

CENTRE FOR NURSERY DEVELOPMENT AND ERU PROPAGATION

(CENDEP)



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IUCN PROJECT No. 6AF00290A:

Technical Final Report

(April 1, 2004– December 31, 2005)

**EX-SITU CULTIVATION
OF NON TIMBER FOREST PRODUCTS**

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CENDEP DELEGATE

Limbe, February 14, 2006

Project and report identification

NC-IUCN Small Grants Programme: TRP

Name of organisation: CENTRE FOR NURSERY DEVELOPMENT AND
ERU PROPAGATION

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Position: DELEGATE

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Project no: 6AF00290A

Project title: Ex-Situ Cultivation of NTFPs

Total project duration 1-4-2004 to 31-12-2005

Project budget: 25000 Euros

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Date: 14th February 2006

Summary of results of the project

This project sensitized 211 resource users (107 men & 104 women) on the rational exploitation and cultivation of ntfps and the link to biodiversity conservation. It then built the capacity of 179 (92 women & 86 men) on ex-situ cultivation of *Gnetum spp* through the organisation of 7 training workshops, 63 technical support visits, 4 exchange visits and an open field day. As a result 7 eru demonstration farms were established, and 13350 eru seedlings raised and distributed. Implementation of forest legislation was good though some community members remained above the law. Forest management institutions had local administration's support. Change in livelihood is yet to occur. Except for one farmer engaged in food service industry with eru from her farm, and who has been involved in eru farming since 1999, all the other participants are still to start reaping financial gains from their investment in eru.

The project left behind nursery facilities for the production of eru seedlings. CENDEP also acquired a grant to construct an eru nursery for multiplication and distribution of eru seedlings to sustain its self.

The main technical problem was poor rooting of cuttings. At the level of the CENDEP run away members returned and tried to implant disorder when they discovered some benefits were accruing from the project. This was quickly quelled down.

Start up grants can empower CBOs to champion conservation work in their communities. A larger funding for a second phase of this project with broader-based participation and planning should be considered.

I PROJECT PERFORMANCE

OBJECTIVES					
	Train at least 120 resource users, 3 agricultural extension workers and 4 local NGOs on eru domestication techniques.	Assist resource users to produce and plant at least 12500 eru seedlings in their individual farms and forest	Assist three pilot communities to establish at least three pilot community farms in the Mount Cameroon Region	Assist village based organisations to check unsustainable resource exploitation.	Sensitise at least 2 communities not covered by the project on the possibility and need to domesticate eru
Did the project accomplish its objectives? Which changes in the <i>indicators for the objectives</i> (see project document) support your assessment?	Objective accomplished 7 instead of 5 workshops were organized with a total of 178 resource users trained instead of the targeted 120. 4 local NGOs and 3 agricultural extension workers also trained as previewed	Objective accomplished Seven instead of five nurseries were established increasing the seed production capacity of the project area.	Objective accomplished Five community farms (seed production & demonstration purposes) were established instead of the three previewed.	Objective not fully accomplished Some community members were above the law	Objective not fully accomplished Only one community not covered by project was sensitized.
In case the objective has not	Partial funding for 2 additional			Some public officials used	Even though only one community was

or only partially been accomplished, please explain why.	trainings provided by trainees			their positions to illegally exploit timber and buy community land. Even though their booty was sometimes seized they always took it without paying any fines. In evaluation meetings involving the wider public community forest staff shied away from mentioning names.	sensitized on a man to man basis, media sensitization led to other communities approaching CENDEP for training (case of People Earth wide & Bongwi Women). CENDEP therefore did not find the need for further village meetings.
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Discussions

The goal of the project was to contribute to the sustainable management of forests in the Mt. Cameroon Region. The rapid depletion of *Gnetum spp* from the Mount Cameroon forests had implications for biodiversity loss. Its exploitation involved the tree felling. This project succeeded in establishing community nurseries and building the capacity of the beneficiaries (CBOs & local extension workers of MINADER) in ex-situ cultivation/conservation. With the establishment of home gardens there is now provision for the regeneration of wild stocks. The pressure on the wild diminishing stocks is still there because production from home gardens is still at subsistence level and also because there is still the need to build the capacity of a critical mass of forest resource users not just on the ex-situ cultivation of *Gnetum spp* but also that of other useful species. The desire to conserve the Mount Cameroon forest is there and there exist competent CBOs to effect this. This grant has been a pacesetter and proves that community groups can mobilise funds from external sources for the conservation of the Mount Cameroon forests.

