



Case Study

Promoting gender equity
and forest conservation
through enhancing
non-timber forest
product value chains:

Lessons from the Ba'ka
Project in Cameroon

July 2023



Sunning of bush mango seeds on a drying rack

Summary

Non-timber forest products (NTFPs), such as seeds, spices, and fruits, are an essential source of income for communities residing in and around forests, including the indigenous Ba'ka people in southern Cameroon. Women play a vital role in household livelihoods and decision-making, as they are primarily responsible for engaging in most activities along the NTFP value chain. They collect and sell approximately 60% of the NTFPs. However, NTFP collectors face numerous challenges in effectively transporting, storing, processing, and selling these products at fair prices. Partnerships for Forests (P4F) has been supporting various initiatives to strengthen both the supply and demand aspects of the NTFP market. The goal is to enhance the value chain and, in turn, improve the financial and social position of women and indigenous NTFP collectors. The case study describes the value chain model that is aimed for by project partners, as well as the evidence of progress towards realising this model and achieving the goals.

Background

The Djoum-Mintom landscape in southern Cameroon covers over 600,000 hectares of mainly dense rainforest and provides an important wildlife corridor within the tri-national Dja-Odzala-Minkébé (TRIDOM) protected area, which spans Cameroon, the Republic of Congo and Gabon. The landscape is home to around 25,000 people from different ethnic groups—including the Ba'ka, a marginalised indigenous forest community—and is facing significant threats from agricultural expansion and commercial activities.

The indigenous people, especially women, rely heavily on the forest for their livelihoods. They collect and sell non-timber forest products (NTFPs) but, because of the limited access to markets, around 60 to 75% of the NTFPs collected are used for household consumption. These commodities play an important role in local cuisine, traditional practices and economic activities, so contributing to the cultural heritage and livelihoods of communities in the region.

Recognising the potential impact of NTFPs on forests and local communities, Partnerships for Forests (P4F) has supported two project partners—APIFED, an NGO promoting women's and indigenous people's rights and Ecotrading, an enterprise specialising in sustainable NTFP sourcing and trade—to strengthen the markets for selected NTFP products. The aim was to increase household revenues, improve local livelihoods and so increase the value of standing forests and, ultimately, reduce encroachment and illegal logging. Although this NTFP value chain is at the early stages of development and requires more support to become self-sustainable, this case study describes the activities that have been carried out so far, shares lessons learned, and provides recommendations for supporting other NTFP value chains. This case study is supported by findings from a P4F-funded intervention assessment carried out by Rainbow Environment, a Cameroonian consultancy, using focus group discussions, interviews and direct observation.

NTFPs in the Ba'ka forest

In the Djoum-Mintom area, the most collected NTFPs include

Bush Mango



These seeds of the *Irvingia gabonensis* tree, commonly known as African bush mango, are used for their nutritional and culinary properties. Ndo'o is a key ingredient in various traditional dishes and is also valued for its potential health benefits. They are often ground into a powder or processed into an oil.

Moabi



These seeds of the *Baillonella toxisperma* tree, also known as African pearwood, are highly valued for their oil, which is extracted and used in cooking, cosmetics, and traditional medicine. Moabi oil is known for moisturizing and nourishing both the skin and hair.

Djansang



A spice derived from the dried seeds of the *Ricinodendron heudelotii* tree, also known as African nutmeg, and commonly used as a flavouring agent in traditional dishes. It is known for its aromatic and peppery taste and adds a distinctive, spicy flavour to soups, stews and sauces.



Pre-intervention challenges

Women play a crucial role in household livelihoods and decision making as they lead most NTFP value chain activities, collecting and selling about 60% of the NTFPs that provide essential items for daily life and generate income. The amount of income earned can vary greatly depending on the market, the specific products and their seasonal availability.

Before this project, communities in the Djoum-Mintom landscape faced multiple challenges in the collection and commercialisation of NTFPs, including:

- **Market access and fair prices:** there are few established markets, where people can sell NTFPs for a fair price, in the project area. Even when they do exist, sellers and buyers may face uncertainty around cash flow, production outputs and product quality.
- **Weak bargaining power:** because they have to meet their immediate needs, NTFP collectors often sell via opportunistic middlemen, known as 'coxeurs', who offer low prices and may engage in unethical practices such as deceptive units of measurement.

