ACIAR Project
‘Overcoming constraints to community-based commercial forestry in Indonesia’

Dr Dede Rohadi, FORDA/CIFOR
Dr Hugh Stewart, Australian National University

Research Task #3
‘Value chain analysis’

Presentation to Project Annual Meeting, 27th August 2014, Yogyakarta
Value chain is part of a market system ...


**KEY QUESTIONS**

Distribution of benefits

Opportunities to ‘upgrade’
Mapping the value chain

Functions or core processes

1. ACTORS – ‘market players’ within and outside the value chain
2. ACTIVITIES – identify specific activities of different actors
3. RELATIONSHIPS & LINKAGES – between actors
4. TRANSFORMATION OF PRODUCTS – products at each stage
5. VOLUME OF PRODUCTS, NO. OF ACTORS & NO. OF JOBS
6. VALUE AT POINTS ALONG THE VALUE CHAIN – costs & profits
7. GEOGRAPHICAL FLOW OF PRODUCTS – ‘global’ market
8. SUPPORTING FUNCTIONS – knowledge & information flows
9. RULES & REGULATIONS
**Methods for field work**

1. Take lessons from Research Task #1 & #2  
   e.g. - investigate the role of certification
2. Design surveys and interviews (*July-November 2012*)
3. Collect field data (*Des 2012-April 2013*)
4. Draw the value chains
5. Conduct financial analyses
6. Evaluate the profit share
7. Look for opportunities for forest growers to move further along the value chain to improve livelihoods
8. Test these ideas in workshops
## Project areas for Research Task 3

<table>
<thead>
<tr>
<th>Project area (Province in brackets)</th>
<th>Sub District</th>
<th>Village</th>
<th>Tree species (minor species in brackets)</th>
<th>CBCF model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunungkidul District (Yogyakarta)</td>
<td>Nglipar</td>
<td>Katongan</td>
<td>Teak (Mahogany)</td>
<td>[1] Grower-Broker-Processor</td>
</tr>
<tr>
<td></td>
<td>Nglipar</td>
<td>Katongan</td>
<td>Teak (Mahogany)</td>
<td>[3] Grower-Group-Broker-Processor</td>
</tr>
<tr>
<td></td>
<td>Playen</td>
<td>Dengok</td>
<td>Teak (Mahogany)</td>
<td>[1] Grower-Broker-Processor</td>
</tr>
<tr>
<td></td>
<td>Playen</td>
<td>Dengok</td>
<td>Teak (Mahogany)</td>
<td>[2] Grower-Group-Processor</td>
</tr>
<tr>
<td></td>
<td>Nglipar</td>
<td>Jepitu</td>
<td>Teak (Mahogany)</td>
<td>[1] Grower-Broker-Processor</td>
</tr>
<tr>
<td>Bulukumba District (South Sulawesi)</td>
<td>Bontobahari</td>
<td>Benjala</td>
<td>Teak</td>
<td>[1] Grower-Broker-Processor</td>
</tr>
<tr>
<td></td>
<td>Kajang</td>
<td>Malleleng</td>
<td>Teak</td>
<td>[1] Grower-Broker-Processor</td>
</tr>
<tr>
<td>Konawe Selatan District (South East Sulawesi)</td>
<td>Laeya</td>
<td>Lambakara</td>
<td>Teak (Jabon)</td>
<td>[2] Grower-Group-Processor</td>
</tr>
<tr>
<td>Sumbawa District (West Nusa Tenggara)</td>
<td>Moyo Hulu</td>
<td>Semamung</td>
<td>Teak (Sonokeling)</td>
<td>[1] Grower-Broker-Processor</td>
</tr>
</tbody>
</table>
Teak Farm Systems
Sengon Farm Systems
# Regional Timber Market

