Combating climate change with organic agriculture

Pilot project:

Climate-neutral peanuts from Tanzania

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Presentation outline

1. Project Setting and objectives
2. Current farm practices
3. Improvements
4. Evaluating climate effects
5. Carbon payment mechanism for farmers
6. Inspection and certification
7. Marketing: climate-neutral peanuts?
8. More than carbon sequestration only
9. Next steps

1. Project setting and objectives (a)

Motive:

- IFOAM Study recommends pilot projects
- HIVOS (NL) supports pilot projects in Latin America
- Agro Eco wants to invest in ‘climate change’ theme

Pilot project objectives:

- Mobilise funds for ‘climate change mitigation’
- Develop a monitoring system
- Develop a payment mechanism for farmers
- Evaluate climate effects of conversion to organic agriculture

1. Project setting and objectives (b)

CDM, carbon credits and agriculture:

- Realise emission reduction target in industrialised countries by investing in developing countries:
  - Emission reduction (e.g. hydro power)
  - Carbon sequestration (e.g. forestry)
- Types of carbon credits:
  - Formal: Clean Development Mechanism (CDM)
  - Voluntary carbon credits
- Land use activities eligible in Kyoto? Methodologies accepted?
  - Carbon sequestration forestry: Yes (Marrakech), Yes
  - Carbon sequestration agriculture: No perhaps after 2012
  - Emission reduction in agriculture: Yes, No
  - Combine agroforestry and organic agriculture: Yes, No

1. Project setting and objectives (c)

Project setting and partners

- HIVOS supported proposal development
- IFOAM collaborated in joint proposal
- Linked to EPOPA project:
  - export of organic peanuts from Tanzania
  - Sida funded
  - Grolink (S) and Agro Eco (NL) implemented
  - EPOPA funds used for carbon baseline study

→*Still looking for additional funds for 4-year project*

2. Current farm practices (a)

Matai, Tanzania

EPOPA 2005-2008

1300 Farmers

6500 ha

Groundnut export

2006: 200 t

2007: 400 t

2008: 500 t

Add Carbon project

2. Current farm practices (b)

Burning crop residues

3. Improvements (a)

Current practices:

- Rotation fallow-crop
- Burning residues
- No chemicals
- Little compost / manure
- Annual tillage
- Traditional stoves
- Soil erosion

-> Deforestation

-> Land degradation

Improvements:

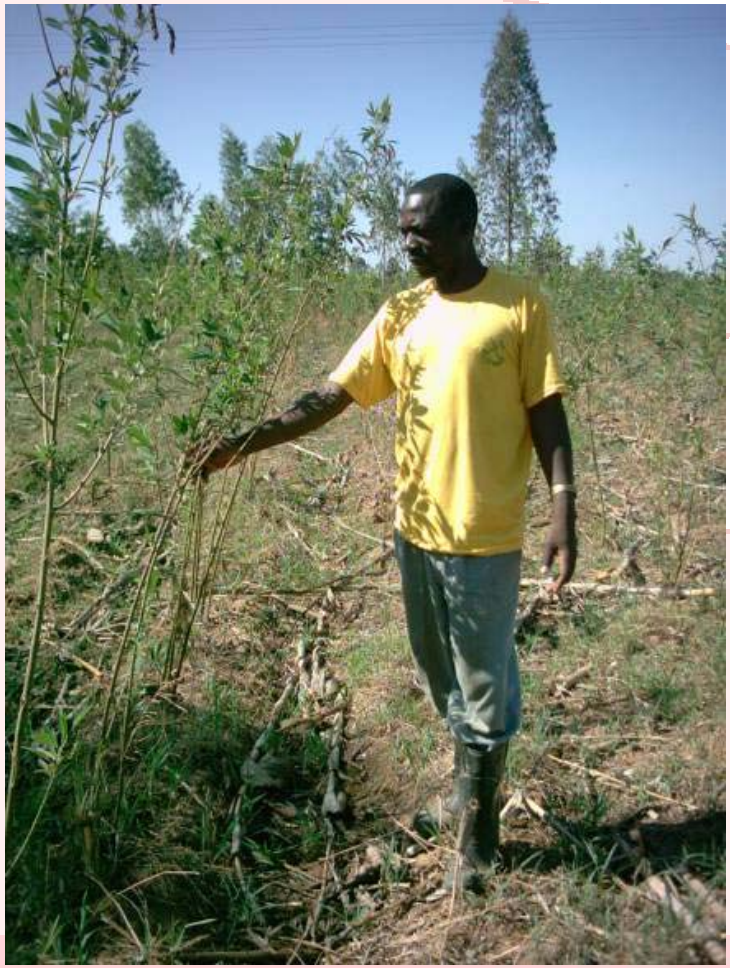
- Improved fallow (Pigeon pea, *Tephrosia)*
- Composting residues
- Green manure
- Reduced tillage
- Improved stoves
- Tree planting

-> Reduced emissions

-> Build-up soil organic matter

3. Improvements (b)

Improved fallow



3. Improvements (c)

Composting manure + crop residues

3. Improvements (d)

Trees in fields *(e.g. F.albida)*

4. Evaluating the climate effects

- *Baseline study on current stocks*
  - 100 Farmers, 200 fields (cultivated and fallow)
  - Estimated tree biomass
  - Soil samples
- *Baseline scenario on trends without project*
  - Inventory farm practices
  - Inventory household practices
- *Impact study after 4 years*

