Tropical Plant Exploration Group (TroPEG) - Cameroon

Project title: Towards resilient agriculture systems and biodiversity conservation: the case of Forest Garden Tea in the Rumpi Hills, SWR - Cameroon

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The Konningsschool Small Grant Fund (KS)
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Summary
Project Name: Towards resilient agriculture systems and biodiversity conservation: the case of Forest Garden Tea in the Rumpi Hills, SWR – Cameroon (P1614)
MoU Number: 916-2016-750-RK
Grantee Name: Tropical Plant Exploration Group (TroPEG) - Cameroon
Contact Person: Ngoh Michael Lyonga
Total grant amount (Euro): € 7,500
Project Start Date: 01/07/2016
Report Number: 02

Introduction
This project titled towards resilient agriculture systems and biodiversity conservation was implemented in the Rumpi Hills forest area by the Tropical Plant Exploration Group (TroPEG) with assistance from her collaborative partners in the Cameroon Analog Forestry Network (CAFON). The project was conceived at targeting sustainable tea (Camillia sinensis) production in the Rumpi Hills forest area; hence transforming smallholders’ unfriendly environmental monoculture tea plantation systems into forest gardens with resilient characteristics.

The Rumpi Hills area is administratively under Ndian division of the South West Region, Cameroon. Ndian division harbours a number of forest protected areas of which we have the famous Korup National Park (KNP) and the Rumpi Hills Forest Reserve (RHFR). These areas are surrounded by local indigenous populations living in forest support zones (buffers for the growing population). The division shares a long boarder with the Atlantic Ocean and neighbouring country Nigeria to the West, with Manyu division to the North, Meme division to the East and Fako division to the South. The Rumpi Hills Forest Reserve is one of such protected area threatened by human activities. The project area which is located at Dikome Balue can be found within the coordinates: UTM 32N 0528497; 0541919 and Elevation: 1127 m a.s.l.

The project started pilot activities by setting up two monitoring demonstration sites at Dikome Balue, trained local smallholders tea farmers in the Rumpi Hills area and established tree nurseries in two locations for raising seedlings.

Scope
The project was formulated towards smallholders’ tea farmers in the Rumpi Hills forest area. It specifically targeted about seventy (approx.70) farmers (both female and male); these farmers were trained on sustainable tea production. However, during the selection of
participants, in order to have equitable representation of the female folk, some females who do not own tea farms (i.e. those that have worked in tea farms, or those whose husbands/relations own tea farms as well as young girls) were included in the list to encourage their participation. In the end, we had a 45% female representation opposed to 55% male representation.

Activities
The selected measures identified during project implementation were divided into activities, and thereafter separated into two major phases. Phase One was structured to handle issues of capacity enhancement in the area of Analogue Forestry and Phase Two included the construction of nurseries, propagators and establishment of two demonstration sites. After the execution of this project, the following listed activities have been completed or partially completed:

A. Completed activities
Delivered activities are shown below:
- Introduction to the concept of Analogue Forestry and Conservation
- Principles of Analogue Forestry and Techniques
- Tea production and Landscape conservation
- Sustainable Conservation method to tea production
- Introduction to Organic farming
- Organic tea production
- Compost making and management of organic tea farms
- Nursery establishment and management (Modern/Traditional method)
- Tea propagation (Horticulture methods)
- Landscape design and management for Sustainable Conservation – an approach to agriculture
- Use of A-frame in creating contour lines for erosion management
- Landscape Mapping exercise
- Selection of Plant species for Forest Garden Tea production
- Tree planting and other plant forms in Tea cultivated areas
- Visit to a model Forest Garden Tea production system (Conservation approach to tea production site at Dikome Balue)

B. On-going activities

- Establishment of two demonstration plots for monitoring and showcasing Analogue Forestry (AF) model farm gardens.
- Organisation of farmers in groups of cooperatives (NB: still on-going; not all the tea farmers have been able to raise funds for their registration and shares to become members of RUTEFA-COOP-BoD - this is a mandatory exercise as prescribe by the OHADA law).
Methods/Approach
The approach used in the execution of this project was training workshop and field demonstration in chosen/selected sites. Training workshops were sandwiched with hands-on practical sessions for each model as desired by the participants and trainers during the allocated period for each activity (see appendix 1 for field demonstrations). Hand-outs were given out during workshop lessons for further readings and some were illustrative. All construction for project facilities such as nursery and propagators were done with total participation and inputs of community leaders.

