



1.5 Governance of non-timber forest products in the Congo Basin

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Non-timber forest product value chains

The processes involved as non-timber forest products (NTFPs)¹ are harvested, processed, sold and used create what is known as a value chain. A chain perspective allows the impacts of governance arrangements to be assessed.

High levels of forest cover in the Congo Basin give rise to at least 951 species used as NTFPs in the Democratic Republic of Congo (DRC) and 706 in Cameroon. Approximately one-third of these are traded; around 50 plant-based and 70 animal-based NTFPs are exported (Ingram 2012). The vast majority of NTFPs are sourced from the wild: only 5% of plants are cultivated and less than 1% of animals are wild-sourced (Ingram 2012). The value chains operate in a context of increasing urbanization, significant poverty, a difficult business environment and significant corruption (de Wasseige et al. 2009).



GOVERNANCE OF NTFP VALUE CHAINS IS OFTEN A COMBINATION OF FORMAL, CUSTOMARY, VOLUNTARY SCHEMES AND INTERNATIONAL STANDARDS.

Drivers and incentives to address NTFP governance

Over the last two decades, a growing number of studies have highlighted the high economic, social and cultural importance of NTFPs in the region (Tieguhong and Zwolinski 2008; Ingram et al. 2011). Together with increasing political attention paid to the impacts of deforestation and climate change, and on food security and forest ecosystem products and services, this has led to NTFPs becoming more well known. The Central Africa Forest Commission and Central African Forest Observatory, strongly supported by international organizations, are driving initiatives to harmonize NTFP policies.

Methodology

From 2007 to 2010 nine high-value NTFP chains (Table 1) were tracked, from harvesters in major production areas to consumers. Interviews were conducted with 4,108 stakeholders concerning values, governance, livelihoods and sustainability. Literature, regulatory and trade data were collected and analyzed using value chain analysis (Kaplinsky and Morris 2000).

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Table 1. Characteristics of NTFPs studied

Species	Product names	Study location	Consumption locations	Life form	Parts used	Uses
<i>Acacia senegal</i> , <i>A. polyacantha</i> , <i>A. seyal</i>	Gum, gum arabic	Cameroon	Local; Europe and USA	Tree	Resin, bark, leaves, timber	Material, cosmetic, food, medicine, forage, timber
<i>Gnetum africanum</i> , <i>G. buchholzianum</i>	Eru, okok, koko	Cameroon	Local and cities; Nigeria, Europe	Vine	Leaves	Food, medicine
	Fumbwa	DRC	Local and cities			
<i>Apis mellifera adansoni</i>	Honey, wax, propolis	Cameroon	Local and cities; CAR, Nigeria, Europe, USA	Insect only by-products used	Honey, wax, propolis	Food, medicine, cosmetic, material
		DRC	Local and cities			
<i>Prunus africana</i>	Pygeum, African cherry, red stinkwood	Cameroon	Local and cities; Europe, USA, China	Ever-green tree	Bark, seeds, leaves, timber	Medicine, carving, timber, fuel
<i>Cola acuminata</i> , <i>C. nitida</i> , <i>C. anomala</i>	Cola nuts, abel, goro	Cameroon	Local and cities; Chad, Nigeria	Ever-green tree	Seeds, bark	Stimulant, medicine, cultural
<i>Irvingia gabonensis</i> , <i>I. wombulu</i>	Bush mango, ndo'o, andok	Cameroon	Local and cities: Equatorial Guinea, Nigeria, CAR, Gabon	Ever-green tree	Fruit, seed, bark, timber	Condiment, oil, medicine, dye, construction, fuel

Species	Product names	Study location	Consumption locations	Life form	Parts used	Uses
<i>Raphia farinifera</i> , <i>R. vinifera</i> , <i>R. hookeri</i> , <i>R. negalis</i>	Raffia, cane, Indian bamboo, mimbo	Cameroon	Local and cities	Palm	Stems, sap, leaves, seeds	Material, construction, tools, craft, wine, food
<i>Yushania alpina</i> , <i>Oxytenanthera abyssinica</i>	Bamboo, kok-ko, cane	Cameroon	Local and cities	Grass	Stems	Material, construction, tools, craft, paper, fuel
<i>Dacryodes edulis</i>	Safou, plum	DRC	Local and cities	Tree	Fruits, leaves	Food, medicine

