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Chapter x – Governance for non-timber forest products

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x.1 Introduction

The commercial exploitation of non-timber forest products (NTFPs) was proposed in the 1990s as a strategy to reconcile conservation and development aims in tropical forests. Recognised as an activity that has a minimal impact on the forest (Peters *et al.* 1989) and that plays an important role for the rural poor as gap filler and source of income in situations where alternative livelihood activities are scarce (Sunderlin *et al.* 2005), it was thought to be able to reconcile concerns about dwindling forest resources and poverty among forest-dwelling people. Recent literature stresses that local governance plays an important role in materialising these aims (Brown *et al.* 2002; Mayers and Vermeulen 2002a, Ros-Tonen and Kusters, *in press*). In line with the objectives of this book outlined in Chapter 1, this chapter addresses the question of how forest governance can respond to the needs and priorities of poor people who depend on NTFPs for their livelihoods, how it can help them to manage their resources sustainably, and to do so at interlocking levels of scale. To this end, we first briefly review the role of NTFPs in rural livelihoods. Next, we introduce the notion of forest governance and make it explicit for NTFP governance. We then zoom in on challenges related to tenure rights, the pro-poor rule of law, enabling market opportunities and working in partnerships. After a discussion of the vulnerability of NTFP users, we synthesise our review in a discussion of the key conditions for pro-poor and sustainable NTFP governance.

x.2 The role of non-timber forest products in rural livelihoods

Although the exploitation of non-timber forest products is a practice which is as old as mankind itself, the terminology was introduced at the end of the 1980s by authors like Peters *et al.* (1989) and De Beer and McDermott (1989) to refer to all tangible plant and animal products other than industrial timber which come from tropical forests and other vegetation systems and which are used by local people for subsistence and trade. These authors wanted to make clear that what foresters tended to label ‘minor forest products’ because of their insignificant value compared to timber, were of tremendous

value for people living in tropical rainforest areas, as a source of food, fodder, medicines, construction materials and tools. In addition to these subsistence uses, NTFPs also provided a source of cash income in remote areas where other employment opportunities were scarce. Although widely criticised later (see, for instance, Sheil and Wunder 2002) – Charles Peters and co-authors illustrated on the basis of an inventory of NTFPs in a Peruvian rainforest, that the net commercial value of NTFPs was higher than timber, considering the fact that most NTFPs, unlike timber, can be harvested annually.

In general, however, gathering NTFPs is an activity performed exclusively by the poor, which tends to be replaced with other activities once alternative livelihood options become available (Ros-Tonen and Wiersum 2005). Exceptions to this are some specialised and culturally important activities such as handicraft making and hunting, and the extraction of products for stable external markets such as those for specialty food like edible bird's nest and exclusive mushrooms. This results in a diversified picture of the importance in NTFPs for people's livelihoods, with access to markets being the main determining factor. Based on a meta-analysis of 61 cases of commercial NTFP production, Belcher *et al.* (2005) analysed the role of commercial NTFP production in the household economy and developed the following typology:

1. *Subsistence group* – NTFPs contribute little to the total household income (cash and subsistence), but is the main or the only source of cash income. Households in this group are typically found in remote areas, with limited infrastructure and low population densities. The products (mostly low-value products like palm fibres, fuel wood and medicinal plants) are often extracted from de facto open-access lands.
2. *Supplementary group* – NTFPs contribute less than 50% to the total household income, and the households are well integrated into the cash economy The NTFPs (e.g. fruits for local processing or consumption and medicinal plants for the regional market) are collected from the wild and supplements the household's income, often in times when other sources of income are low.
3. *Integrated group* – Similar to the supplementary group, NTFPs contribute less than 50% to the household's cash income and households are well integrated into the cash economy. In the integrated group, however, the product is cultivated and integrated into a diverse set of income earning activities. Production takes place

predominantly on private lands and markets are mostly local. Examples of products traded by this group are bamboo, high-value wood carving, fruits and resin.

