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- Title:** Certification of Non-Wood Forest Products: Relevant Standards, Preliminary Experiences and Lessons-Learnt
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ABSTRACT

The paper provides an overview on the current status of NWFP certification by discussing three main questions: i) What are relevant standards for NWFP certification? ii) How does certification contribute to the sustainable use of NWFP? iii) What are the challenges and perspectives of NWFP certification?

Despite the importance of NWFP for subsistence purposes and income generation, NWFP certification is still in its infancy - only few NWFP have been or are in the process of being certified. Certification is defined as a "procedure by which assurance is given that a product, process or service is in conformity with certain standards". According to the perceptions and interests of stakeholders concerned, certification is being perceived either as market-based instrument or 'soft' policy tool.

Certification schemes relevant for NWFP include forest management certification, organic certification, social certification and product quality certification. They are voluntary schemes, which have to be in accordance to mandatory national and international rules, regulations and conventions.

A preliminary assessment of the impact of certification on the sustainable use of NWFP has been carried out by FAO based on a literature review and the implementation of case studies covering three different species/products and four exporting/importing countries: i) devil's claw (*Harpagophytum procumbens*) in Namibia and Germany; ii) sheabutter (*Vitellaria paradoxa*) in Ghana; and iii) brazil nuts (*Bertholletia excelsa*) in Bolivia. The paper summarizes the main results of the case studies by focussing on the following key issues: traceability, tenure rights, empowerment, market potential, costs, harvesting and mainstreaming.

Based on above analysis, the following key challenges for NWFP certification have been identified: dispersion of producers and products, definition of sustainable harvesting levels, standard quality and complementarity, risk of user's conflicts, unclear market potentials and economic benefits, insufficient product definition and classification, and limited suitability of different certification schemes.

The paper concludes that the future potential for NWFP certification remains unclear and highly product and market specific. In addition, NWFP certification is more likely to happen in areas, where the various certification schemes are already applied. For the Central African region, the paper identifies major opportunities and challenges for NWFP certification.

1. Introduction

This paper provides an overview on the current status of non-wood forest products (NWFP) certification. It is based on an extensive literature review (Walter, 2002b, FAO, 2006a), the analysis of case studies on NWFP certification (Walter et al., 2003; FAO, 2006a), trade-related instruments (FAO, 2006b) and the evaluation of future perspectives for NWFP certification in the Congo Basin (FAO, 2006c). Guiding questions for this paper are:

- What are relevant standards for NWFP certification?
- How does certification contribute to the sustainable use of NWFP?
- What are the challenges and perspectives of NWFP certification?

NWFP are defined by FAO (1999a) as “goods of biological origin other than wood derived from forests, other wooded land and trees outside forests”. NWFP have long been considered as “hidden harvest”, but several studies realized within the last 20 years have stressed the major importance of NWFP for sustainable forest management in general and poverty reduction in particular (FAO, 1995; FAO, 1999b; Neumann & Hirsch, 2000; Sunderland & Ndoye, 2004 Wollenberg & Ingles, 1998). The international trade in NWFP is estimated at US\$ 11 billion (FAO, 1993). However, only few NWFP have already been certified or are in the process of being certified.

Certification is defined as a “procedure by which assurance is given that a product, process or service is in conformity with certain standards” (Dankers, 2002). The ‘quality’ of certification therefore depends on the standards and on the way of verification - from self-certification to independent audit (FAO, 2003).

Many stakeholders are involved in the process of certification, including standard setting organizations, certifiers, consumers, private sector (exporter and importer), local producers, development and research agencies, governmental and non-governmental organizations. These stakeholders might have different perceptions on the objectives of (NWFP) certification:

- Certification is seen as market-based instrument, which aims at improving market access and prices;
- Certification is perceived as ‘soft’ policy tool, which is more efficient compared to traditional policy tools¹ to promote sustainable forest management (FAO, 2003).

Does certification promote sustainable forest management by ensuring the socially equitable, economically viable and environmentally friendly exploitation and commercialisation of NWFP? In order to assess the opportunities and challenges of NWFP certification, the following key issues/questions have been identified (FAO, 2006a):

- *Traceability*: Does certification provide opportunities to trace products from the source to the consumer by a functioning monitoring system?
- *Tenure rights*: Does certification contribute to the clarification of tenure rights?
- *Empowerment*: Does the certification process empower normally disadvantaged stakeholders?
- *Market potential*: Do markets exist for certified NWFP with a higher premium price?
- *Costs*: Are high costs related to the certification process the main reason for reluctance of stakeholders concerned?
- *Harvesting*: Does certification promote sound exploitation and harvesting techniques?
- *Mainstreaming*: Does certification have a positive impact on the production of and trade in non-certified products?

