



EMPOWERING WOMEN'S CAPACITY FOR IMPROVED LIVELIHOODS IN NON-TIMBER FOREST PRODUCT TRADE IN CAMEROON

Abdon Awono¹, Ousseynou Ndoye² and Luke Preece³

Abstract

In Cameroon, women as the primary gatherers and traders of non-timber forest products (NTFPs) have limited access to processing technologies, marketing strategies and market information. The objective of this paper is to explore how CIFOR research and capacity building implemented from 2000 have been perceived by Cameroonian traders. An evaluation of the program took place in 2006 with thirty-eight traders out of seventy-two traders trained. Of the traders initially interviewed, 95 percent of them were women. Eighty-one percent of traders said their incomes increased as a result of the training received, 11 percent of traders mentioned a negative impact and 8 percent reported no impact. The average increase in income for those who benefited was 55 percent. The quantity of, and revenues obtained from, NTFPs increased from 2003 to 2004, but declined in 2005. These changes were related to decline or growth in gathering NTFPs, changes in demand, increased competition in the marketplace and poor health of the traders. The revenue gained from NTFPs was used for basic household needs – school fees, food and health costs. Investments in home improvements and household goods were also popular, but many traders also invested in phones, televisions and radios. These results indicate that a capacity building programme could reduce the constraints faced by traders by providing them with marketing information, accounting tools and processing and storage technology skills. A cost effective market information system could then be developed and scaled up.

Keywords: *NTFP, trade, capacity building, perceptions, Cameroon.*

Introduction

There has been renewed interest in the development of non-timber forest products (NTFPs) as an instrument for sustainable rural development (Tieguhong & Ndoye 2004). In this paper, NTFPs can be defined as forest products other than timber, such as bark, bush meat, fuelwood, fruits, leaves,

¹ Center for International Forestry Research.

² FAO project on non timber forest product and food security.

³ Center for International Forestry Research.

nuts and rattan that are collected, used and/or sold by forest people for sustenance and/or for improvement in their livelihoods.

Women represent up to 51 percent of the population in Cameroon, with more than 70 percent living in rural areas and exploiting natural resources to improve the livelihoods of their families. Ninety-four percent of traders operating in the markets of Cameroon are women (Ndoye *et al.* 1997), but they are often overlooked in development projects. Men are becoming increasingly involved in NTFP marketing because of growing poverty levels in rural and urban areas. Men tend to run larger businesses, specializing in wholesale trade, such as the case of *Dacryodes edulis* (Awono *et al.* 2002, Ruiz-Perez *et al.* 2002). Women are largely found in the retail trade sector. As trade in NTFPs represent major income niches for poor populations, any effort to develop the sector would be central to poverty reduction (Arnold & Ruiz-Perez 1998, Tieguhong & Ndoye 2004, Tieguhong *et al.* 2005).

The primary gatherers of NTFPs in Cameroon usually have limited access to processing technologies, marketing strategies and market information. Over the last decade, a market research and capacity building initiative in the humid forest zone of Cameroon has investigated the commercialization of the NTFP sector, as well as its impact on local people. In 1996, CIFOR initiated a research programme on NTFP markets in the humid forest zone of Cameroon and in 2000 conducted a capacity building programme, with the aim of improving marketing strategies and incomes of the traders. However, research into the impact on livelihoods has proved to be complex, expensive and time-consuming. Furthermore, the traders in local markets have limited experience in accounting, so a long-term record of their transactions was often found to be incomplete and inaccurate. The opinions of local people who made use of the capacity building services were essential in understanding the impact of these programmes. If these interviews could be expanded across markets and countries, then the capacity building efforts and the effect that these have on local people will be critical in developing this sector. The main objective of this paper is to explore how research and capacity building efforts in the humid forest zone of Cameroon have been perceived by NTFP traders.

Rationale for Capacity Building of Traders

Empowering traders and local communities through capacity building using the results of research was considered to be necessary because of the following:

- *Overcoming farmer fatigue:* Researchers usually collect detailed information from farmers and traders but very seldom share their findings with them, or use it to empower them by improving their production practices or marketing strategies.

