



Guide for small and medium enterprises in the sustainable non-timber forest product trade in Central Africa

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Introduction

The commercialisation of non-timber forest products (NTFPs) (see Box 1) in poor, rural, forested environments can provide important cash income for local populations, as well as traders, processors and retailers in urban areas. Many rural community members harvest and process a variety of products cultivated on farms, in fallows and from the forest, as harvest seasons are mostly short and vary per product. The use of different products diversifies livelihoods and makes the most of the opportunities presented by

Box 1. What are Non-timber forest products?

Non-timber Forest Products (NTFPs) are goods of biological origin (plant, fungi and animal) from natural, modified or managed forested landscapes. They include fruits and nuts; vegetables; fish and game; medicinal plants; resins; essences; fuel wood and barks; and fibres such as bamboo, rattans and other palms and grasses. The term 'non-wood forest products' is also used, which excludes all woody raw materials, including fuel wood and small woods used for domestic tools and equipment, covered by the term NTFPs. Also excluded are exotic forest products now farmed and found in the wild in the Congo Basin, such as rubber (*Hevea brasiliensis*) and quinine (*Chincona* spp.). Fuel wood is classified as an NTFP in the legal framework in Gabon, the Central African Republic and Cameroon. NTFPs are often classified by their use, with the most common uses being food; forage; utensils; tools for construction; medicines; aromatic products and colorants; and objects of ornament, art and of cultural value. All parts of both plants and animals are used and can be classified as NTFPs: fruits, seeds, leaves, stems, barks, resins, roots, flowers and wood; meat, hides, hair, horns, hooves and other animal parts. Often different parts of the same plant or animals are used for multiple purposes. These products may be directly consumed, sold, given as gifts or bartered. High-value NTFPs such as bush mango (*Irvingia gabonensis*), eru or fumbwa (*Gnetum* spp.), honey and wax, gum arabic, raffia (*Raphia farinifera*), cola acuminata, safou (*Dacryodes edulis*) and pygeum (*Prunus africana*) provide on average 42% of annual income for harvesters' households. In the main production areas, the price received by harvesters can be determined by the market, the season, the level of organisation of producers (meeting buyers individually or in group), the abundance of production, consumer demand, the costs of taking the product to market and the perishability of the product.

nature. In Cameroon and the Democratic Republic of the Congo (DRC), on average, about 39% of harvesters interviewed work together in groups, as small and medium enterprises based on NTFPs.

The livelihoods of those involved in NTFP enterprises can be considered sustainable when they can cope with and recover from stresses and shocks, and when living standards and assets can be maintained or even enhanced, both now and in the future, while not undermining the natural resource base that communities depend upon.¹

Why are NTFPs important?

A business based on sustainable exploitation of NTFPs can have a number of benefits:

NTFPs create high economic value and large-scale employment. Lively local, regional and international markets exist despite the fact that these products remain largely unrecorded in national statistics or export figures. In Cameroon, at least 25 major markets trade significant volumes of different NTFPs (see Figure 1). NTFPs can also be found in nearly every market in small quantities for everyday use. At least 570 plants and 110 animal species in Cameroon are used as NTFPs. The estimated market value of the 45 main NTFPs traded in Cameroon, including bushmeat, fish, fuel wood and plant-based products, is worth around US\$1.028 billion annually. At least 283,000 people in Cameroon and 70,000 people in the DRC are involved in businesses based on 15 of the major NTFPs, thus the total number for the whole sector is much larger. This represents more than twice of formally recorded employment in the forest sector both in Cameroon and in the DRC.

Providing food security. Thirty percent of the NTFPs harvested in Cameroon and the DRC are used for food. This includes bushmeat that provides essential protein, vegetables such as baobab leaves, fruits such as safou, oil-providing seeds such as moabi (*Baillonella toxisperma*), spices such

¹ Scoones, I. 1998. Sustainable rural livelihoods: a framework for analysis. Institute of Development Studies, Brighton, UK.

