Financial Mechanisms for Sustainable Forest Management: Sharing Experiences from Latin America and Asia-Pacific

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Financial Mechanisms for Sustainable Forest Management in Southern Latin America

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Workshop – Southern Cone
Curitiba, March 2004
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- Brazil – Jefferson B. Mendes
- Chile – Victor Venegas
- Paraguay – Victor Vidal
- Uruguay – Ricardo Larrobla
Breakdown of Forestry in Southern Latin America

Land Area - 5.68 million km²

Population - 85.2 million

Forest Participation in the Land Use
(0.9% Planted Forest + 12.3% Native Forest)

Native and Planted Forest Area
(Million hectares)

- Planted Forest Area
- Native Forest Area

Area (Million Hectares)

Argentina | 33,2 | 1,12
Southern Brazil | 12,5 | 1,28
Chile | 13,4 | 2,20
Paraguay | 10,0 | 0,05
Uruguay | 0,65 | 0,8
# Forest Sector – Development Indicators in 2003

<table>
<thead>
<tr>
<th>Forest Sector Indicator</th>
<th>Argentina</th>
<th>Southern Brazil</th>
<th>Chile</th>
<th>Paraguay</th>
<th>Uruguay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry (Technology &amp; Development)</td>
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<tr>
<td>Forest Productivity</td>
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<tr>
<td>Tree breeding &amp; Forest Technology</td>
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<td>Conservation Areas</td>
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<td>Forest Product Exports</td>
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<tr>
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<td>Tree Farming</td>
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<td>Non-Gov. Financial Mechanisms</td>
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## Forestry & SFM in Southern Latin America

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- Forest Certification (FSC)</td>
<td>- Lack of Investments</td>
</tr>
<tr>
<td>- Export Market (planted forest)</td>
<td>- Exhaustion of Natural Forests</td>
</tr>
<tr>
<td>- Positive Income/Outcome Balance</td>
<td>- Ambiguous Legislation</td>
</tr>
<tr>
<td>- Conservation &amp; Preservation Incentives</td>
<td>- Agricultural Expansion over Forest Lands</td>
</tr>
<tr>
<td>- Growing Environmental Consciousness</td>
<td>- Limited knowledge regarding SFM importance</td>
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</tbody>
</table>

- Economic Instability
- Public institutions not well-prepared
• Financial Mechanisms
• Main Agents
• Main Target
Main Financial Mechanisms

**Applied**
- Fiscal Incentives
- Credit Lines
- Investment Funds (Timber Funds)
- Tree Farming Programs
- Regulatory Laws
- Cooperation Projects

**Potential**
- Ethical Funds
- Payments for Environmental Services
- Debt conversion Agreements
- Bioprospection Fund
Financial Mechanism x Agents x Financial Target

### Main Financial Mechanism

#### Applied
- Fiscal Incentives
- Credit Lines
- Investment Funds (TimberFunds)
- Tree Farming Programs
- Regulatory Laws
- Cooperation Projects

#### Potential
- Ethical Funds
- Payments for Environmental Services
- Debt conversion Agreements
- Bioprospection Fund

### Main Agents

<table>
<thead>
<tr>
<th>Federal Government</th>
<th>State Government</th>
<th>Private Sector</th>
<th>NGOs</th>
<th>International Agencies</th>
<th>Multilateral Agencies</th>
<th>Bilateral Agencies</th>
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### Main Targets

<table>
<thead>
<tr>
<th>Industrial Forests</th>
<th>Native Forest Management</th>
<th>Environmental Conservation</th>
<th>Environmental Goods and Services</th>
<th>Non-wood Forest Products</th>
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## Impact of Financial Mechanism on its Targets

### Financial Mechanism

<table>
<thead>
<tr>
<th>Applied</th>
<th>Fiscal Incentives</th>
<th>Credit Lines</th>
<th>Investment Funds (TimberFunds)</th>
<th>Tree Farming Programs</th>
<th>Regulatory Laws</th>
<th>Cooperation Projects</th>
<th>Potential</th>
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<td>Investment Funds (TimberFunds)</td>
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## Financial Mechanism and Main Agents Relationship

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<th>Financial Mechanism</th>
<th>Main Agents</th>
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<tr>
<td></td>
<td>Federal Government</td>
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## Financial Mechanisms - Fiscal Incentives (1966 up to 2000)

### Characteristics
- Fiscal renounce
- Cost-Covering (40% to 100%)
- Pre or Post-planting payment
- Land-tax reduction/exemption
- VAT reduction
- Subsidized Credit Lines (Planting, M&E, Export & Import...)