- *No link between research and development:* The research mentioned is linked to poverty alleviation and where capacity building is necessary to alleviate poverty it should be part of the research process.
- *Weak local empowerment:* There is a need to empower traders and producers with market information and training to improve marketing strategies and accounting methods so they can increase their income.

Methodology

The humid forest zone of Cameroon covers 270,162 km², representing 58 percent of the total land area (Ndoye *et al.* 2000) and 60 percent of the country's population (Pokam 1997). In 1996, CIFOR started a research programme on the NTFP market in the humid forest zone of Cameroon, which is composed of five provinces (centre, south, east, littoral, and south-west, Figure 1).

Training of Traders in the Humid Forest Zone of Cameroon

In 1998, thirteen markets were selected based on their roles in assembling and distributing NTFPs, their accessibility and their links with other markets including those in the neighbouring countries of Equatorial Guinea, Gabon and Nigeria.

Traders selling NTFPs in the markets were selected randomly and after an explanation of the objectives of the research programme, questionnaires were administered to those traders who agreed to collaborate. Between 1997 and 2006, one hundred and fifty-five traders completed a series of questionnaires and training modules. These surveys and capacity building efforts focused primarily on women traders due to their key involvement in NTFP markets. The training programme, based on information collected in the market surveys, aimed to empower women traders and improve their marketing strategies and incomes. The aim of the programme was to provide traders with information and training using the following modules:

- *Market trends.* Traders were given information on prices in different markets (local, regional, border and international), introduced to concepts of commodity chains of NTFPs and the use of improvements in communication and transportation (such as mobile phones, mail and public transport agencies) to enable them to increase their opportunity sets.
- *Product specialization:* Traders were introduced to the advantages and disadvantages of specialization as well as diversification of commercial products.
- *Storage strategies:* Traders were advised of the advantages of storing NTFPs, highlighting increased profit, reduced risk due to supply shortage and improving the trust of customers. Traders were advised to store at the

peak of the producing season (and not at the start), to avoid high purchase prices.

- *Availability of raw material:* Traders were provided with information about villages and markets which are major sources of NTFPs.
- *Better organisation among traders:* The concept of traders working together with other traders to increase their bargaining power in the marketplace was discussed. Traders were introduced to the idea of selling large quantities of NTFPs as a group for export.

Interviews

A representative sub-sample of the traders included in the programme was questioned about their opinions of the programme in 2003 (seventy-two traders) and again in 2006 (thirty-eight traders):

- 2003: This questionnaire was designed to discover the opinions traders held of the training programme they had participated in. Their response was categorised as positive, negative or no impact. The survey questionnaire asked them to estimate the percentage increase or decrease in their income levels since the start of the capacity building programme in 2000. They were also asked to explain their responses, including the impact of becoming more organized (if they indeed were) and the difficulties or constraints which they had experienced.
- 2006: This questionnaire, which was given to traders in Douala, Makenene and Mfoundi markets, inquired about their income levels through the sale of NTFPs in the period from 2003 to 2005. They were asked to give reasons for the fluctuations in income levels, to explain how they used their revenues and what investments they made.

Results

Characteristics of Traders

From the survey in the 2003 interviews, 69 of the 72 people interviewed were women. We observed that many savings groups, or '*tontines*', created in NTFP markets included both men and women traders. The average age of NTFP traders was 36 and the average age at which they started trading was 28. Approximately half of the traders had some level of primary education while 39 percent attended secondary school. Eighty-six percent of traders were French literate.

Perceptions of the Capacity Building Programme

Eighty-one percent of traders questioned said their incomes increased as a result of the training received, 11 percent of traders mentioned a negative impact and 8 percent reported no impact.

Traders who Reported a Positive Impact

The average perceived increase in income from the market information provided by the researchers was 55 percent. Traders reported an average of eight years experience in the NTFP trade. The majority of traders (79 percent) reported that the market information and training provided helped them to expand their trade. Half of the traders attributed this increase to an improvement in sales strategy and 12 percent attributed it to improved accounting systems. Several of the traders reported a move from retail to wholesale trade in NTFPs especially for *Dacryodes edulis*. Some women have made other types of investments with the money they received through trade in NTFPs (see Box 1).