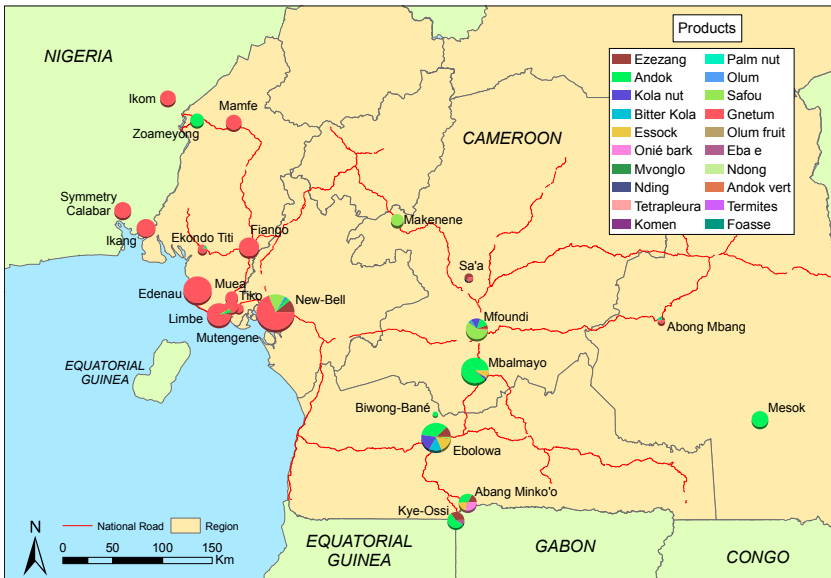


Figure 1. Markets and NTFPs in Cameroon

as bush pepper and *njansang* (*Ricinodendron heudelotii*) and stimulants such as *Cola acuminata* and bitter cola (*Garcinia kola*). For example, in Equator Province in the DRC, *fumbwa* (*Gnetum* spp.) comprises 6% of NTFPs eaten in harvesters' households and in Kinshasa consumers eat it about once a week. The cost of a dish of *fumbwa* in small restaurants (accessible to different classes) in Kinshasa is on average US\$0.76. In Cameroon, a dish of *eru*, in the same type of restaurants, is around US\$1, making it an affordable food source.

Essential to health. Over 500 plants in Cameroon and the DRC are used locally for medicinal reasons. For rural households, these plants provide an important and low cost source of healthcare. Some of the highest value-per-volume NTFPs are also exported for use by the pharmaceutical industry, such as pygeum (*Prunus africana*), yohimbe (*Pausinystalia yohimbe*), moabi (*Baillonella toxisperma*) and Voacanga (*Voacanga africana*). This sector is an interesting niche as a substantial local processing is required, which should lead to additional employment and sustainable growth of SMFEs.

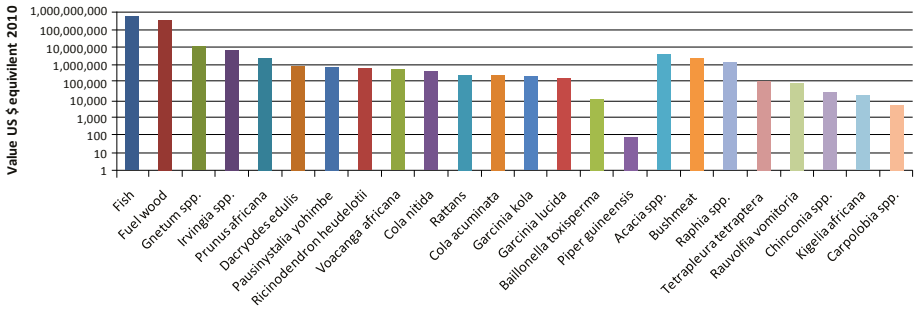


Figure 2. Key plant NTFPs in Cameroon, by annual trade value

Source: CIFOR data 2007–2010

Providing tax revenues. NTFPs that are classified as ‘special forest products’² in Cameroon, and those requiring ‘special’ or ‘ordinary’ permits in the DRC generate tax revenues. However, as most trade of NTFPs is outside of the permit system, tax revenues are still modest. This system could be improved by reforms to NTFP regulation policy, for instance by opening the market officially to small traders under some rules. This would certainly reduce corruption along the chain, and maximise tax revenues and benefit for traders. The easiest way to realise this is to get producers organised through associations or small and medium enterprises.

Risks and challenges in NTFP trade

Although the trade for many NTFPs, such as cola and raffia is centuries old, small and medium forest enterprises often find it difficult to optimise profits and manage NTFPs sustainably at the same time. They face risks and challenges, which can lead to only short-term returns, rather than sustainable, viable businesses. These risks include:

² Decision No. 0336/D/MINFoF 6 July 2006, defining the list of special forest products of particular interest to Cameroon.

Governance practices that lead to poor management of NTFPs. How the forest is governed; how it is managed; who can harvest, when and how; and who owns the land and forests legally, as well as under local traditions, are important conditions that determine whether harvesting is sustainable, profitable in the long term and conflict free.³ New forms of land and forest management, such as community and council forests, bring their own challenges, as do communities living near timber concessions and protected areas.

Weak enterprises. The management, organisational and leadership capacities of enterprises are critical factors that can make or break an SMFE. Especially small and new ‘common initiative groups’ and cooperatives may lack members with experience in trading, processing or marketing products, or skills such as negotiating prices, transporting products to markets and obtaining permits and official documents.

Ensuring equal access and equity of benefit sharing. About one-third of harvesters and two-thirds of traders are women; how men and women work together, who benefits and controls NTFP harvest and trade and how the benefits are shared are important aspects of maintaining a fair and sustainable business.

Lack of knowledge. Limited knowledge about storing technologies, processing opportunities, market information and how to domesticate NTFPs constrains many SMFEs. A lack of networking between actors in the chain from harvester to trader often blocks this flow of information.

Access to finance. SMFEs face difficulties in accessing sufficient credit to enable processing and scaling up of operations. Many SMFEs use local saving schemes, but often this does not provide sufficient capital or the long-term loans needed for investments.

