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

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Development Partnerships with the Private Sector

develoPPP.de

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

Development Partnerships with the Private Sector

Time frame: September 2011 – February 2015

Total Volume: 1,082,000 Euro

Partner contribution: 690,000 Euro

Public contribution: 392,000 Euro

Region XII. SOCCARGEN

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

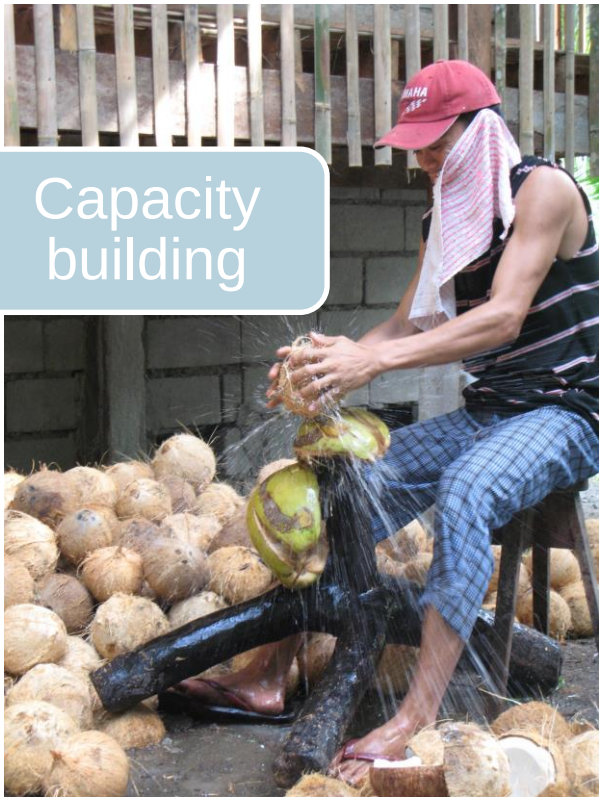
- Awareness raising, education
- Benefits of a food grade product
- Business minded/oriented producer groups
- Pre-financing