Women traders who reported a positive impact outlined a number of constraints which they faced in marketing NTFPs:

- Poor market infrastructure (security, electrification, storage), inadequate public toilet facilities and supply of clean water
- High cost of transportation due to the poor condition of the roads
- Theft of NTFPs and money at the markets
- The erratic nature of and decline in the supply of NTFPs from natural forests.

Traders who Reported a Negative Impact

These traders, who had an average of 12 years experience each, reported a decline in their revenues of the order of 37 percent on average. Their perceived decrease in revenue was largely attributed to an increase in competition. Before CIFOR began studying NTFP markets in 1995, these traders were better informed of prices than other traders and benefited from a monopoly situation at the market. As a result they benefited substantially from the trade in NTFPs. Increased competition from other traders as a result of improved dissemination of market information and training by CIFOR resulted in a sizable reduction in their profits.

In addition these traders also experienced difficulties in getting the supply of NTFPs they needed because of increased competition from other traders. Another constraint highlighted by these traders was the absence of barriers to entry in the NTFP sector, which resulted in an excess of traders in this area.

Current Trends in the NTFP Traders' Livelihoods

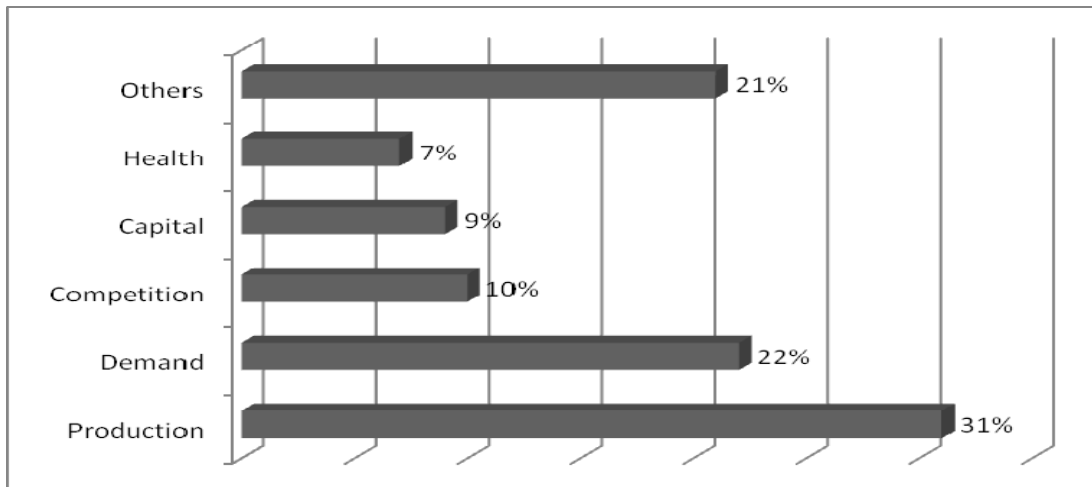
All traders reported fluctuations in the quantity sold, and revenue obtained from, NTFP trade during 2003, 2004 and 2005. However, the traders agreed that revenue and quantities of NTFPs traded was lower in 2003, increased in 2004 and decreased in 2005 (Table 1). In general the revenue from NTFP trade is directly proportional to the quantity sold, but many traders noted that the reasons for fluctuations was caused by changes in production,

demand, competition, capital and health (Figure 1 & Figure 2). Interestingly, traders realized that if supply was lower, the revenue generated was often higher, due to an increase in demand and a subsequent increase in the price per unit of product (i.e. 'other': Figure 1).