¹ Traditional instruments are those typically applied by Governments onto markets, including revenue systems, financial and material incentives, conditions on timber extractions and trade controls (FAO, 2003).

2. Relevant NWFP certification schemes²

Certification programmes relevant for NWFP are forest management certification, organic certification, social certification and product quality certification. These programmes are voluntary schemes, which have to be in accordance to mandatory, national and international rules, regulations and conventions. Examples of international agreements and conventions, which are legally binding to signatory countries, include the World Trade Organization agreements, the Convention on Biological Diversity (CBD), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and other related laws and regulations. They set the legal frame for every voluntary certification scheme.

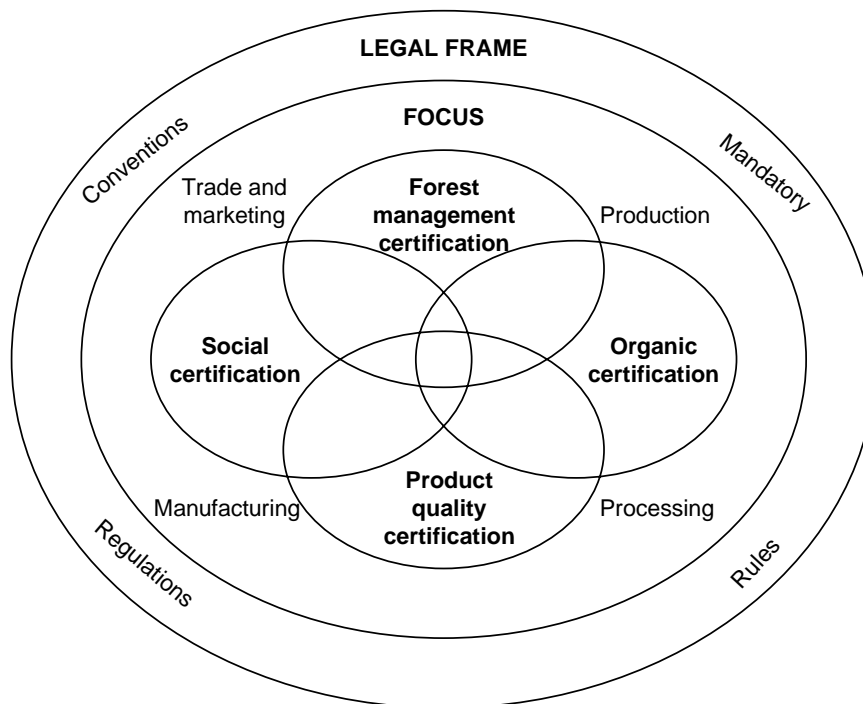


Fig. 1. Overview of relevant certification schemes in the field of NWFP

i) Forest management certification

NWFP are gathered mainly (but not exclusively!) from forests. The current international situation of forest certification is a high profile subject, which is still in its infancy and in a state of flux of continual changes with new and revised certification processes and new forests being certified. Although the total area of forests being certified is expanding, the total percentage of world's forests being certified remains very small (<3%). 90-95% of the certified forests are located in temperate developed countries, largely Europe and North America.

Forest management certification programmes mainly assess ecological aspects of resource management, both at the forest and at the species or product level, including chain-of-custody certification. Many different programmes exist on the international, regional and national level, which focus almost exclusively on timber products and include NWFP only marginally.

However, some programmes and organizations developed more specific guidelines dealing with the management of NWFP in natural forests, such as the *Draft principle 11* of the Forest Stewardship Council (FSC) and the Rainforest Alliance/SmartWood Programme *Generic guidelines for assessing the management of NTFP in natural forests* and the *Addendum on NTFP*. In addition to these generic guidelines, species-specific standards are required in order to take into account the wide range of ecological characteristics and management practices related to NWFP (Mallet, 1998).

² This chapter is an updated version based on papers of Walter (2002a) and Vantomme & Walter (2002).