NTFP governance: many rules and players

NTFPs are governed in many ways (Figure 1). A combination of statutory, customary, voluntary schemes and international standards are in place, along with corruption and interventions from projects. Some chains are governed by multiple arrangements. Pluralism is not new (Wollenberg, Anderson and Edmunds 2001) and it is dynamic; governance changes as users, uses and values do, over time and spatially.

Statutory arrangements

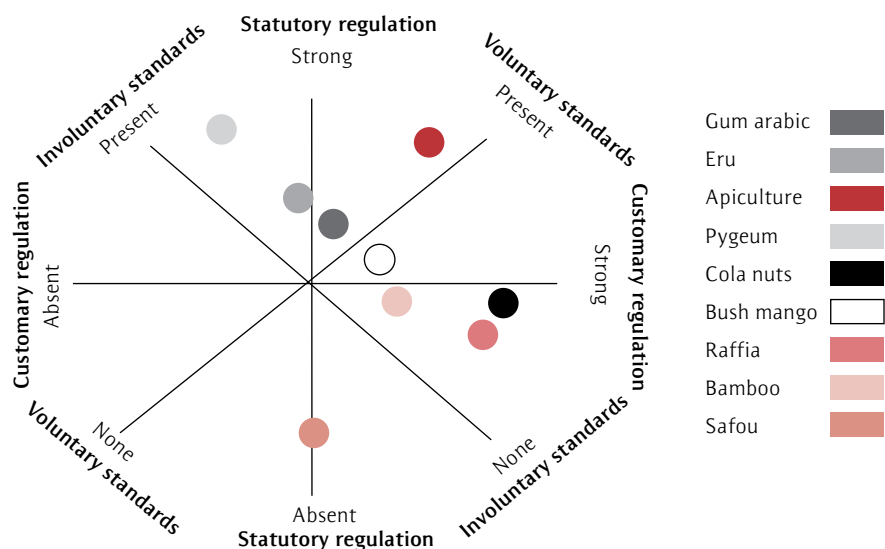
In the Congo Basin, Cameroon has the longest-standing and most advanced forest regulations and DRC the most recent. Forest policies in both countries aim to contribute to poverty reduction, economic development and biodiversity management. The regulations have largely been developed under pressure from outside agencies, with little national political will.

Reforms resulted in the 1994 *Forest and Wildlife Law* in Cameroon and 2002 Forestry Code in DRC. These framework laws regulated the diversity of NTFPs as a homogenous group for the first time. Both distinguish between local populations' rights to freely collect NTFPs for their own use and permissions required for commercialization for trade in protected species and species listed in the Convention on International Trade in Endangered Species (CITES).

Trade in NTFPs from community and council forests² is also subject to permission and a management plan. In DRC, the sale of NTFPs gathered under user rights is not authorized, unless a provincial governor decrees their trade. To date, no decrees have been issued. In

Cameroon, the 1994 Law introduced the notion of Special Forestry Products (SFPs). These are not defined, but economic and environmental value is implied. Several SFPs were identified in 2006 and quotas have been set for between five and sixteen products annually.

Figure 1. Pluralist governance in NTFP value chains



The listed products confuse instead of clarify the intentions of the government, however; high-value products are listed alongside commercially insignificant products for which no permits have ever been issued. The regulations are inconsistent, not clearly defined, inappropriate and incomplete given the range of products traded.

Very low levels of awareness of the regulatory and permit system exist in the chains, including local government authorities, who interact most often with direct stakeholders (e.g., harvesters, wholesalers and retailers). The permits are expensive, difficult to obtain and require payment in advance, showing a bias towards the economically and politically powerful few. Even working collectively, many actors indicated that they did not have the political or financial capital to acquire quotas. Eru, safou and bush mango are the most frequently traded plant-based NTFPs, but they are only infrequently permitted. This makes it unclear if their trade is regulated and implies that the flourishing domestic and regional trade is largely illegal.

