

Energy Tree Planting

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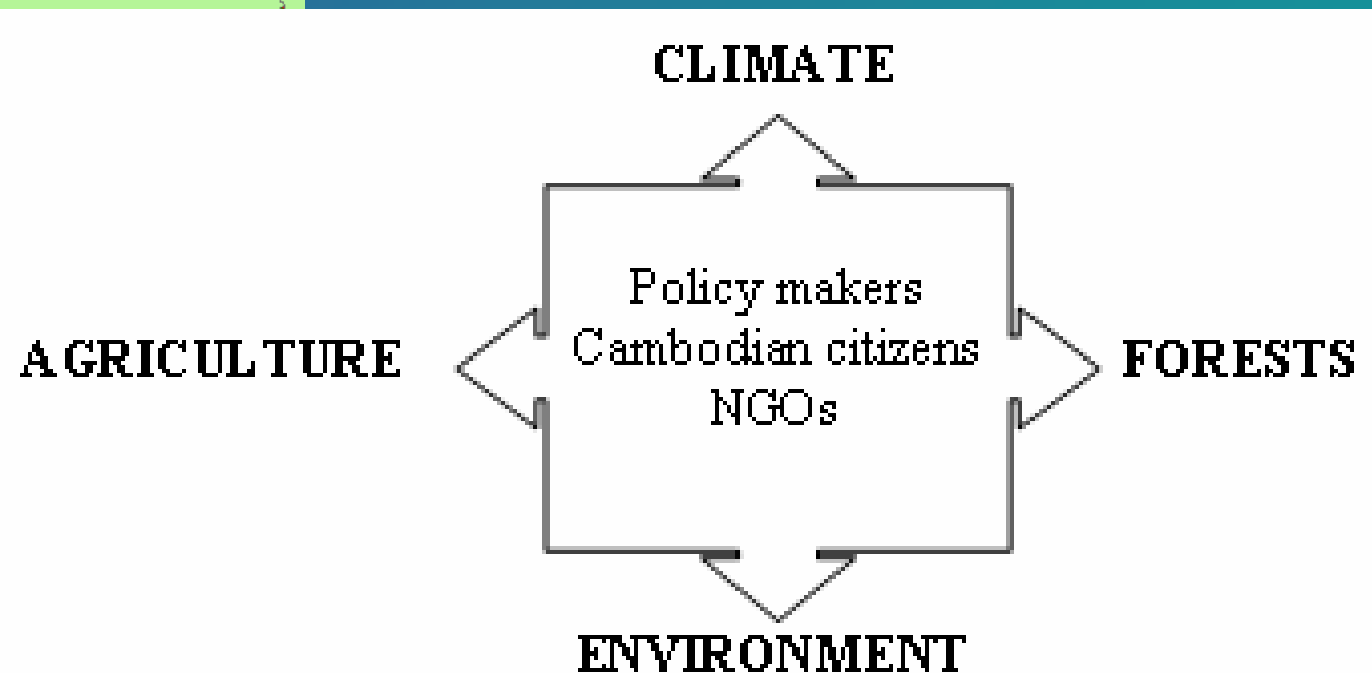
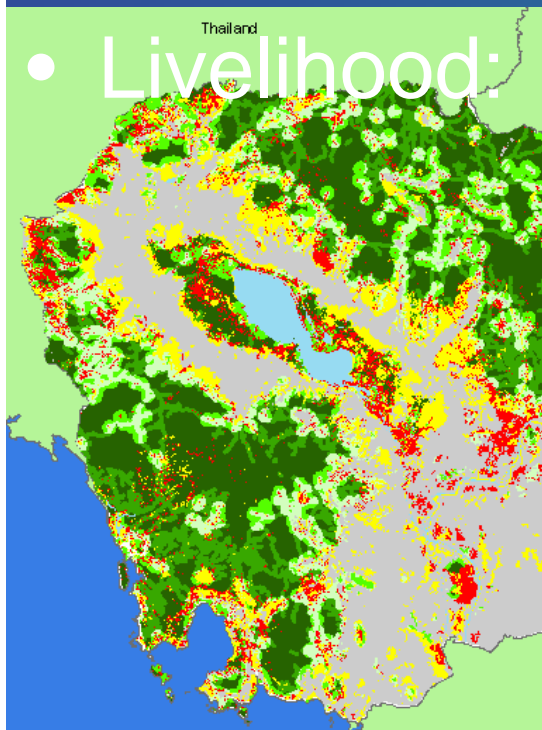
Content of the presentation