MAIN RESULTS

	Train at least 120 resource users, 3 agricultural extension workers and 4 local NGOs on eru domestication techniques.	Assist resource users to produce and plant at least 12500 eru seedlings in their individual farms and forest	Assist three pilot communities to establish at least three pilot community farms in the Mount Cameroon Region	Assist village based organisations to check unsustainable resource exploitation.	Sensitise at least 2 communities not covered by the project on the possibility and need to domesticate eru
	1.1: Core group of interested forest users identified 1.2: 4 local NGOs and 4 agricultural extension workers mobilised 1.3: At least 5 forest user groups identified and/or created. 1.4: At least 5	2.1: 5 nursery sites selected in three localities. 2.2: 5 nursery sites prepared 2.3: Nursery materials conveyed to the various villages 2.4: At least 12500 eru seedlings	3.1 Three pilot eru farms established in strategic locations in three communities in the Mount Cameroon region	4.1: At least 50% of the beneficiaries are active members of umbrella organisations or belong to forest resource user groups	5.1: Core group of interested eru farmers identified in the sensitised communities

	training workshops organised for the 5 user groups	raised in two years 2.5: At least 120 resource users plant at least 100 eru seedlings each in their individual farms			
Have the expected results been achieved? Which changes in the indicators for the results support your assessment?	Results achieved. 1.1: Seven groups identified following village meetings and radio programmes. 1.2: Progress as planned. 1.3: Two additional groups were identified and trained bringing the total to 7 instead of 5. 1.4: Seven training workshops were organized instead of 5	Results achieved. 2.1-2.3: Because 2 additional groups were trained 7 instead of 5 nurseries were established. 2.4: 15000 seedlings were produced (about 14000 survived.) Progress above plans. Nurseries are still in place and are still used for seedling production 2.5: 178 instead of 120 farmers shall have eru farms. However seedling distribution remains unequal as some trainees claim they put in more time than others and so deserve more seedlings.	Results achieved. 3.1: In order to cater for the needs of the additional groups trained two more community farms were established for seedling production and demonstration purposes.	Results achieved. 4.1: Of the 178 trainees 139 (78%) are members of recognized forest resource user groups.	Results partially achieved. 5.1: Only 1 instead of 2 groups sensitized on a man to man basis
In case the results have not or only partially been achieved, please explain why.					Media sensitization led to other communities approaching CENDEP for training. Because of this there was no further need for village meetings.

FURTHER COMMENTS ON OBJECTIVES AND RESULTS

In our view the project activities resulted in the attainment of the project objectives. The cases of illegal exploitation of timber purchase of community land and refusal to comply with the payment of fines was limited to a hand full of individuals. In general despite the shortcomings of the forest management institutions, there was collaboration from the administration which made it possible for firmer control of the forest resources by the local population. One area where the project particularly failed was the forest enrichment planting. There wasn't yet sufficient in the backyards.

1. Activities completed

Objective	Activity	Status	Remarks
Train at least 120 resource users, 3 agricultural extension workers and 4 local NGOs on eru domestication techniques,	<ol style="list-style-type: none"> 1. Village sensitisation meetings 2. Selection of resource user groups 3. Organisation of village training workshops 	<ol style="list-style-type: none"> 1. Completed 2. Completed 3. Completed 	
Assist village based organisations to check unsustainable resource exploitation.	<ol style="list-style-type: none"> 1. Meetings with umbrella organisations/user groups to select beneficiaries of the eru domestication project. 	<ol style="list-style-type: none"> 1. Completed 	Because of the involvement of high ranking officials in resource exploitation subtle ways have to be sought to address the issue. CENDEP & BBNMRC are exploring ways of getting external NGOs to publish the activities of these officials.
Assist resource users to produce and plant at least 12500 eru seedlings in their individual farms and forest	<ol style="list-style-type: none"> 1. Site selection for nursery establishment 2. Nursery site preparation 3. Purchase and assembly of nursery materials 4. Establishment and management of village nurseries 5. Selection and preparation of individual plots. 6. Planting of seedlings on individual plots 7. Forest enrichment planting 	<ol style="list-style-type: none"> 1. Completed 2. Completed 3. Completed 4. Completed 5. Partially completed 6. Partially completed 7. Partially completed 	<ol style="list-style-type: none"> 1. Nil 2. Nil 3. Nil 4. Nil. 5. Mature seedlings not enough for all the participating farmers. 6. Because not all seedlings could be raised at once and also because of germination failure during the learning process not all farmers have established their individual farms. Most of these shall do so at the start of the rains in Mid March 2006. 7. Farmers prefer planting in family land to community land
Assist the three pilot communities to establish at least three pilot community farms in the Mount Cameroon Region	<ol style="list-style-type: none"> 1. Establishment of MoUs on the running the community farms 2. Establishment and monitoring of the farms 	<ol style="list-style-type: none"> 1. Completed 2. Completed 	<ol style="list-style-type: none"> 1. Nil 2. Nil
Sensitise at least 2 communities not covered by the project on the possibility and need to domesticate eru.	<ol style="list-style-type: none"> 1. Selection of the interested forest communities. 2. Village meetings with the targeted communities 3. Monthly radio programmes in the local radio stations. 	<ol style="list-style-type: none"> 1. Completed 2. Partially completed 3. Completed 	<ol style="list-style-type: none"> 1. Nil 2. One village meeting held but mass media has been used 3. Nil

