# Policy Brief for realizing green/bio economy with high value Non-Timber Forest Products commercialization in Ethiopia and Sudan

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## **Key Messages**

- This policy brief is based on research findings from studies of highland BAMBOO and NATURAL GUM AND RESIN products in Ethiopia as well as GUM ARABIC value chains in Sudan.
- These products possess high economic, social and environmental benefits and untapped potentials. However, their production and commercialization are constrained seriously by various challenges limiting the realization of their potentials.
- Identified policy options are:
  - strengthen institutional capacity;
  - improve infrastructure and support services;
  - organize necessary information for sustainable utilization planning;
  - facilitate actors' communication, innovation and fair partnership.
- This calls for forest product value chain development that is supported by policy, training, research, technology development and transfer, market linkage that consider private sectors, state, civic organizations, universities and research institutes

#### Introduction

This policy brief deals with high value products from forests and trees other than timber, so called Non-Timber Forest Products (NTFP). These forest products were studied in Ethiopia and Sudan from 2014 to 2016 with a collaborative research project "CHAnces IN Sustainability – promoting natural resource based product chains in East Africa" (CHAINS). The CHAINS research project specifically investigated and intervenes in the value chain of highland bamboo and natural gum and resin products in Ethiopia and gum Arabic value chain in Sudan. These products bear high economic, social and environmental potentials. However, their production and commercialization are seriously constrained by a series of challenges limiting the realization of their potentials.

### The multiple benefits of the forest products

Commercialization of bamboo, and natural gum and resins provide tangible economic benefits both for smallholder producers and entrepreneurs along the value chain, as well as to the national economies. The products are widely used for subsistence and cash income generation. Being exportable forest products, of commercialization the products generates employment and substantial export earning to the national economies through forward and backward integration. For example, gum Arabic constitutes an integral component of the farming system in the gum belt of Sudan where nearly eight million households are engaged in production.

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Besides, the above mentioned three products provide many environmental benefits and services, such as desertification control, soil fertility improvement, carbon sequestration, microclimate amelioration and habitat for biodiversity. Bamboo, natural gums and resins have been traditionally used for many generations and display an important cultural heritage, e. g. the incense burning in the Ethiopian coffee ceremony or in wedding ceremonies in Sudan.

The income and jobs created by the forest resources buffer conflicts, stabilizing marginalized rural areas and through this moderating rural-urban migration.







Collection of incense (Photo by Asmamaw Alemu)

Processing bamboo (Photo by Maxi Domke)

Gum Arabic ready for export (Photo by Eckhard Auch)

#### **Encountered challenges**

Despite the large potential of Non-timber Forest Products for improving local livelihoods, fueling the national economy as well as sustaining natural resources, their potential is by far not fully utilized. In both countries, the dry forests, hosting so many beneficial NTFPs, are hardly managed but rather cut and converted in alarming scale. Some reasons discovered by the CHAINS project research are:

- Underutilization of the resource potential, e.g. in the large dry forests of southern Ethiopia, currently only 8 out of 16 tree species are utilized commercially;
- Poor infrastructure and services on production sites, e.g. roads only are usable in dry seasons, absence of telecommunication network, no water availability for product collectors, hardly information about market demands, prices, or upcoming calamities like locusts, no appropriate storage facilities for gum and resin products;
- Insufficient credit, mistiming, limited credit facilities;
- Inefficient marketing links and poor bargaining power of producers, due to the small quantities supplied and isolated homes they depend solely on few middlemen as buyer,
- Losses in volume and quality due to inefficient practices in production and post-harvest handling and packing, e.g. immature harvesting of gum as well as impurities like livestock dung in the products; since the payment practice does not pay for quality, only mass, it promotes impurities like stones, bark and packing in plastic which prevent drying and promote molding;
- Sometimes collection and harvesting practices are destructive for the resource, e.g. cutting a tree for a gum in the crown or cutting green, immature bamboo culms; using productive, high value product bearing trees for fuel;

- Despite the rich cultural heritage, for example incorporated in bamboo furniture, the image and reputation of many forest products is poor, as being of low quality, old fashioned and of low value;
- Most forest products are marketed and exported in unprocessed or semi-processed form, substantial value addition is done after export by the importing countries. The producing country's benefit remains marginal;
- High fees and taxes imposed on products, e.g. for gum Arabic many different taxes and fees
  were found in Sudan. This indicates a prevailing government perception on forest products as
  opportunity for collecting fees, ignoring the many other functions and services.