4. *Specialised extraction group:* The NTFP contributes more than 50% to the household's income and the households are well integrated into the cash economy. The product is harvested from the wild, is often of high value and traded regionally or internationally. Examples are certain food items and medicinal plants.
5. *Specialised cultivation group:* The NTFP species (e.g. specialty food products or resins) is cultivated in intensively managed systems and contributes more than 50% to the household's income. Integration into the cash economy is high. Cultivation is mostly on private lands and markets tend to be well developed – often international. Products cultivated by this group include those with relatively high yields per hectare, e.g. managed single-species plantations using high yielding varieties, fertilisers and irrigation.

A lively debate evolved around these products and their potential to contribute to conservation and development aims. The underlying reasoning of such a strategy is that local authorities and forest resource managers will have an interest in preventing indiscriminate forest use or the conversion of forest to other land uses when NTFP extraction contributes to the Gross National Product and export earnings. As far as local communities are concerned, increased income from the trade in NTFPs was thought to provide a stimulus for protecting their forests and managing them sustainably. Since it was assumed that many NTFPs can be harvested without significantly altering the forest structure, they would maintain the forests' environmental services and biological diversity. All these factors have led to the notion that the commercial extraction of NTFPs would be a potentially sound conservation strategy, while also contributing to local development (De Beer and McDermott 1989; Nepstad and Schwartzman 1992; Ros-Tonen *et al.* 1995, Ruíz Pérez 1996). In Brazil, in particular, NTFPs like rubber and Brazil nuts also became a symbol of the struggle of rubber tappers to ensure the protection of extractive reserves, where they could continue their sustainable forest-based way of life, protected from threats from cattle ranchers and other actors making a claim to forest land (Allegretti 1990).

Whereas the discussion initially focused on NTFPs from natural tropical rainforests, it later focused as well on products from other forest types, including

those from semi-arid areas and human-modified vegetation types like forest gardens and agroforestry systems. One of the reasons is that NTFP exploitation is economically more feasible in anthropogenic (human-made) forests where product density is higher (Wiersum 1997; Kusters *et al.* 2001; Ros-Tonen and Wiersum 2005).

A few decades of research have made it clear that NTFPs are indeed an important safety net for poor forest-dwelling people, but that they contributed little to people's escape out of poverty (Belcher *et al.* 2005). In connection with this, Sunderlin *et al.* (2005) refined the concept of (forest-based) poverty alleviation and distinguished between poverty mitigation or avoidance and poverty elimination. In the first case, forest products lessen deprivation and prevent people to fall deeper into poverty; in the latter case forest products help people to accumulate assets and escape poverty. For that to happen, several problems are to be overcome that hinder the trading of NTFPs, especially in isolated areas (see Neumann and Hirsch 2000 for an excellent overview of literature). These include a lack of storage and processing facilities, bad roads and high transportation costs. As a consequence, perishable products in particular have to be consumed locally. Due to the seasonality and unpredictability of production cycles, the low densities of products in the wild and their wide distribution mean volumes are low and supplies irregular. Markets are fragmented because NTFPs provide input to a wide range of industries including food and beverages, pharmaceuticals, cosmetics and botanical medicines. Producers often also face the difficulty of meeting international quality standards prevalent on these markets and these are also subject to trends and are therefore changeable. All this, combined with a lack of organisation among harvesters and dependence on intermediaries to market their products, makes the contribution of commercial NTFPs to poverty alleviation generally limited.

Finally, NTFP exploitation alone is rarely sufficient to survive, as a result of which it is combined with activities such as farming or gold panning, which have more detrimental effects on the forest (Ros-Tonen *et al.* 1995).

x.3 Governance and non-timber forest products

In order to address the limitations of NTFP strategies as regards their contribution to poverty alleviation, increasing attention is paid to the governance conditions that are to be met. Forest governance is understood in this chapter as being the process of

implementing and monitoring the allocation of forest land and resources and of making the relevant policy (Macqueen and Bila 2004). It encompasses decisions on how and to what ends forests are managed, who are involved in these decisions, and what is done to enforce forest laws and policies on the ground. It also refers to the regulatory and institutional frameworks for the conservation, use and trade of forest resources and the principles that guide the interactions between those taking part in the design and implementation of different kind of arrangements. In contrast to centralised government by the national state, governance also includes governments at other levels (including traditional authorities) as well as private and civic actors such as companies, communities and non-governmental organisations (NGOs). Forest governance has become increasingly hybrid, multilevel and cross-sectoral (Lemos and Agrawal 2006, Ros-Tonen *et al.* 2008) and hence increasingly 'interactive' (Kooiman and Bavinck 2005, p 17).