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Gunung kidul</th>
<th>Pati</th>
<th>Sumbawa</th>
<th>Bulu kumba</th>
<th>Konawe Selatan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wood species</td>
<td>Teak</td>
<td>Sengon</td>
<td>Teak</td>
<td>Teak; Bitti</td>
<td>Teak</td>
</tr>
<tr>
<td>2</td>
<td>Forest resources:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Private forest (ha)</td>
<td>35,000</td>
<td>29,000</td>
<td>89,000</td>
<td>22,500</td>
<td>4,600</td>
</tr>
<tr>
<td>b</td>
<td>% to district area</td>
<td>23</td>
<td></td>
<td>13</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>c</td>
<td>State production forest (ha)</td>
<td>13,000</td>
<td>18,000</td>
<td>18,000</td>
<td>931</td>
<td>65,000</td>
</tr>
<tr>
<td>3</td>
<td>Smallholder timber production (m³), all species</td>
<td>100,000</td>
<td>4,000</td>
<td>1,215</td>
<td>20,000</td>
<td>8,000</td>
</tr>
</tbody>
</table>

**Notes:** Some difficulties occur when verifying data regarding to forest area and timber production.
Marketing Chains

Grower → Broker → Processors

- Individual Farmers
- Farmer’s Groups
- Middlemen
- Informants
- Sawmills
- Wood based Industries
- Traders

Example in Gunungkidul
Marketing Chains

Grower → Broker → Processors

- Farmer’s Groups
  - Individual Farmers
  - Middlemen
  - Informants
- Timber Depots
- Wood based Industries

Example in Pati
Marketing Chains

Grower → Broker → Processors

Farmer’s Groups

Individual Farmers

Middlemen

Wood based Industries

Example in Konawe Selatan
# Log Prices

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Gunung Kidul</th>
<th>Pati</th>
<th>Sumbawa</th>
<th>Bulu Kumba</th>
<th>Konawe Selatan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wood species</td>
<td>Teak</td>
<td>Sengon</td>
<td>Teak</td>
<td>Teak; Bitti</td>
<td>Teak</td>
</tr>
<tr>
<td>2</td>
<td>Price ranges:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>Farm gate, stumpage (Rp/m³)</td>
<td>850,000</td>
<td>400,000</td>
<td>800,000</td>
<td>800,000; 650,000</td>
<td>No data</td>
</tr>
<tr>
<td>b</td>
<td>Farm gate, squared plank, certified (Rp/m³)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,750,000</td>
</tr>
<tr>
<td>c</td>
<td>Middlemen, log (Rp/m³)</td>
<td>2,500,000</td>
<td>675,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>d</td>
<td>Middlemen, squared plank (Rp/m³)</td>
<td>-</td>
<td>-</td>
<td>2,500,000</td>
<td>1,800,000</td>
<td>-</td>
</tr>
<tr>
<td>e</td>
<td>Farmers group, squared plank, certified (Rp/m³)</td>
<td>1,650,000</td>
<td>500,000</td>
<td>-</td>
<td>-</td>
<td>5,500,000</td>
</tr>
</tbody>
</table>
Log Prices

• Many factors affect price variation: species, grades, stages along the marketing chains, times, certified vs. non-certified.

• Price difference is significant according to timber quality. e.g.:
  – Teak, between Rp 500,000 – Rp 5,000,000 per m³
  – Sengon, between Rp 470,000 – Rp 875,000 per m³

• Log diameter mostly determines the price of timber.
Value Chain

• Multiple value chains may occur at a single location.
• The model CBCF 1 (Grower-Broker-Processor) always occur in the case studies, the rest occur only in some areas.
• The model CBCF 2 (Grower-Group-Processor) potentially provide more benefits to growers, but it is very much depend on group capacity to improve:
  – marketing efficiency,
  – Timber quality
  – Applying timber certification
Value Chain

The Middlemen:

- Middlemen not always gain more profits than growers, but they eventually gain their profits in much shorter period than growers.
- Middlemen play various roles in the value chains and remain as important marketing channel for smallholder timber.
- Middlemen were usually farmers who had more capital and knowledge in marketing.
- More number of middlemen in a timber production area may lead to the creation of a fairer timber market.
Value Chain

Policies and regulations:

• Current policies tend cause market barriers and high transaction costs.
• The transaction costs relatively reduced in Java, due to simplification of government regulation (Permenhut No. 30/2012), but not necessarily happened outside Java.
Thank you!