Table 1. Perceptions of Change of Quantity and Revenue Obtained for NTFPs Sold in the Markets of Cameroon in 2003, 2004 and 2005

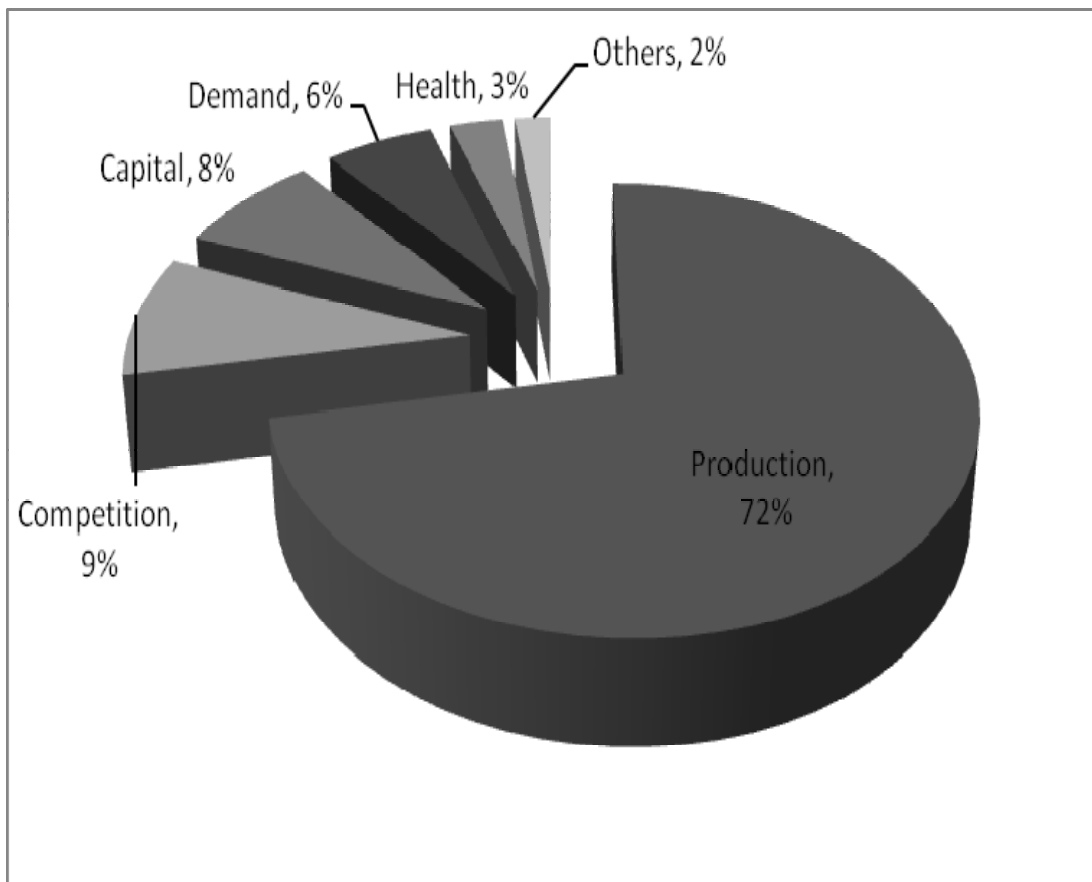
Year	Best year	Percentage of traders' responses	
		Revenue Obtained	Quantity Sold
2003 to 2004	2003	36	23
	Equal	17	26
	2004	47	51
2004 to 2005	2004	63	80
	Equal	11	14
	2005	26	6

Figure 1. Revenue: Reasons Traders Gave for the Change in Their Revenue from NTFPs



Note: Production - the amount of NTFPs sold; Demand - better sales, stability of product, more buyers; Competition - increase in the number of vendors at the market; Capital - lack of funds to secure a supply of NTFPs; Health - personal and family ailments; Other - includes the increase in price of NTFPs due to the decrease in quantity available, and corruption.