3 Wynberg, R.P., Laird, S.A., Shackleton, S., Mander, M., Shackleton, C., du Plessis, P., den Adel, S., Leakey, R.R.B., Botelle, A., Lombard, C. et al. 2003. Marula policy brief. Marula commercialisation for sustainable and equitable livelihoods. *Forests, Trees and Livelihoods* 13: 203-215.

Exploiting NTFPs – today and tomorrow

What can an SMFE do to make sure that there is a sufficient supply of their product, not just for the next season, but also in several years? Whether an SMFE owns the NTFP or not, knowledge and control of the product can ensure ongoing supply. This is known as creating a ‘chain of custody’ or ‘secure supply chain’. So, even though seasons and harvests may vary, an SMFE can better manage products, reduce risks and make business more predictable by securing, as much as possible, the supply and quality of the NTFP in which it trades. The following guidelines draw on successes and lessons learned from villages in the Northwest, Southwest and Adamaoua regions of Cameroon that are harvesting rattan, bamboo, *eru*, pygeum, bush pepper, *njansang* and cattle sticks:

- Know how the product is harvested: Are the techniques being used destructive (that kill the plant)? If so, can other harvest techniques be used? (See Box 2 for an example)

Box 2. Harvesting *eru* sustainably

Less than 5% of *eru* sold in Cameroon comes from planted sources, and none in the DRC, despite its profitability and the good farming techniques and pilot domestication projects that have existed in Cameroon for over 15 years. Farmers planting *eru* in the Southwest demonstrated that the plant can be grown fairly easily. However, it grows slowly, with only four pairs of leaves in the first year of production, and then 192 leaves annually.

Fifty percent of harvesters interviewed in the Southwest, Littoral and Centre regions of Cameroon use unsustainable techniques, and with forest clearance for farmlands, plantations and logging, supplies are declining over time. Most harvesters (97%) confirm that they have to walk farther and look harder to find *eru*.

Unsustainable harvesting includes:

- felling the trees on which the *eru* vine climbs;
- cutting the entire *eru* vine.

Sustainable methods include:

- plucking only the leaves from stems and leaving some behind, especially at the growing tip;
- plucking stems with leaves from the vine, leaving part of the vine;
- controlled cutting cycles (rotation of 2 years);
- not harvesting young, small vines, under one year (about 1.5 m tall)

- Know how long it takes for the species to regenerate (that does not cause death or poor health) and the best period of time before it can be harvested again (the rotation period).
- Establish agreements with harvesters to ensure that sustainable techniques are used.
- Encourage harvesters to work together to develop, and then apply and monitor, their own rules for harvesting sustainably.
- Secure more predictable supply by promoting domestication i.e. propagating and planting NTFPs on private or owned land such as in fields and fallows.
- Also secure supply by encouraging planting on common land such as paths around village areas, etc.
- Promote the set-up of nurseries for the most valuable products, or those that are becoming more difficult to find in the forest, or plants which have difficulty becoming mature in the wild, and experiment with how to domesticate them.
- If planting trees is difficult due to traditional or formal land ownership rights, see how certain species might be protected to allow regeneration, e.g. by harvesting defined areas in rotation and allowing 'fallow' areas for regeneration, agreeing periods for harvest, working out harvest zones with communities whose harvest zones overlap, defining rules for access by local and nonlocals to certain areas, and by setting standards for the maximum quantities per person or community in a given period and space, that allow sufficient quantities of the product to remain in the forest for regeneration.

The rules on NTFP trade

Knowing the regulations governing trade of their products can help SMFEs operate legally and more efficiently. About 90% of SMFEs interviewed in Cameroon and the DRC are operating without permits and therefore are acting illegally. Formalisation, while taking money and effort, can bring rewards in terms of combating corruption and allowing increased access to formal channels of finance, and technical and organisational support. This section highlights the regulations on NTFPs in both countries, but does not touch on the framework for small and medium enterprises.

Own use:

- The Cameroon 1994 Forestry Law⁴ grants free, customary-user rights to forest communities, allowing collection of ‘all forest, wildlife, fisheries products freely for their personal use, except protected species’ in all unprotected areas, and including subsistence fuel wood and wood for construction needs. These rights may also be exercised in communal and community forests. In the DRC, the 2002 Forestry Code⁵ also determines similar rights and clearly excludes commercialisation among them.

Commercialisation:

- When NTFPs are harvested for sale, different laws apply. In 2006,⁶ the Government of Cameroon defined 13 ‘special forest products’ as ‘certain forest products, such as ebony, ivory, wild animals, as well as certain animal, plant and medicinal species or those which are of particular interest and shall be classified as special’. Many of these products are NTFPs. For such ‘special forest products’ (see Box 3), a permit is needed. Every year, the list of ‘special forest products’ and related quotas are updated by the Ministry of Forestry and Wildlife (MINFOF). SMFEs need to apply to MINFOF annually for a quota and permit if they want to trade in any of these products. Product-based quotas are often not location specific or related to any type of inventory, except for *Prunus africana*, but may be given for a region or nationally. In Cameroon, the permit is granted upon upfront payment of 30% of calculated financial value, based on CFA10/Kg; a third is paid in the middle and the final payment is at the end of the year. However, due to the difficulty of meeting advance payments, a lobby has been set up in Cameroon to change this. Many companies receiving quotas are not directly involved in the product chain of custody, instead acting as

4 Law No. 94/01 of 20 January 1994; and decrees of application No. 95/466-PM of 20 July 1995 on wildlife and No. 95/531-PM of 23 August 1995 on forestry.