Some products, such as pygeum and eru, have specific statutory regulations; others, such as cola and raffia, do not. Exported NTFPs, such as gum arabic and pygeum, are regulated only when they exit the main ports. Products that cross regional borders, such as cola, safou, eru and bush mango, are not regulated or monitored.

Governments' institutional capacities are limited, particularly in DRC. Implementation tends to be sporadic and enforcement is rare. In Cameroon, except in the case of pygeum,

quotas and permits are led by demand rather than based on species availability or sustainability. Taxes are inconsistent and are ineffective in controlling trade or promoting regeneration; they are also exorbitant for small-scale enterprises. Since the highest value species are not regulated, the government receives limited revenues. This reinforces the policy status of NTFPs as insignificant products.

Since Cameroon and DRC are signatories to global conventions, international supervision and rule-making add another governance dimension. CITES regulates pygeum through mechanisms and trade monitoring that are designed to limit its vulnerability. This has strongly shaped the chain by requiring inventories and management plans and reformulating rules of access, which have affected costs and benefits. Non-compliance led to a two-year trade suspension; this had significant negative livelihood impacts, but provided respite for the species. The Convention on Biological Diversity requires signatories to secure the rights to use, maintain and protect traditional botanic and medicinal knowledge. In the pygeum chain, this requirement stimulated new benefit-sharing mechanisms among harvesters, community organizations and traditional authorities.

Customary arrangements

Although most forested land is state owned — 86% in Cameroon and 100% in DRC (de Wasseige et al. 2009) —90% of harvesters were unaware of this or assumed customary ownership; these statistics corroborate previous studies (Alden Wily 2006). Customary regulations have a strong impact on political and economic behaviour (Assembe-Mvondo 2009) and also influences NTFP chains.

When NTFPs are harvested for subsistence use, few conflicts arise between customary and statutory regulations. In the case of high-value, high-volume NTFPs, however, these regimes often collide. Wide variations between products were found, but on average, 49% of NTFPs originated from primary open-access forest, 3% from community forests, 30% from farms and fallow and 18% from customarily controlled forests.

In addition to regulating access to specific areas, customary regulations often govern cultural, social and economic values, including quantity, who has access and when and who benefits. Rights varied by chain, with differences between locals and outsiders and nature of payment.

In areas where customary institutions traditionally exerted considerable control, authority was reported as weakening. This was due to high commercial values, increasing rural migration and harvesting by interlopers. New institutions such as community forests have often undermined traditional authority, since they have more power and are supported by influential organizations.

Voluntary market-based arrangements

Market-based initiatives — such as Geographical Indication schemes³ and organic and ethical-trade certification of apiculture products — have created rules about quality standards, harvest practices and sustainability and increased prices. Even though develop-

ing these schemes was difficult and costly for the small enterprises, they have pre-empted restrictive statutory regulation.

Eru and NTFP retailer's unions and trade associations in Cameroon and Nigeria have significantly influenced marketing methods, prices and trading activities. In the honey sector, enterprises have proactively developed export standards; a chain-wide association has evolved these standards into business-friendly regulations. Corruption abounds in trade, permitting and transport, particularly in the pygeum, cola and eru chains, comprising up to 14% of wholesaler costs in the case of eru.



Arrangements established through projects

Many conservation, development and research projects have, whether deliberately or not, influenced governance. The standards and rules they introduced have changed harvesting, cultivation and processing practices in the apiculture, pygeum and eru chains. Support for harvester collective action, information exchange, cultivation and processing has led to new power configurations in the honey, safou and bush mango chains. This has raised prices and increased production. The involvement of elites and traditional authorities has blended new and traditional rules.

Bricolage in NTFP governance

An impact of the imperfect statutory system is that NTFPs with high commercial, social and cultural values are ineffectively regulated. The ability and will of stakeholders to legally participate in the sector is undermined.