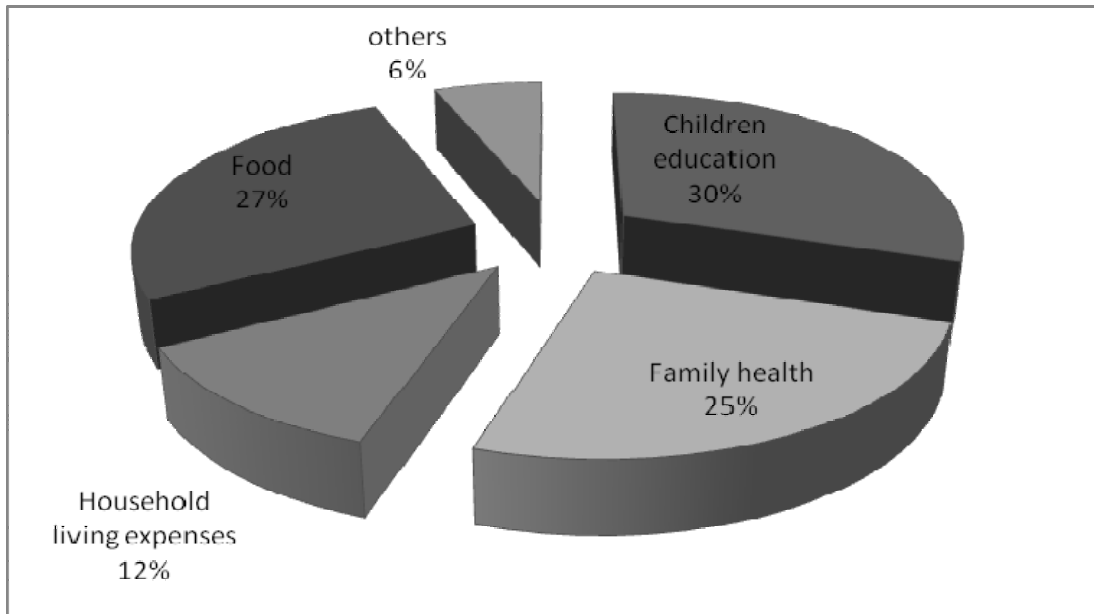
Figure 2. Quantity: Reasons Traders Gave for the Change in Their Quantity of NTFP Sold



Note: Production - amount of NTFPs supplied; Demand - more customers and sales; Competition - increase in the number of vendors at the market; Capital - lack of funds to secure a supply of NTFPs; Health - personal and family ailments; other - diversification of products.

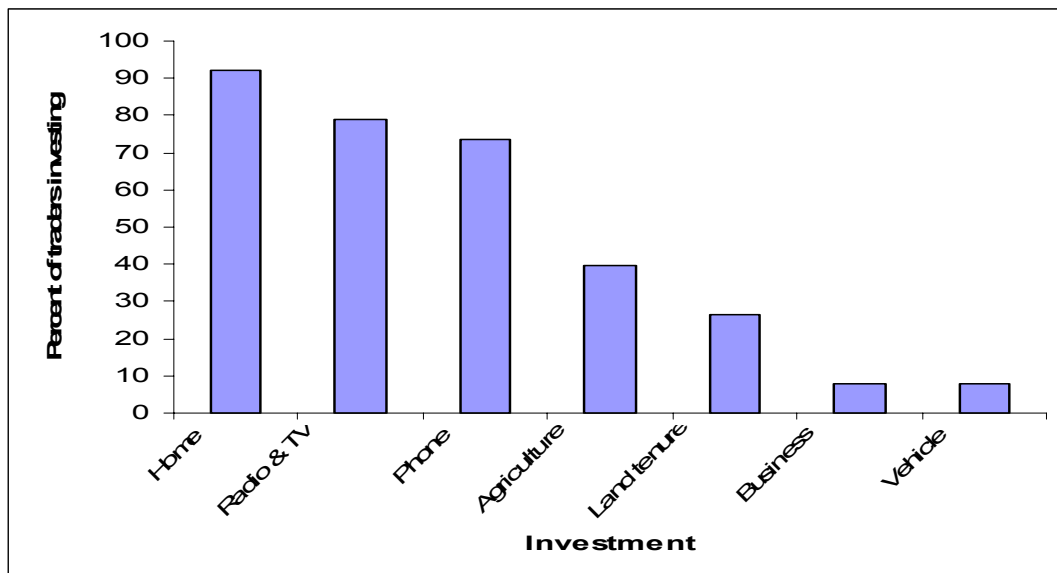
Most of the revenue gained from NTFPs was used to meet basic needs, such as education (30 percent), food (27 percent) and family health (25 percent) [Figure 3]. Traders spent a relatively small percentage of their revenue on events (such as marriages, funerals and baptisms) and household living expenses. A different pattern emerged in relation to the investments made by traders from their revenue. Investments in home improvements and household goods were dominant and many traders also invested in phones, radios and televisions. While many traders invested in a mobile phone for their business, investment in other opportunities such as agriculture, land tenure and business investments were less popular with traders.