- **Inadequate storage and preservation:** the lack of modern techniques to preserve NTFPs results in approximately 90% of the collected product rotting in the forest.
- **Insufficient equipment for production and processing:** the scarcity of tools and machinery for efficient NTFP production and processing leads to low yields.
- **Difficulties in transportation:** to get NTFPs from the forest to the villages for processing and storage.
- **Weak cooperatives and governance:** the lack of support infrastructure has led women to sell the products they've collected individually, and so quantities sold and overall income generated have remained low, and their ability to address market challenges and take up market opportunities is impeded.

As a result of these challenges, most NTFPs were consumed at the household level or left to rot after transportation from the forest. The Ba'ka people, who are an indigenous minority group, face additional challenges due to marginalisation and exploitation by the Bantu majority.



Bush mango aggregation



Project intervention

P4F worked with APIFED and Ecotrading as the key project partners in addressing these market-related challenges.

On the supply-side, APIFED received P4F support to train and organise communities, particularly indigenous people and women, around the sustainable collection and processing of high-value NTFP commodities through cooperatives. On the demand-side, Ecotrading was contracted to develop, improve, and facilitate market access for

the commercialisation of both raw and processed NTFP commodities. They focused on developing branding and marketing strategies to sell these products in domestic and international markets.

The activities took place in several communities located in Djoum and Mintom: Assok, Ze, Zoeffam, Bemba, Nkole'nyeng and Nyabibete. In total, approximately 23,000 people live in both landscapes, with the Ba'ka people making up about 17% of the population (just under 4,000 individuals).



Bush mango sorting



Approximately
23k
people in total
live in Djoum and
Mintom areas



FIGURE 1 | NTFP value chain proposed by the project



Supply-side activities

The project’s supply-side activities aimed to support NTFP collectors to cooperate and professionalise, to enable a more formalised market approach and engagement with the market-access player Ecotrading. APIFED engaged the communities through training and information activities, including training of trainers. Through this, 285 people—61% women and 22% Ba’ka people—learnt how to collect, conserve and process NTFPs effectively and sustainably. Ecotrading also raised community awareness of fair measurement practices and pricing, as an incentive for sustainable collection.

As well as training, APIFED supported the development and professionalisation of two community NTFP cooperatives. These serve as collection centres for NTFPs, providing storage and processing facilities, and act as intermediaries between collectors and buyers. In Djoum, a 100% women-led cooperative—Cooperative des filles Ba’ka et Bantou pour la valorisation des PFNL autour de la reserve forestiere du Dja¹—was created and is now fully operational. It has a nine-woman executive board, including five Ba’ka women. In Mintom, the governance structure of an established cooperative—Société Coopérative des Exploitants des PFNL de Mintom²—was strengthened through the introduction of internal regulations.

Warehouses were constructed in Mintom and Djoum to address problems related to the transportation and conservation of NTFPs. The Mintom facility is complete and has an integrated drying rack. The Djoum facility is under construction and will house a multipurpose machine that can process NTFPs, including moabi and djansang, to produce multiple oils. These warehouses and drying spaces allow communities to preserve their products, ensuring they can sell them to the best buyers.

“Before the training, we used to remove the thin peel of the ndo’o before drying. During the training we were taught that the ndo’o seeds should be dried over low heat, keeping them a meter above the fire until the oil starts to come from seeds before being removed and put into bags. This preserves the seeds for longer and eliminates the problem of a smell of smoke that buyers used to complain about.”

Luc, a Ba’ka community member

“With this storage warehouse, and especially the drying racks, we will now be able to bring fresh ndo’o from the forest and dry it in the village, which will reduce the time spent in the bush and enable us to take good care of the children back in the village.”

