



Uganda BioTrade Programme

**NATURAL INGREDIENTS SECTOR  
STRATEGY FOR FOOD, COSMETICS  
AND PHARMACEUTICALS  
2005-2007**



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Key Reference Documents

- **NICP Sector Assessment, Dec 2004**
- **NICP Ecological Report, April 2005**

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-Tropical Aloe Ltd picture gallery

# Table of Contents

|  |     |
|--|-----|
| Table of Contents  | ii  |
| List of Acronyms   | iii |
| Executive summary  | iv  |
| 1.0 Background   | 1   |
| 1.1 Introduction   | 1   |
| 1.2 Key Issues arising in the sector assessment  | 1   |
| 1.3 Developments in the sector planning process  | 2   |
| 2.0 Sector Strategy Natural Ingredients for Food, Cosmetics and                        | 3   |
| 2.1 Introduction   | 3   |
| 2.2 Sector Objectives  | 3   |
| 2.3 Planned Sector Interventions   | 4   |
| 3.0 Conclusion   | 6   |
| Annex 1: Summary of issues arising from the assessments                                | 7   |
| Annex II: Organizations possibly involved in the implementation of the Sector Strategy | 9   |

## **List of Acronyms**

|        |   |
|--------|---|
| CBI    | Centre for Promotion of Imports from Developing Countries |
| GACP   | Good Agricultural Collection Practices                    |
| GAP    | Good Agricultural Practices                               |
| GMP    | Good Manufacturing Practices                              |
| ISO    | Internacional Standards Organisation                      |
| MSDS   | Material Safety Data Sheets                               |
| NDA    | Nacional Drug Authority                                   |
| NICP   | Natural Ingredients for Cosmetics and Pharmaceuticals     |
| R & D  | Research and Development                                  |
| SMEs   | Small and Médium Enterprises                              |
| UEPB   | Uganda Export Promotion Borrada                           |
| UBTP   | Uganda Biotrade Programme                                 |
| UNBS   | Uganda Nacional Bureau of Standards                       |
| UNCTAD | United Nations Conference on Trade and Development        |
| VAT    | Value Chain Analysis                                      |

# EXECUTIVE SUMMARY

Introduced in May 2003, the BioTrade programme is supported by UNCTAD and has since generated baseline information to support the design and actual implementation of a national programme. UNCTAD has however worked with CBI in developing the natural ingredients sector, with focus on cosmetics and pharmaceutical intermediate products. The country's rich biodiversity i.e. over 5000 plant species - with potential for commercialisation -, complimented with the country's cultural orientation towards use of plant extracts and materials for medicinal and as food supplements, it was found pertinent to design interventions for the promotion of natural ingredients for food, cosmetics and pharmaceutical industries in fulfilment of the programme objectives. An assessment of the sector revealed high entrepreneurial activity in raw material, intermediate products (ingredients), and final products for the food, cosmetic and pharmaceutical purposes.

A sector strategy has been developed through participatory processes whose objective is to harness and develop the country's potential to produce, from native Ugandan biodiversity, natural products for cosmetic and pharmaceutical use in national and international markets.

The strategy takes into consideration both sectoral and enterprise issues through specified objectives: (1) To strengthen capacity of SMEs; (2) Increase access for SMEs to various markets; (3) Create an enabling environment that promotes growth of the sector; and (4) Improve and expand the sector strategy gradually based on lessons learned.

Proposed interventions provide a platform to address environmental, conservation, technological, R&D issues, quality enhancement, sector association support, legislative issues, information, etc. A sector based work plan is under formulation to scale up the ongoing activities and also provide a framework for the commencement of the BioTrade Programme in Jan 2006. A partnership approach will be adopted based on the institutional mandates of the possible partners, with a view of creating synergies and joint work plans.

## **1.1 INTRODUCTION**

The Uganda BioTrade Programme is hosted by UEPB and aims to promote trade and investment in biological resources for a diversified export base, poverty alleviation, employment generation, natural resource base conservation and sustainable development.

The Uganda BioTrade Programme (UBTP) is the first of its kind in the country and its formulation was initiated in May 2003 with support from UNCTAD. Uganda is endowed with a rich biodiversity, with over 5000 plant species, with a cultural influence in the use of medicinal plants, and increasing enterprise activity, factors that contributed to the selection of the potential product group. Plant material is traded in forms of raw material, processed intermediate products i.e ingredients, and also as finished products. Among the first product groups selected for attention was therefore Natural Ingredients for Cosmetics and Pharmaceuticals (NICP), developed in close cooperation with UNCTAD and the Dutch Centre for the Promotion of Imports from developing countries (CBI).