Figure 3. Utilisation of the Revenue from NTFPs by the Traders



Notes: Education is for the trader's children; Food also includes the cost of transporting food; Family includes supporting the trader's family's health and aiding family members by donation; Household includes rent, living expenses and investments; Events includes marriages, funerals and baptisms.

Figure 4. Investments by Traders from Revenue Obtained from NTFPs



Notes: Home includes improvement to the house (such as investing in a tin roof) and the costs of electricity and water; Business includes setting up a bar and NTFP storage facility; Vehicles include cars and motorbikes.

Case Study 1 - Esther Fougong, Makenene

Dacryodes edulis fruits (*safou*) are among the most popular NTFP species traded in Cameroon and women are usually more involved in its retail sale. Makenene market is well known for the quality of *safou* it sells. Esther Fougong is a young wholesale trader in Makenene market. She is divorced with two children. She also looks after her parents and siblings and supports her cousin at university.

Esther began selling *safou* when she was fourteen years old, as a retailer with limited capital. When asked why she started this activity, without any hesitation she answered, "To make a living, as I had nobody to take care of my school fees." She mentions the contribution of the capacity building programme to her income, "In 1999, when I met with the CIFOR team, I was doing retail of *safou*. Since 2000, I have been receiving guidance and market information from CIFOR which have improved my activities and incomes from the sale of *safou*".

Esther is now involved in the wholesale trade of *Safou* by selling to traders coming from Gabon. She has invested in a storage facility where she stores the *Safou* she buys from local farmers before selling them on to the Gabonese. She decided to expand her investment and now owns a bar in the market which is also her contact point during the non-productive season.

While the season for selling *safou* is short, her income was approximately four million CFA in the peak of the growing seasons in 2003 the equivalent of US\$8000 over a six month period, which is ten times more than retail traders who earned an average of US \$700 for the same period.

Esther's dream is to link with international markets (in Belgium, France, and UK) and to market a 'Makenene *Dacryodes*' label. Esther concludes, "Despite my young age, I am taking care of my family. I think I do better than many civil servants. ...I am proud of what I am doing but I still believe I can do better, if I work harder and continue to get support from institutions like CIFOR."

Case Study 2 - Njansang Group Sale, Nkolboudou

Ricinodendron heudoletii (*njansang*) is a valuable nut which is collected and sold by rural communities in the humid forest zone of Cameroon. However because of access difficulties, some areas were unable to trade in this product. This was the case with Nkolboudou, a remote village, 60 km from Akonolinga. CIFOR with ICRAF, CARPE, SAILD and other partners through the farmer enterprise development project funded by Belgian support of International Agricultural

Research for Development facilitated a group sale by bringing together local communities (mostly women) and traders from Yaoundé and Douala. The group sale created a win-win situation for producers and traders alike, by providing better access and group bargaining power for the producers, and allowed traders to purchase a substantial quantity of *njansang*.

“We are very satisfied because at the beginning we had some doubt, today is a very special day in our village,” said Mrs Abomo Marthe, one of the women involved in the group sale. Women made money because by selling a cup of *njansang* at 250 CFA Francs in the group sale, they got 25% increase, 50 CFA Francs more than the price they usually get. On the whole, women were very happy about the group sale. Abomo was able to use the money received to pay the last instalment of her children’s school fees. Mrs Mfoula Lorentine was sick and said she would use the money to pay for doctors fees.

Discussion

The training programme conducted by researchers was an attempt to improve the livelihoods of the market traders of NTFPs in Cameroon. While the majority of traders interviewed in this study reported a positive impact from the training they received, it is possible they had a biased opinion due to the approach of the interviewer. However, the magnitude of profit increases and the volume of positive responses by the traders indicate that this study did indeed help to improve traders’ incomes, through expanded trade, improved sales and better accounting systems. This, in turn, enabled some traders to increase their investments and opportunities while caring for themselves and their families.