Unplanned activities	1. Additional training workshop for Bongwi Women & People Earth wide.	1. Completed	1. The trainees contributed for the workshops as this was not budgeted in the proposal. CENDEP's contribution was limited to technical know how and donation of seedlings for demonstration/seed multiplication farms. The additional trainings were result of media sensitization (through local FM radio)
	2. Additional Support visits	2. Completed	2. These were meant to address technical problems like poor rooting of cuttings (during the initial stages of the project) and also to resolve disputes amongst the trainees.
	3. Donor visit	3. Completed	3. Some resources were mobilized to receive the NCIUCN Knowledge manager.

3. Outputs:

The main output from this project is this report and the:
Impact Assessment Report: Ex-situ Cultivation of ntfps in the Mount Cameroon Region, attached.

II KEY ISSUES

Biodiversity

This project prepared the ground for change in ecosystems and biodiversity. In the impact assessment document attached, our independent assessor shows how far along the path of change the project took its target population. Enrichment planting that would have directly had positive effects on ecosystems and biodiversity needed far more efforts than envisaged in the project design.

Local farmers can now independently multiply and plant eru in their home gardens. This means there is hope for the reversal of the present situation whereby eru is already commercially extinct. With sustained efforts the limited wild stock of eru will have the chance to regenerate.

The regular interaction of CENDEP with forest management institutions like the BBNRMC stimulated forest patrols which led to seizures of illegally exploited timber/charcoal discouraging illegal exploiters from operating in the community forest. It is worthy to note the collaboration of the local administration in the convocation and disciplining of squatters in the community forest. All these area pointers to the reduction in threats to forests in the project area.

Stakeholders

Women dominated the groups that benefited from the project but group leaders were men. Except for a few female youths they were largely not represented in the executive. They were the principal beneficiaries of a technology whose end product is processed and marketed by them. They have been empowered to independently produce and market eru, an important source of revenue in the region.

The government of Cameroon through its Ministry of Agriculture and Rural Development was an important stakeholder as far as technology transfer, food production and poverty alleviation is concerned. The participating agricultural extension workers were trained and will continue the training of other farmers. Notice that at the end of the project all these workers were transferred to other areas to continue their extension work there.

The participation of the local administration (village chiefs, Divisional Officer for Limbe) was quite enhancing. The Divisional officer stressed the importance of the project and its implications on biodiversity conservation and poverty alleviation as well as its contribution in assisting the Cameroon government in the management of its natural resources for livelihood improvement. The creation of village groups and the routine opening of training workshops by the village authorities helped in enhancing social cohesion and consolidating the role of the chiefs in a region where chieftaincy disputes are common.

The indigenous population gained financially. Local carpenters were hired to construct the nursery shades while food was bought at the farm gate sparing the farmers the burden of transporting their produce to distant markets.

The local NGOs who collaborated had their services exposed as in the donor visit that characterized the project. Not only did this happen but others had the opportunity to gain financially through the provision of consultancy services as in the independent impact assessment for this project conducted by a local NGO, People Earth wide.

Though the project had a high agricultural focus nature conservation issues were always addressed through the radio programs that were conducted during the project. This was obvious as the project was based on the domestication of a forest vine that hitherto depended on the forest for its survival.

Poverty alleviation

The project assisted farmers to establish individual eru farms. The establishment of individual eru farms means a privatization of the resource, improved access and better management of both the domestic and wild stocks. It shall result in steady and regular incomes for the community members.

The project beneficiaries who were principally women acquired skills in the production of a resource whose processing and marketing is managed by them. The harvests from the demonstration farms established during the training are collectively used for seedling production or divided amongst group members for consumption as the need may be.

With the exception of one farmer (Ndah Celine) who is engaged in food service industry with eru from her farm, and who has been involved in eru farming since 1999, all the other participants are still to start reaping financial gains from their investment in eru. Where harvesting has begun for the group as with Bakingili, the harvest is shared amongst members implying that the next dish on the dinner table would have been from the eru project.