# Suggested mechanisms: technical arguments

Destructive practices often root in lack of knowledge and skills. The mandated institutions fail in providing the required services and supervision. Strong support services and institutions with clearly delimitated mandates for resource management would guide the user towards an effective and at the same time sustainable utilization of the resource, with high production levels and stable, resilient multifunctional forest-ecosystems. Known features like periodical droughts or flowering of bamboo will be considered in comprehensive management with emergency provisions. To deliver such services the formal institutions have to be equipped with appropriate academic education as well as continuous training in adaptive management. Such an enabling environment is required to develop, promote and facilitate the 'good practices' for both sustainable natural resource utilization and efficient value chains with fair sharing of responsibilities and benefits.

Infrastructure and support services like market information, binding definitions of quality and trade classification etc. will lower transaction costs thus benefitting the market partners.

Existing figures about extent and structure of the resource are vague and often estimations. Surveying, mapping and registration of forest land resources will enable proper management planning and will facilitate clear use right agreements and related conflict management.

Many of the rural producers are isolated and loosely connected with markets. Middlemen who act as a link between rural and urban markets commit biased arrangements allowing them to undercut the market prices. Through moderated negotiation between the market partners and agreed upon procedures and by-laws the major actors will be linked effectively to markets and will have an instrument for a fair benefit distribution.

The bundling of forest products from many small producers will ease and sometimes enable the first time to enter proper markets. While bundling is not free of cost, support of producer's cooperation will not only yield economic benefits, but also stabilizing rural areas and facilitating the transfer of other services like water provision.

Many forest products are leaving the production country only semi-processed. The investment in the development of new and innovative products gives the opportunity for local and national value addition. Certification and fair trade enable for the same product additional social, ecological and economic benefits due to higher market prices for products with secured quality features.

#### **Workable Policy Instruments and suggested Actions**

- Strengthen institutional capacity in terms of: human capacity, trained human resources, capable to deliver their services:
- Offices, tools, equipment and transport means for the mandated work;

- Formulation of rules, regulations and policy for production, management and commercialization, quality control of forest product (as far as not in place);
- Create an environment with clear responsibilities for formal institutions of the natural resources as well as related use and ownership rights;
- Facilitate governance of forest resources though better resource allocation and mainstream the activities of NTFP by the federal and regional Governments;
- Launch of integrated research program in the field of NTFP;
- Incorporate NTFP production, management, commercialization and governance course in the existing and future curricula of higher education;
- Develop training and extension manuals for development agents, experts and development partners;
- Infrastructure and support services;
- Capacity building of actors and stakeholders (skills, knowledge, attitude) at all levels: training in production, resource management, handling, processing and commercialization;
- Develop infrastructures for production (e.g. feeder road, storage facilities, water points) and marketing (telecommunication, market yards, market information system, ...);
- Extend financial services to forest product producers, with sufficient amounts, timely, equitable
  for all actors and with fair conditions. Identify financing instrument with fair collateral
  requirements;
- Surveying, mapping and registration of resources with regular update;
- Organizing small producer for effective collective action, e.g. establishment of producer organizations or marketing groups for joint marketing, credits, price and quality negotiations etc.;
- Facilitating fair partnerships between actors, e.g. contract production, with enforcement of formal regulations, by-laws, and procedures, e.g. by regular monitoring, and support from professionals;
- Registered partnerships should be promoted by reduced taxing, lower fees for investment transactions;
- Through moderated negotiation between the market partners and agreed upon procedures and by-laws the major actors will be linked effectively to markets and will have an instrument for a fair benefit distribution;
- Preferential incentive to local processing;
- Promote processed products to be exported, the export of unprocessed forest products should be limited in the long run;
- Creating ideas for value adding, development of new products and related businesses as well as raising funds for needed technology transfer;
- Give priorities for investment in forest product value adding businesses and encourage fair cooperation with national and international companies with respect to social and environmental standards.