Only a few NWFP have been certified in the context of forest management certification programmes, including the FSC accredited SmartWood certification of maple syrup (*Acer saccharum*) in the United States, chicle (*Manilkara zapota*) in Mexico, brazil nuts (*Bertholletia excelsa*) in Brazil, Bolivia and Peru and acai palm hearts and fruits (*Euterpe oleracea*) in Brazil (Donovan, 2000).

ii) Organic certification

In principle, almost all NWFP could apply for organic certification, when they are gathered in forests free of chemical treatments (which is the case for most of the forests). Since the potential supply of wild gathered NWFP is quite limited, the targeting of niche markets with low volume demand but potential for premium prices is a logical approach.

"Organic agriculture is a holistic production management system which promotes and enhances agroecosystem health, including biodiversity, biological cycles, and soil biological activity..." (FAO/WHO, 1999). Wild crafted and semi-domesticated NWFP can also be considered as organic and many NWFP such as pine nuts, mushrooms and herbs are increasingly commercialized as organic food products.

According to the Standards for Organic Agriculture of the Codex Alimentarius, wild edible plants and parts thereof can be considered organic, if:

- the products are from a clearly defined collection area that is subject to the inspection/certification measures;
- those areas have received no treatment with products other than those referred to in annex 2 (of the standards) for a period of three years before the collection;
- the collection does not disturb the stability of the natural habitat or the maintenance of the species in the collection area;
- the products are from an operator managing the harvesting or gathering of the products, who is clearly identified and familiar with the collection area" (Codex Alimentarius, 2001:25)

Similar definitions of organic NWFP are provided by the criteria of the EU Regulation 2092/91 (Annex I, section A, paragraph 4; Annex 3, A11), the US National Organic Programme (Article 205.207) and the IFOAM Basic Standards (Article 2.4 on wild harvested products and common/public land management, article 2.4.3 on NTFP).

However, it remains unclear, if NWFP such as phytomedicines, cosmetics or fungi are covered by EU Regulation (Melisch, undated) and if/how conversion periods have been applied. The revision process of IFOAM's *Basic* standards shows/ed the differences between how to integrate forestry in general and NWFP in particular in the concept of organic agriculture. In the 2nd Revision Draft, forestry issues are "proposed to be integrated into the standards rather than standing as a separate chapter [chapter 13 of 1st Revision Draft]... In doing so it is intended that the general provision of the standards will apply to forestry..." (IFOAM, 2003).

A multitude of NWFP have been certified according to organic standards including berries (Finland), palm hearts (Brazil), chicle (Mexico), maple syrup (USA), *Orbignya cohune* (Guatemala) as well as mushrooms, medicinal plants and plants used by the cosmetic industry (Mallet, 2000; Viana et al., 1996; Ten Kate and Laird, 1999).

iii) Social certification

Social certification systems, such as fair and ethical trade, assure that labour conditions are acceptable and benefits are equally shared among those involved in production and trade. These kind of trade initiatives foster business partnerships and management supply chains, which include secure and fair commercial deals and support the provision of market information (Kruegener v., 2000). Important criteria focusing on social issues include i) tenure and customary rights; ii) fair returns and adequate benefits; iii) safe and healthy working environment; iv) impact on

local/indigenous communities; v) economic viability; vi) absence of child labour; and vii) ethical marketing (Mallet, 2000; Burns and Blowfield, undated).

Social certification related to NWFP has mostly been promoted by fair trade initiatives. However, the impact of ethical and fair trade in forest products on forest dependent people is not yet clear (Talontire, undated). In the forestry sector in general, social issues have not yet been fully addressed since certification initiatives have been largely driven by environmental rather than social concerns (Natural Resource Institute, 2000).

Examples of fair-trade certified NWFP include chicle (*Manilkara zapota*) in Mexico (Mallet, 2000) and devil's claw (*Harpagophytum procumbens*) from Namibia (Leith, undated). NWFP traded by The Body Shop International (1996) include babassu oil (*Orbignya phalerata*) and brazil nut oil (*Bertholletia excelsa*) in Brazil, shea butter (*Vitellaria paradoxa*) in Ghana and honey and beeswax in Zambia.

iv) Product quality certification

Product quality certification aims at ensuring that defined production standards have been taken into consideration. These standards can focus on the product itself as well as on the way it is processed and manufactured.