### Strengths & Weaknesses
- Focus on Industrial Forests
- Base for industrial & regional development
- Exotic species (Pinus & Eucalyptus)
- Mechanism finalized
- Launching a new economic cycle
- (Native → Planted)
- ± 5.3 million ha of Planted Forest
- Valuable productive chain (high positive input-output balance)
- Positive Import-Export Balance
- Saving Native Forest

### Weaknesses
- Land and Capital concentration
- Restricted Access (capital intensive - companies)
- Less transparency
## Financial Mechanisms – Credit Lines

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Strengths &amp; Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Usually Governmental Lines</td>
<td>• More democratic access</td>
</tr>
<tr>
<td>• Period for payment: up to 13 years</td>
<td>- traditionally: companies</td>
</tr>
<tr>
<td>• Grace period: up to 10 years</td>
<td>- recently: small and medium farms</td>
</tr>
<tr>
<td>• Guarantee demanded (0,6x up to 1,6x)</td>
<td>• Regional wood market formation</td>
</tr>
<tr>
<td>• Real interested rate subsided: (± 0% up to ± 6% per year)</td>
<td>• Productive chain expansion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics</th>
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</tr>
</thead>
<tbody>
<tr>
<td>• Forest Companies driving the farmers’ projects</td>
<td>• Bureaucratic process to get the loan</td>
</tr>
<tr>
<td>• Drive to traditional forests regions (Risk)</td>
<td>• Oligopsony Risk (Imperfect market)</td>
</tr>
<tr>
<td>• Discontinuation Risk due to economic and political Instabilities</td>
<td></td>
</tr>
</tbody>
</table>
## Financial Mechanisms – Tree Farming

### Characteristics
- Government & Private Sector Initiative (mainly)
- Donation of Seedling, Material and/or zero-interest-rate loans
- Technical Assistance
- Forest as loan guarantee
- Anticipated Purchase and/or Guarantee of Purchase
- Usually multiproduct forest management

### Strengths & Weaknesses
- ± 100,000 ha in the last few years
- Focus on industrial forest
- Reach small, medium and big-sized farmers
- Based on exotic species
- Alternative payment model (part of the wood production)
- Non-bureaucratic process
- Production diversification & Financial Reserve
- Low-cost of capital to plant Forests
- Use of marginal and degraded areas
- Low risk investment
- Regional development

- Drive to traditional forest regions
- Oligopsony Risk
- Dissociated from Industrial Policy
- Pressure on remaining native forests x Conservation Units Regulation
## Financial Mechanisms – Regulatory Law

### Characteristics
- Comprehensive Environmental Legislation (Brazil)
- Brazilian Forest Code (Brazil – 1965)
- “ICMS Ecológico” (Brazil – 1991)
- EIA – Environmental Impact Studies
- ECL - Environmental Crime Law (1998 – Brazil)

### Strengths & Weaknesses
- **Brazilian Forest Code:** [APP & RL – Permanent Preservation Area and Legal Reserve](#)
- **ICMS – Environmental VAT:** municipalities that create more conservation units, have more indigenous areas and traditional communities receive a surplus (+ 1.25%) of tax return (VAT - Value Added Tax).
- **ECL – environmental crimes:**
  - Permit to restrain ongoing environmental threats
  - Alternative sentences
  - Common & corporation responsibility
  - Asset confiscation
  - International cooperation
  - Meaning inflation fines
  - unbaial crime

### Ambiguous Legislation
- Lack of Law’s compliance
- Legal processes are slow
# Financial Mechanisms – Timber Investment Funds

## Characteristics

- Low risk investment
- Long-term investment
- 8% to 12% Internal Rate of Return
- Separate Account x Mutual funds
- Closed-end funds

## Strengths & Weaknesses

**Strengths**

- ± 200,000 ha
- Rising investments through timber funds
- Almost Foreign funds – International investment
- Opportunity for national funds
- Major boost to the forest sector
- Law compliance (social and environmental)
- Historical low financial risk investment
- Transparency
- Equator Principles Compliance (capital cost > US$ 50 million)
- Changing in the relation forest-industry ownership
- Forest, Environment and Social Certification

**Weaknesses**

- Capital intensive x Share Acquisition
- Land and Capital concentration
- Local funds are not participating yet
- Foreign Investor’s risk perception: economic, social and political instabilities, dissociations as for state policies (forest x industry x infra-structure)
# Financial Mechanisms – Cooperation Projects

## Characteristics

- **Bilateral Agencies:** CIDA, USAID, BMZ, KfW, GTZ
- **Multilateral Agencies:** World Bank, IADB, EDB, GEF, UNDP...
- **International Agencies:** FAO, PNUD, CATIE

## Strengths & Weaknesses

### Focus on:
- Conservation & Preservation
- Sustainable Management (social, environmental and economic)
- Infra-structure & Management
- Information & Technology
- Biodiversity
- Environmental Services
- Development of SFM in South America
- South America’s management integration

### Weaknesses
- Discontinuation
- Lack of result and action indicators
- Dissociation among projects
- Project Overlapping
Potential Financial Mechanisms
## Potential Financial Mechanisms

<table>
<thead>
<tr>
<th>Mechanism</th>
<th>Main Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethical Funds</td>
<td>• Sustainable management &amp; conservation</td>
</tr>
<tr>
<td></td>
<td>• Social-environmental approach</td>
</tr>
<tr>
<td>Payment for Environmental Services</td>
<td>• Environmental Goods and Services</td>
</tr>
<tr>
<td></td>
<td>• Watershed protection, biodiversity habitat and carbon storage</td>
</tr>
<tr>
<td>Debt Conversion Agreements</td>
<td>• Sustainable management &amp; conservation</td>
</tr>
<tr>
<td>Bioprospection Fund</td>
<td>• Biodiversity &amp; &quot;traditional communities&quot; sustainability</td>
</tr>
<tr>
<td></td>
<td>• Sustainable management &amp; conservation</td>
</tr>
</tbody>
</table>
Thank You

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Legal Conservation Units

- Tree Farming
- APP - Permanent Preservation Area (> 30 m)
- Legal Reserve (20%)
- Forest Planting