of the matter. The 'NTFP' concept served very well as a nexus of conservation and development thinking. On the one hand, large numbers of the rural poor, and even urban poor who have access to wild areas, rely on a variety of forest products for subsistence use, for natural remedies, as a source of cash income, and as raw materials for home-based industry. Products in this general category tend to be accessible, often growing in common lands or with open access, and harvesting, processing and marketing require low levels of capital investment and accessible skills. NTFPs therefore seem to offer good opportunities for livelihood improvement. At the same time there has been a general assumption that NTFP harvesting is less destructive than timber harvesting and that production of NTFPs is more compatible with forest conservation. Together these assumptions lead to the hypothesis that if the value of NTFP could be increased, incentives for conserving forest cover could also be increased. For example, the Forest Stewardship Council says: 'Harvest of NTFPs usually has lower impacts on the forest ecosystem than timber harvesting, can provide an array of social and economic benefits, particularly to community operations, and can therefore be an important component of forest ecosystem management.' (FSC 2002).

There are some serious flaws in this line of reasoning, deriving from what logicians call 'the fallacy of ambiguity'. The collective term NTFP includes a huge variety of products/species and associated production and marketing systems. There are indeed products in this group that are accessible to poor people, that are used in subsistence systems, that provide important sources of cash income, and that are harvested in relatively benign ways. But not all products in the NTFP set have all of those properties. As discussed below, higher value tends to be associated with higher harvest levels, more intensive management, and the exclusion of some stakeholders by others. The more valuable NTFPs are often demonstrably not harvested in benign ways, and many are lost to the poor as other stakeholders take over control. The subtleties can be lost in the collective terminology.

The terminology is further confused because there are so many different interests and disciplines involved. Research interest in NTFP comes from many perspectives – ethnobotany, ecology, economics – each with their own interests and language. Development organisations see NTFPs as a means for generating subsistence and cash income to benefit the poor. Conservation-oriented groups may be interested in individual species of NTFPs, especially in cases where commercial over-exploitation is seen as a threat, or they may see NTFPs as instruments to help achieve conservation, with low intensity management regimes preferred over more intensive management systems. And there has been a strong interest in NTFPs from a commercial perspective, in valuable products but also in the niche that exists for firms that have a socially/environmentally friendly image. Companies trade on the idea that by buying products containing NTFPs consumers

can support poor people and forest conservation. For some of these firms the ambiguity in the term can be a great advantage – they sell products that contain NTFPs, with all the eco-friendly and people-friendly connotations, even if the production and trade systems for their particular products do not necessarily have those characteristics.

With such a range of interests and motivations, there is also, quite naturally, a range of opinions about what an NTFP is (and is not).

Elements of definition of NTFP

There are five main elements to the interpretation of the NTFP concept that seem to matter most to users. These are: the nature of the product (or service); the source of the product (or service); the production system for the product; the scale of production; and the ownership and distribution of benefits. Let's examine these in order.

Nature of product or service

One of the main areas of disagreement in this debate is whether or not to include woody plant material and products in the definition of NTFP. As noted above, the FAO has made it a key point to distinguish between wood and non-wood products. The rationale for this is provided in FAO (1996): 'The new FAO working definition proposes a clear distinction between wood and non-wood forest products, as an important basis for building a classification system.' A main objective of the effort to standardise the term and definition is to help develop a system of classification for these products that would harmonise with the Central Product Classification System. This would facilitate better statistical recording and would be useful in assessing the value of the product group in national accounts. Colleagues at FAO have indicated that the distinction within the organisation is also motivated by bureaucratic needs in establishing a NWFP unit, as the organisation already has a wood products division and a separate group that deals with fuelwood. That other units of FAO (e.g. the Community Forestry Unit) continued to use the term 'NTFP' underlines the point that the definition used depends on the purpose to which it is put.

For groups interested in community development, forest conservation, or other aspects of forest management, the distinction between wood and non-wood is neither relevant nor helpful. Indeed, from the perspective of a forest user, and from a development perspective, the distinction between timber and non-timber products is false. Within systems where communities have control over forest resources, people manage for the forest products that are most valuable to them. And wherever people have access to forests, timber and other wood products are among the products they use, if not the most important ones. This is true in predominantly subsistence systems (Peluso 1992) and even more so as sources of cash income (Laarman *et al.* 1995) and as inputs in forest-based enterprises (Arnold *et al.* 1994). From this perspective, the scale and ownership (discussed below) are much more important.

Moreover, some have argued that creating such a false distinction between wood and non-wood products could have negative consequences in terms of both conservation and development, because it contains (and supports) the implicit assumption that timber is for the rich and that NTFPs are for the poor (Dove 1994).

