

Supporting the development of democratic and locally controlled small-scale enterprises based on non-wood forest products in Burkina Faso

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Non-wood forest products (NWFPs) are an essential part of traditional livelihoods and culture in the drylands of West Africa. They are an important part of agriculture and food systems and remain popular with rural people and recently urbanized populations. Communities generally have free access to communal forest resources, and NWFPs are already an alternative source of income for rural households, especially for women, as they are one of the few resources that women can access, manage, and control. Yet, while residents have access to a large number of trees, the value chains are underdeveloped in terms of potential production levels, end markets, and supporting services. Additionally, the threats of deforestation and degradation are becoming ever more present. TREE AID developed a series of initiatives to help rural populations take fuller advantage of opportunities for commercial trade in tree products while empowering these communities to protect and manage the forests they use and develop their potential to contribute to livelihood needs and well-being. This article focuses on TREE AID's work in the development of locally controlled Village Tree Enterprises based on NWFPs and in building stronger, decentralized forest governance in Burkina Faso. The approach has the potential to be applied more widely and scaled-out to meet the United Nations Sustainable Development Goals.

Keywords: non-wood forest products (NWFPs), village tree enterprise, forest governance, Burkina Faso

SEVERAL MILLION HOUSEHOLDS WORLDWIDE rely heavily on the use of non-wood forest products (NWFPs) (see Box 1), ranging from food, dye, and flavours to medicines, for meeting their needs (Dampha and Camera, 2005). Women from poor households generally rely on them most – for household use and income. NWFPs also provide raw materials for national, large-scale industrial processing and are important export

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Box 1 What are NWFPs?

NWFPs and non-timber forest products (NTFPs) are internationally acknowledged and often used interchangeably. However, there is some difference in the scope of the commodities covered by each category which ought to be recognized. FAO has adopted a working definition in which 'Non-Wood Forest Products consist of goods of biological origin other than wood, derived from forests, other wooded lands and trees outside forests' (FAO, 1999). This term excludes all wood. NTFPs on the other hand include wood for uses other than timber and hence cover a wider category of products/resources/services. For the purpose of this document the term non-wood forest products has been adopted.

commodities. Empirical research across sub-Saharan Africa shows that NWFPs can enable households and small-scale forest enterprises to improve their economic well-being, leading to overall poverty reduction (Arnold and Ruiz-Perez, 1998; Mickels-Kokwe, 2006; Sunderland and Ndoye, 2004; De Caluwé, 2011). However, harvesting forest products to reduce poverty can be hindered by several factors including poor management skills, lack of access to credit, exploitation of producers by buyers, poor market information, poor organization, declining resource base, and absence of favourable policy/legal frameworks (Tieguhong et al., 2009; Nair, 2007; Chikamai et al., 2009).

The findings provided in this paper form part of TREE AID's integrated landscape approach to instigate poverty reduction in rural areas by increasing revenues (know-how of species, techniques, and environments), while ensuring the sustainable management of the resource base through inclusive local governance (secure access to, and rights over trees). The results given prioritize TREE AID's work in Burkina Faso in the development of village tree enterprises (VTEs) based on NWFP value chains.

The context

The drylands of Burkina Faso are hunger-prone, and environmentally and socio-politically fragile. Despite improvements over recent decades, Burkina Faso still faces challenges in securing stable incomes and a robust environment for its people. Nearly half of the population live in poverty and malnutrition rates remain chronically high (UNDP, 2015). In 2010, 81 per cent of the Burkinabe population were rural with agriculture contributing 39 per cent of GDP. With most families reliant on rain-fed agriculture and an increasingly erratic climate, rural communities must diversify their income to ensure they can buy food to make up a shortfall from a poor growing season. Evidence relating to tree foods and current work on food security in Burkina Faso suggests that tree foods can contribute towards environment, food security, and rural livelihoods, and thus also contribute towards social and political security (FAO, 2015). With an estimated 21 per cent of the country's surface area covered in forests (FAO, 2010), the harvesting, processing, and sale of NWFPs can provide a decent income for poor communities (Belem et al., 2007). This is a particularly important opportunity for women and youth who do not own land and whose only means of income is to sell produce farmed on communal land (ibid).