Below we seek to identify the conditions for good NTFP governance. In addition to general conditions that enable the conservation and sustainable use of the resource, we thereby pay specific attention to factors that determine whether NTFP governance meets the priorities of different categories of NTFP users outlined above. The distinction between these categories is relevant for the discussion on pro-poor governance set out in Chapter 1 in two ways. First, it shows that the livelihood situation differs among the various kinds of NTFP users and, accordingly, the productive activities they are engaged in. Second, and related to these differences, it allows being more specific about what exactly are the needs and priorities of forest-dependent people that local governance needs to address. As the classification of Belcher *et al.* shows, NTFP users differ in their dependence on the natural resource as well as on the market and therewith in their priorities with regard to enabling conditions that local governance could create. For NTFP users in the subsistence and supplementary categories, the priority is access to NTFP resources and protection from competing claims by other forest users. With increasing importance of market-oriented extraction, enabling a level playing field in forest markets will be of growing importance. For specialised extractors, interventions may be needed to prevent overexploitation of the resource, while for those who cultivate NTFPs (the integrated and specialised cultivation groups) secure tenure is an important priority, in order to guarantee that they will be able to capture the benefits of their investments. Before

discussing these different priorities and how local governance can meet them, we first discuss some general features of 'good' forest governance.

x.3.1 What is 'good governance' of forest resources?

If we apply UNESCAP[1]'s eight characteristics of good governance to the forest sector (cf. Mayers *et al.* 2002, Brown *et al.* 2002), it follows that forest governance should be:

- *Accountable* – meaning that all actors involved in forest governance (governmental institutions, private sector or civil society organisations) are held responsible by those affected by their decisions;
- *Transparent* – meaning that forest policies and regulations are clear to all who will be affected by them, and that information about them is freely available to all stakeholders in an accessible and understandable form;
- *Responsive* – meaning that it meets the livelihood needs and priorities of forest-dependent people;
- *Equitable and inclusive* – meaning that it stops marginalising the forest-dependent poor and enables them to maintain and improve their wellbeing based on equitable shares of forest benefits;
- *Effective and efficient* – meaning that it promotes efficient use of forest resources for both conservation and sustainable use, and puts effective arrangements in place to include the various stakeholders;
- *Following the rule of law* – meaning that it applies forest laws and regulations impartially, without excluding forest-dependent people from access to, or trade in, forest resources;
- *Participatory* – meaning that all relevant stakeholders are directly or indirectly involved in forest decision-making processes that affect them;
- *Consensus-oriented* – meaning that it is based on a shared and negotiated vision of the societal role of forests and the role of each stakeholder in terms of rights, responsibilities and use.

It may be impossible to comply with all these aspects of good forest governance, so the question here is what are the key conditions for pro-poor NTFP governance? In addressing this question and to align with the group-specific needs and priorities of

[1] URL: http://www.unescap.org/huset/gg/governance.htm, accessed Oct 2010.

different NTFP users, we follow the four main challenges in forest governance put forward by Mayers and Vermeulen (2002a):

- Strengthen rights, capabilities and local decision-making so that poor people can take action to improve local livelihoods;
- Reduce poor people's vulnerability by cutting the regulatory burden on them and promoting the rule and legitimacy of law;
- Enable market opportunities by removing the barriers to market entry, appropriate valuation of forest resources, ensure that markets for environmental services benefit poor people, support associations and finance local forest businesses (i.e. value chain governance);
- Work in partnership by supporting participatory processes, promoting inter-agency learning and action, and making private sector and NGOs partners in poverty reduction.