Product quality parameters include product identity, purity, efficiency and safety. These parameters are relevant for a wide range of internationally traded NWFP mainly used in the food and pharmaceutical industry. One example of international commodity and general standards relevant for the food industry is the Codex Alimentarius, which aims at developing and disseminating international food standards to protect consumer health and to facilitate international fair trading practices in foods (FAO/WHO, 1999b; Health Canada, undated).

Process oriented standards include Good Manufacturing Practices (GMP) or Good Laboratory Practices (GLP) guidelines. Basic elements of the World Health Organizations' *GMP for pharmaceutical products*, for example, are

- "An appropriate infrastructure or 'quality system', encompassing the organizational structure, procedures, processes and resources; and
- Systematic actions necessary to ensure adequate confidence that a product (or service) will satisfy given requirements for quality. The totality of these actions is termed 'quality assurance'" (WHO, 2000).

Other product specific guidelines cover to some degree ecological, social and economic aspects. Examples include the Good Harvesting Practices (GHP) and Good Agricultural Practices (GAP) for medicinal and aromatic plants (EMEA, 1999; Harnischfeger, 2000) or the *Guidelines for the socially and environmentally responsible production of cut-flowers* (Flower Label Programme, undated).

The "certificate of origin" is widely used for quality control of food products. Such systems are usually operated and monitored through a governmental-private sector consortium. Increasingly, some high value edible NWFP such as truffles, morels or other wild mushrooms are certified through such documentation of origin.

3. Experiences of NWFP certification

Experiences in NWFP certification are still very limited. In 2002 – 2004, FAO commissioned case studies in order to document and analyse experiences of NWFP certification.³ The case studies include four exporting and importing countries, covering three different species and products used by various industrial sectors and compare the use of certified and uncertified products:

- Devil's claw (*Harpagophytum procumbens*), used by the pharmaceutical and non-pharmaceutical industry. Case studies documented and analysed trade in devil's claw in Namibia and Germany;
- Sheabutter (*Vitellaria paradoxa*), used by the food and cosmetic industries. Case studies documented and analysed trade in sheabutter in Ghana;
- Brazil nuts (*Bertholletia excelsa*), used by the food industry. The case study documented and analysed trade in brazil nuts in Bolivia.

Taking into account the key questions mentioned above, the following preliminary results were obtained:

i) Traceability: Does certification provide opportunities to trace products from the source to the consumer by a functioning monitoring system?

Certification implies the establishment of monitoring systems in order to ensure the compliance of NWFP utilization according to given standards. Such monitoring systems may provide key information on the use of NWFP and the opportunity to trace a product from the source to the consumer (chain of custody). Monitoring includes many dimensions covering ecological and socio-economic issues.

Monitoring of ecological parameters focuses on the provenance of the products, the location of the production area and the analysis of the resource availability. This information is often lacking or inappropriate for NWFP, although it may be required to monitor concessions and quota systems. The case studies describe major constraints in Ghana and Namibia, while in Bolivia the traditional concession and contract system seem to be a good base for improved monitoring.

Such monitoring systems might also be used as a tool to monitor and evaluate the consideration of laws and regulations such as CITES. CITES requests for appendix II species, which risk to become threatened with extinction, that trade is closely controlled and will not be detrimental to the survival of the species. This control could be provided by certain certification systems, although this may contravene rules of the World Trade Organization (see below).

Monitoring of socio-economic factors focuses on trade and market information. Dispersed producers as well as intransparent (devil's claw) and disconnected markets (shea) are considered as key challenges for improved monitoring and certification of NWFP.

Many NWFP markets (e.g. medicinal plants, fragrances) are intransparent and traders are not able or willing to share information on product provenances/destinations, qualities or quantities. Furthermore, more market transparency would strengthen the bargaining power of producers and weaken the role of middlemen and the industry – thus creating reluctance to deal with certification.

ii) Tenure rights: Does certification contribute to the clarification of tenure rights?

Many NWFP are collected in open-access systems that might enhance overexploitation of resources providing, in particular high value, NWFP. Therefore, the clarification of tenure issues is considered as a key aspect to promote the sustainable use of NWFP.