5 Law No. 011-2002 of 29 August 2002 regarding the Forestry Code; Law No. 92-2002 of 28 May 1982 regarding the Forestry Code; Law No. 82-2002 of 28 May 1982 regarding hunting; and Ministerial Decree No. 014/CAB/MIN/ENV/2004 of 12 February 2004 executing the hunting law.

6 Decision No. 0336/D/MINFoF 6 July 2006, defining the list of special forest products of particular interest to Cameroon.

brokers, selling portions of quotas to traders as waybills (*lettres de voiture*) at a much higher price than they pay in the form of ‘regeneration taxes’ to the government.

- For bushmeat, the 1994 Forestry Law and amendment in 2006,⁷ classifies all animals into three classes. Class A species are totally protected and may not be killed, and include elephants, gorillas, panthers, lions, chimpanzees and hippopotamuses. Class B are protected but may be hunted with a hunting permit, and include giant forest hogs, bush pigs, bay duikers, bush bucks, pythons and tortoises. Class C species are ‘partially protected’ and in practice include all animals not listed in A or B or by the Convention on International Trade in Endangered Species (CITES).
- In the DRC, a quantity-based, 1-year ‘ordinary’ harvest permit for an area of up to 5 ha, or a hunting permit for animals, is required for the majority of common NTFPs, and ‘special’ permits are required for protected or CITES-listed species, obtainable from the provincial governor. Taxes are payable on these permits.⁸
- Knowing the rights and legal obligations related to NTFP trade can help business enormously (i.e. whether a permit and waybill is required or not). The costs of corruption, particularly during transport from forest to market, can be significant, as shown in Table 1. For example, *eru* transporters face on average 22 roadblocks and checkpoints from a multitude of different agents when travelling from the Southwest region of Cameroon to the Nigerian markets, and 10 checkpoints when travelling from the Centre or Littoral region, costing on average US\$530 per truck. A permit can mean such hurdles are reduced along the chain.

Export:

- In addition to the permits for the exploitation of ‘special forest products’ in Cameroon and the ‘ordinary’ or ‘special permits’ in the DRC, both countries require exporters to have an annual export permit, provided

7 Order No. 0648/MINFOF of 18 December 2006 defining the list of animals of Classes A, B and C.

8 Set by interministerial decrees No. 066/CAB/MIN/FIN-BUD and No. 067/CAB/AFFET/2003 of 27 March 2003.

Box 3. 'Special forest products' in Cameroon

The list of permits for 'special forest products' is revised annually by the Cameroon Ministry of Forestry and Wildlife. The 2006 decree listed 13 products as 'special forest products':

Name in decree	Interpretation	
	Scientific name	Local name
Ebéne ^a	<i>Diospyros crassiflora</i>	Ebony, nsang
Gnetum Eru	<i>Gnetum africanum</i> , <i>Gnetum buchholzianum</i>	Eru, okok, koko
Pygeum	<i>Prunus africana</i>	Kanda, kirah, bi'beh'kemboh', elouo, eblaa
Yohimbé	<i>Pausinystalia yohimbe</i>	Johimbe
Funtumia	<i>Funtumia elastica</i>	Ntoh, akaine, Etendamba, Elé-ndamba
Rauvolfia	<i>Rauvolfia macrophylla</i>	Ebtong, etong, esombo
Rotins	<i>Eremospatha spp.</i> , <i>Laccosperma spp.</i> , <i>Oncocalamus spp.</i>	Rattan, nlong
Gomme arabique	<i>Acacia senegal</i>	Gum arabic, gavde
Tooth stick	<i>Massularia randia</i> syn. <i>Massularia acuminata</i> , <i>Garcinia mannii</i> , <i>Cola acuminata</i> , <i>Cola nitida</i>	chewing sticks, chew stick
Candle stick	<i>Carpolobia alba</i> and <i>Carpolobia lutea</i> <i>Canarium schweinfurthii</i>	Cattle stick? Candlenut?
Charbon de bois	23 main species identified: <i>Albizia adianthifolia</i> , <i>Albizia zygia</i> , <i>Alstonia boonei</i> , <i>Bridelia micrantha</i> , <i>Dacryodes macrophylla</i> , <i>Entandrophragma utile</i> , <i>Macaranga asas</i> , <i>Maesopsis eminii</i> , <i>Mangifera indica</i> , <i>Milicia excelsa</i> , <i>Morinda lucida</i> , <i>Piptadeniastrum africanum</i> , <i>Phyllanthus discoideus</i> , <i>Presea maericana</i> , <i>Rauvolfia caffra</i> , <i>Ficus thonningii</i> , <i>Lannea welwistchii</i> , <i>Voacanga cacao</i> , <i>Tetrapleura tetraptera</i> , <i>Xylocarpus africanus</i> , <i>Xylocarpus aethiopicus</i>	Fuel wood, charcoal

