

INA - IGES workshop on REDD

## Community carbon inventory and PES management trials

Some experiences from the Community Carbon Forestry project

[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)

### PES management at community level

#### Trial forest carbon inventories

- Community inventory teams inventor and monitor own forest (3 communities)

#### Community PES management preparations

- Awareness & discussions with communities (5 communities)
- Capacity building communities for PES management (2 communities)



[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)

## Implementing PES for communities with maximum involvement & ownership of communities

- Trial communities FORCERT members
  - ILG's
  - Company/Business group
  - Socio-Economic & Environmental Baseline Survey
  - Sustainable Land Use Plan
  - Working towards FSC certification
- Lowering expectations
- Community awareness & discussions climate change & PES
- Training on forest carbon inventory
- Draft Project Document for PES management (under VCS)

[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)

*Research project "Kyoto: Think Global, Act Local"*

*Community Carbon Forestry Papua New Guinea (CCF-PNG)*

### **Field Protocol for measuring carbon sequestered in forest Papua New Guinea Version**

By  
Pamela Avusi, Ruben Taminza and Peter Dam

Based on the general protocol by  
M. M. Skutsch and E. Zahabu

Final Draft  
November 2009

Research project "Kyoto: Think Global, Act Local"  
Community Carbon Forestry Papua New Guinea (CCF-PNG)

## Wei bilong wok long painim hamas kabon istap long bus

Field Guide for Community Inventory Teams

Pamela Avusi, Ruben Taminza na Peter Dam  
iraitim

Final Draft  
November 2009

## COMMUNITY-BASED MONITORING MEASURING ABNORMAL TREES



[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)

6

## Draft inventory methodology

- Stratification of total forest area
- Pilot survey
  - 10-15 nested plots
  - 100m<sup>2</sup> for 1-10cm dbh
  - 500m<sup>2</sup> for 10cm dbh and up
  - Dbh and tree condition recorded
- Data analysis; calculation number PSP's required for 90 % accuracy
- Establishment PSP's
  - X number nested plots
  - 100m<sup>2</sup> for 1-10cm dbh
  - 500m<sup>2</sup> for 10cm dbh and up
  - Dbh and tree condition recorded
  - Centre PSP fixed for retrieval
- Data processing (tC/ha & total per stratum & overall forest area)
- Annual re-measurement PSP's

[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)

## Baseline

Looking at Business As Usual (BAU) scenarios.

For all three sites BAU scenario contains the following components:

1. *Conventional large scale logging operation*
2. *Conversion to large scale oil palm plantations*
3. *Conversion to cash crop blocks (oil palm, cocoa, copra, coffee)*
4. *Conversion to food gardens*

## Additionality

Continuous threats despite commitment to sustainable LUP & forest management

## Leakage

- *Community forest products*
- *Community land uses*
- *External forces*

[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)

## Opportunity costs

Potential income per annum	Baikakea	Minda	Tavolo
<b>A. Total forest area (ha)</b>	3540	548	14,731
<b>B. Commercial volume &gt;50cm dbh (m3/ha)</b>	47	85	72
<b>C. Number of households</b>	66	34	56
<i>Royalties from large scale logging (K25/m<sup>3</sup> x 60%A x 60%B) / 40 years rotation</i>	K 37,500	K 10,500	K 185,600
<i>Land lease fees (K20x30%A) &amp; harvest royalty oil palm plantations (K80x30%A)</i>	K 106,000	K 16,400	K 441,900
<i>Increased production of cash crops (estimate based on SEEBs FORCERT)</i>	2,500 / household K 165,000	2,500 / household K 85,000	2,500 / household K 140,000
<i>Waged employment in and outside the village (estimate based on SEEBs FORCERT)</i>	K4420x 10 people K 44,200	K4420x 6 people K 26,500	K4420x 9 people K 39,800
<b>Total estimated annual opportunity costs</b>	K 352,700	K 138,400	K 807,300
<b>Annual opportunity costs/ha (total forest area)</b>	K100	K253	K 55

<sup>1</sup> Per m<sup>3</sup> price benefit for landowners from: Hunt (2006).

<sup>2</sup> Assumption that 30% of total forest area will be suitable for conversion to palm oil plantation. Lease & royalty/ha from Anderson (2006).

[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)

## Main conclusions from this trial

1. Measuring and monitoring forest and forest carbon by local communities can be done reliably and in a cost efficient manner, complying with IPCC Good Practice Guidelines.
2. PES can empower local communities and help secure sustainable land use and forest management, while contributing to reducing emissions from deforestation and forest degradation.

[www.communitycarbonforestry.org](http://www.communitycarbonforestry.org)