Nucleus of Change: Sustainable coconut (oil) production in the Philippines

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Development Partnerships with the Private Sector

develoPPP.de
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Time frame: September 2011 – February 2015
Total Volume: 1,082,000 Euro
Partner contribution: 690,000 Euro
Public contribution: 392,000 Euro
THE FACTS

- Worldwide first sustainability standard for coconut (oil) implemented, (supporting documents)
- 300 farmers on over 700 ha produce high quality certified coconut (oil)
- Over 1000 farmers trained in sustainable coconut farming and good agricultural farming practices
- 16 farmer groups (with over 300 members) are transformed into legal producer entities with access to micro-credit facilities
- Through better farm-, and post-harvest practices, and premiums in the system the income of the farmer beneficiaries has increased at least by 5%
THE PROJECT

… to improve the livelihood of small-holder farmers in the coconut industry by promoting the sustainable production of quality coconut oil through the application of a sustainability standard.
THE CHALLENGE

- The farmers were NOT aware of the quality problem – market for standard copra is stable
- The rigid structures of copra business are slow and painful to transform
- Awareness raising, education
- Benefits of a food grade product
- Business minded/oriented producer groups
- Pre-financing
Sustainable production

Quality coconut oil

NUCLEUS OF CHANGE

Capacity building

BUSINESS MODELL
Rainforest Alliance / Sustainable Agricultural Network (SAN) Standard

- Traditional farm practices to be changed
- GAP needs extra effort on farm level
- Monocropping vs. intercropping

- Stable and long term premium system
Training Curriculum on Coconut Farming as a Business

- Adult learning techniques
- Session guides
- „Farmer friendly“

Nong Juan’s Story: A Case Study Highlighting the Business Cycle as a Tool in Improving the Performance of Coconut Farmers

Upon his return, Nong Juan observed that the farmers in his area were only planting coconut trees. He noted that the farmers did not improve the fertility of the soil in their coconut farms, thus getting very low yield. This is a common practice in their area and they said they have been using it for a long time. He also learned that these farmers are selling their produce to the first buyer who come to the farm.

Nong Juan wants to change this. He decided to go back to the countryside to manage a hectare of coconut farm he inherited from his parents. However, he wanted to make sure that he would be earning enough to support his family over a long term. For this, he decided to know the current farming practices and see what could be done to raise the income generated by the farm.

Math Example:

<table>
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<tr>
<th>TOTAL SALES</th>
<th>TOTAL EXPENSES</th>
<th>PROFIT</th>
<th>TOTAL INCOME</th>
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Standard documents for group certification

1. **Sustainable Agriculture Standard**
   For member farms
   About environmental, social and management practices at farms

2. **Group Certification Standard**
   For group administrator
   About Internal Management System
Step 1: Formation of the group
- Informing the producers
- Identifying the producers
- Identifying the IMS team

Step 2: Planning
- Analysis of the standard
- Defining responsibilities
- Developing a plan and tools

Step 3: Preparation of the IMS team
- Training of group administrator
- Training of trainers
- Training of internal auditors

Step 4: Training of the producers
- Training of producers
- Implementation of the standard
- Follow-up

Step 5: Internal audits
- Internal audits of the farms and the IMS
- Corrective actions
- Follow-up

Step 6: External audits
- External audits of farms and of IMS
- Corrective actions
- Certification

Step 7: Continuous improvement
- Improvement of farms
- Improvement of IMS
Lessons learned

- Pre-feasibility study on financial aspects of certification is vital
- Decision on the certifying body – preferably local subsidy and support
- First step is farmer mobilization, producer group organization
- ToT and lead farmer mobilization is a powerful tool
- *SAN as standard has limited impact on intercropping, biodiversity and conservation issues in coconut*
Quality

Sustainability

Community development
 SUN DRYING

- The heat from the sun dries the copra.
- It takes 5 to 6 days to dry copra to 14% moisture content.
- Higher risk of contamination.
- It is undependable because rain may fall anytime of the day without warning.
  - Dried nuts can easily get wet and be heavily infected with molds called the *aspergillus flavus* producing the very potent cancer-causing substance, the *aflatoxin* in copra.
  - Readings of 100 to 150 ppb can be obtained from this kind of copra.
  - **20 ppb** max of aflatoxin is acceptable to EU Codex Alimentarius.
Rainy or sunny day, you can dry your nuts.
Any farm biomass can be used for fuel to generate heat to dry nuts.
With the firing and combustion taking just below the dried nuts, expect a smoky copra.
Tapahan dryers cannot pass the EU Codex requirement
  - Polycyclic aromatic hydrocarbon (Pah) and Benzo@Pyrene (BaP) are cancerous substances from smoke that contaminate the copra
  - Maximum tolerance limits of Pah and BaP in coconut oil at 25 ppb and 5 ppb, respectively.
  - Produce 1100 ppb Pah and more than 50 ppb BaP.
Tapahan dryers may also produce copra with high level of aflatoxin due to high moisture content from insufficient drying of copra.
CARGILL KUKUM DRYER
2500-Nut Capacity
Lessons learned

- Feasibility study has to be done on farm level
- Individual vs. groups - reorganizing, legalizing the farmer groups
- Financial support is needed – microcredits, bank loans
- Tailor made business plans are necessary for every group
- Service package for better quality (cash payment, express lane)
Quality
Sustainability
Community development
Vanuatu National Coconut Strategy Framework:

- 9.7 million coconut trees (over 60 years old) are occupying a land area of 120,000 ha. - the largest area under agricultural production
- Over 70% of the rural population of Vanuatu is involved in coconut production
- Copra milling facilities are being operated on 60% utilization only, given the rather low supply of raw materials.

The added value of the copra value chain should remain in Vanuatu!
Development Assistance

- Value chain improvement to support:
  - Better farming practices;
  - Improve copra processing skills;
  - Improve post-harvesting skills;
  - Introduction of standards and best practices;

- Identifying needs of niche markets;
- Long term, sustainable business model and market mechanisms for certified copra are the basis of up-scaling

- Bottom up vs. top down approach (the industry is market driven, premium, prices, etc)
Thank you for your attention!