Name in decree	Interpretation	
	Scientific name	Local name
Aniegré	<i>Aningeria robusta</i>	Abam, Aingueri
Poteaux d'Eucalyptus ^a	<i>Eucalyptus</i> spp. especially <i>Eucalyptus robusta</i> , <i>Eucalyptus globulus</i> , <i>Eucalyptus grandis</i>	Eucalyptus poles

The list is confusing as to which species fall under the law as several species are known locally under the same name, a single species has multiple local names and the list uses a mix of French, English, local and scientific names. Local and scientific names are shown here alongside the names in the decree.

a These are timber, not non-timber products, but are classified as 'special forest products'.

Table 1. The costs of bribery in NTFP chains in Cameroon and the DRC

Product	Location	Actor	Average annual cost of bribery per person (US\$)	Percentage of total costs
Safou (<i>Dacryodes edulis</i>)	Kinshasa	Retailer	96	5
	Kinshasa	Wholesaler	566	23
	Bas Congo	Retailer	85	9
Eru (<i>Gnetum</i> spp.)	Bas Congo	Wholesaler	219	20
	Southwest	Wholesaler	447	14
Pygeum (<i>Prunus africana</i>)	Littoral	Wholesaler	223	15
	Northwest, Southwest	Trader	1,964	6
Bush mango (<i>Irvingia</i> spp.)	Southwest	Exporter	108	24
	Centre, South, Littoral	Wholesaler	125	33

by the ministry in charge of forests in collaboration with the customs department. Any export of wild animals, their hides and skins, or trophies, also requires a certificate of origin.

New uses:

- Cameroon's 1996 Environmental Framework Law states that 'Cameroon's biodiversity is to be used sustainably, especially through ... a system on the control of access to genetic resources'; and that 'scientific exploration and biological and genetic resources exploitation in Cameroon shall be done under conditions of transparency and in close collaboration with national research'. Often medicinal plant knowledge is closely guarded by local communities. Rightly so, as new international rules on 'access and benefit sharing' under the Convention on Biological Diversity, to which Cameroon and the DRC are signatories, aim to protect this wealth of traditional knowledge, and new resources are increasingly sought by international biodiversity prospectors. The legal framework is still insufficient for such developments to have a positive impact on the livelihoods of local people, biodiversity conservation and the national economy. However, the 1996 Environmental Framework Law includes some measures to ensure that local communities and governments benefit from the collection and proceeds of bio-prospecting, on terms mutually agreed with international companies, and that resources are used sustainably. Local communities must give prior and informed consent before any prospecting or exploitation takes place and this should be based on the 'precautionary principle' (to ensure no unsustainable harvest). If trade is successfully established, subsequent benefits should be shared equitably.

Tips for doing good business

Tips from successful enterprises focus on the benefits of working together and exchanging information:

- Think long term (instead of day to day) and dare to make strategic choices. Then establish tactical partnerships – this may be with processors or traders.

- Think like a business and not as a nongovernmental organisation (NGO) (even if you are one).
- Join an association or union – they can help lead to new markets and provide information, and give more negotiating power to buy or store in bulk. Membership can also help legitimise your business and gain access to support and information. Group sales of bush mango and



Photo 1. Bush mango kernels transformed into cake, flour and oil

- honey in the main production areas of Cameroon have shown that they can lower costs, raise selling prices, and increasing bargaining power.
- Market information can also empower sellers by directing them more quickly and easily to where products are available – saving transport costs and reducing losses, and allowing buyers to choose from a range of prices.
- If there are no associations in your region, create one.
- Use the internet, especially for finding export markets and foreign buyers, and to look for information on domestication, processing, transformation and finance opportunities.
- Use the power of members and communities to spread news about buying and selling prices, and requirements; to negotiate as a group, saving time and resources; and to share information.
- Negotiate with buyers early in the season to secure your product quality and quantity, if possible arrange advance payments for goods. Be professional – secure any advances with collateral or a contract.
- For SMFEs which have group members, be scrupulous about how financial transactions are recorded and agree prior to each season, how and when profits or benefits will be shared and who gets what and why.
- Elaborate action plans: planning activities and level of engagement of members at various stages. The distribution of roles among members should be clear for greater efficiency.

- Work with other actors in the chain (wholesalers, retailers, harvesters and transporters) to define and then set up quality criteria and determine consumers' product preferences, as well as the elasticity of price (how much they are prepared to pay for different quality and given alternatives). The bush mango and safou markets have been domesticating fruits, such as the Makenene safou, in response to consumer preferences for shape, size and taste.