The traders who benefited from this programme gained information on prices of NTFPs in other markets. As a result they gained a significant share of the benefits from trade in NTFPs. The information provided improved the transparency of NTFP markets, but increased the level of competition, which thereby lowered profits for traders who, before the capacity-building programme, had been better informed than others. Therefore the small proportion of traders who had a monopoly over the markets earned higher incomes than others. The increase in competition reduced their income slightly, while increasing other traders’ revenues significantly.

This study concurs with earlier research by Ndoye *et al.* (1997) who reported that 94 percent of traders in the humid forest zone of Cameroon were women. The literacy rate of these female traders was high (86 percent), compared to the estimated national literacy rate of 62 percent in 2003 (World Bank 2005). If the increase in revenue is as high as these women have estimated, the use of their revenue for education and health, and investments

in home improvement and material goods, will benefit future generations, mitigate their risk of future setback and provide new opportunities, as mentioned by Barham *et al.* (1999). Since women are heavily involved in the NTFP sector, research in this area can be used to empower women by providing them with timely market information. This is an important contribution to achieving the targets of the United Nations Millennium Development Goals.

The apparent fluctuations in the marketed quantity and revenue of NTFPs highlight the importance of understanding seasonal changes in production, demand and competition for NTFP trade and the effect of traders' health. Many seasonal species sold in the markets, such as *Irvingia gabonensis* (Ayuk *et al.* 1999b) and *Dacryodes edulis* (Ayuk *et al.* 1999a), have prices that fluctuate over the course of the season. Studies on these species and NTFP markets include recommendations for increased research and subsequent capacity building for local people to domesticate certain species (Schreckenberg *et al.* 2006), understand market channels (Ayuk *et al.* 1999a, Ayuk *et al.* 1999b), have better information systems (Ruiz-Perez *et al.* 2004; Sunderland *et al.* 2003; te Velde 2004) and have improved infrastructure (Ndoye 1997, Ndoye *et al.* 2004, Schreckenberg *et al.* 2006). The current programme initiates this process of dissemination and provides evidence of improved outcomes for the market traders. If traders could gain information from studies such as this, then the supply of these products could be better understood and traders could use the market information and storage and processing techniques to better secure their incomes (Awono *et al.* 2002).

Conclusion

The apparent success of this programme indicates that a capacity building programme could reduce the constraints generally faced by women traders by providing marketing information, accounting tools and helping them to develop processing and storage technology. This is very important as the money collected from this sector is generally used to solve household problems including education, health, etc. In many countries in West and Central Africa, forest products are not included in market information systems and yet they play an important role in the livelihoods of rural and poor urban households. It is possible to develop a cost effective market information system and expand the programme to sustainably improve the livelihoods of rural and poor urban households of Cameroon. Indeed, since 2000, the capacity building programme was scaled up to other areas of Cameroon. It has also attracted the interest of the BBC and national NGOs.

