Farmer Enterprise Development
2003-2007

Empowering farmers to effectively market agroforestry tree products

West and Central Africa
Thirty-five years of donors' investment in agricultural research in sub-Saharan Africa has not significantly changed the fate of resource poor farmers. Some of the reasons explaining this failure include the lack of synergy in the groundwork of agricultural institutions, a non-integrated approach to development as well as the vulnerability of farmer organisations or networks.

The 'Farmer Enterprise Development' (FED) initiative launched in 2003 has provided a platform for ICRAF scientists and their partners to test an innovative approach that consists in strengthening farmers' market knowledge and skills to benefit from increasing on-farm production with improved planting material of fruit, medicinal and culinary trees and plants. The project specifically seeks to enhance livelihoods by increasing the market value of targeted agroforestry tree products (AFTPs) through the promotion of relevant entrepreneurial skills, harvest and post harvest technologies and getting farmers to understand and sail their way through meandering and fluctuating market dynamics of these unusual economic goods.

Farmers are encouraged to act collectively, as this boosts their output as well as their negotiation force. Moreover, documented knowledge on traditional/indigenous production, harvest and post harvest practices is solid ground enough on which to deeply root the healthy bio-culture.

A challenge however stands for the FED today: that of applying the project approaches and methodologies in different farmer settings. These new experiences will certainly lead to a new economic development model for rural communities.

Dovetailing components

- Entrepreneurial skill development
  - Understanding group dynamics
  - Focusing on existing group experience
  - Organizing agroforestry tree products in sub-sectors

- Market scope and dynamics
  - Mastering market dynamics
  - Building on market opportunities for AFTPs
  - Analysing market trends
  - Linking stakeholders

- Harvest and post-harvest technologies
  - Knowing harvest and post harvest constraints
  - Testing and disseminating appropriate cost effective harvesting, processing, packaging and storage techniques.

- Training and dissemination
  - Developing training materials on tree domestication
  - Adapting materials according to farmers' needs
  - Training of trainers and users on domestication techniques.

"Increasing market opportunities for indigenous fruits and culinary products in Cameroon through improved market skills and strategies"
Target products

**Cola spp:**
**(Bafia Kola, Bamilike kola)**

**Area of distribution:**
Tropical Africa (Guinea, Gabon, Cameroon, Nigeria, CAR and DRC)

**Market Value:**

**Major challenges:**
Pods and nuts are liable to weevil attacks responsible for 25 - 100% of post harvest losses.

**Irvingia gabonensis and Irvingia wombolu:**
**(andok, andó'o, bush mango)**

**Area of distribution:**
humid tropical Africa (from Casamance to Angola, throughout lowland forest zones of Cameroon)
Irvingia wombolu: Tropical Africa, mostly in Cameroon (South West and East provinces, Lekie division) and in Gabon

**Market Value:**

**Major challenges:**
Extraction of kernels is labour-intensive and risky; rudimentary processing technology (difficulty in drying)

**Gnetum spp** *(okok, eru)*

**Area of distribution:**
Tropical Africa (Centre, South and Southwest provinces of Cameroon, DRC, Gabon, Republic of Congo, Nigeria)

**Market Value:**

**Major challenges:**
Rapid decline of supply, because unsustainably harvested from the wild.

**Ricinodendron heudelotii** *(njansang, esezeang)*

**Area of distribution:**
Tropical Africa (from Guinea to Angola) throughout secondary lowland forests of Cameroon

**Market Value:**
Estimated half-year sales (1995) in Cameroon: 229 million CFA (USD 432 000)

**Major challenges:**
Kernel extraction is tedious and time-consuming
### First milestones...

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<thead>
<tr>
<th>Dissemination and extension materials</th>
<th>FED Technical Handbooks</th>
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<tbody>
<tr>
<td>La domestication des arbres agroforestiers</td>
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<td>Module 1: Techniques de multiplication des arbres</td>
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<tr>
<td>La domestication des arbres agroforestiers</td>
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<td>Module 2: Cultive et gestion des arbres agroforestiers en champ</td>
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<td>Dynamique de groupes et approche filière</td>
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<td>Module 1: Création et gestion de groupes durables vers la mise sur pied d’une filière de production</td>
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<th>Publications</th>
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<td>Posters</td>
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<td>2 information posters on project objectives, components and target products</td>
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<tr>
<td>2 scientific posters titled: Optimizing njassang (Ricinodendron heudelotii) production and sales. An exploitation model for a KNE (kola nut enterprise)</td>
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<td>Papers</td>
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<td>2 published scientific papers and 5 under review, 4 business plans, several training guides and ‘working papers’</td>
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<th>Capacity reinforcement</th>
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<td>203 farmers trained in Group Dynamics, 217 in Financial management, 167 in conflict management, 212 in marketing strategies and 226 in Tree Domestication in project pilot zones and testing zone</td>
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<th>Group Marketing Approach</th>
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<td>This approach enables farmer groups to pull together their harvests, store them and sell collectively when prices are at their peak, to cut transaction costs and increase benefit margins. Results of collective sales in the two pilot project areas are encouraging. Incomes from sales of njassang in the ADEFAC area and Kola nuts in the MIFAGU area surpassed the expected 10% increase by the second year of the initiative. Njassang farmers generated approximately US$5,652 in 2006, up from the estimated US$1,428 income in 2005</td>
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<td>“Best practices” in harvesting and post harvesting activities of the four project target products have been documented in the technical ‘harvest and post-harvest technologies’ compilations. The specific case of ‘njassang’ which is difficult to extract, led project researchers to closely work with a local entrepreneur to fabricate a manual cracking machine. The machine can now optimally release 70% uncrushed kernels</td>
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<th>Designing cost exploitation models</th>
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<td>This is all about making cottage enterprises for farmers’ kola nut plantations or small holdings. It entails increasing on-farm production and reducing harvest and post harvest losses incurred mostly from weevil attacks. An economic simulation (exploitation model) has been developed to showcase the conditions under which maximum profits can be obtained. Farmers can now set up kola nut business enterprises since they know exactly what to do, to make the best out of their investment. A model (economic simulation) developed by the Marketing Unit demonstrates that by reducing post harvest losses to 5% and increasing production by 5%, the profitability of this model KNE (Kola Nut Enterprise) can come up to 17%</td>
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**THE WORLD AGROFORESTRY CENTRE - WEST AND CENTRAL AFRICA**