Box 4. From small trader to major wholesaler: Safou 'queen', Esther Fougong in Makenene

Safou (*Dacryodes edulis*) is one of the most highly traded NTFPs in Cameroon and the DRC. It is sold fresh across Central Africa and also increasingly dried in sachets to Europe and North America. While women control the retail market, and men largely the export markets, Esther Fougong succeeded in becoming a powerful wholesaler to Gabon. She started retailing safou when



Women selling *Dacryodes edulis* at Makenene market in the center region

she was 14 years old, beginning with limited capital. 'Since 2000, I have been receiving guidance and market information from CIFOR which has improved my activities and incomes from the sale of safou' said Esther. While the safou season is short – from April to September – her monthly income in 2004 was US\$1600–2400. Esther's dream is to make a connection with European markets so as to sell high-quality, branded 'Makenene safou'. Esther concludes: 'Despite my young age, I am taking care of my family. I think I do better than many civil servants.' Today, Esther takes care of her many sisters and brothers, as well as her two children. Esther opened a bar in Makenene market with the money she earned from selling safou. She combines running the bar with selling safou during the season, diversifying her income and providing stability.

Improving harvesting techniques

SMFEs can study how harvesting is done, to see what areas can be improved to increase quantities, improve quality, reduce losses and improve sustainability.

- Most NTFPs can be harvested in more than one way. Choose the option with the lowest impact on the individual plant or the population remaining.
- For example, don't cut the tree but harvest fallen fruit only, take some but not the all leaves and don't harvest young leaves. If a harvest is inherently destructive, such as the roots or bark, then make sure there are also regeneration and planting programmes. For *Prunus africana*, only harvesting small patches of bark (an arm length) does not harm the tree. For larger quantities, a harvesting standard is available from the ministry in charge of forestry and wildlife in Cameroon. For honey, good practice encourages harvesting only of ripe honeycomb, to avoid the higher water content of unripe honey, which leads to fermentation.

Post-harvest technologies

What happens after harvest can make the difference between profit and loss? Many SMFEs interviewed incur costs by continuing to do 'business as usual' and not critically analysing how different actions can have more profitable results.

- Simple equipment can boost production, speed up processing times and reduce losses. For example, the diesel-powered, locally made, cracking machine for njansang (*Ricinodendron heudelotii*) kernels, and the cutting machine for *andok* fruits (*Irvingia gabonensis*) (Photo 2), both reduce the processing time by 50–75%. For wax processing,



Photo 2. Processing technology: Bush mango cutting machine

simple wax melters and solar filters can save fuel wood and maximise the volume of wax produced (Photo 3).

- Experiment with alternative techniques to see how post-harvest losses can be reduced. For example, different storage techniques to keep bush mango kernels dry and fresh are practised across Cameroon: pasting onto mud brick walls; drying on racks over or next to household fires; sun drying; splitting and then wrapping; storing in paper, sacks, or plastic bags; or transforming immediately to a paste which has up to 6 months shelf life. For cola nuts (*Cola acuminata* or *Cola nitida*), shelf life can be extended by 3–6 months when wrapped in leaves (*Aframomum* spp.) and then buried. The life of raffia, palm or honey wine (*ngo*) can be extended if it is fermented in closed containers with an airlock containing oil or water – so that it does not turn into vinegar after several days.
- Selection, grading and inspection can help add value by differentiating products – that is making a distinction of quality – for example selling the largest and juiciest safou at a higher price than smaller, or different coloured safou. SMFEs can determine how to do this by working out:
 - Where and when could this action take place?
 - Who could do this?
 - Which tools, equipment and other materials are useful?
 - What are the criteria to be used to set quality standards?



Photo 3. Processing technology: solar wax melter



Photo 4. Dried eru packaged by processing enterprise MISPEG in Cameroon

- What does the consumer prefer?
- How can losses be reduced by grading and inspection? An example is the honey sector in Cameroon, which has voluntarily, in collaboration with the Ministry of Livestock, set up standards for export quality and is now working on developing national standards. This responds to consumer concerns that honey is often adulterated and not real honey, and the fact that many consumers are willing to pay a higher price for good quality honey.
- Packaging can make a major difference to price and quality. Questions to ask include how, when and where should packaging be done? The objective of packaging (such as to protect the goods and/or impress the consumer) and its impact first needs to be assessed. For example, several SMFEs in Cameroon are now drying and packaging *eru*, safou, cola and *njansang* into attractive sealed plastic bags. This increases shelf life and also can be used to sell the product at a significant profit in neighbouring markets across Central Africa (see Photo 4). Honey producers have also redesigned their packaging so that it can be more easily transported and make a better impression on consumers in large cities (Photo 5). Profits can be up to 25% higher, compared to the previous packaging in reused bottles. Producers must assess the characteristics of the packaging material and whether it is appropriate for the market.



Photo 5. Honey jars packaged by processing enterprise Guiding Hope

redesigned their packaging so that it can be more easily transported and make a better impression on consumers in large cities (Photo 5). Profits can be up to 25% higher, compared to the previous packaging in reused bottles. Producers must assess the characteristics of the packaging material and whether it is appropriate for the market.