Sustainable production

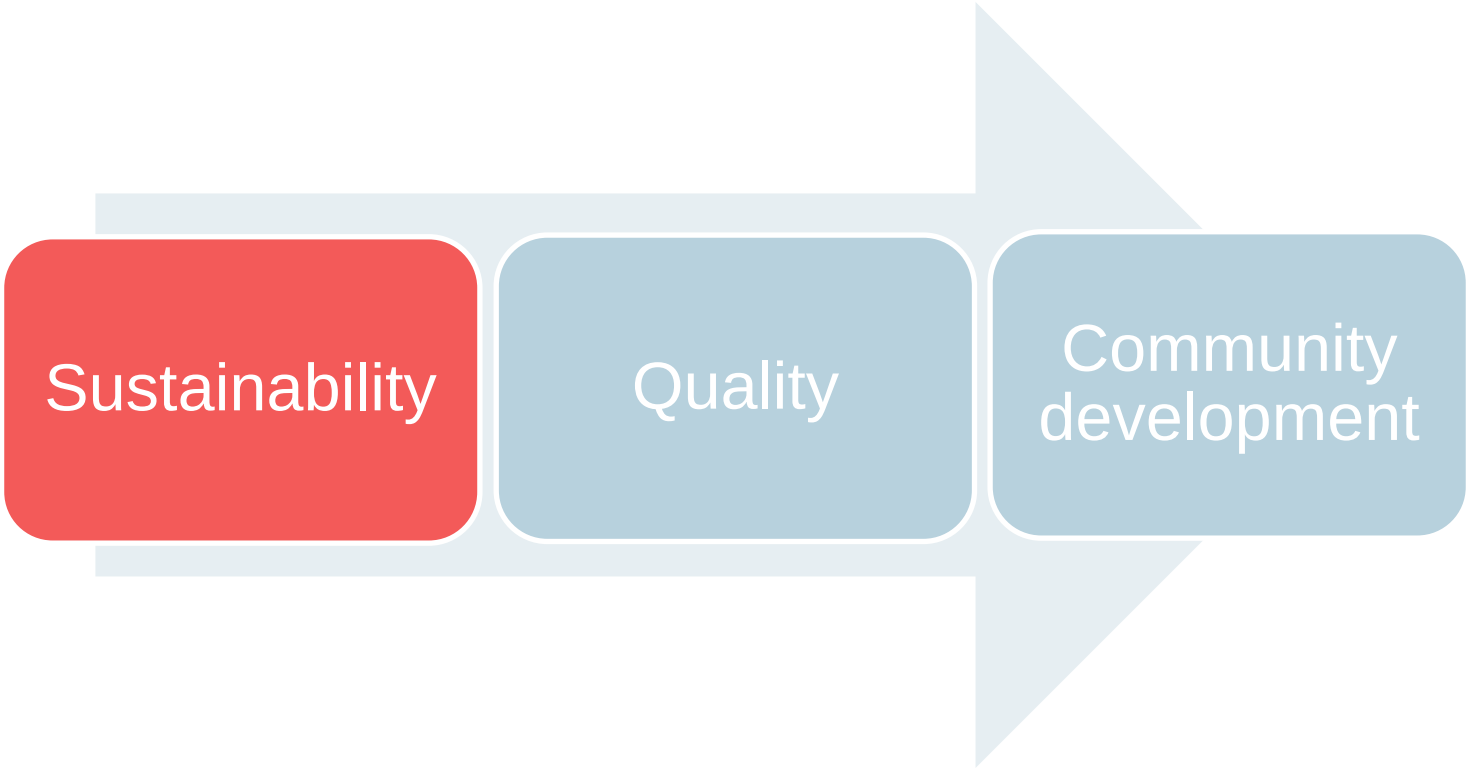
Quality coconut oil

NUCLEUS OF CHANGE

Capacity building



BUSINESS MODELL

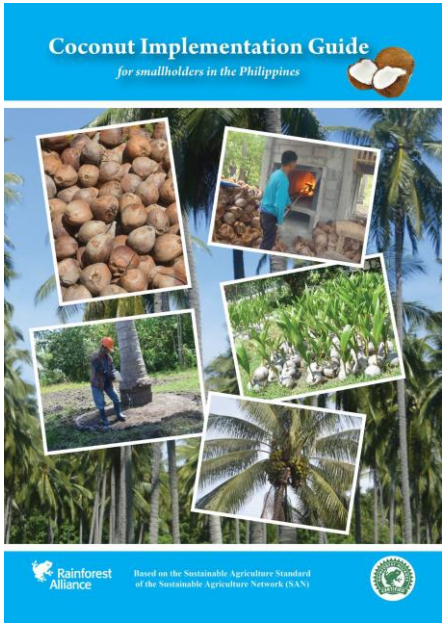

Sustainability
Quality
Community development

Rainforest Alliance / Sustainable Agricultural Network (SAN) Standard

GAP → LIG → SAN

- 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

TOTAL SALES	−	TOTAL EXPENSES	=	PROFIT	+	PROFIT	=	TOTAL INCOME
PHP 46,000	−	PHP 17,720	=	PHP 28,280	+	PHP 20,121	=	PHP 48,401

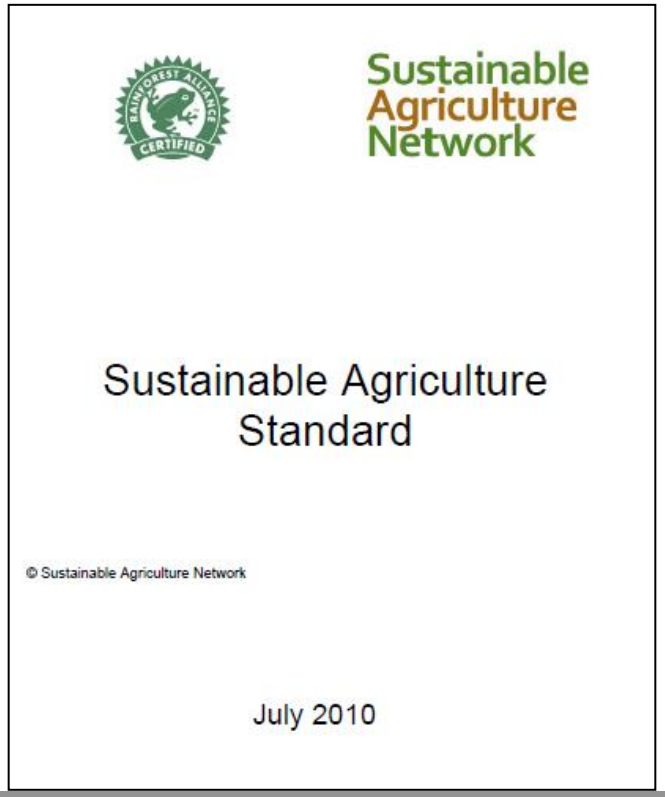
- *Adult learning techniques*
- *Session guides*
- *„Farmer friendly"*