In the rest of this chapter we elaborate on these issues and specify them for NTFPs and different groups of NTFP users. We then summarise some lessons learned for the governance of NTFP resources.

x.3.2 Strengthening rights

Strengthening property rights is arguably the main element of the first challenge put forward by Mayers and Vermeulen (2002a). Following Schlager and Ostrom (1992) we use property rights in this chapter in the sense of a bundle of rights that includes access, withdrawal, management, exclusion and alienation. Property rights for local people have been promoted on four grounds, the relevance of which is different for the different categories of NTFP users. First, local ownership or long-term access and control rights to forest assets may effectively contribute to poverty reduction because they enable local people to capitalise on forest resources through deals with businesses (Mayers and Vermeulen 2002b) and/or participation in certification, PES (Payments for Environmental Services) and REDD (Reduced Emissions from Deforestation and Degradation) schemes (Arnold 2001, Scherr *et al.* 2003, Skutsch *et al.* 2008). Tenure security as a way to capitalise on forest resources through company-community deals and/or certification is a relevant argument in particular for groups already integrated in (international) markets, while PES schemes may be more relevant for subsistence-oriented groups whose productive activities are by and large

compatible with forest conservation. The second argument for well-defined and secure property rights is that they are a key condition to achieve sustainable management of natural resources as they would ensure that managers can reap the benefits of management, protect the resources from overexploitation, and promote long-term investment. For obvious reasons, this is particularly relevant to users specialised in cultivated NTFPs. Third, community-based organisations (CBOs), NGOs and researchers have drawn attention to the fact that state authorities often deny local people access to forest resources. Property rights are therefore regarded as a justice issue (e.g. Zerner 2000). This relates in particular to subsistence-oriented groups whose rights to exploit natural resources commercially are often neglected. Fourth, secure property rights are expected to help protect areas that are used by local people from appropriation by outsiders. For example, if NTFP management systems are located on state lands, conflicts may arise with government-sanctioned land uses such as forest concessions or plantations and this can lead to tenure insecurity and jeopardise the continuation of these production systems (e.g. Pagdee *et al.* 2006). Similarly, insecure property rights lead to the exclusion of people from the exploitation of forest resources, and to conflicts over forest land resulting from competing claims. Both exclusion and conflicts threaten the livelihoods of the rural poor (e.g. Hobly 2007). This argument is valid for all categories of NTFP users distinguished above.

In the last few decades. several countries have developed legal instruments to grant rights to forest resources to local communities. Based on the extrapolation of official tenure data for 24 of the top 30 forested countries that together hold 93 per cent of the world's natural forests, White and Martin (2002, p. 7) suggested that 22 per cent of the forests in developing countries are currently reserved for, or owned by, community and indigenous groups. Many of these arrangements imply rights to extract or cultivate NTFPs. Well-known examples are the Certificates of Ancestral Domain Claim (CADC) in the Philippines (Lynch and Talbott 1995), the extractive reserves in Brazil (Schwartzman 1989, Allegretti 1990), and the Joint Forest Management schemes in India (Kumar 2002). Such tenure arrangements are generally expected to promote sustainable forest management while enabling local communities to capitalise on available resources.

Although these efforts to reform property rights for local people are promising (Scherr *et al.* 2003), the frequently quoted figures presented by White and Martin (2002) may present an overly optimistic picture for the following reasons: (i) many of these property rights involve a range of restrictions, for example on commercial timber (e.g. Boaz 2004); (ii) the highest quality forests usually remain in the hands of governments or large-scale enterprises (Scherr *et al.* 2003); (iii), property rights are often designed on the basis of unrealistic assumptions, lack proper implementation and involve onerous procedures (e.g. Palis 2004); (iv) the formalisation of property rights may threaten security if it fails to address the complexity of the existing system and competing claims (Neumann 1997); (v) granting property rights may continue or even increase existing inequalities which prejudice the least powerful, such as women and minorities (Ben White quoted in World Bank 2007, p 115); and (vi) clear ownership rights are insufficient if poor people are unaware of their rights or if these rights are not backed up by local institutions (Mayers and Vermeulen 2002a, Shackleton *et al.* 2002). The first issues go against the priorities of forest users whose livelihoods already depend to some degree on marketing forest products and seek to diversify their incomes. The last issues particularly discriminate against subsistence users, who are among the poorest and least powerful.