Martin Abila, Ba’ka Chief of Assok Village

To strengthen community commitment to sustainable NTFP collection and forest protection, conservation agreements were signed with the chiefs of each project community. This included each community proposing members of the forest protection squad, a community-led forest monitoring group. In total, APIFED trained 30 community forest protection agents and provided communication kits, including mobile phones. An Early Warning System was developed, using mobile software that lets squad members report forest encroachments, illegal logging, poaching and the availability of NTFPs in the communities. This system has helped report numerous infractions to APIFED and the local government conservation service, allowing for quick intervention in an area where government rangers are limited.

1. Cooperative of Baka and Bantu girls for the development of NTFPs in the Dja forest reserve.

2. Mintom NTFP Collectors’ Cooperative Company.

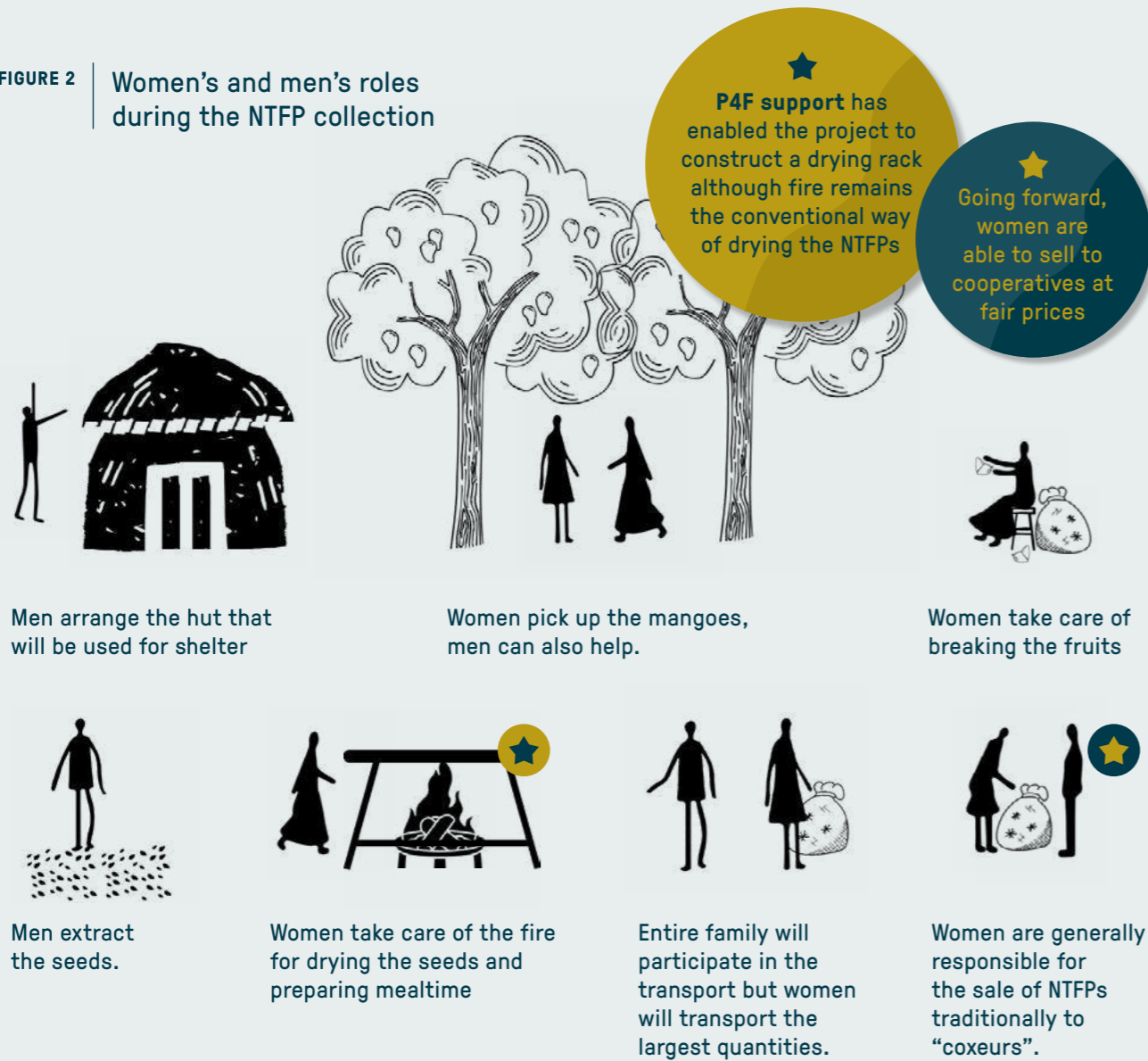


Women take the lead in NTFP collection and sale

From July to January NTFPs are collected and from February to June, people focus on farming crops like cassava, plantain, peanuts, macabo and corn, and other activities such as fishing, and fish farming, using income from previous sales of NTFPs. Because of deforestation around communities, NTFPs are typically collected far from where people live and so people camp near collection areas, often for more than two weeks. At the camps, women gather and break open the fruit (as they are

considered to be more skilled in this task), men extract the seeds, and women then take care of the fire for drying the seeds. Once the harvest is complete, everyone participates in transportation, with women handling larger quantities. Generally, women are responsible for selling NTFPs—a significant, often primary, source of income for women in forested areas. Income from NTFPs contributes to women’s financial independence, reducing their reliance on men for money.

FIGURE 2 | Women’s and men’s roles during the NTFP collection