Unfortunately, the potential for women to utilize NWFPs is often obstructed (TREE AID, 2015). If this is not addressed, attempts to use NWFPs to improve livelihoods have little chance of succeeding. It is intended that this working paper will be a resource for other organizations, including government agencies and practitioners who are working on the development and implementation of programmes to strengthen the role of localized forest businesses and meet the livelihood needs of rural populations, and to achieve the United Nations Sustainable Development Goals (SDGs).

Village Tree Enterprise programme

Empowering rural communities with the technical skills and resources necessary to achieve a regular income is vital when addressing the SDGs. Over the last 10 years, through its Village Tree Enterprise programme, TREE AID has guided the self-organization of hundreds of village interest groups in Burkina Faso, Mali, and Ghana to develop and manage small NWFPs businesses, also known as Village Tree Enterprise (VTE) producer groups (TREE AID, 2011). NWFPs selected by these first-tier VTE producer groups have included products from shea nuts (*Vitellaria paradoxa*), baobab (*Adansonia digitata*), néré (*Parkia biglobosa*), tamarind (*Tamarindus indica*), gum arabic (*Acacia senegal*), balanites (*Balanites aegyptiaca*), moringa (*Moringa oleifera*), and forest honey. The programme has been successful in engaging women, and the processing/value addition focus generates more stable incomes and higher returns than other income sources (Kamara et al., 2015). Since launching the programme in 2006, 70 per cent of emerging entrepreneurs in Burkina Faso, Mali, and Ghana have been women. This partly reflects the fact that NWFPs will not generate a large amount of income initially and are labour intensive; consequently they do not attract wealthier families who have alternatives. These are options that are attractive to those who have access to fewer resources in the community (IFAD, 2008). Nonetheless, only targeting women in value chain development is considered gender insensitive and not about gender mainstreaming (KIT et al., 2006). Considering the needs and constraints of both sexes when providing financial services and support to NWFPs groups is more appropriate (Boros et al., 2002).

TREE AID's approach to entrepreneurship and value chain development:

- ensures the rights of access to communal tree products are clear, fair and enforceable, and villagers have confidence in any systems, particularly for women and youth;
- supports villagers in gaining access to trees or having permission to plant trees;
- encourages villagers to form enterprise groups which provide a support network, increase villagers' confidence in the process, and give the businesses a greater chance of success;
- trains enterprise groups in business principles and techniques = business literacy;
- gives them an understanding of markets that enables them to make the most from the sale of their products;

- gives enterprise groups access to markets outside of the immediate local village area;
- provides access to financial resources (local village savings and loans associations and microfinance loans) to buy equipment or increase supply of raw materials to improve quality and quantity of NWFP production;
- provides communities with the skills to add value to their produce (for example producing shea butter from shea nuts, or soap from seeds) in order to maximize profit;
- supports enterprise groups with community tree planting so that there is an increased supply of raw materials to trade or to process, and the long-term future of the businesses is more secure.

The Market Analysis and Development (MA&D) approach, developed by the Food and Agriculture Organization of the United Nations (FAO), provided the crucial building blocks necessary to achieve these higher returns (see Box 2). The main strength of the approach is its systematic inclusion of social and environmental concerns alongside the technological, commercial, and financial aspects of a product. MA&D is a process that increases individual and community revenue while also encouraging people to protect forest resources through inclusive and participatory forest management. The support provided to the VTEs covers all aspects of the NWFPs value chain by facilitating market linkages and introducing private sector approaches to marketing, customer retention, and services to aid the expansion of agricultural enterprise.

Box 2 VTE and MA&D – a good fit

The VTE programme promoted by TREE AID since 2006 across Burkina Faso, Ghana, and Mali uses the FAO MA&D training curriculum. This training was developed to assist communities in creating income-generating enterprises while conserving tree and forest resources. The curriculum was especially developed for application in areas where literacy is low (literacy rates in the project locations across the three countries can be as high as 40 per cent). The MA&D process enables people to: i) identify and prioritize potential product based on available resources and products that are already providing an income for local communities; and ii) gather relevant market information in order to identify opportunities and constraints for enterprise development that will provide sustainable income and benefits without degrading resources.

Once the products are identified, the VTE producer groups made up of 15 to 20 members, are taken through a detailed enterprise group training and development programme that lasts about 12 months. This comprises practical training and support on local market analysis, business planning, product development, financial literacy, local resource management including sustainable harvesting, value addition and processing, packing techniques, and marketing.

