LOW EMISSION BUSINESS MODELS
Case Studies in Lam Dong province, Vietnam

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Vietnam

Bangkok, Thai Land 7-9 July 2015
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GHG Emission Reduction Strategy in Agriculture

- By 2020, GDP per capita to double, energy consumption to be reduced by 2.5-3%/year, **GHG intensity to be reduced by 10-15% compared to 2010**
- By 2030, total GHG emissions reduced with 2-3% / year (BAU)

“We need a structural adjustment in the sector, we need new ways of farming and we need to ensure these new approaches are low-carbon”

‘mobilization and diversification of financial sources in carrying out solutions of GGE reduction in the agriculture and rural sector’
Vietnam: Ways to Mitigate

- The share of GHG emissions estimated from agriculture (paddy rice, livestock, crop residues recycling/burning) expected to reduce from 39% (2010) to 22% and 14% in 2020 and 2030 respectively. Main gases are: CH4 and N2O (BUR1, 2014a).

- **LULUCF**: -19.2 (2010) to -42.5 (2020) and -45.3 million (2030), (source BUR1, 2014a)

- Mitigating measures: Rice varieties improvement with higher recovery rate of N fertilizers; AWD technology in rice production; ICM (3 reductions-3 gains and 1 must do-6 reductions program); Biogas, Biochar, Biomass briquette fuel ...

- Other crops/commodities: Sustainable value chain development (efficient use of land, water, renewable resources, low carbon etc.)
<table>
<thead>
<tr>
<th>Actor</th>
<th>Options for enhancing private sector’s involvement</th>
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<tbody>
<tr>
<td>Buyers</td>
<td>• Increase the contribution of tourism businesses</td>
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<td>• Make other types of private sector actors pay</td>
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<td>Sellers</td>
<td>• Apply the K coefficient</td>
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<td>• Allow communities to legally enter into PFES agreements</td>
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Private sector involvement

• Through participation in new value chains and intercropping

• GHG emissions reduction during post-harvest product processing (dry processing, using coffee bean husks as fuel for drying etc.)

• GHG emissions reduction from services (transportation, logistics, communication and business services more efficient functioning of the value chain)
Planted area of the main industrial tree crops in Lam Dong province

- Coffee
- Tea
- Cashew
- Rubber
- Maca
- Cocoa
- Rice

Planted ea (thousand ha in log scale)

Year

- 2005
- 2009
- 2013
- 2020 et.

Lam Dong DARD, 2014
Stakeholder mapping: Cocoa

Field survey, 2015

MARD & Gov. line agencies

NAEC

Policy & Regulations

DARD

Training & tech. assistance

Bank & finance institution

Investment schemes

Quality requirement

Input supply Co. (seedlings)

Low emission inputs

Low Emission & Sustainable Cocoa production

Research institutions (WASI)

Training & tech. assistance

Support/piloting

Certifying service

Contracted Local collectors

Project Programs (SCP etc.)

Cert. institution

Direct Influence

In direct Influence

Red: pressure relation

Blue: Partnership/business

Green: assistance/support
Stakeholder mapping: Macadamia

Field survey, 2015
Agro-forestry and industrial trees

VAAS, 2012
Agro-forestry and industrial trees

Field survey, 2015
Economic and GHG reduction benefits

- Reduce GHG emission
- Greater afforestation or forest restoration on plantations
- Reduce production costs/Shade trees that also provide direct monetary benefits (reuse residues, bio energy)
- Greater carbon sequestration and diversify incomes from intercropped trees (macadamia, Cassia siamea and even possibly large, high value fruit trees, such as durian)
- Reduce soil erosion and land degradation, sustain production
- Increase productivity (using on farm inputs, soil cover, mulching, efficient use of water, shading trees etc.)
**Recommendations**

- Involve private sector in decision making and policy formulation process: e.g., commodity projection and planning processes in VCCB at national or SCPA at provincial level.

- Tax bonuses/economic incentives for the private sector who invests in or supports of applying sustainable or low emission practices along the value chains from producing – processing – consumers’ table.

- Development a fund or resource pooling body to mobilize finance and experts that can provide supports and assistance for private sector investing in low emission AFOLU (ACOM, SCPA, Lam Vien coop).

- Form a platform for PPP throughout value chains in/ outside province instead of on location basis.