Cameroon, host of the two project pilot sites is found in the West and Central Africa Region of the World Agroforestry Centre. It is the last born of 6 regions of The World Agroforestry Centre. Founded in 1978, The World Agroforestry Centre is a member of the Consultative Group on International Agricultural Research (CGIAR) - a strategic alliance of members, partners and international agricultural centres that mobilizes science to benefit the poor.
Pilot zones

- MIFACIG (Ivanyish Mixed Farming Common Initiative Group) North West province
  Membership: about 2000
  Activities: environmental protection, gender and development, bee farming, tree domestication.

- ADEAC (Association pour le Développement intégral des Exploitants Agricoles du Centre) Centre province.
  Membership: 816
  Activities: cash crop, food crop, fish farming, animal rearing, poultry, crafts and vegetable farming.

Testing zone

- FONJAK (Fondation Fritz Jacob Cameroun)
  Working with UCOVEN women group.
  Activities: production, marketing and processing of bush mangoes.

Future activity areas

Models finalization

The long-term economic forecasting model for the trends and opportunities of agroforestry products, a reliable decision-making tool for stakeholders of agroforestry products sub sectors, needs to be finalized. It will capitalize on the sub models under development, namely:

(1) Business model,
(2) Econometric supply forecasting model,
(3) Econometric consumption forecasting model and
(4) Price forecasting model.

The development of a Market Information System (MIS) under the project funded by IFAD will also contribute to this. We then propose to continue this very important activity, as it will be a key tool for the development of AFTPs’ business.

Development of new products

The idea is to move from available data on agroforestry products processing methods, substitute’s goods, consumer preferences, and markets, quantities to the effective development of new products while working on consumer acceptability of the known agroforestry products in terms of taste, price, design, use and quality. This step is indispensable for the conquering of national, regional and international markets.

More capacity reinforcement

Focus should move here from building the capacities of farmers only, to those of other key stakeholders like traders. There are expected positive relational and interaction outcomes. Other important stakeholders include NGOs and Government Administrations.

Testing, scaling up and dissemination

The innovative approach of this project needs to be put to practice in other farmer conditions elsewhere to enable other farmers and traders generate more income and fine tune it.
Partner institutions

World Agroforestry Centre (ICRAF – West and Central Africa)
P.O. Box: 16 317 Yaoundé – Cameroon
Tel: +237 22 21 50 84 / 22 23 75 60 * Fax: +237 22 21 50 89 / 22 23 74 40
PO Box 320 Bamako - Mali
Phone: +223 222 33 75 * Fax: +223 222 85 83
Email: icraf-aht@cgiar.org * Web Site: http://worldagroforestry.org

Central Africa Regional Program for the Environment (CARPE Cameroon)
P.O. Box: 6776 Yaounde– Cameroon
Tel/Fax: +237 22 21 97 12
Email: aeyebi@iucn.org * Web Site: http://carpe.umd.edu

Institute of Agricultural Research for Development (IRAD)
P.O. Box: 2067 or 2123 Yaounde – Cameroon
Tel/Fax: +237 22 23 35 38 / 22 22 33 62
Email: iradprnva@yahoo.com ou contact@irad-cameroun.org * Web Site: www.irad-cameroun.org

Centre for International Forestry Research (CIFOR)
IITA - Humid Forest Ecoregional Centre
P.O. Box: 2008, Messa Yaounde - Cameroon
Tel: +237 22 23 74 34 / 22 23 75 22 * Fax: +237 22 23 74 37
Email: cifor.cameroun@cgiar.org * Web Site: http://www.cifor.cgiar.org

Support Service to Grassroots Initiatives of Development (SAILD)
P.O. Box: 11595 Yaounde - Cameroon
Tel: +237 22 22 46 82 / 22 22 62 44 * Fax: +237 22 22 51 62
Email: saild@camnet.cm * Web Site: www.saild.org

Association pour le Développement Intégral des Exploitants Agricoles du Centre (ADEAC)
P.O. Box: 107 Akonolinga – Cameroon
Tel: +237 77 80 58 20 / 77 59 96 12
Email: adeac1@yahoo.fr

Twanoh Mixed Farming Common Initiative Group (MIFACIG)
P.O. Box: 25 Njinikom – North West Cameroon
Tel: +237 77 91 59 04
Email: mifacig@yahoo.com

Belgium, a valued supporter

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