Achievements
The project was able to:

i. Organise tea farmers in to functional group and establish Rumpi Tea Farmers Cooperatives Society (RUTEFA-COOP-BoD).

ii. Construct two community nurseries under the control of two community based groups i.e. Rumpi Tea Farmers’ Cooperative Society and Try and See Women Common Initiative Group

iii. Raise more than 5,000 eco-friendly tree seedlings in the two nurseries for on-farm establishment.

iv. Train more than seventy farmers on Analogue Forestry forest garden tea system of production.

v. Construct two propagators for seed germination.

vi. Distribute over 5,000 tree seedlings to famers for planting on-farm.

vii. Select and establish two monitoring demonstration sites for showcasing Analogue Forestry garden tea model (an on-going activity).

Looking back at expected results
Following our objectives, a number of expected results were designed for this project; these expected outcomes were fashioned into two categories (short and long terms). The short term expected results are those reported here as successfully achieved whereas the long term expected results will take considerable time to realise the impact. Hence the expected results/outcomes of the project have been fashioned in three categories:

A. Expected outcomes planned and completed
- Trained participants (at least 70 persons) to establish nurseries of useful plant species (economic and ecological plants).
- Analogue Forestry design considered in new farm establishment
- New tea farms to grow in shade with careful selection of trees
- High diversity in the tea farms (i.e. include growing of other crops for additional income).
- Enrichment planting of trees on-farm for a sustainable future.
- Non-Timber Forest trees established in tea farms.
B. Expected outcome planned but not achieved
   - None

C. Expected outcome not planned but achieved
   - Organised tea farmers and setting up recognised registered group.

Challenges
During the execution phase of this project, a number of challenges were faced by the project team; even though the Rumpi Hills area, precisely Dikome Balue is known to be enclave, the accessibility to project site was horrible couple to the fact that we were to commence field activities for ground preparation in rainy season prior to Phase One. This made transportation cost to sky-rocket as usual, hence high cost of transporting project materials to the site were almost inevitable if not of the assistance of the Lord Mayor of Dikome Balue who surrendered a 4 by 4 wheel drive vehicle (Hilux brand) at a give-away price. It could have been disaster transporting equipment and trainers on moto-bikes to Dikome Balue.

Another issue observed is the aging nature of the population of tea farmers, thus majority of the aging farmers didn’t find it easy understanding some of the principles taught during workshop sessions.

The political upheavals that Cameroon experienced from November 2016 until now, was one of the major challenges during the execution of the project as it brought a lot of uncertainty, particularly when it comes to gathering persons and communication.

Proposed future actions
The following proposed future actions were cemented as recommendations for the faced challenges:

- TroPEG in her future projects will avoid commencement of project activities during the wet season so as to avoid excessive expenditures on transportation of persons and materials.
- TroPEG in future will ensure and encourage participation of the youthful population; hence this will ensure programming project activities at targeted period to attract youths.
- Communication strategies and the different outlet selected will be well studied and improved upon to ensure information is circulated well ahead of time, before carrying any future activities.

Lesson learnt
- The best language to communicate to local people (community members) is the local language of communication and the terminology in use during training should try to focus on that which they are very comfortable with. Reasons why workshop was prepared in English but ran completely on Pidgin English.
One of the fundamental understanding we got from this project is that, the community of Dikome Balue and its environs have never in the history of this community experience training on agriculture of such magnitude, thus the anxiety of participants were very high from day one of the workshop until they were pushing trainers to answer all their agriculture challenges in life. In other circumstances the participants were over expecting from the project and so because it was first of its kind dealing with tea, participants expectations were beyond the scope of the project.