“Women are more interested in NTFPs than men because it provides them with the cash they need to solve their everyday problems. NTFPs are like our personal bank accounts. During the NTFP season, no man dares to argue with a woman because he knows she has the financial means to do whatever she wants without relying on anyone else.”

Mrs Rosalie, Zoulabot Bantu community

“NTFPs are for women what cocoa is for men, maybe even more. We directly rely on them for our food and well-being. We extract oil from them for cooking and sell any surplus to address our needs. Women in this area depend on NTFPs for their income. After the season, we have solved many problems. We can afford to send our children to school and provide healthcare. Personally, I bought a set of four kitchen utensils, purchased a crushing machine that now helps me make money every day, and even sent my son to join the army.”

Mrs Rufine, Mbouma community



Demand-side activities

Ecotrading's market-access role is to facilitate links between community collectors and national and international end markets. The long-term plan is for Ecotrading to buy NTFPs from community collectors exclusively through offtake agreements with NTFP cooperatives, and to negotiate prices and conditions with the cooperatives. In turn, where products cannot be brought to either of the two warehouses, cooperatives will have village commercial agents that buy and collect the NTFPs. However, during the cooperative set-up phase, Ecotrading identified and trained its own commercial agents to fulfil this role, to bring the NTFPs to the market until the cooperatives became more mature.

Ecotrading's biggest market is in Nigeria, where about 90% of the ndo'o is sold. Djangsang and moabi are mainly sold to clients operating within national markets in Cameroon's largest cities, Douala and Yaounde. In their search for new international markets, P4F has supported Ecotrading to develop an NTFP marketing strategy, enabling them to explore new business deals with global companies such as PARMA, an agrifood company based in Italy. It is likely this will create new market opportunities for NTFPs and, consequently, benefit the communities involved.