x.3.3 Reducing vulnerability by promoting pro-poor rule of law

An important feature of good governance is the rule of law. In the context of forest use, promoting pro-poor rule of law means that forest laws and regulations should not negatively affect the livelihoods of forest-dependent people (for example by excluding them from access to, or trade in, forest resources) and are applied impartially. This is often not the case (Mayers and Vermeulen 2002a, Shackleton *et al.* 2002). In a lot of countries, forest-dependent people are facing overregulation with regard to the use and trade of forest resources, particularly when they live close to conservation areas. More powerful forest users, in contrast, encounter fewer restrictions particularly with regard to logging or forest clearing for farming. Furthermore, many of them often succeed in undermining the rule of law through tax evasion or illegal forest exploitation due to the understaffing of forest agencies (Mayers and Vermeulen 2002a). Even where land ownership and authority have been devolved to local communities, as in Botswana and Namibia, the state continues to

control natural resource use by setting wildlife quotas, renewing tourism and hunting concessions with the private sector and prohibiting subsistence hunting without a permit (Shackleton *et al.* 2002, p 3). Such a situation may adversely affect the poverty-reducing potential of NTFP production by denying people's access to forest resources or hampering their rights to exploit these. It is particular the subsistence and supplementary group of NTFP users who suffer most from these ways of exclusion.

The need for a clear and coherent governance framework is illustrated by the study of Adano and Witsenburg (2004) in the Marsabit District in Northern Kenya where both the forest's safety net function for the poor and the conservation of the Marsabit forest reserve are threatened as a result of deficient rule of law. The lack of a coherent governance framework and poor coordination among institutions hinder them to deal with conflicting land-use practices and the underlying power imbalances and conflicts of interests over forest-based resources (Mbugua 2001, p 14) as well as with the threat of conversion to agricultural land and human settlement (Bubb *et al.* 2004). Furthermore, local people face increasing restrictions in their access to products from the National Park or Forest Reserve – which provide wood fuel for 80 per cent of the households. These restrictions include monthly payments for permits to access forest resources and periodic bans in times of stress. Households furthermore appeared to pay varying permit prices, suggesting hitches in the prices charged. The command and control approach to forest access and the dual endorsement of forest permits raises concerns about the dominance of power and mistrust confronting resource users. The weak regulation of the protected areas created open access problems associated with the exploitation of the natural forest and is one of the main threats to the conservation of forest resources. The resource control measures also have unequal effects on households, since it is the relatively resource-poor households that derive a significant share of their income from forest resources and recur to these resources in times of scarcity.[2]

x.3.4 Value chain governance to enable market access

Scherr *et al.* (2003) analysed the role of forest markets in rural livelihoods and argued

[2] Although the discussion in this section has focused mainly on formal state law, it should be noted that the rule of law should also apply to arrangements under customary law in situations of legal pluralism.

in favour of a level playing field for low-income forest producers in forest markets. They highlighted the fact that conventional forestry, as well as approaches which are more sensitive to the livelihood needs of forest-dependent people such as social forestry and integrated conservation and development projects, marginalised these people's position on forest markets and at best supported subsistence activities. They referred to new market opportunities resulting from the transition towards increased community ownership and control of forests, a growing demand for forest products versus increasing scarcity of accessible timber, and emerging niche markets for certified forest products and environmental services (which if supplied by forested landscapes can be considered non-tangible NTFPs). For small forest producers to benefit from these new potentials, enabling policies would be required to remove market barriers, reduce the regulatory burden on them and find new financial mechanisms and incentives. Stimulating producers' associations and strategic business partnerships would be another way of enhancing the participation of small producers in profitable forest markets. Coupling this to the different groups of forest users, effective value chain governance can push NTFP users from one category to the next, with increasing income-generating opportunities being the result.

How the existence of market barriers and a lack of enabling conditions can hinder a promising NTFP trade is illustrated by the bamboo producers' case on the island of Luzon in the Philippines (Kusters *et al.* 2001). In spite of being a substantial source of income based on sustainable exploitation, the bamboo gatherers think it offers little future due to the illegality of their activities. As individuals they cannot meet the bureaucratic requirements of getting a permit. Removing this barrier could be a solution, but the bamboo gatherers themselves think the solution mainly has to do with becoming an organised producer association or cooperative.