Operating legally does not prevent corruption. A common response to weak statutory governance is bricolage.⁴ Some actors, e.g., in the raffia and cola chains, continue to operate informally, using traditional customary arrangements. But where customary arrangements are weak or not beneficial for trade or sustaining livelihoods, new rules and institutions have been created or local rules have been shaped to support access and activities. Examples include the bamboo, honey and pygeum chains.

These chains also use statutory arrangements, such as community forests, to build new forest management institutions to engage traditional rulers and harvesters and rewrite harvesting and benefit rules. Standards introduced by projects have been adopted and adapted; for example, in pygeum harvesting and eru cultivation. This is most frequent in the case of increasing resource scarcity and increasingly commercial value.

Government and donor-driven reforms have largely focused on the statutory framework. This has created fresh bricolage opportunities, giving rise to new markets, coalitions and collaboration with support organizations. The ambiguous status of forest land and resources, and high bureaucratic hurdles hinder communities and individuals who wish to become legal entities to manage, harvest and trade in what they consider their own forests.

High taxes reduce the incentive to formalize, leading to high levels of informality; only 32% of groups are legal entities and the majority of trade is carried out without permits.

Thus a combination of different, sometimes contradictory, overlapping governance arrangements is created. Small-scale harvesters and traders, operating informally, have crafted governance arrangements to maximize benefits. These operations are often economically inefficient, focused on the short term, and do not internalize environmental costs.

The formal framework does not promote or support a vibrant NTFP-based entrepreneurship. Although simple processing prolongs products' shelf life and generally increases profits, this does not occur often in the chains. Even when it does, the value added is generally low, particularly for exported NTFPs, where the end processors gain significant margins from processing.

The lack of harmonization between governance agencies means there is no differentiation between wild and cultivated NTFPs and little promotion of value-adding. Most of the chains have little political visibility.

Although informality avoids state interference, it is a barrier to gaining support from government, research and support organizations. It is also equated with lack of policy attention; the importance of the NTFP sector's contribution to national economies, livelihoods, food security and health has been unknown or under-estimated. Another impact of bricolage is that benefits from trade may be controlled by the actors with the most economic or political power. The people who are the poorest, most marginalized and most dependent on NTFPs may have little control, as illustrated by the pygeum and eru chains.

Impacts on chain and product sustainability

NTFP chains were most likely to be unsustainable where a functioning, legitimate statutory framework was absent and market or voluntary arrangements were weak. When these governance weaknesses combine with strong commercial pressure or market arrangements that have an economic focus, customary laws have proved to be incapable of counter-acting unsustainable harvesting techniques and over-exploitation. This is particularly the case for outsiders, but also for local communities. The result is unsustainable exploitation.

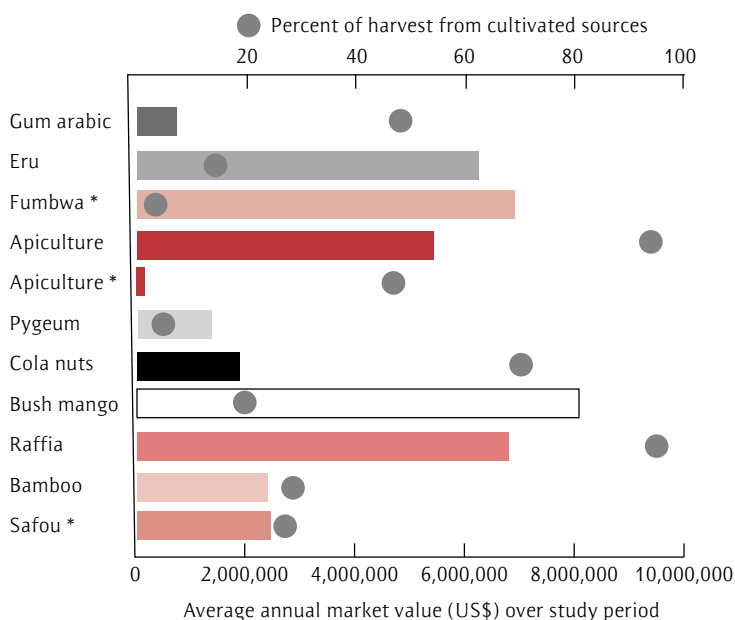
In the absence of inventories for any of the products (except pygeum), perception-based indicators highlight the effects of trade. Across all nine chains studied, 97% of harvesters indicated longer forage distances in the previous five years. Nearly 25% indicated that NTFPs were becoming more scarce and 23% reported increased forage time. Threats include an increasing number of new harvesters. In addition, more than half of the harvest techniques were unsustainable and the majority of products came from the wild, with 42% cultivated. Deforestation for farm clearance was a threat for eru, bush mango, raffia and cola. Forest degradation occurring from multiple uses (e.g., fuelwood and grazing) prevented regeneration of pygeum and bamboo and is problematic for apiculture. The level of unsustainability was highest for eru and pygeum, followed by bush mango, safou and bamboo chains.