- Firewood in livelihood
- The plantation need
- Legal framework
- Tree planting
 - Options: CB, private/agroforestry
- Implementation tools
 - Nursery cost, timeframe, management practices, monitoring

Firewood in livelihood 1/2

- 85% of total energy consumption
- 90% consumed by households
- Forest resources unequally distributed in the country (collect vs. purchase)


- Livelihood:



Firewood in livelihood 2/2

- 1 family burns 2.78kg of wood per day
 $2.78 \times 365 \text{ days} = 1 \text{ ton per year}$
- 1 palm sugar producer burns 9 tons of wood per year
- Brick factory? Fish smoking? Rice wine?
Tobacco drying? Charcoal?

The energy plantation need

- Average productivity: 20 tons/ha/year (acacia)
 - Optimal rotation: 5 years
 - Management: coppicing, pollarding
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- 1 family needs 0.05 ha (=1/20) to achieve wood energy self-sufficiency (125 trees)

Legal framework

- National Wood Energy Working Group
- Decentralization: responding to the need of Commune Councils (project holders)
- Sub-decree on CF
- Development of commercial CF

Tree planting 1/2

- Community Forestry / Partnership forestry
 - Enrichment planting (planting in clearings to add value to forests and ownership feeling)
 - Candidate species: *Cassia*, *Peltophorum*, *Albizzia*



Copse under tall trees

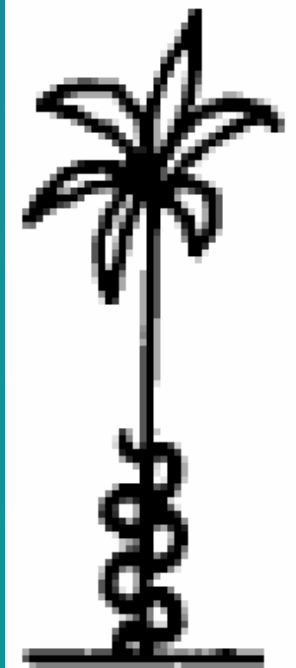
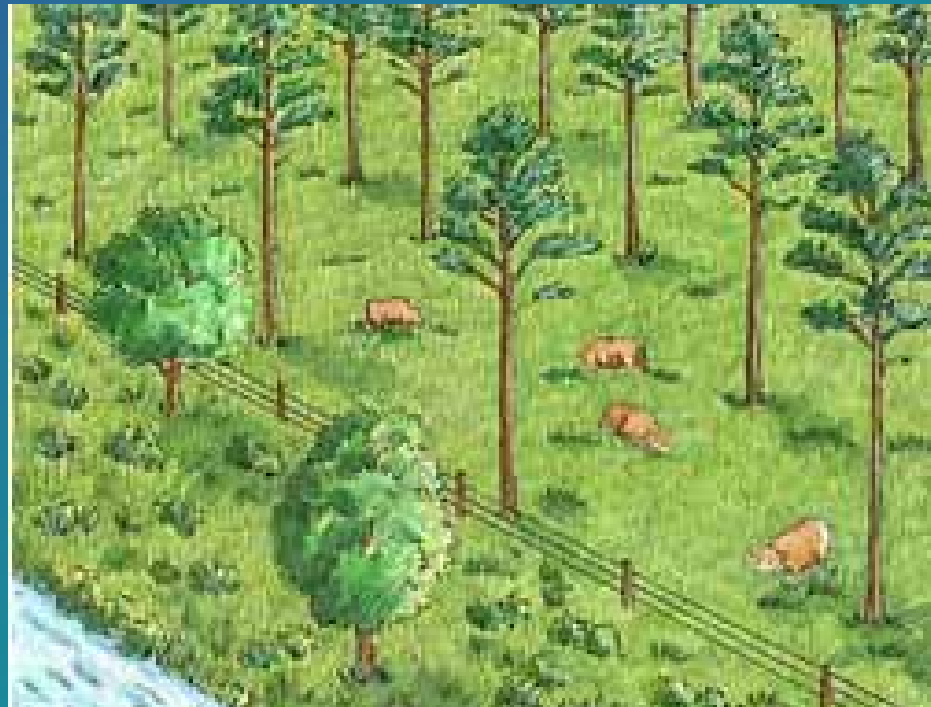