One of the main outcomes of the MA&D training process is the production of an enterprise development plan (EDP) for their product. In the EDP, the VTEs describe the mission, goals, objectives, and strategies of the enterprise, assessing its profitability and determining capital start-up needs. Additional training is delivered as the EDP is being implemented by the VTEs to further strengthen the target group capacity to carry out the strategies developed and guide the VTEs if any corrective measures have to be put in place (FAO, 2016).

Organizational structure is the foundation for VTE producer groups and trade associations

The transformative influence of successful, locally controlled forest businesses has been well documented (Macqueen et al., 2015). Whether they are women's baobab VTE producer groups, associations of bee-keepers, community forestry user groups, women's shea butter groups, or gum collectors' associations, effective horizontal organizing is instrumental in bringing about sustained long-term benefits and gains in income for rural communities. Organizing does not eliminate the integral need for intermediaries within the value chains, but it does put gatherers, producers, and intermediaries on more equal terms for fair market access, price-setting, appropriate extension, and profit-sharing (IFAD, 2008; Visser et al., 2012). Additionally, locally controlled associations are instrumental in mobilizing and coordinating their members in building strategic alliances with key actors and organizations, and play an important role in increasing the overall efficiency of the enterprise activities (Macqueen et al., 2015). Programmes looking at organizational development will include elements of market access, market information, product quality, and skills development. Depending on the product and location a different set of needs and trainings will be tailored and agreed with communities. The ultimate goal is to help associations broaden and diversify their options when marketing products, and to better understand what consumers are looking for – particularly in terms of quality. There are valuable markets that demand consistent quality with fewer impurities in the product. Although NWFPs enable the rural poor to gain income in times of need, its potential to alleviate poverty can only fully develop when functioning value chains at local, national and global level are in place (CATIE et al., 2006), see Box 3.

The case of Yemboama Union

Yemboama Union (Union des acteurs et producteurs de Produits Forestier Non-Ligneux de Yemboama) in Gourma province, East region of Burkina Faso, was formed in 2012 by members of VTE producer groups. One year's support for organizational and financial start-up was provided through tailored training focusing

Box 3 Constraints of integrating local and regional NWFP value chains into global value chains

- Complexity of establishing links with NWFP SMEs in often remote locations
- Diversity of constitution of NWFP SMEs (with informality and insecure resources)
- Lack of managerial capacity and bargaining power to deal with bureaucracy
- Inadequate market information, design capability, and technology
- Problems matching supply with demand owing to small sales volumes
- Little collateral to attract investors or offset risks themselves

Global value chains are particularly challenging on account of distant market preferences, export requirements, consumer social and environmental concerns and standards, and competition with those offering tailored customer services (CATIE et al., 2006).

on primary production, natural resource management (NRM), marketing, and processing in the different value chains. Today, Yemboama Union has more than 1,000 members (520 women and 500 men) formed by 39 VTE groups from 20 villages. The union's head office is in Boumoana village, 80 km from the town of Fada N'Gourma, capital of the East region, and draws its membership from up to 200 km from the centre of operations.

Members support the union in two ways. Firstly, they each pay US\$1.60 per annum. Secondly, the union charges a levy for products sold through the union; where the prices are substantially higher than they could gain in local markets. For example, the union found a market for 1,500 kg of baobab pulp powder. The agreed price was US\$2.50/kg versus the highest price on the local market of US\$0.75/kg. The union paid the members US\$1.60/kg and earned US\$1,230. With this income, the union bought land in Fada N'Gourma to build a new warehouse (Kamara et al., 2015).

Union leadership consists of a president, vice president, secretary, deputy secretary, and treasurer. The vice president, deputy secretary, and treasurer are currently women. Producer groups retain autonomy and have their own leadership structures. They can choose to sell to the union or elsewhere. Each member group pays annual membership fees which are agreed at a general assembly. Membership fees contribute to the costs of coordinating production among members, developing infrastructure, and marketing.

The union's primary role is to secure large-scale orders and coordinate producer groups to meet these orders on time and with an assurance of quality. The union also educates its members on replanting and protecting natural resources and sometimes provides technical and financial support for such activities. The union sells the following NWFPs:

- shea butter (produced exclusively by women's groups);
- baobab pulp;
- gum arabic;
- tamarind fruit;
- honey (produced exclusively by men's groups);
- soap made from shea butter;
- oil from balanites, baobab, and neem;
- dried baobab and moringa leaves (used for own consumption or sold at local markets).