The case studies describe the huge variety of property systems existing regarding NWFP utilization and the related opportunities and constraints for certification. In Bolivia, tenure rights are

³ For details see Walter et al. (2003). The final reports will be published by FAO (2006a).

often unclear and debated. This unclear tenure situation is considered as key constraint for sustainable forest management and certification. On the opposite, in Ghana, the shea production system is traditionally based and tree tenure is clearly established. In Namibia, land tenure is not perceived as key constraint, but tenure related problems have been described with external, hired harvesters, who often enter communal lands for collection purposes without permission of the traditional authorities (FAO, 2004).

The above experiences show that clear tenure rights are a key to establish sustainable land use systems and certification systems. Unclear property systems may create social conflicts, especially when natural resources are becoming more valuable and scarce. Unclear property/user rights between farmers and nomads regarding gum arabic have caused deadly conflicts in Chad. The limitation of access to harvesting sites is a challenging process that also might create conflicts between different user groups.

Although unclear land tenure can be the major constraint to hinder the establishment of certification systems, certification can also be a useful tool to contribute to the recognition and clarification of custom, tenure and user rights.

iii) Empowerment: Does the certification process empower normally disadvantaged stakeholders?

Although certification is mainly perceived as a marketing tool, it has also been noted that it may provide a multitude of *non-monetary benefits* by providing improved capacity, stakeholder participation and consultation. These non-monetary benefits risk to be overlooked in the analysis of certification and need to be addressed properly in order to assess the suitability of certification as a policy tool that contributes to the empowerment of often disadvantaged and marginal people depending on NWFP (see Irvine, 2000).

In all case studies, producers (and often processors; see Ghana case study) are among marginalised populations with weak positions within (and outside) the market chain (weak organization, limited access to market information, little bargaining power...). In all cases, it was observed that their position has been strengthened during the certification process. Empowerment therefore requires strong and participatory capacity building programmes at all levels in order to support local producers/processors/traders and to facilitate the establishment of any certification system.

iv) Market potential: Do markets exist for certified NWFP with a higher premium price?

The case studies indicate the low market share of certified products, reaching 1.6 percent in the case of brazil nuts from Bolivia (1999-2002), one percent for devils claw from Namibia and 'some hundreds of tons of certified sheabutter' from Ghana.

Future market trends remain unclear and are supposed to be highly product and market specific. Market demand for certified brazil nuts and devil's claw seem to remain stable, while an increasing demand in shea products for the cosmetic market is expected. However, niche markets will remain the main markets for NWFP.

Interest in certification and certified NWFP seem to differ among markets and among the various stakeholders concerned. In the case of brazil nuts and shea, there seems to be an interest from the consumer side in certified products, which may be typical for the food and cosmetic sector. Discussions on the certification of medicinal plants, including devil's claw, show that in this sector, retailers are mainly involved in discussions on certification. In the case of rattan, for example, the market for certified products "would be minimal unless a major public education effort took place to inform consumers of the negative impacts of many unsustainable rattan sources" (Viana et al., 1996).

The market potential might also be influenced by the certification system selected. The case studies showed that the industry involved in trade in devil's claw is mainly interested in quality and

less interested in environmental and social issues. This trend seems to be typical for the entire medicinal plant sector. Quality standards could therefore provide an option for producers to add value on their products and to enter into a dialogue with the industry. Little is currently known about the end consumers perception of and interest in certified NWFP and their willingness, to pay premium prices for certified NWFP.

A general limitation to access markets for certified NWFP is the insecure market supply. Companies require a guaranteed minimum supply (in quantity and quality) in order to include certified products in their business. This supply can hardly be assured by the producers concerned.

These market characteristics (market share, trends and premium price) are similar for certified wood and agricultural products. In the US, the market share of certified wood production is probably "less than 1% of the overall forest products market" (Rickenbach et al., 2000) and the total, global supply in certified forest products is growing faster than market demand, mainly coming from retailers in Western Europe and the US (Bourke, 2001a). In the agricultural sector, the market share for selected certified is for selected products higher compared to forest products. 15% of bananas commercialised on the world market are for example certified according to the Social and Environmental Criteria for Rainforest Alliance Agricultural Certification (Difney, 2004, Rainforest Alliance, undated). However, world export of organic certified bananas reaches 1% of the total banana trade with an annual growth rate between 16 (2001/2002) and 60% (2000/2001) (FAO, 2003b).

v) Costs: Are high costs related to the certification process the main reason for reluctance of stakeholders concerned?