5. Carbon payment mechanism for farmers (a)

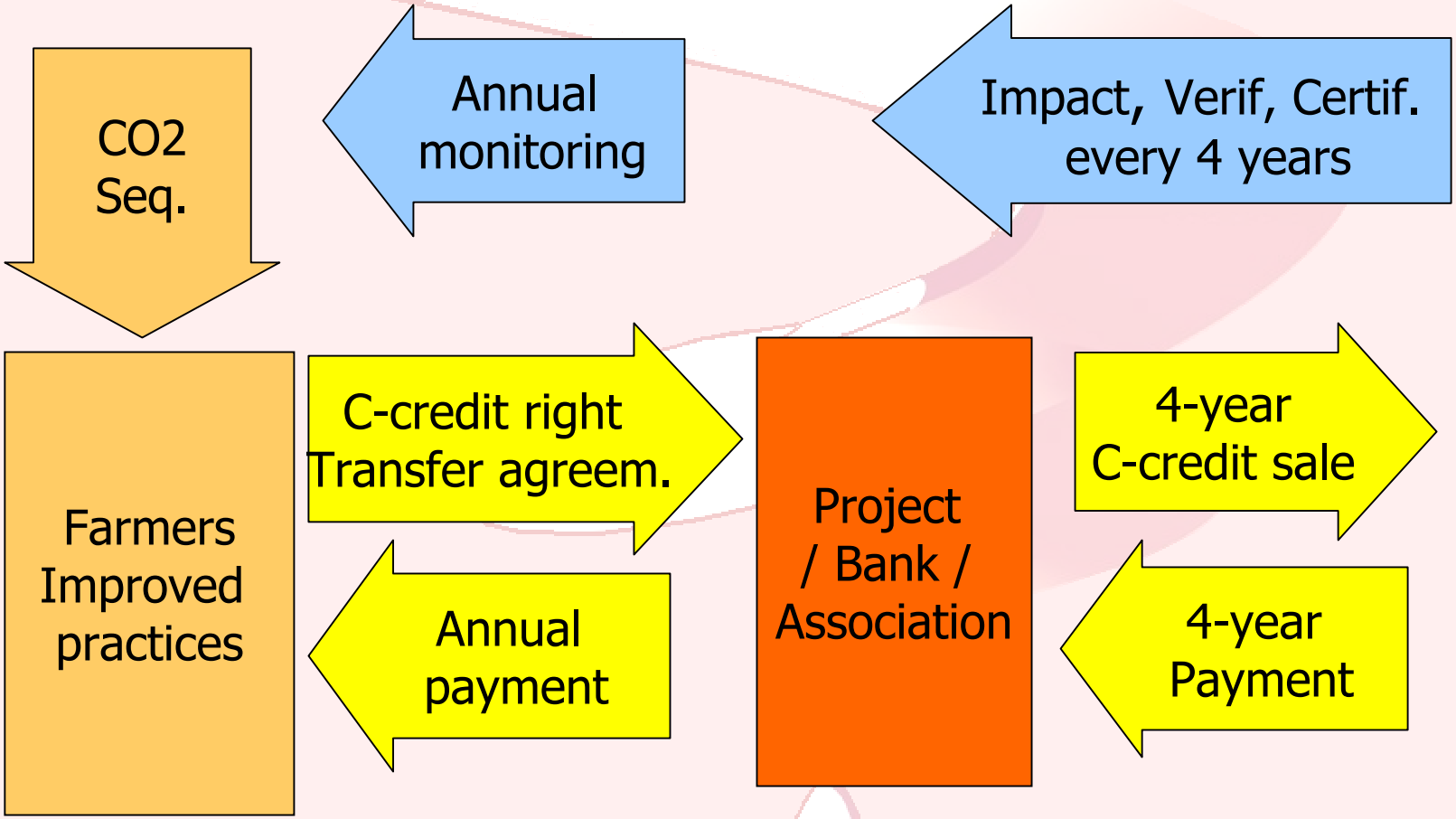
Pre-finance during project (2006-2009):

- Baseline study
- Training farmers
- Pre-financing investments (seed, trees, equipment) plus annual carbon payment
- Impact study and certification

Sale of carbon credits (2009):

- E.g. to importer of groundnuts
- Reimburse pre-financed carbon credits

5. Carbon payment mechanism for farmers (b)



6. Inspection and certification

- *Advantage of organic agriculture:*
  - Inspection and certification system in place
  - Smallholder group certification
- *Internal inspection for organic can also monitor practices with climate effects (simplified system)*
- *External certification is still separate, but may in the future be done by one certifier.*

7. Marketing: climate-neutral peanuts?

Emission reduction and carbon sequestration:

- 8000 ton CO_2 per year

Emissions from transport, roasting and packaging 300 t organic export groundnuts per year:

- 4.8 kg CO_2 per kg groundnuts
- 1400 ton CO_2 total

→ Groundnuts can be sold as 'climate-neutral'

8. More than sequestration only

- *Adaptation to climate change:*
  - Water holding capacity
  - Soil cover and wind breaks
  - Diversification, reduced risk
- *Avoided deforestation*
- *Avoided land degradation*

9. Next steps

- Proposal developed
- Baseline study started

- *Still looking for partners and funds!*