In April 2004, a Value Chain Analysis (VCA) session was organised and conducted with the participation of the private and public sector. Two VCA maps were produced for the cosmetic and pharmaceutical sub-groups based on aloe vera and shea nut, and prunus Africana, aloe ferox, and pyrethrum respectively. The output of the VCA process served as inputs to the development of a sector strategy focused on production and processing, enterprise support requirements, quality management, and marketing issues. An evaluation was made, as an independent study, of the ecological issues influencing the trade in NICP products. A brief summation of the issues is presented here below (find details as Annex 1):

## **1.2 KEY ISSUES ARISING IN THE SECTOR ASSESSMENT**

Enterprise level:

- a. Limited compliance to legislation
- b. Poor collection and harvesting practices
- c. Insufficient quantities
- d. Limited adherence to international quality requirements
- e. Processing technology at cottage level
- f. Limited awareness on best practices such GAP, GACP, GMP, etc
- g. No business plans
- h. Limited capacities to access market information
- i. Limited access to financing

Sector level:

- a. No production data (cultivated and wild resources)
- b. Bureaucracy in issuance of permits to wild resources
- c. Limited appreciation of the value of the natural resources
- d. Inadequate and expensive testing and laboratory services
- e. No guidelines/legislation exists for quality management processes
- f. The legislative framework to regulate the sector is almost non-existent
- g. Research & Development efforts scientifically driven as opposed to addressing the private sector needs

- h. Concerted national market entry strategies for NICP products are lacking
- i. Domestic/foreign direct investment in the sector is absent
- j. No organisational structure for coordination and information sharing

### **1.3 DEVELOPMENTS IN THE SECTOR PLANNING PROCESS**

In mid 2005, the programme reviewed the inclusion of the Natural Food Ingredients product group as a possible candidate in the BioTrade Programme. A VCA workshop was conducted at the beginning of August 2005 as a first step, to identify and assess the key processes, actors, issues and gaps. Working groups at the VCA session (spices, plant and plant extracts, and honey), revealed an overlap of issues in the food ingredients as compared with the NICP products. Other findings were the low entrepreneurial activity and similarity in market requirements to the NICP product group.

The workshop therefore concluded that the spices and plants and plant extracts, (with similarity in market and quality to the NICP), be incorporated into the NICP product. The honey product group had different requirements. However factors such as supply capacities, better price offers on the regional market, etc led to the conclusion that the product be further reviewed, especially in regard to levels of business activity and linkages to biodiversity, aspects that will influence the decision to include honey as a product in the Uganda BioTrade Programme.

It was concluded therefore, to combine the cosmetic, pharmaceutical and food components into one strategy, owing to the similarity in issues and actors. This strategy is therefore presented as a joint intervention for the 3 product groups, addressing the enterprise and sector level issues.

## **2.0 SECTOR STRATEGY NATURAL INGREDIENTS FOR FOOD, COSMETICS AND PHARMACEUTICALS (NIFCP)**

### **2.1 INTRODUCTION**

The issues raised in the preceding section reflect concerns at the sectoral and enterprise levels, which require for immediate and long-term strategic intervention for the sustainable supply of NICP products from Uganda. The strategy below was elaborated in consultation with public and private actors to address these issues in a realistic way. The companies producing ingredients for cosmetic and pharmaceutical use have been the key point of reference in developing this strategy. The companies are at varying levels of export performance, ranging from those already in the export market, new entrants, and companies currently supplying the local market but with potential for export

It is envisaged that the implementation of the strategy be based on the principle of institutional collaboration, facilitation of private/public sector synergies, and the active involvement of communities in the supply chain. However, all public and private sector institutions will be included based on merit. The implementation of the strategy will be private-sector driven using market demands to orient the planned interventions.

### **2.2 SECTOR OBJECTIVES**

#### Overall Objective

To harness and develop the country's potential to produce, from native Ugandan biodiversity, natural products for cosmetic and pharmaceutical use in national and international markets.

#### Specific Strategy Objectives

1. Strengthen capacity of SMEs and their suppliers to produce ingredients in a social and ecologically sustainable way in line with national and international market requirements
2. Increase access for SMEs to national, regional and international markets
3. Create an enabling environment that promotes the further growth of this sector
4. Improve and expand sector strategy gradually based on lessons learned.