References

- Arnold, J.E.M. and Ruiz-Perez, M., 1998. "The Role of Non-Timber Forest Products in Conservation and Development." In: E. Wollenberg and A. Ingles. *Incomes from the forest: Methods for development and conservation of forest products for local communities*. Center for International Forestry Research (CIFOR) Bogor, Indonesia, pp. 17-42.
- Awono, A., Ndoye O., Schreckenber, K, Tabuna, H, Isseri, F. and Temple L., 2002. "Production and Marketing of Safou (*Dacryodes edulis*) in Cameroon and Internationally: Market Development Issues." *Forests, Trees and Livelihoods*, vol. 12, pp. 125-147.
- Ayuk, E.T., Duguma, B., Franzel, S., Kengue, J., Mollet, M., Tiki-Manga T., and Zekeng, P., 1999a. "Uses, Management, and Economic Potential of *Dacryodes edulis* (Burseraceae) in the Humid Lowlands of Cameroon." *Economic Botany*, 53(3), pp. 292-301.
- Ayuk, E.T., Duguma, B., Franzel, S., Kengue, J., Mollet, M., Tiki-Manga, T., and Zenkeng, P., 1999b. "Uses, Management and Economic Potential of *Iringia gabonensis* in the Humid Lowlands of Cameroon." *Forest Ecology and Management*, 113 pp. 1-9
- Barham, B.L., Coomes O.T., and Takasaki, Y., 1999. "Rainforest Livelihoods: Income Generation, Household Wealth and Forest Use." *Unasylva*, 50(198), pp. 34-42.
- Ndoye, O., Awono, A., Schreckenber, K. and Leakey, R. 2004. "Commercialising Indigenous Fruit for Poverty Alleviation. A Policy Briefing Note for Governments in the African Humid Tropics Region." ODI, London and CIFOR, Cameroon. 2 pp.
- Ndoye, O., Ruiz-Perez, M., and Eyebe, A., 1997. "The Markets of Non-Timber Forest Products in the Humid Forest Zone of Cameroon." *Rural Development Forestry Network Paper 22c, Winter 1997/98*, pp. 25
- Ndoye, O., M. Ruiz-Perez and A. Eyebe, 2000. "L'influence de la commercialisation des produits forestiers non-ligneux sur la dégradation des ressources forestieres en Afrique Centrale: le rôle de la recherche dans l'équilibre entre le bien-être des populations et la préservation des forêts." In: T.C. Sunderland, L.E. Clark and P. Vantomme. *Les produits forestiers non-ligneux en Afrique Centrale. Recherches actuelles et perspectives pour la conservation et le développement*. Rome, FAO, pp. 193-217.
- Pokam, W.K.J., 1997. "Les migrations dans la zone de forêt humide du Cameroun, 1986-1996." *Consultancy Report*. Yaounde, Cameroon, Center for International Forestry Research (CIFOR).
- Ruiz-Perez, M., Belcher, B., Achdiawan, R., Alexiades, M., Aubertin, C., Caballero, J., Campbell, B., Clement, C., Cunningham, T., Fantini, R., de Foresta, H., Fernandez, C.G., Gautam, K.H., Martinez, P.H., de Jong, W., Kusters, K., Kutty, M.G., Lopez, C., Fu, M.Y., Alfaro, M.A.M., Nair, T.K.R.,

- Ndoye, O., Ocampo, R., Rai, N., Ricker, M., Schreckenber, K., Shackleton, S., Shanley, P., Sunderland T., and Youn Y.C., 2004. "Markets Drive the Specialization Strategies of Forest Peoples." *Ecology and Society* 9(2):4. [online] URL: http://www.ecologyandsociety.org/_vol9/iss2/art4/.
- Ruiz-Perez, M., Ndoye, O., Eyebe A., and Ngono D.L., 2002. "A Gender Analysis of Forest Product Markets in Cameroon." *Africa Today*, 49, pp. 96-126.
- Schreckenber, K., Awono, A., Degrande, A., Mbosso, C., Ndoye O., and Tchounjeu, Z., 2006. "Domesticating Indigenous Fruit Trees as a Contribution to Poverty Reduction." *Forests, Trees and Livelihoods*, 2006, Vol. 16, pp. 35-51
- Sunderland, T.C.H., Defo, L., Ndam, N., Dione, M. and Tamnjong, I. (2003). "A Socio-Economic Profile of the Commercial Rattan Trade in Cameroon." In: *New Research on African Rattans*. Proceedings No. 9. Sunderland, T.C.H. and Profizi, J.P.(Eds.). pp. 115-140. African Rattan Research Programme. Limbe, Cameroon. International Network for Bamboo and Rattan (INBAR). ISBN:962-8512-201-8
- te Velde, D.W., 2004. "Successful NTFP Commercialisation: A Quantitative Analysis based on Household and Trader Level Data." *ODI*, 94 pp.
- Tieguhong, J.C. and Ndoye, O., 2004. "Transforming Subsistence Products to Propellers of Sustainable Rural Development: Non-timber Forest Products (NTFPs) Production and Trade in Cameroon." Workshop on African Development Africa: *Escaping the Primary Commodities Dilemma*, Bremen, Germany, 32 pp.
- Tieguhong, J.C., Ndoye, O., and Ekati, E.J., 2005. "Community-based NTFP Production and Trade for Rural Poverty Alleviation and Resource Conservation: Case of *Prunus africana* on Mount Cameroon, Cameroon." International Symposium on NTFPs, Victoria, Canada, 9 pp.