Réserve n° 178 de Koki Thom. Coupe n° 5, série II. Taillis sous futaie

Tree planting 2/2

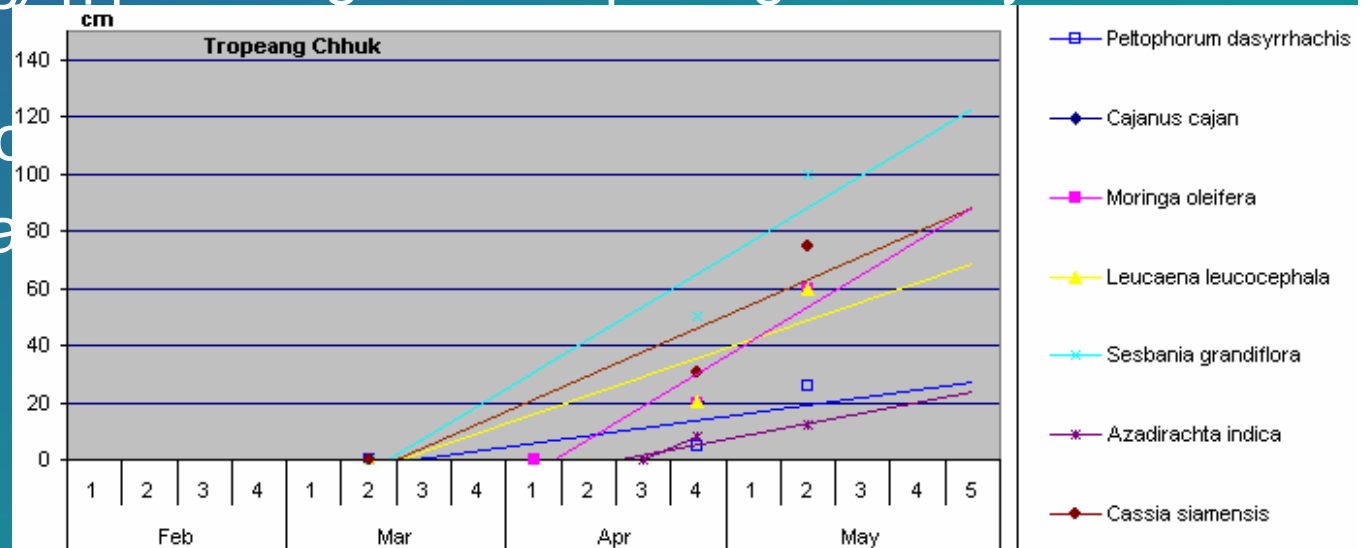
- Private tree planting / agroforestry
 - Optimizing space, integrated rural development
 - Multipurpose tree species
 - Functions and services

FUNCTIONS	SERVICES
Production	Shade
Protection (fencing)	Support
	Nitrogen fixation
	Soil & water conservation



Implementation tools

- Nursery costs
- Timeframe
 - Village wood energy self-sufficiency: 18000 seedlings
 - 600 US\$ (not including labour cost, training and monitoring)
- Management practices
 - Nursery construction: March
 - Filling soil in polybags: April
 - Size of spacing (2500 trees/ha)
 - Transplanting germinated seeds in polybags: April
 - Start with 1500 trees/ha (70% survival rate)
 - Seedlings raising: May-July
 - Seedlings of 1 year old
- Weeding to
- Control gra



Conclusions

- Plantations are cheap and accessible to all
- Lobbying for plantations is necessary
- Species selection, land allocation
- Flooding, uncontrolled grazing

Thank you

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