Certification is often linked to a premium price, which does not only add value to the certified product, but also requires additional financial investments for the establishment and maintenance of the certification system. The case studies showed that the value of the certified NWFP increased considerably due to the 'premium' price paid for these products. In the case of devil's claw, producers of certified products get 185-555% higher prices per kilogramme compared to conventional products, while exporters can increase the value by 130%. The FOB price for organic and fair trade brazil nuts from Bolivia reached 140% and 152% respectively compared to the conventional product.

The premium price directly related to the increased expenditures caused by the certification process. For forest certification, for example, the costs of US\$1.000 per ha is cited as the minimum cost, excluding any costs for management improvements to reach certification (FAO, 2003). These costs are too high for small forest areas and small forest-based enterprises. Calculations in Namibia showed that certification costs reached 53 and 93% of the net profit from sales (all costs deducted) in 2001 and 2002, leaving only limited/negligible real profit margins. In the wood sector, price premiums will only be paid for a few high-value segments (Bourke, 2001a Bourke, 2001b).

For sheabutter, calculations have shown that a minimum selling premium of 10–15% would be required to cover certification costs and ensure that some benefits can be paid to the collectors. In this case, large areas need to be certified in order to become cost effective due to the low stocking densities of the shea trees. Group certification and internal control systems are used to reduce related costs.

The higher production costs of certified products need to be covered by members of the market chain (e.g., producers, retailers, end-users) in order to ensure the economic viability of the production. However, all case studies showed that financial support to cover additional costs were covered by development projects, i.e., supporting mechanisms outside the market chain. This indicates the difficulties to cover the increased costs through market mechanisms. In the case of devil's claw, the certification process is perceived to be too costly to be considered by most trading companies. Higher procurement prices would be compensated by higher retail prices but would probably not be passed on to the end user. In fact, in Namibia, it was discovered that the only trading company of organically certified devil's claw sold the product to conventional markets

without requesting any premium price. For many NWFP it is not yet proven that customers are willing to pay higher premium prices (Viana et al., 1996).

While the reluctance of the industry to pay premium prices for devil's claw products is a major constraint for market development, higher prices seem to be less problematic for brazil nuts and sheabutter. For these products, there is a tendency to pass on premium prices to the end market and end consumers. In the case of brazil nuts, organic importers may accept price premiums of up to 15 to 35%. For sheabutter, growing markets for organic and fair trade markets have been identified offering higher prices for shea products. Numerous companies are already claiming organic shea production although it remains doubtful, if these companies have already been certified.

A major constraint is related to the required up-front investments to establish certification systems. These start-up costs occur and need to be covered before selling the first certified product (e.g., three year conversion period for organic production). Local producers are often not able to cover these costs and require financial support through development projects, company partnerships of microfinance systems. These support mechanisms are often not available for NWFP producers.

Certification costs might differ from various products, locations and certification programme. Fair trade certification schemes, for example, require less investments since audit costs are already included in the premium guaranteed by the certifier. Organic production implies lower costs than forest management certification; the latter might therefore be an option for large-scale production systems (Falls Brooke Centre, undated; Mallet and Karmann, 2000).

Higher costs seem to be a key constraint for markets, where these costs can not be passed on to end consumers. Many industries seem to be reluctant to pay premiums for certified products due to the limited markets. External support seems to be essential in order to establish and maintain sustainable certification systems. It remains doubtful, if such certification systems can be financially self-sustained without such external support.

vi) Harvesting: Does certification promote sound exploitation and harvesting techniques?

The case studies show, that for brazil nuts and shea, there is no concern of over-exploitation. For these products, it would be relatively easy to meet environmental standards regarding harvesting techniques and levels. Certification would not provide any additional incentive for conservation of these resources, but it could provide a tool to monitor and document sound exploitation techniques and to add value to the resource/product (see below).

For NWFP with a risk of over-exploitation, certification could provide an additional incentive/tool to improve exploitation and to apply appropriate harvesting techniques. The example of devils claw shows the possibilities of using standards as guidelines to promote environmental friendly production systems. This may also help to secure markets, if producers can show that their products have been produced in an ecological way.