### **2.3 PLANNED SECTOR INTERVENTIONS**

#### OBJECTIVE 1:

Strengthen the capacity of selected SMEs and their suppliers to produce high value and competitive ingredients in a social and ecologically sustainable way, in line with national and international market requirements.

#### Expected output:

-SMEs trading natural ingredients and therewith contributing to sustainable development of Uganda

#### Proposed interventions:

1. Assure sustainable use of resource base:
  - Guarantee supply of sufficient quantities in line with current and long-term market demands.

- To assure sustainable wild collection through application of sustainable management plans for selected (native) species used by SMEs;
- To enhance quality and traceability in the supply of cultivated raw materials through application of, and training in, good agricultural and other relevant practices;
- To facilitate access to reliable seeds and seed multiplication initiatives;
- To facilitate access to, and application of, relevant certification schemes or labels;
- To promote partnerships between companies and local communities to foresee in long-term resources requirements and enhance transparency.

2. Technological and management aspects:

- To support SMEs in the up-grading of their technologies;
- To support introduction of quality management systems (e.g GMP and others) through training and access to technical advice;
- To facilitate testing and preparation of documentation (e.g Toxicity, Safety of ingredients, Certificate of Analysis, MSDS, etc.);
- To enhance management and business communication skills.

OBJECTIVE 2:

Increase access for SMEs to national, regional and international markets

Expected output:

-Increased trade volumes in the national, regional and international markets

Proposed interventions:

- Support enterprises with the development and implementation of export management plans;
- Support market access activities such as trade fair participation, match-making between importers and exporters, B2B meetings, and buyers missions;
- Facilitate access to market information in form of sector-wide as well as species and product specific market studies;
- Support use of distinctive signs (e.g. trademarks, geographical indicators) to promote and protect trade of species of national importance in Uganda.

OBJECTIVE 3:

Contribute to the creation of an enabling environment that promotes the further growth of this sector

Expected output:

- Specific measures that allow the sector to thrive (with less external interventions)

Proposed interventions:

1. Assure sustainable use of resource base:
  - Prepare on a list of priority species for Uganda based BioTrade principles and criteria and with prospects in the market place.
  - Conduct resource assessment for the above priority species in cooperation with the companies and the competent authorities;
  - Support environmental authorities with view of facilitating sustainable trade in NICPs (e.g. streamlining of use permit approval processes, improve control and monitoring of resources use by players active in NICP);
  - Review relevant natural resource related policies with a view to sustainable use (e.g. assess use of incentive measures to promote sustainable use practices);

- Facilitate implementation of mechanisms that allow for issues such as: use and protection of traditional knowledge, access to genetic resources following CBD rules.

2. Enhance research & development and quality issues

- Facilitate botanical identification and development of monographs for selected (native) species of national importance to Uganda.
- Support efforts at product quality certification by competent authorities (e.g. UNBS & NDA).
- Leverage support to enhance testing and laboratory analysis functions, so that most important analysis required by NICPs can be made in country;
- Promote demand driven R&D applied to needs of private sector

3. Increase private sector cooperation and services

- Promote private sector collaboration (e.g. creation of association)
- Include issues related to NICPs in programmes of business services providers (through training)
- Explore opportunities for enterprise financing (soft loans, grants, etc) and facilitate company access to these.

4. Assure information sharing

- Establish information sharing platforms (internet, specialised forums) and net working opportunities.

5. Support formulation of relevant legislative frameworks

- Facilitate the formulation of relevant policies to support the critical aspects of the sector such as quality, Intellectual Property Rights, R&D, safety, standardization, consumer protection, etc

Objective 4:

Improve and expand sector strategy gradually based on lessons learned.

Expected output:

-A realistic and concrete strategy adapted to level of development of the sector.

Proposed interventions:

- Periodically evaluate progress made in sector development using joint public-private approach
- Revise and gradually expand strategy (e.g. number of beneficiaries, number of priority species, type of interventions, nature of objective) based on lessons learned and concrete results obtained and resources available.

### **3.0 CONCLUSION**

Based on the strategy illustrated in section 2.0 above, an action plan will be designed with defined activities and measurable outputs, and corresponding time lines. A partnership approach will be adopted based on the institutional mandates of the possible partners, with a view of creating synergies and joint work plans. The possible partners will be reflected in the action plan while a list is here attached as Annex 2.