As regards enabling market opportunities, an important question is whether 'conventional' NTFPs have sufficient potential to reduce poverty, and whether governance efforts should not be directed towards new promising markets. A lot of NTFPs fulfil an important 'safety net' and 'gap filling' function to the poor, but this does not automatically imply that they have potential to lift people out of poverty (Arnold and Ruiz Pérez 2001, Belcher *et al.* 2005). Quantifying the value of several forest goods and services in the Amazon region, Verweij *et al.* (2009) also support the conclusion that returns from NTFPs and ecotourism should not be overestimated. This

is largely due to contextual factors, such as poor tenure security, infrastructure and market access, but it also has to do with seasonality and the low densities at which the NTFP resources occur and their irregular distribution (Ros-Tonen and Wiersum 2005, Boot 1997).

In terms of poverty reduction, more is currently expected from markets for certified forest products (including timber and non-timber forest products) and payment for environmental services (PES) such as carbon storage, hydrological services, biodiversity conservation, preserving landscape beauty or pollination services (Angelsen and Wunder 2003, Sunderlin *et al.* 2005, Verweij *et al.* 2009). As regards certification however, there are still a lot of obstacles that need to be removed before NTFP extractors can capitalise on these markets (see Pierce *et al.* 2003 for an overview). Most experience in the field of PES is still experimental (Sunderlin *et al.* 2005) and markets and effective financial mechanisms for environmental services still have to be developed (Verweij *et al.* 2009). Skutsch *et al.* (2008) also point out that, in relation to carbon payments under REDD schemes, several governance challenges still need to be met at local, national and international levels. These include questions related to (customary) ownership rights, the fair distribution of carbon benefits among various stakeholders, the institutional infrastructure to govern REDD, accounting methods to register carbon gains and losses, and transparent criteria for payments. Last but not least, there is the risk that benefits from REDD and PES – as in the case of other high-value NTFPs such as wildlife – remain in the hands of more powerful groups in society, with there being little interest in handing over control to local communities (Nelson and Agrawal 2008).

x.3.5 Alliances and partnerships

The last challenge for good and pro-poor governance put forward by Mayers and Vermeulen (2002a) concerns the need to build partnerships between local forest dwellers and actors from other sectors (government, private sector and/or civil society). Partnerships are perceived here as being 'more or less formal arrangements between two or more parties from various sectors around (at least partly) shared goals, in the expectation that each party will gain from the arrangement' (Ros-Tonen *et al.* 2007, p 5). The main idea behind the need for partnerships as an avenue via which to reach good and pro-poor governance of NTFP resources is, as Sunderlin *et al.* (2005,

p 1388) put forward, that ‘forest-dependent people who live in or near forests tend to be politically weak or powerless’. By pooling power, assets, knowledge and skills with actors at other levels of scale, local forest dwellers can compensate for the lack of political and economic leverage. As mentioned above, this lack of power comes to the fore mainly in insecure property rights to forest resources, the skewed rule of law, and limited capacity to seize market opportunities.

In addition to being a way of obtaining greater leverage and increasing people’s command over natural resources, partnerships are also needed to deal with the larger number and wider variety of actors in forest management. The past decades have shown an evolution from centrally guided forest management to decentralised governance, as a result of which several actors other than the state have a say in the allocation and use of forest resources. Several factors contributed to the inclusion of other actors in forest governance, with the most important at global level being (i) neo-liberal policy reforms and the declining role of the state; (ii) the ‘good governance’ debate in the 1990s, (iii) the tendency towards global environmental action and governance; (iv) globalisation and the corresponding improvement of transnational communication and information flows, and (v) increasing reliance on the market and the role of corporate actors. At national and sub-national levels, factors favourable to the shift from centralised government to multi-actor governance include (i) decentralisation policies, (ii) the claims for and devolution of property rights to indigenous and other local communities, and (iii) the democratisation wave in the 1980s which resulted in strong civil society development and engagement in many places (Lemos and Agrawal 2006, Ros-Tonen *et al.* 2007).

As a result of these developments, forest policymaking and implementation shifted from the traditional centralised ‘command and control’ approach to a network approach, in which government, corporate and civil society actors at different levels of scale collaborate on the basis of (at least partly) shared beliefs and dependency. The term forest governance was coined to include the notion of democracy and the involvement of non-state actors in decision-making regarding the allocation and use of scarce forest resources.

The increasing number of actors also implies the need to deal with competing claims and diverging interests. Partnerships are a way of coping with this increased

complexity of actors and claims. This holds true particularly for NTFP governance due to the limited means, power and market access of the producers involved.