One key constraint to monitor the exploitation of NWFP is the definition of sustainable harvesting levels. Appropriate methodologies to carry out NWFP inventories and biometrically sound NWFP resource assessment are still lacking and need to be elaborated and tested (FAO, 2001e). Species' specific standards are for example required by FSC. Both the development and application of these standards are challenging due to the multitude of life forms (roots, leaves, bark, animal products, etc.) and the limited scientific knowledge. Considerable efforts would therefore be required to provide capacity building at all levels. Certification initiatives could provide a tool to promote the development of such guidelines

The use of standards is considered as a useful tool to monitor and promote the environmental management and exploitation of NWFP. Since the quality of NWFP management will much depend on the quality of the standards, considerable efforts need to be made in order to ensure quality of these standards. This quality is considered as a main constraint taken into account the limited

knowledge available on NWFP management, exploitation and inventories. Work in Namibia showed that in the initial phase the existing standards were considered to be not useful or inappropriate.

vii) Mainstreaming: Does certification have a positive impact on the production of and trade in non-certified products?

Certification is being applied for selected products mainly targeting limited niche markets. How does certification and the related discussions impact on the production of and trade in NWFP for the conventional, non-certified mainstream markets?

Discussions and research on NWFP certification is limited and a new topic compared to the timber and agricultural sector (in which NWFP are only marginally covered, if at all).

The case studies have shown that the current impact of certifying sheabutter, devil's claw and brazil nuts has nearly no impact on the mainstream markets. Limited interest and demand in certified products at all levels (including retailers and consumers) currently prevents any mainstreaming of ecological and socio-economic considerations promoted through the existing certification systems. Quality standards are already important for mainstream markets and applied standards, certification and labelling schemes seem to attract many industrial sectors.

Although the direct impact of certification on mainstream markets is limited, certification may provide examples for a (more) sustainable use of NWFP and their outcomes and lessons-learnt will impact on future debates for NWFP production and trades for/in mainstream markets. Especially for sensitive production systems (e.g., endangered species listed on CITES appendixes) or markets (e.g., food or cosmetic markets) future debates will include considerations regarding certification (see for example discussions regarding CITES appendix 2 listing of agarwood and medicinal plants).

The link between niche and mainstream markets and voluntary and mandatory rules regarding certification in general has created debates regarding its *conformity to rules of the WTO*: as already stated by Tallontire (1999), it is still "current wisdom that if a scheme is voluntary and open to all it does not contravene the rules of the WTO". However, this discussion is still going on as reflected in a paper submitted by the European Union to the WTO Committee on Technical Barriers to Trade, asking the committee to "examine the need to clarify the WTO rules with respect to labelling [while] other members...have expressed the opinion that no clarification was needed" (FAO, 2003).

4. Perspectives of NWFP certification

The perspectives of NWFP certification have been discussed by Walter & Vantomme (2003) by focussing on the requirements, opportunities and challenges related to the certification of NWFP (see table 1). These challenges have been verified and discussed in further details based on above case studies.

Table 1. NWFP certification: key requirements, opportunities and challenges

Requirements	Opportunities	Challenges	Issues requiring further clarification
<ul style="list-style-type: none"> Establishment of a limited and monitored permitting system Development of tenure rights Limitation of access to harvesting site in order to maintain sustainable harvesting level Development of niche market for high quality products Implementation of quality control measures 	<ul style="list-style-type: none"> Establishment of monitoring system to ensure compliance according to given standards Traceability of products from the source to consumers (chain of custody) Clarification of tenure (both, land and user) rights Environmental friendly exploitation through sound exploitation techniques and limited access to harvesting sites Improved income generation through higher market prices Value addition, since high quality products might have better access to markets and gain higher prices 	<ul style="list-style-type: none"> Dispersion of collectors, who are often located in rural and isolated areas Definition of sustainable harvesting levels difficult due to limited ecological knowledge Creation of user conflicts due to the limitation of access to harvesting sites and unclear land tenure/ownership, especially in open access or communal land areas; Unclear market potential for certified NWFP Insufficient product definition and classification, since many NWFP are not included in international classification or standardization systems 	<ul style="list-style-type: none"> Suitability of different certification programmes Collaboration opportunities among different certification programmes Standard quality and complementarity; Costs of certification procedures Monetary and non-monetary benefits for stakeholders Replicability and mainstreaming of certification and the impact on non-certified products

Source: Based on Walter & Vantomme (2003)

The future potential of NWFP certification remains unclear and will be very product and market specific. In addition, certification of NWFP is more likely to happen in areas, where the various certification schemes are already applied, i.e. in developed countries, particularly Europe and North America.

