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

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**Jefferson B. Mendes
Eng. Florestal, M.Sc., MBA**

Financial Mechanisms for Sustainable Forest Management in Southern Latin America

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Eng. Florestal, M.Sc., MBA

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Consultant Team

- Argentina – Antonio Morlio
- Brazil – Jefferson B. Mendes
- Chile – Victor Venegas
- Paraguay – Victor Vidal
- Uruguay – Ricardo Larrobla

Breakdown of Forestry in Southern Latin America

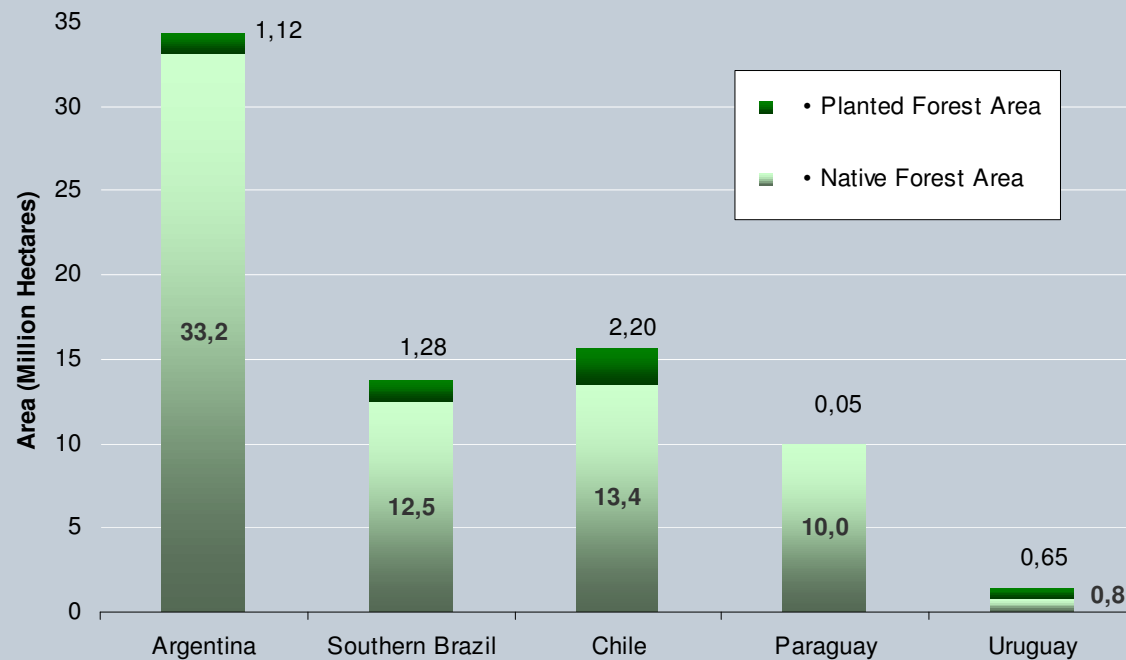
Land Area - 5,68 million km²

Population - 85,2 million

Forest Participation in the Land Use

(0,9% Planted Forest + 12,3% Native Forest)

Native and Planted Forest Area (Million hectare)



Forest Sector – Development Indicators in 2003

Forest Sector Indicator	Argentina	Southern Brazil	Chile	Paraguay	Uruguay
Industry (Technology & Development)	→	↑	↑	↘	→
Forest Productivity	↗	↑	↗	↗	↗
Tree breeding & Forest Technology	↑	↑	↑		↑
International Investments	↗	↑	↑		↑
Forest Development Policies	↗	↗	↑		↑
Conservation Areas		↗			
Forest Product Exports		↑	↑		
Politic & Economic Situation	↘	↗	↑	↘	↑
Environmental Legislation	↘	↘	↘	↘	↘
Sustainable Forest Management	↘	↘	↘	↘	↘
Tree Farming	↘	↗	↘	↘	↘
Non-Gov. Financial Mechanisms	↘	↘	↘	↘	↘
Information Availability				↘	↘