Table 1 summarizes the union's revenues from 2012 to 2015. Despite some annual fluctuations in the quantities of produce, which relate to poorer seasons, the prices secured at sale, and difficulty finding a market for the balanites and neem oil, the union has seen a steady increase in volumes and revenues. The union is not the main source of revenue for its members, who often sell outside of the union; some VTE producer groups achieve less than 10 per cent of their sales through the union. However, sales outside the union are mostly to lower value local markets. The union therefore offers higher profitability for the producer groups. Moreover, union members undertake their NWFP activities alongside farming activities. A review of

Table 1 Data on Yemboama Union's revenue generated in 2012–2015

Product	Quantity	Revenue generated (2012) in FCFA	Revenue generated (2012) in GBP	Quantity	Revenue generated (2013) in FCFA	Revenue generated (2013) in GBP	Quantity	Revenue generated (2014) in FCFA	Revenue generated (2014) in GBP	Quantity	Revenue generated (2015) in FCFA	Revenue generated (2012) in GBP
Baobab powder				4 tonnes	5,700,000	7,245	3 tonnes	3,000,000	3,562	5 tonnes	7,500,000	8,391
Baobab leaves				1 tonne	200,000	245	2.5 tonnes	500,000	594	3.5 tonnes	350,000	391
Shea kernels										3 tonnes	600,000	671
Shea butter	3 tonnes	1,770,000	2,202	4 tonnes	4,000,000	5,084	3.5 tonnes	3,500,000	4,156	1 tonne	1,000,000	1,119
Arabic gum				3 tonnes	3,000,000	3,813	2.5 tonnes	2,500,000	2,969	5 tonnes	5,000,000	5,595
Honey	2.5 tonnes	2,500,000	3,110	352 litres	1,000,000	1,271	3 tonnes	9,000,000	10,687	2.5 tonnes	7,500,000	8,392
Moringa leaves				100,000	150,000	191	250,000	375,000	445	200,000	300,000	336
Tamarind				1 tonne	350,000	445	0.5 tonnes	250,000	297	3 tonnes	1,500,000	1,678
Soaps	1,500 bars	800,000	995	500 bars	250,000	318	1,000 bars	500,000	594	1,000 bars	500,000	559
Oils												
Balanites				–	–	–	1,000 litres	–*	–*	1,000 litres	–*	–*
Baobab				20 litres	200,000	254	100 litres	1,000,000	1,187	100 litres	1,200,000	1,343
Neem				50 litres	150,000	191	125 litres	375,000	445	125 litres	–*	–*
Total revenue		5,000,000	6,308		15,000,000	19,065		21,000,000	24,936		25,500,000	28,476

* Yemboama Union is not able to find a market for balanites and neem oils and the union is considering stopping the collection and bulking of these two NWFPs

2012–2013 data on prices at which the union purchased products from its members, and the sales prices it achieved, indicates an average gross profit margin of 39 per cent, within a range of 20–65 per cent (Kamara et al., 2015).

The underlying value proposition of the union reflects that of the VTE programme: generate revenue by protecting tree resources. The experience of working alongside Yemboama Union has provided a number of key lessons.

The personal conviction, drive, and charisma of the union's president and founder, Joseph Tambiga, have been key ingredients in the union's genesis, its ability to rally members to a common cause, and its capacity to attract customers. This is often an important element in entrepreneurship in all fields: personality counts and not all personality types make good entrepreneurs.

To differentiate itself from the competition, the union sells quality-assured products. Training provided by the VTE programme in NWFP processing has been key to improving the efficiency and quality of production. Training by processors who know the quality required further up the value chain has been particularly useful. Training has not only allowed gains in quality, but often gains in yields (honey) or a reduction in processing time (shea butter). These benefits have engendered member support for the union. While a focus on quality is important as an entry to market, sooner or later other capacity investments (equipment, infrastructure, transport, etc.) have to be addressed. Some potential customers have been disappointed by the union's limited capacity to meet large-scale orders, even if they recognize that the quality of the union's product is superior (Kamara et al., 2015). The benefit-sharing mechanisms, where the union passes on any price increases to members while also making and reinvesting its profit in the development of infrastructure, is one that members have accepted to date. Realizing that inadequate investment in infrastructure and equipment is limiting the union's production capacity, the leadership structure is seeking partners that can provide grant or loan funding. The union needs larger storage facilities that can hold at least 40 tonnes (currently their processing unit can store about 10 tonnes). To increase their production capacity, the union also wants to invest in a de-hulling machine for baobab fruit and mills and presses for shea butter production.