In developing countries, NWFP certification will probably remain rudimentary in the near future. However, South America seems to take the lead in the development of NWFP certification in comparison to tropical Asia and Africa.

In Central Africa, for example, no certification of NWFP has currently been identified by the author. In addition, forest and organic certification in general remains very marginal compared to other sub-regions. However, opportunities do exist for NWFP certification:

- The Congo Basin offers a huge variety of NWFP which are used for subsistence purposes and commercialised on the local, national, regional and international level. Important NWFP include edible plants (e.g. *Gnetum africanum*), medicinal plants (e.g. *Prunus africana*), bushmeat and rattans. For some of these products, e.g. *Prunus africana*, certification opportunities are being discussed for nearly one decade.
- The regional policy framework is emerging due to the creation of the Central African Forestry Commission (COMIFAC), which is facilitating the harmonization of policies and promoting sustainable forest management based on the priority areas for action defined by the Regional Action Plan ("*Plan de Convergence*")⁴.
- The NWFP sector in Central Africa is quite active, including governmental organizations (e.g. specific divisions in the government in charge of NWFP), research organisations (e.g. universities, CGIAR centres), non governmental organizations and the private sector (e.g. trade associations for NWFP permit holders). FAO is supporting the Central African NWFP sector

⁴ Les Chefs d'Etat « s'engagent à : ... adopter des politiques nationales harmonisées en matière de forêts et accélérer la mise en place des instruments d'aménagement, notamment des systèmes de certification harmonisés, reconnus internationalement, agréés par les Etats de l'Afrique Centrale et développer les ressources humaines pour la mise en œuvre... » (Déclaration de Yaoundé ; COMIFAC, 2004).

through a regional project funded by the government of Germany on “Enhancing food security through NWFP in Central Africa” Main objectives of the three year project are i) to enhance awareness of and knowledge about the role of NWFP for food security and ii) to lay foundations for the systematic integration of information on food from forests in relevant policies and programmes.

Despite above opportunities, (NWFP) certification initiatives are rare due to below main challenges:

- The region remains politically instable and insecurity is still a major problem in many countries and areas. In particular forest areas with limited access are often considered as insecure areas making travel to the respective areas difficult and dangerous.
- Although governments agreed upon an harmonization of regional forest policies, national policies on resource tenure, land ownership and forest management remain unclear. In addition, it has been observed that the legal and regulatory framework impacting on the NWFP sector is inappropriate and does not promote the development of the sector. Complicated processes to obtain trade and export permits and the existing corruption of governmental services prevails the development of a private sector that is necessary for the *valorisation* of the many resources providing NWFP.
- Market information on NWFP is very limited and access to external markets remains a major challenge for Central African NWFP. These limitations do also have a negative impact on the potential for NWFP certification. In addition, it has been noted that concerned stakeholder in Central Africa do have a very limited knowledge on certification and the related opportunities and challenges.
- Costs for certification are high, and due to the limited knowledge available in the sub region, expertise is mostly available outside the region, which does contribute to the high risks linked to any kind of certification initiative.

Taking into account above opportunities and challenges, NWFP certification will probably remain insignificant for the near future.

5. Conclusions

The current experiences have shown that NWFP certification is still and will probably remain limited by focussing on selected priority products offering a premium market for certified products. Despite these limitations, it is suggested that these certified products could however provide interesting examples, which could impact on mainstream markets and production systems.

Especially NWFP, which are facing over exploitation, could benefit from sound harvesting techniques developed and monitored through certification systems. Taking into account the ongoing debate on the domestication of previously wild-gathered NWFP, further research on the (potential) impact of certification on domestication and the related effects on beneficiaries is recommended.

Certification is perceived as market-based and policy tool. However, long term viability can only be achieved, if certification is economically profitable due to sufficient market demand for these products. In addition, consumers (retailers and/or final consumers) should be willing to pay the required premium price, which is higher than for conventional products.

Certification can be an effective tool to promote the sustainable use of NWFP. However, certification is not the overall solution for all products. Therefore, the potential of certification should be carefully assessed for every single product/case since other policy and/or marketing tools might be more effective to promote the sustainable use of NWFP.

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