Measuring the contribution of forests in household surveys: A case from Indonesia

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Rationale

- Forests’ contribution to household welfare & livelihoods is often large
- Recent tropics-wide case studies (Poverty and Environment Network, PEN) suggest almost one fourth of household incomes (www1.cifor.org/pen)
- Yet, systematic data collection at national level remains limited
- More nationally representative data could demonstrate forests’ contribution to SDGs, national development policy etc.

Fruits and vegetables from forests in Indonesia
Photo: Indah WB and Willy Daeli
Rationale

- Consortium of 5 institutions spearheaded Forestry Sourcebook and Survey Modules; modules were piloted in countries

- Similar sectoral modules pre-exist for fisheries, agriculture etc. – but not yet forests

- Forest Sourcebook and Survey Modules designed to collect the "minimum" data to evaluate forest and wild product contributions to household welfare, with options of delving into specific themes

- Lessons learnt from each pilot used to improve the Modules

- Fruitful two year journey - a short video
Purpose and structure of the Sourcebook

• Offer thematic guidance on implementing the Survey Modules to collect nationally representative data

• Four main chapters- cover state-of-play of household survey instruments, themes related to measuring role of forests in household welfare, and operationalisation of Survey Modules

• Two types of Survey Modules - household and community - covering 13 key themes

Focus group discussion in Indonesia
Photo: Nick Hogarth
Survey Modules - Structure

- Average time taken to administer all modules:
  - Household surveys: 110 minutes (Indonesia)
  - Community surveys: 70 minutes (Indonesia)
- Length: 9 questions (e.g. community environmental services) to 60 (e.g. income module in household)
Survey example - Module A on Income

<table>
<thead>
<tr>
<th>Product</th>
<th>Who primarily collected the product?</th>
<th>How many household members were collecting this product?</th>
<th>From where is the product collected?</th>
<th>Labour (a) in the last 12 months, how many weeks old [HH] spend collecting [PRODUCT]?</th>
<th>What is the total quantity collected (1.8 + 1.9)?</th>
<th>What is the unit of collection?</th>
<th>What is the quantity sold (including gifts)?</th>
<th>What is the price per unit?</th>
<th>What is the gross value of sales (1.6*1.10)? TO BE CALCULATED LATER</th>
<th>What is the transport/marking costs* (TOTAL)?</th>
<th>What is the cost of purchase and own inputs plus hired labour? TO BE CALCULATED LATER</th>
<th>Notes/comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-wood based fruits</td>
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</table>
Survey example -
Module F on Environmental Services

| Scheme | 4.2. During the past 12 months did your household participate in a program for ecosystem services related to [SCHEME]?
<table>
<thead>
<tr>
<th>Code</th>
<th>Activity</th>
<th>Number (Years)</th>
<th>Number (ha/trees)</th>
<th>Number (currency)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Carbon sequestration/REDD scheme</td>
<td></td>
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<tr>
<td>2</td>
<td>Watershed protection</td>
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<tr>
<td>3</td>
<td>Biodiversity conservation</td>
<td></td>
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<td></td>
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<tr>
<td>99</td>
<td>Other, specify</td>
<td></td>
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</tbody>
</table>

4.3. Which activities have you carried out as part of your participation in the scheme?
1 = Forest conservation
2 = Forest establishment/planting
3 = Tree hedge/fence or individual tree planting
4 = Sustainable use of forest
5 = Forest fire and pest control practices
6 = Grazing management
9 = Other, specify:

4.4. For how many years in total does your contract run for the [SCHEME]?

4.5. How many ha or trees are included in the contract?

4.6. What is the total payment per ha or per tree for the duration of the contract?

4.7. What other in-kind benefits have you or will you receive for your participation in the [SCHEME]?
P[ ] Please describe

4.8. Who is making the payments (cash or in-kind) to your household?
1 = NGO/Civil society
2 = government
3 = municipality
5 = private sector
9 = Other, specify:

4.9. Has your household stopped or reduced [ACTIVITY] due to your participation in the forest payment scheme(s)?
1 = yes, stopped
2 = no, still doing
3 = yes, reduced
4 = N/A (wasn’t doing [ACTIVITY])
Target groups

• Primary users: national statistical offices (NSO)
• If implemented fully, provides comprehensive view of forest and wild products role in household welfare
• Also, government agencies, donors, NGOs and researchers
• Modules can be customized to user interests

Basket materials collected from the forests in Indonesia
Photo: Indah WB
Pilot-testing scaled-up module in Indonesia

• In February 2015 in Kapuas Hulu District, West Kalimantan.

• 120 randomly selected households in 4 villages along a development, forest-cover & accessibility gradient (up-stream to down-stream).

• Enumerators systematically recorded observations & impressions about survey questions, with recommendations for improving the survey in the next test (Tanzania).
Figure 1. Land cover in the study site
Results

Absolute income

Relative Income (%)
Results - confusing / difficult questions

- A - difference in units
- respondent doesn't know (>20 cases)

- F - explaining the concepts of environmental services
- e.g. climate regulation, controlling agricultural pests by forests
- respondent found concept hard to grasp (>60 cases), did not understand enumerator well (>20 cases)

- A - Income
- B - Assets
- C - Forest resource - energy health and construction
- D - Food shortage and crises
- E - Forest changes and clearance
- F - Environmental services
Expect impacts

- Sourcebook and modules implemented systematically by national statistics offices (NSOs), perhaps together with LSMS
- Pilot testing in Tanzania (June 2015) - with NSO: difficulties with e.g. use of FGDs in national scale implementation
- Currently looking at developing a more "streamlined" NSO version, and an "extended" version
- Interest remains - applications in project level in Mozambique, by government of Bangladesh as part of national forest inventory
- Continued and widespread use will increase likelihood of counting and including forest and wild product contributions in national policy, and development agendas
Thanks
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