The union decision to trade in a range of NWFPs does give it an advantage over single-product unions. Cosmetic producers tend to source shea butter along with other NWFP oils, and food processors also look for baobab powder, tamarind, and honey in order to diversify their product range. The decision to trade in several products arose because the union members noticed that for most NWFPs, there were not enough registered producer groups in the region to form single-product unions.

Participation in trade fairs is a key part of the union's marketing strategy and meeting the costs of participating in these fairs, which are judged strategic for the union's growth, has been an expense (especially the costs of stands and transport) that the union is willing to pay. In these events the union has been successful in attracting new customers through the quality of its produce. Regrettably, it has not been as skilled in ensuring repeat orders. In the past, leaders have looked for new customers and neglected existing customers. Yemboama Union is aware that it

needs to develop longer term partnerships with customers and this ties into infrastructure development.

Tree planting and natural resource management (NRM) activities, including farmer-assisted natural regeneration (FANR) and nursery management, which were provided through the VTE programme, have borne fruit. In addition, TREE AID's support for equitable local governance of forest resources (see below) also reached the villages from which the union's member groups are drawn. In 2012, the last planting season with project funding, 50,000 saplings were planted by union members. Between 2013 and 2014, and without TREE AID's support, more than 25,000 saplings were planted. Some members have also undertaken assisted natural regeneration for *Acacia senegal* (gum arabic).

Importantly, subsequent to the VTE programme launch, there was a growth in interest for NWFPs as an economic sector in the country. In 2008 this led to the creation of a national structure, l'Agence Nationale de Promotion des Produits Forestiers Non Ligneux (APFNL), under the Ministry of Environment and Sustainable Development, concerned with the support, coordination, and monitoring of operations and marketing of NWFPs (MEDD, 2014). APFNL catalysed the drafting of a national NWFP strategy in 2010 as well as specific NWFP value chains in gum arabic and shea. These two NWFPs have since had their own national action plans drafted into major programmes with associated technical extension support and training on offer (MEDD, 2014). Yemboama Union, which trades in these two products, has benefited extensively from this government-led extension support.

Control over forest resource access and pro-poor forest governance

The need to reconcile natural resource conservation with social issues is increasingly recognized; there has been a shift to the management of certain types of common property from state control to community-based natural resource management (CBNRM). This may take the form of co-management, implying joint responsibilities by government and community-based organizations (CBOs), or of the more wholesale devolution to communities themselves (IIED, 2003; Roe et al., 2009; DeGeorges and Reilly, 2009). Ellis and Allison (2004) presented the key strengths of CBNRM for successful livelihood diversification but have also underlined academic evidence of substantive failures in practice.

Many of the faults with CBNRM initiatives can be traced to misplaced assumptions about the sectoral nature of people's livelihoods and misplaced optimism about the ease of transforming the hierarchical societies that comprise many rural 'communities' into the democratic governance instruments that CBNRM requires if it is to contribute to rural poverty eradication (Ellis and Allison, 2004).

TREE AID's experience of promoting decentralization and pro-poor forest governance in Burkina Faso comes through its Trees for Change/Forest Governance (TC/FG) project, initially funded for five years (2007–2012) by the UK's Department

for International Development (DFID) and then (2012–2016) by the Swedish International Development Agency (SIDA). By pro-poor forest governance we mean a more equitable, decentralized, and transparent decision-making process that recognizes the rights and responsibilities of local forest users and communities who depend on forests for their livelihoods (IIED, 2012). Experience in participatory forest management in West Africa has shown that once local communities have recognized the value of trees and forests, they become invested in their management for both poverty alleviation and environmental protection (Dampha and Camera, 2005; Sambou et al., 2003).