Integration of nature conservation and socio-economic issues

In the project design, as seen in the objectives both domains of conservation and economics were included. In the training that integration was hammered on and it is the hope of such future gains that has kept the active membership. At the social level, the local chiefs were involved but since participation was based on interest the ethnic or tribal diversity of the groups was dependent on that interest. The invitation of the chiefs to open the training workshops consolidated their positions. Even non-indigenes had positions in the management of groups that were created as a result of the project. Tribalism was put aside and the farmers united under a common objective that of conserving eru for livelihoods improvement and for posterity.

The creation of groups during the project facilitated the work of the local agricultural extension workers. When the state minister for Agriculture and Rural Development visited one of the project areas he was impressed with the innovation and donated farm tools to the Banga Bakundu Eru Group. This donation was as a result of the project. No other group in that community had that benefit. Because the farmers were involved in forest conservation work they were donated farm tools. Community members who were not participating in the project were motivated by the attention shown the group. The conservation/domestication of eru was therefore not just a local initiative but was actively supported at national level.

III OTHER ASPECTS

- **Sustainability of project results and effects**

a) Was the time span of the project sufficient to produce the expected results?

A period of 3 years is sufficient to produce the expected results. The project period was barely 21 months 13 months less than the optimal period. It takes 6 to 8 months to get eru seedlings ready for field planting and another 12 months to get the first harvest. Thereafter harvesting can be done every four months. This project needed 18 to 20 months to take farmers to their first harvest which is always very small. This first harvest is very insignificant and therefore has no impact on the incomes of the farmers. Because of the mistakes the farmers made during the propagation of the seedlings very few farmers could harvest the first product from their farms during the project period. From its past experience CENDEP was aware of this and provided seedlings from her nursery for the establishment of community demonstration/multiplication farms. Harvests have been done from these farms.

b) *How sustainable are the results and effects of the project without further intervention? What type of follow-up activities could increase sustainability?*

In all the trained communities there are permanent nurseries that can be used for a very long time. What needs to be changed regularly is the polythene sheets used in the construction of the propagators. In general most need replacement after a period of about two years. This means that if each community has strong leadership (fewer conflicts in management) these structures shall continue to serve them for long. Interestingly some farmers are already using their propagators in raising other tree species using stem cuttings. There is a good demand for eru seedlings and therefore the farmers can generate income for the maintenance of their propagators by selling some of the seedlings they raise. In order to increase sustainability the farmers need to be assisted in the marketing of their seedlings until they are getting high yields/greater income from their farms. CENDEP is ready to facilitate the marketing of these seedlings considering that she is centrally located.

c) *Did you raise any follow-up funds or the interest of any other donors for this project, or do you have any concrete fundraising plans?*

CENDEP prepared and submitted a number of concept papers and proposals to some organizations. Decisions are awaited in April 2006. During the project period CENDEP obtained a grant of US\$6600 for the construction of an eru (ntfp) nursery for the production and distribution of eru seedlings to farmers in the Mount Cameroon Region. This will contribute in sustaining CENDEP and ensure regular support to the trained communities.

d) *Do you see concrete possibilities for extending or replicating the project, locally or elsewhere?*

People Earth wide, one of the trainees of the project is already organizing its farmers into producer groups. The Bongwi women that were trained by the project do not all reside in the Mount Cameroon Region and will be taking the knowledge to their respective communities. All the agricultural extension workers who were trained alongside the farmers have been transferred out of the project area. They go along with the knowledge and skills they have acquired. All that is required is for CENDEP to keep in touch and monitor their activities in their new job sites. The state Minister of Agriculture and Rural Development recognized the efforts of the farmers by donating them farm tools. This is a motivation for other to join the error groups.

During the project period the FAO used the nursery facilities and demonstration farm of CENDEP in the training of some group leaders from the Littoral, Centre and South West province of Cameroon on the production of eru seedlings. Knowledge on the domestication of eru is thus spreading and if some trainees maintain their enthusiasm then there is hope for the replication of this initiative elsewhere. As the saying goes many are called but few are chosen.

ICCO has shown interest in our proposal to extend this initiative to the Korup National Park area. The project is currently under review. Other community groups are seeking their funding and using the expertise of CENDEP for the training of their members.

e) *How and by whom do you expect that the project results and products will be used in the future?*

The results of this project shall be used mostly by the Ministry of Agriculture and Rural Development in their programme to diversify agricultural production. Eru is an emerging agricultural crop with potentials to reduce poverty and improve livelihoods.