## ANNEX I: SUMMARY OF ISSUES ARISING FROM THE ASSESSMENTS

### I. At the level of enterprises and their providers

- Compliance to legislation by enterprises is almost non-existent especially in regard to access and harvesting permits for plant materials.
- Collection and harvesting of wild and cultivated plant material is not based on any formal knowledge or skills or prescribed practices. Scientific information of species is not available for private sector and alliances with academic institutions do almost not exist. Specific practices for good collection of raw materials are not implemented and companies lack the capacity to implement and monitor management plans
- Illegal trafficking, land clearance, timber felling, charcoal burning, and construction are some of the commercial activities competing for resources.
- Quality and quantity of production is often below (the ever increasing) international standards;
- Processing into extracts and essential oils is often at the cottage industry level, operating small quantities and using rudimentary technologies. Investment in processing technologies and skills development for processing is required, particularly on-job skills development in processing NICPs.
- Limited awareness exists about best practices to improve performance and enterprise competitiveness and they have thus hardly been adopted at enterprise level (e.g. GMP, GAP, GACP, ISO 14000, Eco-labelling, Environmental Audits, Organic Certification);
- Many SMEs are grappling with the issue of a business planning. This is often still an unknown tool, yet basic for business management.
- Capacity to obtain market information about national and international markets is limited, market access strategies at company level are often lacking and business communications skills are often below standard.

### II. At the sector level

- Little data are available on acreage under cultivation/wild-collection, resource maps, enterprises and their production capacities, volumes of export, etc. It is therefore crucial that these data systems be developed to guide the sector development process.
- Authorities involved in natural resources use are slow in issuing of permits and lack means for enforcement of those involved in illegal practices.
- There's limited appreciation of the value of the NICP sector to biodiversity conservation and economic benefits. The conservationists, entrepreneurs and the general public therefore need to understand the relationship and the potential significance of the NICP sector to economic development, conservation and sustainable livelihoods.
- The existing public and private sector testing and laboratory analysis facilities are either inadequate, or very expensive. It is common practice for enterprises to send samples to South Africa and Britain for testing and laboratory services. · No guidelines/legislation exists for quality management processes at the cultivation and processing/extraction stages. Companies are dependent on buyer specifications and requirements without reference to any particular international or national legislation.
- GMP is required by the National Drug Authority of pharmaceutical companies manufacturing finished products. The legislative framework to regulate the sector in Uganda is almost non-existent with the exception of the few policy requirements by institutions such as NDA. Ignorance of even the existing legislation, and compliance were found wanting.

- Ongoing R&D efforts by public agencies are often scientifically driven as opposed to applied to private sector needs. Implications have been the increased importation of commercial species such as Aloe vera - with demonstrated research findings - while native species such as Aloe ferox with similar attributes are not exploited. Applied R&D in commercial species that are native to Uganda is crucial and so is the need to enhance networking between R&D public agencies and enterprises.
- Concerted national market entry strategies for NICP products are lacking.
- Domestic/foreign direct investment in the sector is absent in this largely unknown sector.
- There is lack of an organisational structure in the country for coordination and information sharing. Recently some ad-hoc committees have been initiated (e.g Moringa committee), but these are not designed to strategically steer development of the sub-sector, but do rather demonstrate the glaring gap and need for organization in the sector.

Source: NICP Sector Assessment Report

**ANNEX II: ORGANIZATIONS POSSIBLY INVOLVED IN THE IMPLEMENTATION OF THE SECTOR STRATEGY:**

|            |   |
|------------|---|
| CBI        | Centre for Promotion of Imports from Developing Countries   |
| PC         | Private Companies   |
| MAAIF      | Ministry of Agriculture & Animal Industry   |
| MTCS/MFPED | Medium Term Competitiveness Strategy Secretariat/<br>Ministry of Finance, Planning & Economic Development |
| MUK        | Makerere University Kampala   |
| NARO       | National Agriculture Research Organization  |
| NCRL       | Natural Chemotherapeutic Research Laboratory  |
| NDA        | National Drug Authority   |
| NEMA       | National Environment Management Authority   |
| NFA        | National Forestry Authority   |
| UBTP/UEPB  | Uganda BioTrade Programme/UEPB  |
| UEPB       | Uganda Export Promotion Board   |
| UIP/UNIDO  | Uganda Integrated Programme/UNIDO   |
| UIRI       | Uganda Industrial Research Institute  |
| UNBS       | Uganda National Bureau of Standards   |
| UNCST      | Uganda National Council for Science & Technology  |
| UNCTAD     | United National Conference on Trade & Development   |