Even though the tea farmers were not in formally registered groups (e.g. CIGs or Cooperatives) they were surprisingly organised in a manner we got marvelled and couldn’t believe what was going on; the lesson here is developmental interventions such as conservation effort should always identify the activities communities find comfortable before introducing alternative livelihood options. This will help avoid the incidence of abandoning activities introduced by conservation organisation for alternative livelihood source in communities.

**Next step**

- TroPEG shall encourage the tea farmers and others to form organised groups of different kinds so as to attract more trainings and funding opportunities in the community.
- TroPEG will henceforth focus training activities on issues rose during the project so as to help develop such aspect in the community.
- TroPEG will source for more funding opportunities, to assist tea farmers’ pursuit the goals and objectives of a sustainable small holders’ tea production system.
- TroPEG together with her partners well help advocate for the promotion of smallholders’ tea farming groups in Cameroon, so that government should look at the plight of tea farmers.

**Budget**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Unit Price (Euro)</th>
<th>№ of item(s)/person(s)</th>
<th>Total Amount (Euro)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. Workshop Communication</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sensitization and Communication</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1.1 Radio announcement</td>
<td>45.7</td>
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<td>45.7</td>
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<tr>
<td>1.2 Communication and correspondence</td>
<td>45.7</td>
<td></td>
<td>45.7</td>
</tr>
<tr>
<td>1.3 Vehicle hire</td>
<td>45.7</td>
<td>x10 days</td>
<td>457.3</td>
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<td>2.3 Community Mobilization</td>
<td>91.5</td>
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<td>91.5</td>
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<td><strong>Sub-total</strong></td>
<td></td>
<td></td>
<td><strong>640.2</strong></td>
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<tr>
<td><strong>B. Training Workshop</strong></td>
<td></td>
<td></td>
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<tr>
<td>2. Human Resources</td>
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<td></td>
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</tr>
<tr>
<td>2.1 Subsistence allowance for Technical staff (TroPEG)</td>
<td>30.5</td>
<td>10days x 2 persons</td>
<td>609.8</td>
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<td>2.2 Resource persons &amp; facilitator</td>
<td>30.5</td>
<td>10days x 3</td>
<td>914.6</td>
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<td>Category</td>
<td>Item Description</td>
<td>Quantity</td>
<td>Unit</td>
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<td>-----------------</td>
<td>----------</td>
<td>------</td>
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<tr>
<td>2.3</td>
<td>Local movement of persons (to and fro)</td>
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<td>x70 persons</td>
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<td></td>
<td><strong>Sub-total</strong></td>
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<tr>
<td>3</td>
<td>Equipment and supplies (Purchase &amp; hire)</td>
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<td>3.1</td>
<td>Conference Hall</td>
<td>30.5</td>
<td>x10 days</td>
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<tr>
<td>3.2</td>
<td>Generator</td>
<td>15.2</td>
<td>x10 days</td>
</tr>
<tr>
<td>3.3</td>
<td>Projector</td>
<td>15.2</td>
<td>x10 days</td>
</tr>
<tr>
<td>3.4</td>
<td>Flip chart stand</td>
<td>38.1</td>
<td>x1</td>
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<tr>
<td>3.5</td>
<td>Flip charts</td>
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<td>x1</td>
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<td>3.6</td>
<td>A-Frame</td>
<td>15.2</td>
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<td>3.7</td>
<td>Stationeries</td>
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<tr>
<td>3.8</td>
<td>Writing materials</td>
<td>0.8</td>
<td>x70 persons</td>
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<tr>
<td>3.9</td>
<td>Feeding of trainees</td>
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<td><strong>Sub-total</strong></td>
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<tr>
<td>4</td>
<td>Demonstration Material</td>
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<td>4.1</td>
<td>Rooting propagator</td>
<td>45.7</td>
<td>x1</td>
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<tr>
<td>4.2</td>
<td>Weaning propagator</td>
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<td>x1</td>
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<td>4.3</td>
<td>Semi-Permanent shade over nursery</td>
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<td>x1</td>
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<td>Polythene bags</td>
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<td>x5000bags</td>
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<td><strong>Sub-total</strong></td>
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<td>5</td>
<td>Administration &amp; M &amp; E</td>
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<td></td>
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<tr>
<td>5.1</td>
<td>Staff subsistence allowance</td>
<td>22.9</td>
<td>x12 months</td>
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<tr>
<td>5.2</td>
<td>Communication and correspondence</td>
<td>15.2</td>
<td>x12 months</td>
</tr>
<tr>
<td>5.3</td>
<td>Monitoring and Evaluation (follow-up cost)</td>
<td>152.4</td>
<td>x7 trip to sites</td>
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<tr>
<td>5.4</td>
<td>Cooperative registration and follow-up</td>
<td>693.9</td>
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<td>5.6</td>
<td>Office space for project activities</td>
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<td>24 months</td>
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<td><strong>Sub-total</strong></td>
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<tr>
<td></td>
<td><strong>GRAND TOTAL</strong></td>
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</tbody>
</table>