Local development organizations as well as conservation organizations in the forest zones of Cameroon where eru is found shall also find the results useful in the promotion of alternative income generating activities in their areas. Most often forest resource users are deterred from the exploitation of forest resources on which they depend without the proposition of alternatives sources of income. Eru domestication offers an opportunity for conservation and livelihood improvement.

- **Main Strengths Of The Project**

An independent assessment of this is also provided in the impact assessment document attached. From our view the following constituted the main strengths of the project.

- It was focussed on the ex-situ cultivation of eru
- Use was made of local expertise in the provision of one off interventions (impact assessment)
- It used community resources (human and material). This gave the community a sense of ownership/participation in the project.
- It worked with existing institutions where they existed and created new ones where none existed.
- Other local organisations realized the potential of CENDEP in other conservation activities like in bee keeping and requested for training in bee keeping, even though this was not done for lack of finances.
- It offered CENDEP the opportunity to consolidate its links with local forest conservation institutions like the BBNMRC, and service providers like PEW.
- It strengthened CENDEP's links between the Limbe Botanic Garden as the latter liaised with CENDEP to sensitize farmers on the introduction of Conservation Agriculture in the Mount Cameroon Region. This was limited to poster distribution.
- The propagators proved to be of multipurpose use as some of the communities used them to equally multiply other tree seedlings.
- The project left in place nurseries that the communities will continue to use for the production of their seedlings
- It was a unifying force with villagers accepting their leaders and honouring them with the opening of training workshops or the sanctioning of important milestones e.g. the planting of the first eru seedling in the community.
- The trainees contributed immensely to this project (sand, timber, time, food etc).
- The use of local technicians (carpenters) ensured that the benefits of the project transcend the targeted population. So generally the project contributed positively in the local economies.
- It built on the lessons learnt from the Mount Cameroon Project e.g. working directly with the grassroots population and avoiding 'elites' who could hijack the project for their personal gains. Few elites exist in the community who have the resources to embark on massive cultivation but lack the technical know-how.
- It awoke sleeping group members (trouble makers) and strengthen the cohesion of the association through the renouncing of those seeking to reap benefits where they never sowed.

- **Main Weaknesses Of The Project**

- It did not make provision for institutional support to the community groups created; besides CENDEP lacked the capacity to provide such support
- Implementation of the project was very rigid on the multiplication of eru seedlings ignoring community request for the use of nursery facilities in the multiplication of other ntfps. However this was relaxed after the attainment of project objectives as concerns the number of eru seedlings earmarked to be produced.

- **Main Lessons Learned From The Project**

- The fact that CENDEP spread the initiative over many communities enabled her to achieve the success she has so far. If this initiative were limited to one community she may not have had the capacity to manage her detractors.
- Projects may have higher chances in communities which have never had projects before. This can be exemplified by the fact that in communities where the Mount Cameroon Project was active people project participants were more concerned on workshop perdiems rather than the knowledge being imparted on to them.

- **How The Project Contributed In Improving The Capacities Of CENDEP Staff Or Organization As A Whole**

- We now have more access to the internet than before, thus we are more exposed to knowledge
- We meet more frequently to debate issues thereby sharing experiences

- It helped us identify our weaknesses and the need for professionals to assist in various aspects such as reporting and project writing.
- Some members who had absconded came back and instigated trouble when they observed some members were having financial benefits by participating in the execution of the project. Because of this there was a general review of the internal rules and regulations of the organization consolidating the institution.
- **Specific Benefits Of Small Grants Programme As Compared To Other, Usually Larger Donor Programmes:**
 - It directly supported a community based organisation (CBO)
 - It helped in building the profile of the CBO providing a track record for bigger grant requests
 - It provided evidence that CBOs can mobilise outside funds for conservation initiatives so dispelling the belief that conservation activities must be planned/initiated by 'white men'. In this light local communities can actively participate in conservation initiatives
 - Nobody wants to stay out of business. This project pushed us into hard work exploring ways of continuing our activities or initiating new ones. This was particularly so because of the short duration of the project.
 - A cross section of the local community benefited from the project and the importance of eru was emphasized. Local carpenters, restaurant operators, etc had their share of benefits in the implementation of the project through the services they provided
 - CENDEP is compelled to ensure the sustainability of the project as she is the promoter of the technology. With bigger grants run mostly by expatriates, time is time. Results or no results the project ends but with local CBOs like CENDEP who are wishing to make a name follow up continues till the desired outcomes are achieved finances or no finances.
 - This grant boosted our image at the local level and may have had a snowball effect. We suspect it may have contributed to us receiving a grant from the USA Embassy in Cameroon to construct an eru nursery for the multiplication and distribution of eru seedlings to farmers.