Bessengue, Douala, Cameroon

Intervention results

Value chain change

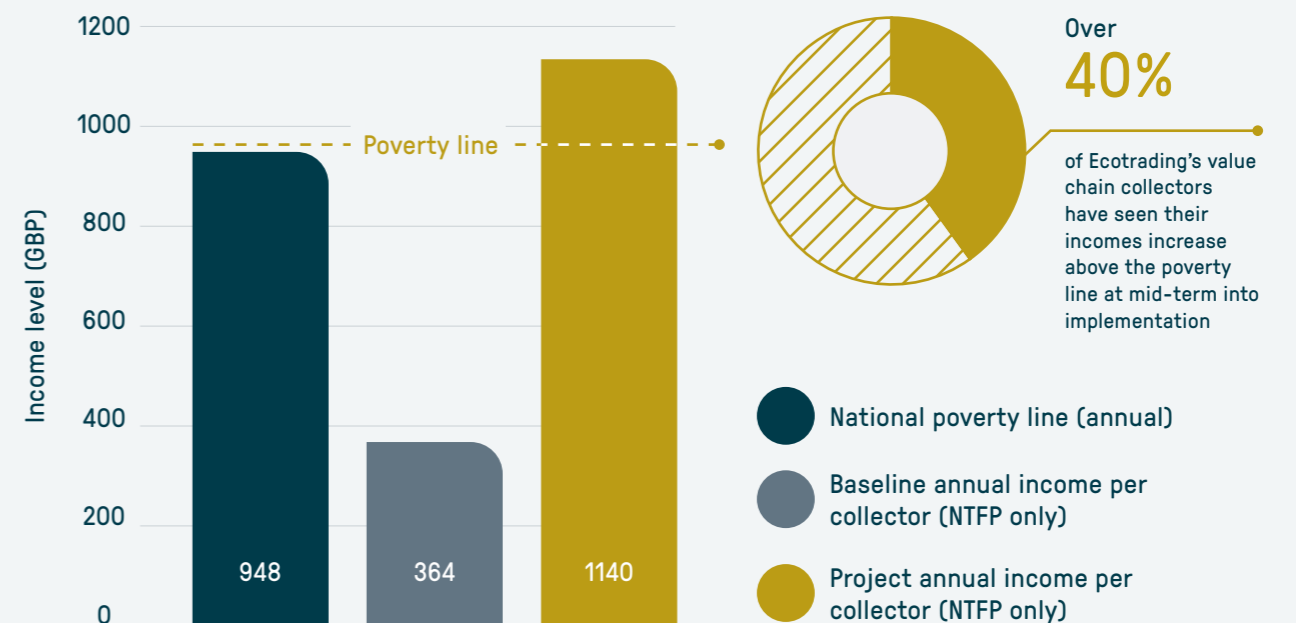
By the end of the 2022 NTFP season, the project had successfully sourced and commercialised 8.6 tonnes of NTFP—7.48 tonnes of ndo'o, 1.1 tonnes of djangsang, and 0.08 tonnes of bush onion. Through the active efforts of Ecotrading and its village commercial agents, new production communities, beyond the project's target villages, were discovered.

The project worked to establish harmonised prices and to ensure reliable units of measurement. Ecotrading purchased the commodities at an average price of 1,200 CFA francs per kg

throughout the campaign, a significant increase on the average 1000 CFA per kg offered by informal intermediary buyers or coxeurs. By January 2023, over 40% of the collectors in Ecotrading's value chain were raised above the poverty line by their NTFP incomes. More than half of the 360 people who participated in the project confirmed that they had sold their ndo'o to Ecotrading and were satisfied with the price they received³.

Ecotrading's introduction of transparent buying prices increased the bargaining power of NTFP collectors. As a result, they were able to bargain for fairer prices from the coxeurs. The increased income represents a significant change for local communities, particularly women. Some evidence

FIGURE 3 | Change in NTFP collectors' annual income



Source: internal reporting by Ecotrading to P4F based on surveys, 2022

3. P4F funded research by Rainbow Environment Consult, a Cameroonian consultancy, into the project outcomes included a total of 13 community focus groups and meetings with over 360 participants, including more than 170 women



also suggests that coxeurs are increasing their compliance with local laws by requesting collection permits from the local bureau for forestry and conservation. This demonstrates a positive change in market practice and will ensure more accurate monitoring and traceability of NTFPs in the region through the registration and archiving of commercial operations at the local bureau.

“Thanks to the Ecotrading campaign, I worked harder and collected three bags of NTFPs. I sold these bags for 300,000 CFA francs. This money was used to pay for one child’s education at the University of Yaoundé, another child’s education at the Lycée Classique in Minton, and two other children’s education at the Lycée Technique. After their schooling, I used the remaining funds to buy products that I could sell in a small business, ensuring I can provide for my children’s needs.”