The TC/FG project works in eight communes, home to approximately 26,500 people, including the province of Gourma in East region where Yemboama Union is based. Bringing together relevant stakeholders, the project facilitates the development of Forest Management Agreements that meet local needs, protect tree resources, and build stakeholder capacity, particularly for the most vulnerable who depend on NWFPs but lack sufficient power to prevent the overexploitation of the resource base.

Through an integrated landscape management approach, community members agree Local Forest Management Conventions that establish rules and demarcate community forest (CF) areas. This is crucial as such rules must be inclusive to meet the requirements of a wide range of stakeholders. Tree planting and management is designed to ensure the long-term sustainability of wood for fuel and timber.

A Village Forest Management Committee implements the policies villagers have developed, which are then ratified by the local authorities who have received training from the TC/FG project. Local authorities understand their new responsibilities under decentralization. Along with colleagues from the Forest Service, they are developing relationships with communities, who now understand and welcome their role in forest management. Working closely with local and commune-level authorities to clarify responsibilities is critical to the success of the work. The project has also supported the development of specific by-laws based on local context, known as ‘conventions locales’ (IIED, 2003), through which local government and the Forest Service can implement community forest management plans.

At national level, TC/FG has worked with policymakers in the Ministry of Environment and Sustainable Development (MESD) to ensure practical support for the full implementation of forest management decentralization policies. The TC/FG project has been able to provide important insights on the implementation of decentralized forest governance.

To date, in Burkina Faso, 15 CFs covering a total area of approximately 45,000 ha have been demarcated. A portion of these are co-managed by more than one community through the inter-village management committees. So far, communes have formally approved 15 local conventions on forest use. Two communes have begun developing formal strategies for natural resource management – a first in Burkina Faso. The experience has been well received by donors, local stakeholders, and national government, and SIDA have provided additional funding for a further three years (2016–2018). Two important drivers have influenced this success: an enabling policy framework with multi-level collaborative networks; and the linkages between local enterprise and forest management (Paulson et al., 2012).

Enabling policy framework with multi-level collaborative networks

In Burkina Faso decentralization has been in process since the mid-1970s with legislation introduced in the 1990s to decentralize forest management. Nonetheless, government and donor support has not been forceful enough in putting the formal legislation that enables decentralized forest management into practice, particularly through the passing of subsidiary legislation to put the provisions of the 1996 Forestry Code in place. In some cases it has facilitated corporate interests in claiming forest ownership over rural communities. In this context, farmers are often unsure or distrustful of the process, local authorities are uncertain of their roles and new responsibilities, and central government lacks the capacity and resources to fully implement the policy (Gausset et al., 2003). Communities and local government authorities need support in order to take up their responsibilities for local forest management and to develop plans to sustainably protect and plan for the future of the forests that they depend upon (IIED, 2012; Paulson et al., 2012). Donors like DFID and SIDA have increasingly supported this development agenda. For TREE AID and other development actors this means there are opportunities to work more closely with policymakers as well as Forest Service staff at national, regional, and local level.

With support from TC/FG, MESD created a multi-disciplinary high-level working group to ensure a coherent Burkinabe legislative set up for the decentralization of forest governance. The working group facilitated practical policy support from the highest levels of central government and has built the capacity of regional and local actors to take up new responsibilities, and to eventually ratify and put into effect forest management plans developed with communities. The working group has reviewed appropriate subsidiary legislation to facilitate the implementation of the Forestry Code. In the future, the group plans to address contradictions between customary and statutory law around land tenure that present challenges to the decentralization of forest governance.

Connecting local enterprise and forest management

Many of the VTE producer groups and unions have become heavily involved in village forest management committees, and have been influential in developing management plans that ensure secure access to the tree products they are commercializing. By addressing the need for pro-poor forest governance at the village, regional, and national level, the TC/FG project has offered an opportunity for people to shape the management of the forests near their villages, as Narcisse Natama from Bougui village in Fada N'Gourma explains:

I'm a member of an enterprise group that sells shea butter. I chose to participate in the committee that elaborated a Local Forest Management Convention and to represent VTE producer groups and Yemboama Union there because I depend on forest products. My role was to be sure that the rules we developed would protect and facilitate access to the trees we use for our enterprises ... species that we thought had disappeared have returned. There are species that you can only find in this forest, nowhere else in Fada N'Gourma.