Standard documents for group certification

1. **Sustainable Agriculture Standard**

   For member farms

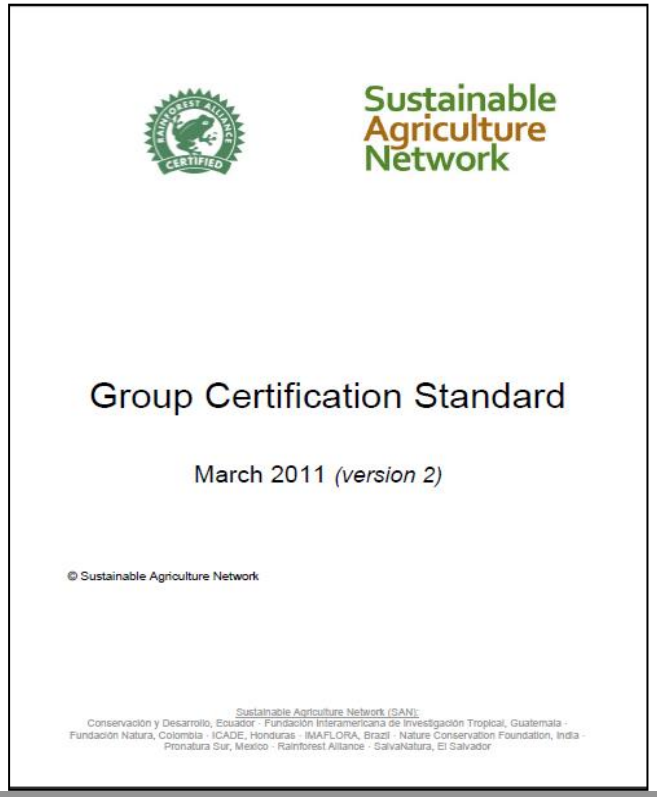
   About environmental, social and management practices at farms