**Contribution from Both Ends** | 7,500.00  
**Contribution from TroPEG + Community** | 1,323.48
Appendix

Appendix 1: Photograph of activities

Participants at the training workshop

Participants at the nursery in January 2017

Model Analogue Forestry Tea Garden

Evaluation of grassland ecosystem

Evaluation of forest ecosystem

Soil evaluation exercise
**Inga edulis** seedlings

**Erythrina excelsa** seedlings

Nursery at Dikome Balue, *Erythrina* seedlings

Transplanting of seedling June 2017
Appendix 2: Questionnaire and responses to questions

Q: What is your impression about the training/workshop?
R: Excellent; Good; Fair; Bad

Q: Topics taken in this workshop were relevant and meet expectations.
R: Strongly agree; Agree; Neutral; Disagree; Strongly disagree

Q: Foods served in this workshop were delicious and timely.
R: Strongly agree; Agree; Neutral; Disagree; Strongly disagree

Q: Exercise and lecture were delivered in grand style.
R: Strongly agree; Agree; Neutral; Disagree; Strongly disagree

Q: Lectures and exercises were clearly understood.
R: Strongly agree; Agree; Neutral; Disagree; Strongly disagree

Q: Lectures were nice and were designed to solve problems of participants.
R: Strongly agree; Agree; Neutral; Disagree; Strongly disagree
Q: How important was this workshop to you?
R: Very important; Important; Neutral; Less important; Least important

Q: Did you enjoy the topics given at this workshop?
R: Yes; No; No responds

Q: What is your opinion about the duration of the workshop?
R: Short; Too short; Normal; Long; Too long

Q: Do you wish to have a similar workshop of this kind in future?
R: Yes; No; No responds

Q: What is your opinion about the venue of the workshop?
R: Very Good; Good; Neutral; Not bad; Bad

Q: How bias this workshop has been in the manner of selection of participants.
R: Very bias; Bias; Neutral; Not bias; Not very bias
Q: Some of the topics of this workshop were too difficult to understand.
R: Strongly agree; Agree; Neutral; Disagree; Strongly Disagree

Q: What other things would you have liked to see in this workshop?
R: List more than one.

NOTE:
The following are activities the community wishes to be trained on:
* Cultivation of Banana, Beans, Cabbage, Carrot, Cassava, Onion, Plantain, Pepper, Eru (*Gnetum africana*), and Tomato,
** Tea production and tea processing; Nursery and fruit trees
*** Snails, Honey bee keeping
^ Fish farming, Goat and Piggery
Appendix 3: Receipt of deposition of Cooperative documents