Forests, Economic Development and Poverty

Augusta Molnar, William Sunderlin, and Megan Liddle

Megaflorestais, Grey Towers

www.rightsandresources.org
Structure of Presentation

- Relationship between Forests and Poverty
- Opportunities for Forests as a Safety Net and Cultural Well-being
- Opportunities for Forests to lift People out of Poverty
- The role of governments and forest agencies in Enhancing Economic Development and Alleviating Poverty?
Relationship of poverty and forests

• Poverty and forests tend to share same location
• Large poor forest populations in population-rich countries
• Chronic poor forest populations in areas with low population density
• Specific agroforestry and forest systems of high potential to eliminate poverty
• Cultural and environmental/ecosystem service values of in many remaining forest areas: relationship to indigenous identity and wellbeing
Maps of poverty incidence & of forest cover in Vietnam
Poverty overlap in Mozambique

Figure 4. Maps of forest cover and major urban areas; population density; LISA analysis of forest cover by poverty rate; LISA analysis of forest cover by poverty density.
Overlap of Forests and Poor Indigenous Municipalities in Mexico
Definition of “poverty alleviation” in relation to use of forest resources

POVERTY ALLEVIATION

POVERTY ELIMINATION

Forests provide permanent exit from poverty via savings, investment, accumulation, asset building

POVERTY AVOIDANCE

Forests provide:

- Source of subsistence
- Safety net in emergencies
- Seasonal gap filler
Strong (but Hidden) Role of Forests in Rural Economies and Trade

• Changing marketplace
  – shifts in supply and demand,
  – consolidation of large industry,
  – new technology and wood substitutes,
  – increase in corporate and consumer responsibility,
  – increase in governance,
  – increase in domestic and culturally-robust demand
Face of the Forest Economy: International Trade

- US$ 141 Billion of total timber trade (ITTO, 2004)
- US$ 8 Billion trade in tropical timber (ITTO, 2004)
- US$ 19 Billion NTFP international trade (PROFOR, 2005); many times domestically
- US$ 37 Billion pharmaceuticals (Laird, 2002)
- US$ 60 Billion in medicinal plants (WHO, 2005)
98% of wood industry in Brazil SMEs; 94% in India,

NWFPs are > 30% rural incomes in 14 African countries
  - At least 763,000 grass/cane sellers in Africa
  - 6% of GDP in 23 African countries compared to official 3%

18 million headloaders, mainly women, in India--fuel and charcoal markets huge
  - LAO PDR wood fuel worth $6.5 million, home construction wood worth $13 million p.a. versus formal industry US$52 million

WB studied 54-cases: forests a significant HH income, especially wild foods and fuelwood

wood carving in Jodhpur, India generates US$200 million, SME and informal
- 30 of 47 Million jobs in forest sector globally are in the informal and SME sector

- 87,000 wood carvers in Jodhpur, 24,000 in Bali, 60,000 in Kenya

- 1300 new enterprise jobs in two years of forest TA in Oaxaca, Mexico

- Millions of headloaders and charcoal producers in Africa and Asia

- 500,000 person days of employment pa in Petén Guatemala in 23 inipient CFEs

- Brazil nut industry employs 170,000 persons in Bolivia

- Non wood forest products occupy 2 million person years pa in India
Findings of Global Market Scoping (A New Forest Agenda)

• Forestry builds on existing assets of the poor and raises their value
• Strategies that enhance forestry’s financial value are essential for conservation of the forests (and their ecosystem services) outside public protected areas
• Such strategies target the many forest regions that are spatial poverty traps
• Building forest assets and economies lays a foundation for supplying diverse products to growing populations;
• Commercial forestry development and conservation build a range of local capacities relevant to rural and community development;
• Reforming policies that currently discriminate sharply against the poorest is an issue of basic justice
Areas of Competitive Advantage: Low-income producers thrive in markets where:

- low-cost processing technologies known and accessible
- production or collection of wild species that are hard to domesticate or replace
- markets not supplied by below-cost sources, (e.g., land-clearing, large-scale illegal logging, or subsidized industrial plantations)
- transport costs to principal markets are low
- forest products can be bundled with ecosystem services, agriculture and other sources
- risks managed through a “portfolio” of products in different income/risk categories
- a large number of buyers exist, bidding transparent and entry costs low
- intermediaries or buyers experienced with small-scale producers
### Key Markets Segments and the Poor

<table>
<thead>
<tr>
<th>Large Scale Markets</th>
<th>Niche Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commodity Wood</td>
<td>High-value timber</td>
</tr>
<tr>
<td>Pulpwood</td>
<td>Certified wood</td>
</tr>
<tr>
<td>High-value timber</td>
<td>NTFPs</td>
</tr>
<tr>
<td>NTFPs</td>
<td>Processing: sawmills or finishing</td>
</tr>
<tr>
<td>Processing: community or group</td>
<td>Watershed, Biodiversity services</td>
</tr>
<tr>
<td></td>
<td>Carbon Offsets</td>
</tr>
</tbody>
</table>
CHINA: Collective Forests supply wood and bamboo to nation

• 58% of forest area is collective in Jiangxi, 63% in Fujian, 18% nationally

• 32% of wood volume nationally produced by Collectives and Households

• Incomes are up

• Production and restoration is up

• 130,000 bamboo farmers in China as well
China: Collective - Company Partnership in Southern China

PTP Leshan MDF processing: Buys from 130,000 farmers

Total income to farmers: 60 million RMB (US$ 7.2 million)
117 Yuan (US$ 14.1) per farmer, accounting for 5% of per capita income
CFEs expanding in scale and scope in response to policy reforms

Examples

- **Bolivia:**
  - comprehensive reforms led to 1.1 million has. of CFE forests since 1999 from none; smallholder area increased 5x

- **Mexico 1980s reforms** enabled 1300 CFEs to emerge by 1995; now 2400

- **Philippines:** forest sector reform 10 years ago created new opportunities for community-based resource management

- **Gambia**
  - 170,000 has. in CFM --honey, palm, timber
Profitability of Ejido Forests in Mexico

Initial transfer of forests to indigenous communities and ejidos in Oaxaca led to decline in wood production: quickly caught up and surpassed productivity.