Some organisations implicitly or explicitly exclude animals and services. Earlier discussions (FAO 1992) considered stones, gravel and other non-biological resources as NTFPs, but recent discussions generally exclude non-biological products. For this aspect of the definition it is a matter of preference based on interests and objectives. The main choices are whether or not to include:

- woody plant material
- animal products
- services (watershed, carbon sequestration, tourism, etc.).

Source of product (or service)

The question of whether the product or service is produced in a forest environment, and what exactly is a forest, is a key element of many arguments about the definition of NTFPs. Not everyone agrees with the FAO definition of a 'forest'. Some with a strong conservation focus would prefer to exclude plantation forests. Their rationale is that NTFPs should be used as elements in *in situ* systems of conservation. In this concept, NTFPs production is desirable precisely because it is considered to be compatible with and can give value to natural forests. Therefore, it is argued, efforts to promote production in plantation systems could potentially undermine the conservation objective.

Others, especially those working in drier areas, would prefer a term that includes the ecozone they are interested in. Thus the term 'forest and veld products', for example, originates in southern Africa. Others would like to include marine products, for many of the concepts of both the conservation-oriented and the development-oriented organisations are equally applicable for coral reef protection. Again, interests and objectives determine whether or not to include:

- managed forests
- grasslands
- marine or other habitats.

Nature of production of the product

Much more problematic is the question of whether an NTFP is really an NTFP if it is cultivated. This can be a topic of hot debate. Some argue that if the product has been domesticated and produced outside a forest environment, then it is no longer a 'forest product'. Rubber, cocoa, oil palm, and other industrial plantation crops are typically excluded from the definition of NTFP. Some would exclude cultivated bamboo, fruit, and butterflies, for example. For many with strong conservation interests, 'NTFPs' are products that are extracted from the forest or managed in extensive systems. As with the argument about plantation forests (above), domesticated production at best reduces the potential value of the standing forest (by out-competing wild products) and at worst represents a direct

threat to forest conservation if land is cleared to establish plantations.

There are also concerns from development interests that commercialisation and domestication lead, inevitably, to a loss of control and even a loss of access by poorer people. The argument is that people with better resources (including access to land, investment capital and labour) will appropriate the resources for their own benefit, displacing the resource poor who relied on open access extractive resources (Dove 1994).

The exclusion of cultivated products quickly runs into logical inconsistencies in that products with identical properties can be included or excluded from the class depending on the social and environmental characteristics of their production. Thus a stem of rattan or a piece of fruit may be considered an NTFP if it has been collected from the wild and not if it has been grown in a farmer's garden.

The arguments around this debate are important, and the concerns real. Domestication of wild-harvested products can lead to genetic homogenisation, reduce the economic value of wild systems and lead to transfer of benefits from one group of stakeholders to another.

On the other hand, intensified management may be an important means of improving livelihoods. Cultivation can give higher yields, improved and more consistent quality, and more control over the timing of harvests, and together these advantages translate into significant commercial benefits. Cultivation also implies that the producers have secure tenure – the investment in cultivating and managing resources is only feasible if there is a reasonable chance to capture the benefits. In addition there are conservation arguments favouring cultivation as well. Efforts to domesticate NTFPs are often done with the rationale that it will reduce pressure on wild (and presumably endangered resources). Support for intermediate intensity production systems, such as shade-grown coffee, is based in part on the 'conservation' benefits of these systems. Mixed systems are regarded as superior because they support higher levels of biodiversity per unit area than intensively managed mono-crops. (The strong counter-argument that extensive systems require a larger area and so pose a greater threat to biodiversity per unit of coffee production remains unanswered).

So, while this issue seems to be an important consideration in users' own concepts of what an NTFP is, it is not useful as an element of the definition. It is illogical and impractical to use the degree of cultivation as a distinguishing characteristic.

Scale of production

There is an assumption, more often implicit than explicit, that NTFPs are best suited to sustainable harvesting within ecologically benign production systems, and they are promoted on that basis. This is related to, but separate from, the issue of cultivation/domestication discussed above. NTFP cultivation might be an appropriate strategy for encouraging livelihood improvement, and perhaps even as

a tool for conservation at smaller scales. However, it seems likely that large-scale capital intensive, non-timber forest product plantations would have environmental and social costs of the same kind that are found in the large-scale timber sector. Industrial scale plantations of rattan, for example, are just as likely to displace and to exclude forest dwelling people as is an industrial timber plantation. Promising investment opportunities in forest product plantations will be just as likely to lead to deforestation through land clearing, with consequent equity and biodiversity costs. On the other hand, small-scale timber management in a natural forest might offer a good compromise between conservation and development. Likewise oil palm, much maligned as a major cause of deforestation in South East Asia, might be an ideal 'NTFP', offering livelihood benefits and (possibly) reduced biodiversity costs if managed in small-scale mixed systems.

