Diversity, resilience and market orientation: A private-sector driven approach to cocoa agroforestry in Ghana

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Background

Commitment to cocoa agroforestry

As of 2025, a Swiss-based chocolate manufacturer wants to source only cocoa originating from agroforestry systems.

Lindt & Sprüngli's requirement for cocoa agroforestry systems

Minimum 30% shade tree cover, with a minimum of 25 permanent shade trees per hectare and of 5 different shade tree species

Collaboration in Ghana between Lindt & Sprüngli and Ecom
Methodology

**Review of cocoa agroforestry program** based on:

1) Review of secondary information

2) Household survey in Enchi (n=129)

3) Value chain analysis (timber, cashew, medicinal plants)

4) Capacity building of Ecom technicians (n=25)

5) Development of action plan
Currently promoted tree species

- Timber species (*Terminalia superba, Terminalia ivorensis, Khaya ivorensis, Milicia excelsa*) and fruit trees (avocado) were the most planted.

- Men farmers mainly decide to plant trees on farm, followed by women farmers and joint decision making.
Point of departure: gender-differentiated cocoa farming

• Important differences between cocoa farms managed by women and men

• Women-managed cocoa farms with scattered distribution of cocoa, timber trees and abundant food crops

• Men-managed cocoa farms mostly monospecific
Gender-differentiated preferences for trees

- Medicinal tree species ranked top by women and men as first choice
- Trees producing food ranked second by women, while men prefer trees producing wood for construction as second choice
**Action plan for agroforestry systems**

We propose AF systems considering:
- men & women farmer preferences
- 3 strata for effective shade and diversified income
- CSSV status of given tree species

<table>
<thead>
<tr>
<th>Key features of AF systems</th>
<th>Current AF systems managed by women</th>
<th>Current AF systems managed by men</th>
<th>Proposed AF systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of strata</td>
<td>3 – understory (food crops), cocoa, AF trees</td>
<td>2 – cocoa, AF trees</td>
<td>3 – cocoa (&lt;5m), canopy (10-20 m) and emergent (20-35 m)</td>
</tr>
<tr>
<td>Number of tree species</td>
<td>Less than 5</td>
<td>5 or less</td>
<td>At least 7</td>
</tr>
<tr>
<td>Diversity in terms of uses</td>
<td>Food crops included</td>
<td>Medicinal trees included</td>
<td>Food and medicinal trees included</td>
</tr>
<tr>
<td>Shade cover</td>
<td>Less than 30%</td>
<td>30% or less</td>
<td>Between 30% and 50%</td>
</tr>
<tr>
<td>Tree species that host CSSV</td>
<td>Not checked</td>
<td>Not checked</td>
<td>Checked</td>
</tr>
</tbody>
</table>
Action plan for wood product value chain

- Support farmers' organization into SMEs
- Strengthen linkages with wood processors and service providers (cluster development)
- Policy dialogue for improved tree tenure (and costs of permits)
- Build capacity for seedling production (nurseries)
- Build capacity for tree management (planting, nurturing, pruning, directional felling, hauling, on-site processing)
- Build capacity for local processing (artisanal milling)
Action plan for cashew and medicinal plant value chains

- Support farmers' organization into SMEs

- Strengthen linkages with processors and service providers for cashew (MOFA, CRIG, Ghana Cooperative Cashew Farmers and Marketing Association, Africa Cashew Alliance) and medicinal plants (Federation of Traditional Medicine Practitioners Associations, Center for Scientific Research into Plant Medicine, FDA)

- Sourcing of quality seeds for production of quality seedlings (nurseries)

- Build capacity for tree management (planting, nurturing, pruning, harvesting, post-harvest handling)

- Build capacity for local processing of cashew (artisanal shelling) and medicinal plants (e.g., essential oils)
Integrating crop, biological, social, and economic diversity: Cocoa agroforestry and value chain development at household, community and landscape level

- Capitalizing on biological and crop genetic diversity
- ... and social diversity (gender, age, culture)
- Taking advantage of market opportunities
- Realizing synergies across value chains and sectors
- Improving resilience and environmental and social footprints

Global value chains (e.g., cocoa, coffee, nuts, honey)

Regional value chains (e.g., timber, fruits, livestock)

Local value chains (e.g., fuelwood, staples, livestock)

Image credit: Landscapes for People, Food and Nature
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