The level of cultivation and proportion of wild-harvested NTFPs (Figure 2) provide another indicator of sustainability. Three of the highest value chains are mainly wild-sourced. Apiculture is an exception; although bees are largely domesticated, 78% of hives are situated in open or customary regulated forests. The cola, raffia, bamboo and safou chains have long trade histories, stable markets and high cultivation rates. Cola and raffia have strong customary regulations.

This suggests that wild harvesting of high-value products, with few formal controls and weak customary governance, is not sustainable in the long term, confirming Clark and Sunderland (2004). Only in the pygeum chain has statutory regulation led to more sustainable trade. Once enforced, it limited the supply of an NTFP whose high value and specific ecology (the parts used, regeneration and harvest techniques) combined to make it highly susceptible to over-exploitation.

Figure 2. Average annual market value and cultivation levels in NTFP chains

Note: all data from Cameroon, except where noted (*: DRC)



Conclusions

Statutory regulations have not been effective in creating sustainable trade, particularly for high value NTFPs in Cameroon and DRC. They have been unable to stimulate and control sustainable trade. These regulations are not the only form of governance; diverse customary, market, voluntary and project arrangements are also in place.

Few regulators have taken a chain-wide approach to assess the impact of plural governance mechanisms. The ingenuity of those who have created their own forms of governance in these largely informal chains has been largely disregarded, despite the sustainability of some arrangements.

The operating environment — which includes corruption, small-scale operations, high urban demand and growing international demand and informality⁵ — has also been overlooked in formal regulation and policies. A historical perspective indicates that cultivation is critical to providing a sustainable supply for long-term trade. The ways that tenure and access rights to land, forests, trees and their products are organized are key variables. These determine who benefits and how, as secure ownership is linked to better resource management, with pro-poor outcomes (Alden Wily 2006).

How chain governance arrangements combine — in particular, the complementarity of overlapping systems — is critical for the survival of the species these products originate from, and for the livelihoods of those who depend upon them along the chain. Governments, donors, research and support organizations should look beyond statutory governance in countries where regimes and enforcement are weak.

Pluralism can in fact be a policy option (McAuslan 2004). It would involve recognizing and using sustainably-oriented customary and voluntary arrangements that support statutory frameworks. Support to improve information exchange, collective action and the business-operating context will be essential to achieve a successful bricolage.

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For more information

See www.fao.org/forestry/enterprises/nwfp-centralafrica-eu/en for more data on NTFPs in Central Africa.

Endnotes

1. NTFPs are products of biological origin from natural, modified and managed forested landscapes. They include plants and animals, whole or in part.
2. These are legal forms by which communities and councils in Cameroon, and soon, communities in DRC, can request rights to manage — but not own — and exploit a specified forest area.
3. A geographical indication is a term used on products from a specific geographical location. It can act as a certification that the product possesses certain qualities, is made according to traditional methods, or enjoys a certain reputation, due to its geographical origin.
4. This is from the French verb *bricoler*. A bricoleur is a do-it-yourself individual who resourcefully makes creative use of whatever materials are available to complete a task, regardless of their original purpose.
5. Formality implies explicit rules, procedures and norms prescribing rights and obligations of actors and enforced by a third party (i.e., statutory regulation). Informality implies socially shared, usually unwritten, flexible, dynamic rules, created and enforced among the actors involved.

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