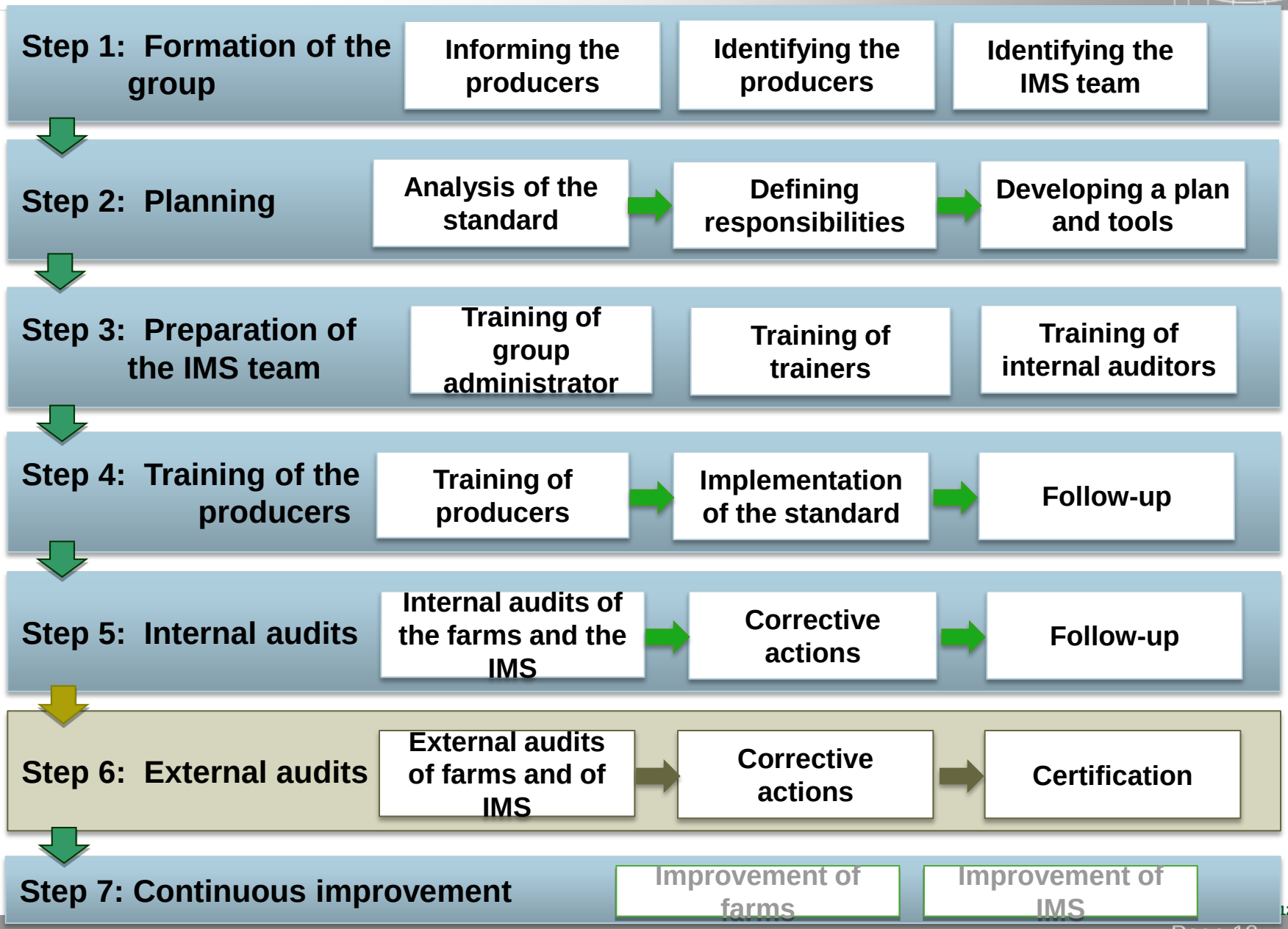


2. **Group Certification Standard**

   For group administrator

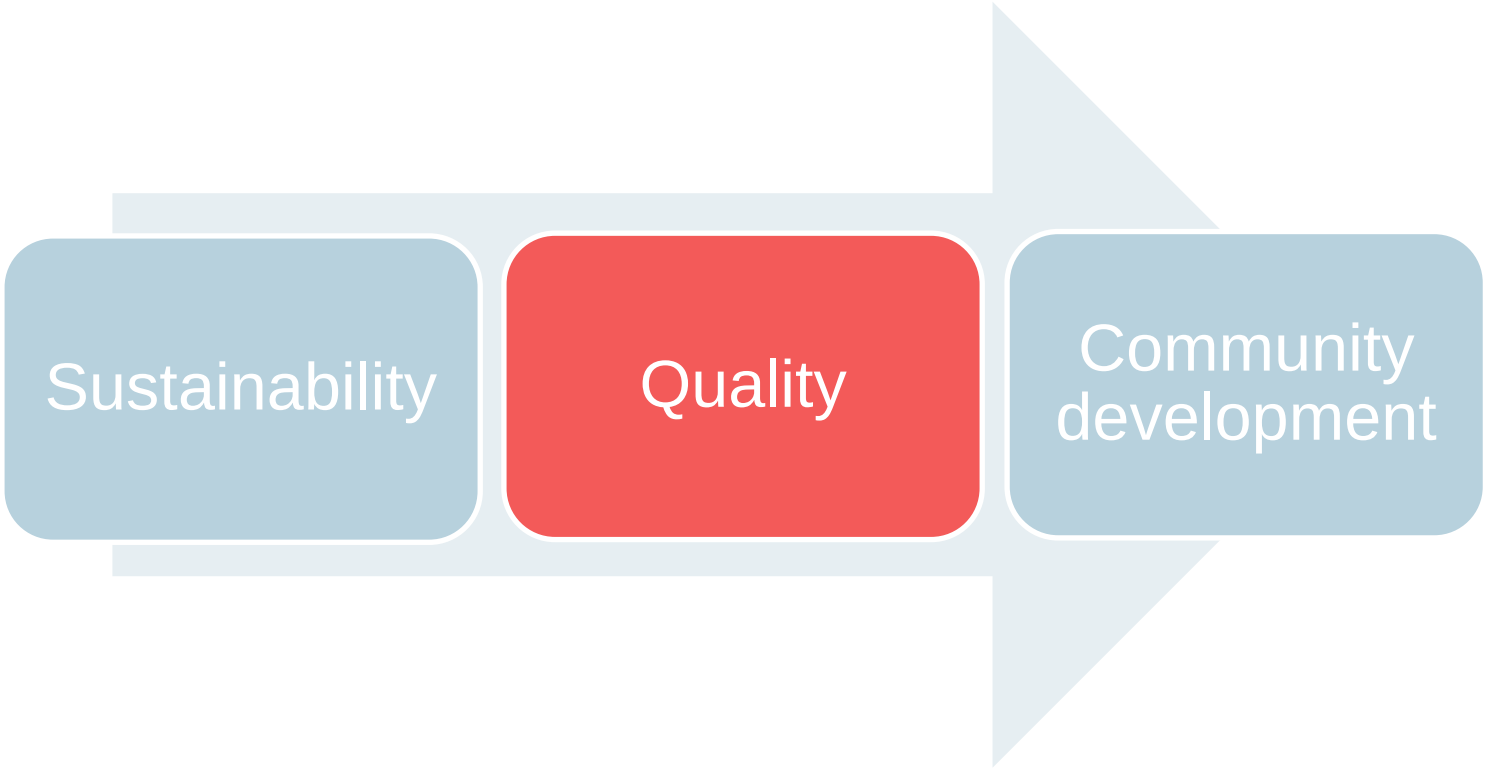
   About Internal Management System




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*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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 .