- Storage can improve both the shelf life and the marketing opportunities for a product. SMFEs in Cameroon have found, for example, that changing from plastic to jute bags to store *eru* reduces the chance of rotting and increasing its life by over a week. SMFEs must weigh up the trade-off between price and quality for the storage options and assess the risks. An example is the practice in parts of Southwest Cameroon of using insecticide on bush mango kernels to reduce losses. This can have very negative health impacts on consumers who do not know that they should wash kernels before using them. Other issues to assess include:
 - Ideal storage temperature and how to control it. For example, with no access to electricity or fridges, placing large basins of water in a shady hut can reduce the temperature.
 - When and how long the product should be stored.
 - The type of storage needed and the reason why the product should be stored.
 - Characteristics of the storage place (humid, dry, etc.).
 - Infrastructure and equipment needed (type and if maintenance is required).

Adding value

Actors at all stages of the chain can potentially increase profits by ‘adding value’; this might mean storing or bulking products together, it could mean processing or packaging the product. The majority of NTFPs sold by harvesters undergo only basic value-adding processes such as drying, chopping or cleaning. SMFEs can look at the options and weigh the costs and benefits of adding value by:

- Identifying processing techniques and which processed product could be sold to different consumers;
- Analysing where it is most cost effective or most benefits can be gained for processing to take place (for instance close to the market or close to source of the product) and what expertise is needed;
- Identifying the target market for these processed products;
- Working out the costs and benefits of processing compared to the value of the unprocessed product.

Diversifying

As many NTFPs are seasonal, SMFEs should examine the opportunities for diversifying or specialising. CIFOR's research indicates that half of the 2108 NTFP harvesters studied in Cameroon already derive income from more than one NTFP, but specialise in one major product. They also engage in other economic activities to provide a diversification of household revenues. For most harvester households an average of 42% of their annual income comes from NTFPs. For SMFEs, the same strategy can be effective.

- SMFEs can make a choice about whether and how to diversify, to similar products for example, or to specialise in one or a few NTFPs, or to add other compatible products, such as agricultural produce.
- Examples of successful diversification include a small Cameroonian company (MISPEG and TALESS) which started drying and packaging NTFPs and is now branching out into agricultural products, such as cassava and mangos. The Market Information System introduced by SNV (an advisory and support organisation) in the South and East of Cameroon has resulted not just in increased sales and prices for bush mangos, but also for agricultural products. The system also helps in finding markets for products, such as mushrooms and *ebaye*, also known as *essong* (*Pentaclethra macrophylla*). Honey producers in the northwest and the Adamaoua region of Cameroon and the Kisantu area of the DRC are also branching out to produce products such as candles and creams from wax and honey. They are realising that there is a higher-value market for hive products previously thrown away or not even harvested, such as wax and propolis.

Knowing your market

SMFEs are encouraged to invest in getting to know their markets – even if not directly selling to consumers. Many value chains are complex, with multiple stages and actors involved in the process of getting a product from forest to consumer; they are also dynamic and change over time. Experience

from successful enterprises in the forest regions,⁹ shows that one of the most important steps an SMFE can take is to know more about the value chain of their product and their market. Ways to do this include:

- Being proactive and looking for market information: This means investing and going out of your village or town to new markets, crossing borders and making contacts.
- Getting to know your consumer: Talk directly to them or go via traders and retailers – find out who they are (domestic, national, regional and international), what they want, when and how. Such knowledge of consumer behaviour and preferences can be vital in giving your SMFE an edge, helping assess market trends and minimising risks, especially when trying out new transformation or processing activities.
- Analyse your market and chain: Get to know your market better. If you can, join with others. Do research and look at what has been done (for example the FAO publishes research on NTFP market chains in Cameroon and the DRC: <http://www.fao.org/forestry/43055/en/>). Identify who is involved along the chain and their function, and work out what are the major factors affecting costs and profits along the chain, and where interventions or changes might make a difference.
- Know your product well: For example, the quantity and quality of production in each zone per year, the price and the markets for the products, and where the supply zones are.
- Assess whether or not to export: Experience from the honey and *eru* sectors indicates that regional markets in Central Africa can be more lucrative than European or American markets. However, every product is different and research needs to be done on whether the efforts and costs of exporting will bring additional profits. Again, this means analysing the market, opportunities and costs. A basic guideline is to start local,

9 Schreckenber, K., Marshall, E., Newton, A., te Velde, D.W., Rushton, J., Edouard, F. 2006. Commercialisation of non-timber forest products: what determines success? ODI Forestry Briefing No 10. ODI. London. DONOVAN, J., D. STOIAN, S. GROUWELS, D. MACQUEEN, A. VAN LEEUWEN, G. BOETEKEES and K. NICHOLSON (2006) Policy Brief: Towards an enabling environment for small and medium forest enterprise development. International Conference on Small and Medium Enterprise Development for Poverty Reduction: Opportunities and Challenges in Globalizing Markets, CATIE, FAO, IIED, SNV, ICCO. Costa Rica, 23 to 25 May 2006. Donovan et al. 2006. Policy brief: towards an enabling environment for small and medium forest enterprise development. CATIE, FAO, IIED, SNV, ICCO. www.fao.org/forestry/15444-1-0.pdf.

build experience and understand the local market well, before turning to more complex international markets.