That is not to say that partnerships are the panacea for the poverty among forest-dependent people. Partnerships around extractive reserves in Brazilian Amazonia are a case in point. These reserves were created with the aim being to improve both tenure security and the livelihoods of NTFP gatherers. Research by Brown and Rosendo (2000) and Rosendo (2007) shows that the partnership approach is promising as regards efforts to secure the political empowerment of extractivists and their rights to and command over forest resources, but that there are still immense challenges to be met with regard to their economic empowerment (Brown and Rosendo 2000). In spite of considerable technical and financial support, it seems to be hard to improve the living standard and wellbeing of NTFP extractors living in isolated conditions, even if proper governance arrangements are in place.

x.4 Discussion: how can pro-poor forest governance reduce the vulnerability of forest-dependent people?

As outlined in Chapter 1, poor people – and even more so poor forest people who often live in isolated conditions – have difficulties to secure their livelihoods in absence of equalising institutions and well-functioning markets. A key concept in this respect is vulnerability. Although vulnerability and poverty are not the same (Chambers, 1989), poor people tend to be more vulnerable to adverse events. Poor people try to reduce their vulnerability through the use of different types of insurance strategies such as risk spreading and increasing buffer capacities. The more effective a household's insurance strategies are, the more likely it is to cope with adverse events or seasonal shortages. Insurance strategies are adopted in anticipation of adverse events, while coping strategies are adopted in response to adverse events (c.f. Dietz and Van Haastrecht, 1997). Both strategies help to achieve a higher level of livelihood security, preventing people from falling deeper into poverty (i.e. poverty mitigation). They therefore are important elements of poor people's livelihood strategies.

In the subsistence and supplementary groups of NTFP users, NTFP extraction from natural forests is often part of people's 'seasonal coping strategies', i.e. people turn to the extraction of NTFPs from natural forest when faced with seasonal shortages that are to some extent expected. When NTFP extraction from natural forest

takes place in response to a sudden unexpected severe crisis, it can be labelled a 'genuine coping' or 'survival' strategy (see Van der Geest and Dietz, 2004, for an elaboration of these terms).

For the integrated group, the cultivation of NTFPs in diverse tree-based systems may also have important insurance functions. Such systems can produce a range of commercial and subsistence products which help to spread risks and reduce farmers' vulnerability to adverse events such as a crop disease or price fluctuations. The maintenance of diversified systems can therefore be considered an element of farmers' insurance strategies and even lead to the accumulation of assets and poverty elimination. The same may hold true for the specialised cultivation group, as a focus on one marketable NTFP does not necessarily imply a monoculture system, but can also result in a diverse system that provides other products and services. The mature *damar* agroforests in Sumatra, Indonesia, for example, provide secure monthly income through the sale of resin, but also serve as a saving account in the form of timber (which can be turned to in times of unexpected need), access to fuel wood and vegetables for subsistence purposes, and seasonal access to fruits for both subsistence and commercial purposes (Kusters 2009).

What then, are the critical governance factors that help reduce the vulnerability of forest-dependent people? In the first place, it is important to protect the insurance functions of NTFP production. NTFP extraction from natural forest and NTFP cultivation in diverse systems both help to reduce people's vulnerability. If a farmer relies on a lot of forest products as part of a risk-spreading strategy, efforts designed to stimulate specialised extraction or cultivation of a particular species may compromise the farmer's flexibility and increase the vulnerability to price fluctuations and production failures. Moreover, specialising in extraction from the wild often leads to overexploitation. When designing interventions aimed at increasing income from NTFP extraction or cultivation, care should be taken that insurance functions are not threatened.

Second, appropriation of forest resources by outsiders should be prevented. In the subsistence and supplementary groups, in which people use wild products to make ends meet, NTFP-related interventions should be directed at preventing appropriation of forest resources by outsiders with different interests, as to ensure that people do not lose access to these resources.

Third, it is crucial to avoid blue-print concepts and start from local problems and opportunities. Any intervention aimed at increasing the returns of NTFP production systems should start from an in-depth understanding of the local context and local particularities, rather than blue-print concepts. Therefore, interventions should preferably be developed in close collaboration ('partnership') with resource managers (the farmers), researchers and other stakeholders (c.f. Ros-Tonen et al. 2008) in a dynamic and adaptive process (c.f. Sayer and Campbell 2004), taking differences between various categories of NTFP users into account.