Table 2 Revenue generated by the communal forest area (million FCFA)

<i>Products</i>	<i>Fada N'Gourma</i>	<i>Nobéré</i>	<i>Pô</i>	<i>Total</i>	<i>Relative weight on total income (%)</i>
Wood	794.32	208.54	328.87	1,331.73	18
NWFPs	2,217.69	588.19	3,414.69	6,220.57	82
<i>Balanites aegyptiaca</i>	921.25	5.19	0.43	926.87	12
<i>Parkia biglobosa</i>	50.27	72.22	162.89	285.38	4
<i>Tamarindus indica</i>	717.1	359.42	680.86	1,757.38	23
<i>Vitellaria paradoxa</i>	373.58	77.09	2,459.38	2,910.05	39
Phytomass	155.49	74.28	111.13	340.90	5
Total	3,012.01	796.73	3,743.56	7,552.30	100
Relative weight on total income (%)	19.59	5.18	24.35		

Advocating the rights and access for poor rural people at local, regional, and national levels has helped people like Narcisse take ownership and control of the forest resources they depend on, giving them the confidence to invest in their tree enterprises.

A recent study by TREE AID (2015) indicated that the contribution of the CF to the economies of VTE producer groups and unions has been impressive. Based on the figures from four forest species in the CF areas (see Table 2), these forest products provide more than FCFA 7 bn (US\$12 m) per year to the communities neighbouring these communal forest areas. Of the two large sectors considered (wood energy, NWFPs), the NWFPs supply chain is the largest source of localized employment (73.85 per cent). Within NWFPs, vitellaria (almond and butter) and tamarind products are the largest providers of employment with 46.17 per cent and 13.75 per cent, respectively, in relative weight in employment.

Conclusions

Assisting rural communities to unlock the potential of NWFPs in an institutionally and environmentally sustainable way is a major challenge for policy-makers and development practitioners. Remoteness and the low educational attainment of people in rural communities (especially women) creates an uneven balance of equity within the global value chains into which they are increasingly integrated. Nonetheless, important opportunities are opening up for these communities, and a range of strategies can help them take advantage of these prospects (IFAD, 2008). Based on the VTE programme we can draw some general conclusions:

- Considering the complexity and fragmentation of the different value chains, it is important to draw on the resources and expertise of many other agencies

and individuals to achieve positive change. Yemboama Union benefited widely from the creation, by government in 2008, of APFNL and the associated projects and technical extension support programmes on offer, as well as private sector marketing and business support.

- A key constraint for many of the small VTE producer groups is their geographical remoteness from markets, service providers, and decision-makers. A useful strategy is to link several first-tier producer organizations (that are producing the same thing) with a second-tier organization, like Yemboama Union, that can aggregate the product and provide services to its members. Paying for these services separately (which are profitable in their own right) through funds generated from profits can reduce the pressure on member organizations, which might otherwise have to pay restrictive membership fees.
- Financial literacy and an understanding of basic accounting, bookkeeping, and issues such as risk management, are key areas that underpin any successful business. Without financial acumen within the organization it is virtually impossible to undertake business planning with clear annual objectives regarding production and profits, including cost-benefit analysis.
- Despite the fact that increased demand for forest products can provide short-term income increases, it can lead to depletion of the natural resource base if forest dwellers and users do not implement appropriate regulation. The challenge is to balance economic concerns with social and environmental concerns. Yemboama Union's role is to secure more lucrative markets for those groups among national and international wholesalers, processors, and traders; however it has also successfully maintained its members' interest in conserving tree resources. The union president's leadership and enthusiasm for tree planting has ensured resource management remains at the forefront of the union's activities, thus building the basis for future resource availability (Macqueen et al., 2015).
- Through the implementation of inclusive forest resource management programmes, governments have a major role to play in natural resource management. It is when government departments manage to shift control and responsibility for forest protection to local forest communities, while reorienting themselves towards the provision of incentives, technical extension, and training, that real progress begins.
- Decentralized forest governance that ensures that stakeholder engagement is inclusive and collaborative can bolster community buy-in. This can improve and support the full array of services provided by the landscape, including social, economic, and environmental services. As the study here shows, when poor people are invested in, and responsible for, the management of the forest resources on which they depend, positive changes can be achieved in poverty alleviation, income diversification, and environmental protection.

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