Mrs Chantal, Zoebefam Bantou community

Engaging Ba’ka people in the NTFP value chain

With their extensive knowledge of the forest, the Ba’ka people play a crucial role in identifying and guiding collectors to areas rich in NTFPs. However, they continue to face challenges that limit their direct involvement in the value chain. For example, costs associated with preparing for NTFP collection, such as equipment and supplies, are too high for most Ba’ka community members. As a result, they often work as labourers for the Bantu community rather than selling their own products. Poverty also means that Ba’ka collectors may need to realise the income from the NTFPs quickly and so sell to coxeurs, at lower prices, rather than to village commercial agents, who offer better prices but may be less accessible. These challenges mean that there have been some limitations in the direct benefits of the project reaching the Ba’ka communities, with less than one tonne (775 kg) of NTFP sales coming directly from them. To help address this, five Ba’ka women have been elected to Djoum NTFP cooperative’s executive board. Three trusted members of the Ba’ka community have been recruited and trained as village commercial agents. One of these, Tatiana, based in Minton, collected 3.5 bags of ndo’o from the Ba’ka community on behalf of Ecotrading. The expectation is that the involvement of Ba’ka women as village commercial agents for NTFP collection will help to improve the situation of the Ba’ka population. As a result of their involvement in the NTFP value chain activities, Ba’ka community members have seen the value of standing forests and set up a tree nursery with 5,000 saplings (mango, moabi, djansang and ebony).

As a result of their involvement in the NTFP value chain activities, Ba’ka community members have set up a tree nursery with

5.000

saplings (mangos etc..)

Image (top): Meetings with cooperatives

Image (bottom): Woman measuring and packing her Ndo’o and Djansang



“The situation has improved greatly compared to before, when the coxeurs used to offer very low prices for ndo’o, and since we had no other buyers, we were forced to sell to them. With Ecotrading, if you disagree with the price they offer for the bucket of ndo’o, they use a scale to assure you that they are not trying to cheat you.”

Tatiana, Ba’ka community in Minton

“Selling ndo’o has helped me pay for my children’s school fees. While some children were expelled from school due to unpaid fees, my children remained in school, and the school director came to congratulate us, the women, who had paid our children’s fees. He specifically praised the women because he knows that the money earned from NTFPs by the men is often spent on alcohol.”

Mrs. Laurentine, Ba’ka community in Minton



Recommendations and next steps

The pilot activities and results from the first harvesting season show the potential of a sustainable NTFP value chain. Support to supply-side activities, including training for collectors and the creation of cooperatives and warehouses as intermediaries between collectors and buyers have been a crucial element in the development of this value chain. The establishment and organisation of cooperatives has fostered a supportive local environment, and they are already being managed independent of project assistance. Support to demand-side activities, especially transparent and fair pricing and measurement units, have been critical to raising the income of NTFP collectors. This has particularly strengthened the financial, and consequently social position of women, who lead on the majority of activities in the NTFP collection and sale process.

However, to ensure the long-term success of these positive advances, several further steps are needed:

- Develop a business plan for cooperatives and other ethical buyers to ensure they have sufficient financial resources to cover the cost of NTFP licenses and the purchase of NTFPs and so reduce the risk that collectors will sell to coxieurs.
- Develop an individual and comprehensive management plan for each cooperative warehouse, and its equipment, to ensure

financial sustainability and set out how profits will be reinvested in communities, with a particular focus on supporting Ba'ka people and women. The plan should also include procedures for conflict resolution.

- Establish incentives for communities to sell their products exclusively to cooperatives and other ethical buyers. This could involve providing resources such as tarpaulins, tents, machetes, files, boots, gloves and food supplies in exchange for a commitment of exclusivity.
- Ensure standardised measurement units are adopted by village commercial agents and buyers to ensure fair and consistent pricing, so instilling confidence in NTFP collectors.

The activities described in this case study demonstrate a model for how a sustainable NTFP value chain can offer fair prices to collectors, empower women and provide a reliable income for forest communities. While additional support is required to turn this specific value chain into a mature and self-sufficient one, the progress towards strengthening women and indigenous communities through training, organisation in cooperatives, and access to infrastructure and fair markets evidenced in this case study, means that the described value chain model can serve as an example for supporting NTFP value chains in other regions.



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Women receive training on best practices



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