A Forest Garden
Using Analog Forestry to strengthen production systems and improve ecosystem resilience

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Rainforest Rescue International
Non timber forest product use

Medicinal products

Food products
Commodities sourced from forests

Sandal wood

Coffee
Landscape level change for production purposes
Unsustainable Land Management by communities
Tropical Carbon Sinks
Global Deforestation Rates 2012

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<tr>
<th>Rank</th>
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<tr>
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<td>3</td>
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<td>9</td>
<td>Cambodia</td>
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Threats to biodiversity

Conservative estimates propose a loss of around 10,000 Species per Year.
Salinization impacting water quality

**Before clearing**
Most water is used where it falls. The system is in balance.

**After clearing**
Saline groundwater rises and is concentrated at the surface by evaporation. Vegetation growth is affected.

**Later**
Accumulation of salt at the surface kills protective plant cover. The land is open to erosion.
Asia Pacific Context

Do we have any solutions for the future?

Yes!

How?

Follow Nature.
Analog forestry

• Seeks to establish ecosystems with architectural structures and ecological functions similar to the original climax or sub climax vegetation.
• It also seeks to strengthen rural communities, socially as much as economically, through the use of species that provides for food sovereignty and market orientation.
• First trials begun 1987, and in April 1994 it was accepted as a methodology integrating the protection of biodiversity within the context of sound landscape management by scientific experts at the Open-ended Intergovernmental Meeting of Scientific Experts on Biological Diversity (sponsored by the UN) in Mexico City.
General Steps in Designing an Analog Forestry Restoration Action

1. Map and record vegetation types
2. Evaluate resource availability and production needs
3. Identify landscape level features
4. Design and implement restoration action
Ecuador New AF Planting
Ecuador 1\textsuperscript{st} seral stage
Ecuador 2\textsuperscript{nd} serral stage
Mature Analog forest in India
Comparative approaches land management.
Farmers following organic approaches and integrate Forest Garden Planning
Value Added Production

Coffee

Vanilla

Cardamom

Banana, Ginger
Observations in Timor Leste

• In 2013 an Agro-biodiversity survey was completed in three districts by Ambero-GIZ and MAF.
• NTFP resource use were also assessed.
• An ABD data base was installed at UNTL.
Increasing reliance on pesticide use by farmers.
50-75% Reliance of on fuel wood extraction from existing forest for domestic purposes.

Source of Fuelwood in Lautem

Legend
- District
- SubDistrict
- Suco
- Village

Source of Fuelwood
- Home garden only
- Forest only
- Home garden and forest

Production Date: 6/17/2013
Production Agency: GIZ - AMBERO
Climate impacts faced by communities

![Bar chart showing climate impacts faced by communities in different districts and villages. The chart indicates the percentage of communities affected by drought and flood, with specific values for each location.]

- **Districts**:
  - Baucau
  - Viqueque
  - Lautem

- **Communities**:
  - Suco
  - Bagia
  - Bahamori
  - Bahalarawain
  - Bibleo
  - Baduho
  - Bahamari
  - Bagia
  - Laculio
  - Bahalarawain
  - Loh uno
  - Ossu de cima
  - Ossu rua
  - Muapitine
  - Bauro
  - Tutuala
  - Mehara
  - Com M
  - Com P

- **Impacts**:
  - None
  - Drought and flood
  - Flood
  - Drought

The chart provides a visual representation of the climate impacts faced by communities in the specified districts and villages, highlighting the percentage of each community affected by different types of climate events.
ABD Farmer Manuel Ximenes
Sara Ida, Baucau
Potential interventions

• Policy support by GOTL to promote sustainable and locally appropriate silvicultural programs (AF,FMNR) along all buffer areas, Forest fragments and watersheds and coastline.

• Integration of resource mapping (especially watershed) into Village Development Planning.

• Promotion of erosion control methodology such as SALT on lands with steep gradients and Improvement of fuel wood supply chain.

• Develop existing baselines (such as the ABD database in UNTL) and monitor.
Obrigado – Barak

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