SFM – Sustainable Forest Management

Forestry & SFM in Southern Latin America

Strengths

- Forest Certification (FSC)
- Export Market (planted forest)
- Positive Income/Outcome Balance
- Conservation & Preservation Incentives
- Growing Environmental Consciousness

Weaknesses

- Lack of Investments
- Exhaustion of Natural Forests
- Ambiguous Legislation
- Agricultural Expansion over Forest Lands
- Limited knowledge regarding SFM importance
- 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	Potential
Fiscal Incentives Credit Lines Investment Funds (TimberFunds) Tree Farming Programs Regulatory Laws Cooperation Projects	Ethical Funds Payments for Environmental Services Debt conversion Agreements Bioprospection Fund

Main Agents						
Federal Government	State Government	Private Sector	NGOs	International Agencies	Multilateral Agencies	Bilateral Agencies

Main Targets				
Industrial Forests	Native Forest Management	Environmental Conservation	Environmental Goods and Services	Non-wood Forest Products

Impact of Financial Mechanism on its Targets

Financial Mechanism		Main Targets				
		Industrial Forests	Native Forest Management	Environmental Conservation	Environmental Goods and Services	Non-wood Forest Products
<u>Applied</u>	Fiscal Incentives	•		•		
	Credit Lines	•	•			•
	Investment Funds (TimberFunds)	•				
	Tree Farming Programs	•		•		
	Regulatory Laws		•	•	•	
	Cooperation Projects		•	•	•	•
<u>Potential</u>	Ethical Funds		•	•	•	•
	Payments for Environmental Services			•	•	
	Debt conversion Agreements		•	•	•	•
	Bioprospection Fund		•	•	•	•

Financial Mechanism and Main Agents Relationship

Financial Mechanism		Main Agents				
		Federal Government	State Government	Private Sector	NGOs	International Agencies
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	•	•	•	•	•

Applied Financial Mechanisms

**Characterization,
Strengths & Weaknesses**

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)
- $\pm 5,3$ million ha of Planted Forest
- Valuable productive chain (high positive input-output balance)
- Positive Import-Export Balance
- Saving Native Forest

- Land and Capital concentration
- Restricted Access (capital intensive - companies)
- Less transparency

Financial Mechanisms – Credit Lines

Characteristics

- Usually Governmental Lines
- Period for payment: up to 13 years
- Grace period: up to 10 years
- Guarantee demanded (0,6x up to 1,6x)
- Real interested rate subsidized: (\pm 0% up to \pm 6% per year)

Strengths & Weaknesses

- More democratic access
 - traditionally: companies
 - recently: small and medium farms
 - Regional wood market formation
 - Productive chain expansion
 - Low real rate
 - Tree farming increasing
 - Low risk investment
 - Conservation Unit Regulation (PPA + LR)
-
- Forest Companies driving the farmers' projects
 - Bureaucratic process to get the loan
 - Drive to traditional forests regions (Risk)
 - Oligopsony Risk (Imperfect market)
 - Discontinuation Risk due to economic and political Instabilities

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

- $\pm 100,000$ 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

- ± 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
-
- 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
-
- Discontinuation
 - Lack of result and action indicators
 - Dissociation among projects
 - Project Overlapping

Potential Financial Mechanisms

Potential Financial Mechanisms

Mechanism	Main Function
Ethical Funds	<ul style="list-style-type: none">• Sustainable management & conservation• Social-environmental approach
Payment for Environmental Services	<ul style="list-style-type: none">• Environmental Goods and Services• Watershed protection, biodiversity habitat and carbon storage
Debt Conversion Agreements	<ul style="list-style-type: none">• Sustainable management & conservation
Bioprospection Fund	<ul style="list-style-type: none">• Biodiversity & "traditional communities" sustainability• Sustainable management & conservation



Thank You

Jefferson B. Mendes
Eng. Florestal, M.Sc., MBA
jbmendes@silviconsult.com.br

Legal Conservation Units



Tree Farming