Finally, the question is how to increase forest people's command over natural resources and their capacity to mobilise forest resources to improve their livelihoods. Among the factors discussed above tenure security and multi-actor partnerships generally stand out. Tenure security may effectively contribute to poverty reduction because it enables local people to capitalise on forest resources in various ways. The PES and REDD schemes in particular are expected to offer great potential as regards forest-based income in the near future (Wollenberg and Springate-Baginski 2010). In addition, well-defined and secure property rights are a key condition for achieving sustainable resource management as they ensure that producers can reap the benefits of their management efforts which, in turn, stimulates them to protect the resources from overexploitation and make long-term investments. Important in this respect is to design tenure arrangements that account for multiple perspectives. Decision making regarding tenure arrangements also implies moral considerations, such as the question of whether certain environmental considerations justify the restriction of land-use options for people. When designing new tenure arrangements, it is up to the decision makers to answer such questions, but they would need to do so by taking into account the perspectives of all stakeholders and be aware of differences in resource and market dependence between them.

Furthermore, it should be noted that the relationship between tenure and sustainable forest use is ambiguous. First, having secure property rights to a forest area does not mean the holder of the property rights will leave the area forested. Second, deforestation can be a way to claim land and secure tenure (Chomitz 2007, Schneider 1995). Third, as demonstrated by the case of damar agroforests in Krui in Sumatra (Kusters *et al.* 2007), perceived tenure security – which is affected by

reduced outside threats and increased support of NGOs and research institutions – can be more important in shaping land-use decisions than the formal legal tenure status.

The second factor that comes to the fore as being key to pro-poor NTFP governance is community organisation and multi-sector partnerships. Both of these are needed to tackle many of the challenges associated with NTFP production. Forest people generally lack power and that puts them in a weak negotiation position. Self-organisation and linking up with actors in the public and private sector (companies and NGOs) at multiple levels of scale can help improve tenure security, the equitable rule of law, political empowerment of forest fringe communities and access to markets. As noted above, such partnerships have also become necessary because shifts in governance have increased the array of actors in the forest arena and the need to deal with competing interests and claims. Furthermore, partnerships can help realise the new potentials in the field of forest-based income, such as certification, PES and REDD. These new opportunities require access to information, a proper approach to dealing with complicated procedures and links with actors at global level that are hard to oversee for actors in far-away forest areas. In order to reap the benefits of these new schemes, the forest-dwelling poor need brokers and watchdogs to increase their political and economic leverage.

x.5 Conclusions

In this chapter, we have reviewed some key forest governance conditions that address the needs and priorities of poor NTFP users and their capacity to improve their livelihoods. We looked in particular to the governance challenges put forward by Mayers and Vermeulen (2002a) with regard to secure rights, equitable rule of law, market access and the building of partnerships.

Many of the NTFP governance challenges reviewed can be met through building partnerships. Such partnerships have become necessary, firstly because shifts in governance transferred authority from the central state to lower levels of government, the private sector, and local forest users. This increased the array of actors involved in forest governance and the need to deal with competing interests and claims. Secondly, the need to engage in partnerships is even more compelling for the forest-dwelling poor, with a view to increasing their limited political and economic leverage.

Partnerships can do a lot to create the conditions for the good governance of NTFP resources. They may help improve tenure security, the equitable rule of law, political empowerment of the rural poor in forest areas and access to markets through company-community deals and multi-sector partnerships involving private sector actors. This helps reduce the vulnerability of forest people to external shocks and increase their capacity to mobilise resources in a sustainable manner for the improvement of their livelihoods.

However, governance for poverty reduction based on the marketing of NTFPs faces huge challenges, particularly as regards 'non-tangible NTFPs' (i.e. environmental services) due to the complexity of the governance structures required to make such markets work for local people. We argue that the building of partnerships between local forest users and actors from other sectors and geographical scales can serve as the starting point to tackle these governance challenges. As this review of the specificities of NTFP use made clear, such partnerships need to take account of the fact that users of NTFPs differ in their dependence on the resource base and the market. Only when these differences are taken into account, NTFP governance will be able to meet the needs and address the priorities of poor forest users.

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