Production and returns in El Balcon

- Production costs: 65%
- Reinvestment + environment: 18%
- Social Investments: 17%

US$ 3,600,000 in annual sales
Community Forest Enterprises can be highly profitable

- Nepal: Sawmill processes 3000 m³ = $400,000 in sales
- China: 80,000 10/packs of bamboo chopsticks: US$ 400,000 in sales
- Mexico vertically integrated mills: 10-20,000 m³ = US $1.5-3 million in sales
- Bottled water; ornamental palm; mushrooms, tourism
- Pongamia oilseeds: US$ 2715/ha. return biodiesel and crop inputs for productivity
- Brazil: brazil nut production in Manicoré involving 6000 families and 28% of HH income (triple before)
What are the trends in community forestry in Brazil?

- An increase of small-scale and community-based initiatives for forest management
- Communities have increased their participation in timber production [to 20%]
- A more active involvement of state governments [through technical assistance]
- (source) Pablo Pacheco 2006

**Small-scale forest management initiatives [2005]**

<table>
<thead>
<tr>
<th></th>
<th>No. of plans</th>
<th>Total area (thousand ha)</th>
<th>No. families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community-based</td>
<td>206</td>
<td>587</td>
<td>3,175</td>
</tr>
<tr>
<td>Individual small-scale</td>
<td>1,388</td>
<td>288</td>
<td>1,388</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,594</strong></td>
<td><strong>875</strong></td>
<td><strong>4,563</strong></td>
</tr>
</tbody>
</table>

Source: Amaral [2006]
Communities started to engage in sustainable forest management

They contribute to about 25% of total timber production in the country

They produce a third of total Brazil nut production (the main NTFP in Bolivia)

They receive some support from UFM{s since forestry decentralization

(source) Pablo Pacheco 2006

... and what about in Bolivia?

<table>
<thead>
<tr>
<th></th>
<th>No. of plans</th>
<th>Total area (thousand ha)</th>
<th>No. families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indigenous areas</td>
<td>63</td>
<td>1,280</td>
<td>4,219</td>
</tr>
<tr>
<td>Social concessions</td>
<td>17</td>
<td>934</td>
<td>1,140</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2,214</td>
<td>5,359</td>
</tr>
</tbody>
</table>
Deforestation was 1.7 (extractive reserves) to 20 (parks) times higher along the outside versus the inside of the reserve perimeters, and fire occurrence was 4 (indigenous lands) to 9 (national forests) times higher.
And in Southern Mexico Community Enterprises

Land Use/Land Cover in the "Zona Maya" of the Municipio Felipe Carrillo Puerto, Quintana Roo, Mexico

LEGEND

- Ejido Boundaries
- Roads

Land Use/Land Cover
- Water
- Agriculture/Farmland/Urban
- Young Fallow
- Advanced Fallow
- Secondary Vegetation/Low Forest
- Semi-Evergreen Forest/No Disturbance
- Semi-Evergreen Forest
- Semi-Deciduous Forest
- Wetland/Low Forest
- Herbaceous Wetland
- No Data

Circa 1976
April, 2000
And in managing fires and protected areas

- Research indicates less deforestation in CFE forests
- Some CFEs are as effective as the state as managers-
- Investing 137,000 US$ per annum in fire control
Governments can invest in Market Infrastructure and Level Playing Field

- Create road access
- Address access to credit / capital
- Reduce Subsidies (hidden, direct) to competitors make competition more fierce
- Invest in business skills and expertise
- Address monopoly on intermediation or retail sales
- Help low income producers create a reputation with buyers and consumers (for start-ups)
- Increase market and business information to low income producers
Regulatory Barriers are a Particularly Important Constraint

- Insecure tenure rights to land and forest products
- Unfavorable taxation and taxation low on the value chain
- High cost of FMP; inflexibility in cutting rotations where volume AAC is low
- Artificial limits on community forest size
- Officials discourage enterprise, extraction
- Artificial rules of assembly, governance
  - Delays and high transaction costs for permits (CITES, transporting, overweight fees - discretional application)
Does the transition have to be so slow: Can producers have time to develop?

- Most successful examples of market linkages are products of years of initiatives—building producer and community capacity in enterprises and non-timber value chains and company partnerships—from 200 to 2000 enterprises since 1986 in Mexico; one decade in the Petén, Guatemala

**YET EFFECTIVE RIGHTS TRANSFER IS VERY SLOW**

- only one legal sawmill in Nepal has a permit
- Madhya Pradesh farmers still sell 18 dollars under floor price two years after reform carried out
- less than 10% of designated community forest handed over in Cameroon and Gambia (and ............) five years after reforms
What is the role of governments and forest agencies beyond reform and regulation?

- How can governments mobilize the private sector?
- How can forest agencies engage other ministries in poverty and rural development sectors?
- How can financial resources reach the poor?
- How can market infrastructure reach forest areas?
- How do local people access technical services, business support and market and strategic information?
Thank you