Innovations in financing

Interviews with traders in the markets of Yaoundé highlight the fact that access to finance is one of the biggest limitations to the size and profitability of SMFEs. Financing problems are often related to poor access to financial institutions. Instead, informal financing systems predominate, such as collective savings (12%), loans from third parties (57%), and *ngangis* or *tontines*¹⁰ (28%). Ignorance and fear resulting from the 1990s banking crises underlie this, with both the SMFE and the finance sector being largely unaware of the opportunities and needs of the other.

- However, many new finance institutions are now willing to enter the forest sector, if an SMFE is supported by a good business plan and clear funding requirements and payback periods. Examples include foreign ventures established in the region such as CenaInvest, local organisations such as “Crédit Communautaire d’Afrique” (CCA) and international finance enterprises such as Root Capital.
- A number of government institutions are now offering increasing support to SMFEs in Cameroon; this includes the new one-stop business registration offices run by the Ministry of Commerce in Yaoundé and Douala, and the Ministry of Small Scale Enterprises in Yaoundé.
- Access to financing requires better communication and understanding between the NTFP, forestry and finance sectors, as many financial institutions do not have experience with the forest sector or SMFEs. In order to build confidence, understanding and trust, SMFEs should have a well-developed business plan, should be registered formal organisations, and have membership of associations or support from government institutions, plus evidence of trading legality – such as permits and waybills. This can help counter concerns about governance and professionalism. In Asia and South America, microcredit and venture capitalists have worked together to jointly develop financing strategies, instruments and business plans for NTFPs such as the Brazil nut and teak value chains.

10 Small, informal, rotating mutual savings and credit associations founded on uniform criteria and mutual trust.

- SMFEs should try tapping into different sources of finance (such as microfinance, projects, grants and government schemes) and new emerging instruments (capital markets, payments for environmental services, REDD+¹¹).
- Financing mechanisms for SMFEs, whether *tontines*, small-scale credit, larger venture capital, or other forms of finance, require participatory diagnosis of the problems and flexible design to respond to diverse local realities.

Cultivating and domesticating for long-term security of supply

One way to ensure the chain of custody for a product is to plant it – taking it out of the forest and onto the farm. A lot of work has been done in Cameroon, particularly in domesticating some of the high value NTFPs. The World Agroforestry Center (ICRAF) has worked on safou, bush mango, *eru*, *Allanblackia* and bitter cola (*Garcinia kola*). The collaboration between CIFOR, CENDEP and ADIE (Cameroonian NGOs) has led to the creation of the national programme for *eru* domestication, known as PAPCO in Cameroon, funded by the government. CENDEP and the Botanic Gardens in Limbe have also experimented extensively with *eru*. ICRAF, the National Forestry Development Agency of Cameroon and Bioversity International have also obtained interesting results on how to domesticate and cultivate pygeum, which have been shared with a network of nurseries in the Northwest and West regions of Cameroon.



Photo 6. Cultivated *eru* (*Gnetum spp.*) by CENDEP in Limbe

¹¹ REDD+ = reducing emissions from deforestation and forest degradation, and enhancing forest carbon stocks in developing countries.

For more information

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World Botanical Exchange and Services: M. Robert Nkuinkeu, nkuikeu@yahoo.com

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Websites

Forest Connect: www.forestconnect.ning.com

FAO: www.fao.org/forestry/43055/en/

Small and medium forest enterprises (SMFEs) based on non-timber forest products (NTFPs) are already contributing to poverty reduction and providing a diverse range of food, energy, medicines and culturally important goods. These businesses can be promising avenues for economic development and resource conservation if they practice sustainable forest management. Moving SMFEs from opportunistic entrepreneurs to economically viable businesses, however, requires an enabling environment with laws and policies that promote legal access to the resource base, and incentives for sound forest management. Many businesses need support to add value to the products they deal in and to manage the resources needed sustainably.

This guide sets out the main issues and significant challenges, and suggests solutions and guidelines for viable NTFP-based SMFEs. Government, nongovernmental agencies and their business partners have important roles to play in developing this sector from its vibrant, but largely informal status. This can be achieved by creating a more enabling, consistent and credible business and forest management framework of support, regulation and policy, that offers more and better opportunities to all those involved in getting a product from the forest to consumers.

Who should read this guide?

This guide highlights key strategies for sustainable management of small and medium forest enterprises (SMFEs) dealing with non-timber forest products (NTFPs). It is aimed at micro, small and medium enterprises and groups, trade associations and development organisations concerned with the sustainable trade of NTFPs. Building capacity and enhancing the knowledge of SMFEs and those working with them, this guide points out where opportunities exist to increase revenues from production and commercialisation, and how to manage these resources sustainably.

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