As with the nature of production discussed above, the scale of production is not useful as a distinguishing characteristic in the definition of an NTFP. However, it is very useful to consider the scale issue to underline the logical flaw in the distinction between wood and non-wood and even between timber and non-timber products (except possibly for statistical recording). And, scale may be very useful in the analysis of forest products overall. As Padoch and Pinedo-Vasquez (1997) argued: '[the categorisation of timber and non-timber] is not appropriate since this dichotomy does not reflect the reality of how most forests are managed in the tropics and restricts rather than aids the formulation of a useful research agenda. We suggest instead that the scale of forestry operations and their degree of industrialisation are more realistic and useful parameters.'

Ownership and distribution of benefits

Finally, there seems to be some sense that NTFPs (as opposed to timber products) are useful for conservation and for development because the ownership and the benefits are more likely to accrue to local stakeholders. This idea is supported by the fact that poor, forest-based people do have access to and use many NTFPs and generally do not have ownership (under state law) of timber resources. The ambiguity inherent in the definition of NTFP encourages the flawed argument that, therefore, investing in or otherwise developing NTFP will benefit poor, forest-based people.

In fact, the poor often do not have access to the more valuable NTFPs. And, most of the multiple forest products that people use for subsistence or even for small-scale trading do not have good potential for development. They tend to have low commercial value and the very reasons that they are accessible to the poor (open access, common, low value, lack of markets and market infrastructure) conspire against successful commercialisation/development. If markets can be stimulated and value increased, the poor do not have the resources (by definition) to take advantage. The scenario described by Dove (1994), where the poor are displaced by those with better assets, is likely to play out.

Certainly there are situations where positive interventions can be made to help the rural poor create and capture value based on the production, processing and marketing of natural resources. Again, non-timber products do not have any inherent advantage over timber (except perhaps that the potential has not already been exploited), or over mineral resources or agricultural commodities. This leads us again to the conclusion that the important distinctions are not between 'timber' and 'non-timber'. The real issue from the perspective of improving livelihoods (and this can also be an incentive for conservation) is the ownership and control of the resource.

CONCLUSIONS

The 'NTFP concept' writ large is exciting and challenging. It embodies the sustainable development concept and seeks a 'win – win' solution to problems of conservation and development. The essence of the idea is that there are renewable resources that can be developed in a way that will improve people's livelihoods and that is compatible with or even encouraging of environmental conservation. Beyond that there is much disagreement about where to focus and how, depending on interests and perspective.

Research interests in the NTFP field run the gamut, covering just about every angle. Development efforts focus on the potential for creating and capturing value through improved production, processing, and marketing, with the main focus on improving livelihoods for poor people. Conservation efforts seek to encourage low-intensity management systems and see livelihood improvement as an important (or necessary) instrument to achieve nature conservation. Some commercial companies (and if we are to be cynical, development agencies also) have been able to capitalise on these ideas by selling the package of conservation and development as nicely wrapped consumer products.

As a result of these differing interests and objectives, the terminology and usage is rife with ambiguity and outright inconsistencies. To a certain extent, this ambiguity has allowed room for discussion of ideas that might have been considered incompatible. And, the collective term has served a very important purpose in efforts to highlight the value of a range of resources that had been under-appreciated and undervalued. But, at this point, more clarity is needed.

The term 'NTFP' is well established in the vernacular and it is likely to remain in common usage. It is too late in the game to propose an alternative, and it is unlikely that there is a term that could satisfy the multiple interests involved. However, the proliferation of alternate terms suggests that there is change underway in the concept itself. The product focus is broadening to include a wider range of 'natural products' and the artificial distinction between wood and non-wood is breaking down. And, as interest in and support to poverty alleviation and livelihood improvement builds, we can expect more emphasis on 'natural products' produced in a range of environments, from forests, woodlots, farms, marine resources, or other habitats. There is also a

trend toward organising research and development activities around groups of similar products. So there are networks for bamboo and rattan, medicinal and aromatic plants, woodcarving, and so on. These trends toward more specific terminologies and approaches are useful.

The main lesson regarding the term 'NTFP' is that it is important to be clear about the definition used (or implied) in any particular discussion. Authors should offer a definition and readers should be careful to assess whether or not lessons from one NTFP or group of NTFPs can be applied more generally. It is also important to appreciate any underlying assumptions and how those assumptions influence the discussion.

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From monopoly to de-regulation of NTFPs: policy shifts in Orissa (India)

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INTRODUCTION

Rural poverty in India is generally considered to be linked to the lack of access to cultivable land, or to its low productivity. Changes in collection of the gathered items from common property resources such as forests go largely unnoticed, and are not even accounted for in the national

accounts. However, out of the total population of one billion in India, about 100 million people living in and around forests derive at least part of their livelihood from collection and marketing of non-timber forest products (Kumar *et al.* 2000). These NTFPs provide subsistence and farm inputs, such as fuel, food, medicines, fruits, manure, and fodder. The collection of NTFPs is a source of cash