TAPAHAN DRYERS

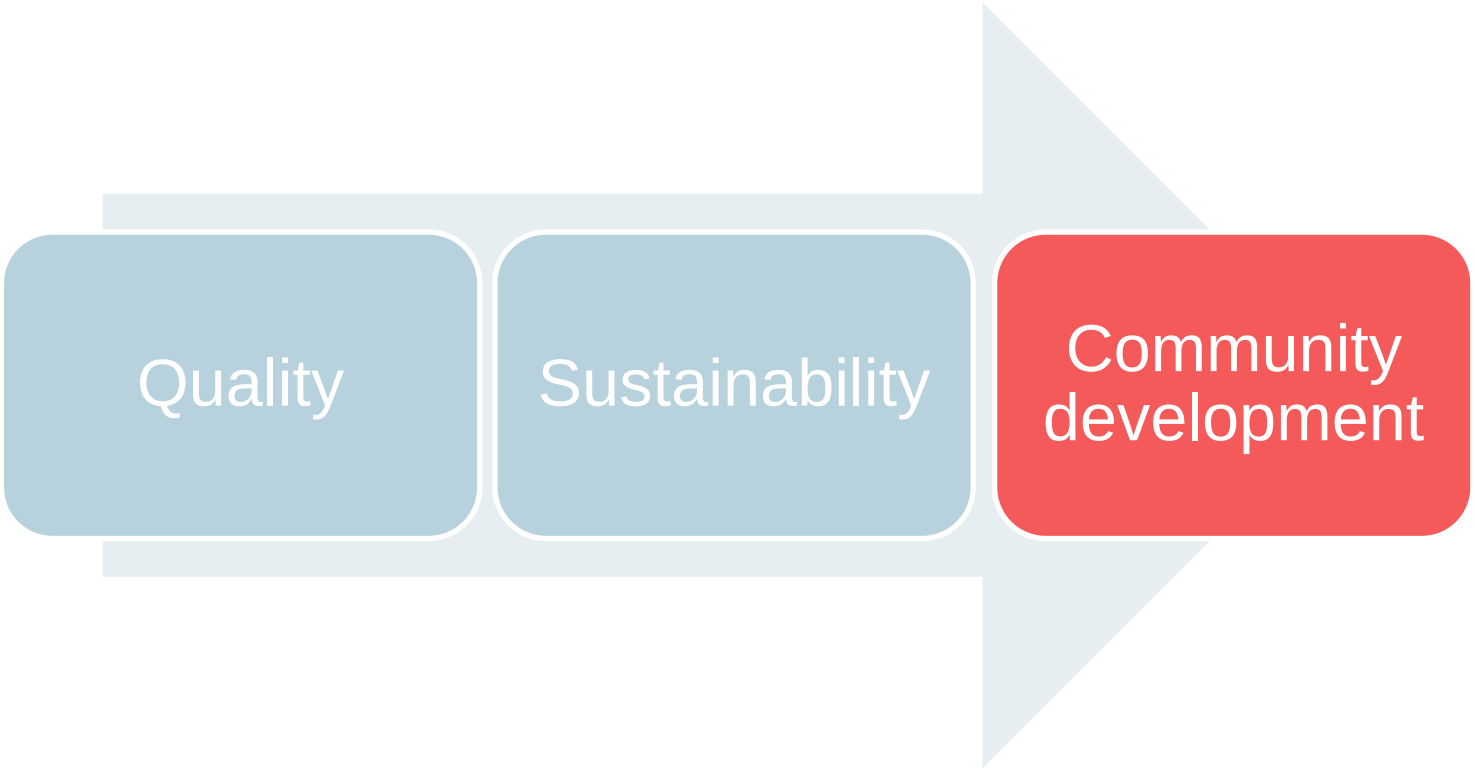
- Rainy or sunny day, you can dry your nuts.
- Any farm biomass can be used for fuel to generate heat to dry nuts.
- With the firing and combustion taking just below the dried nuts, expect a smoky copra.
- Tapahan dryers cannot pass the EU Codex requirement
  - Polycyclic aromatic hydrocarbon (Pah) and 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!