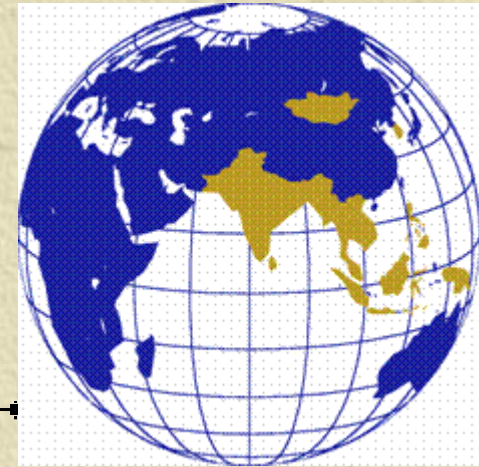


# *Financial Mechanisms for Sustainable Forest Management*

## *Sharing Experiences from Latin America and Asia-pacific*



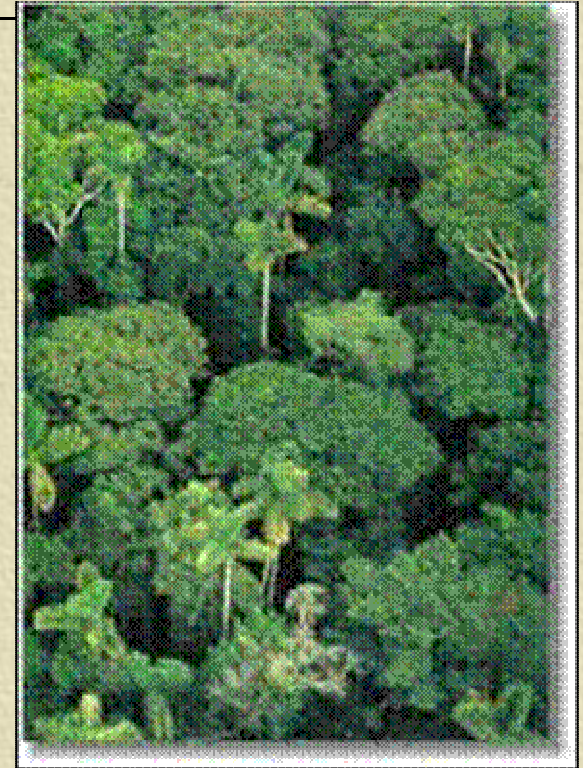
*Financing sustainable use and conservation of forests*  
*Amazon Region*

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*Inter-regional Workshop*  
*Chiang Mai, Thailand*  
*November 20, 2006*



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\*\*From Amazon Region Studies (nov/06)

# 1. Executive Summary

✦ **Presentation Objective:** Share experiences of traditional and innovative systems of financing sustainable forest management for the wide range of products and services provided by forests.

✦ **Goal:**

- ✦ Chart new initiatives and activities to strengthen future development in both regions.
- ✦ Implement new and innovative finance mechanisms.....

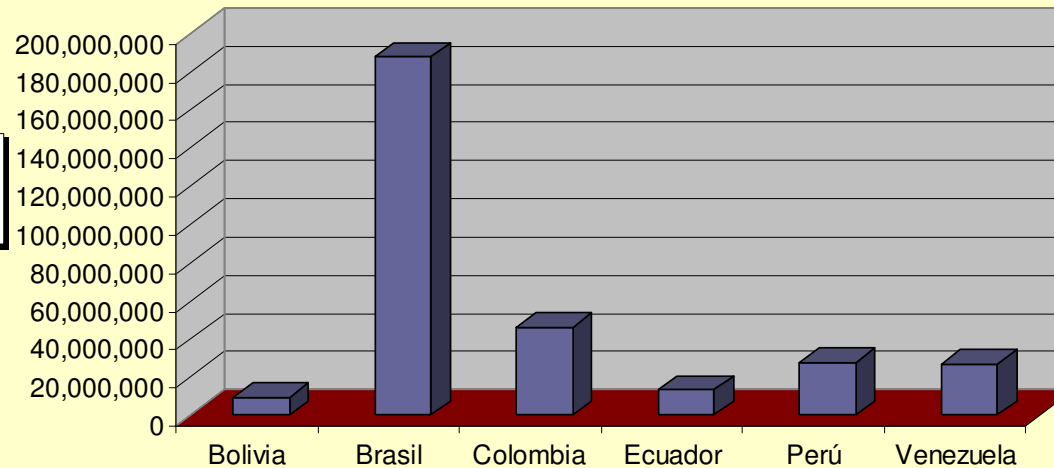
..... **right now !!!**



## 2. General Statistics

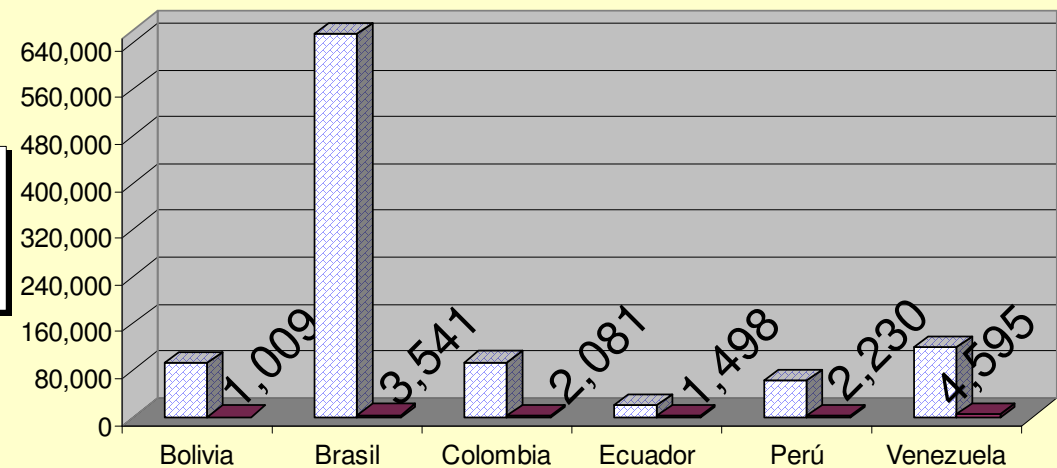
TOTAL POPULATION

People



Constant Prices 2000

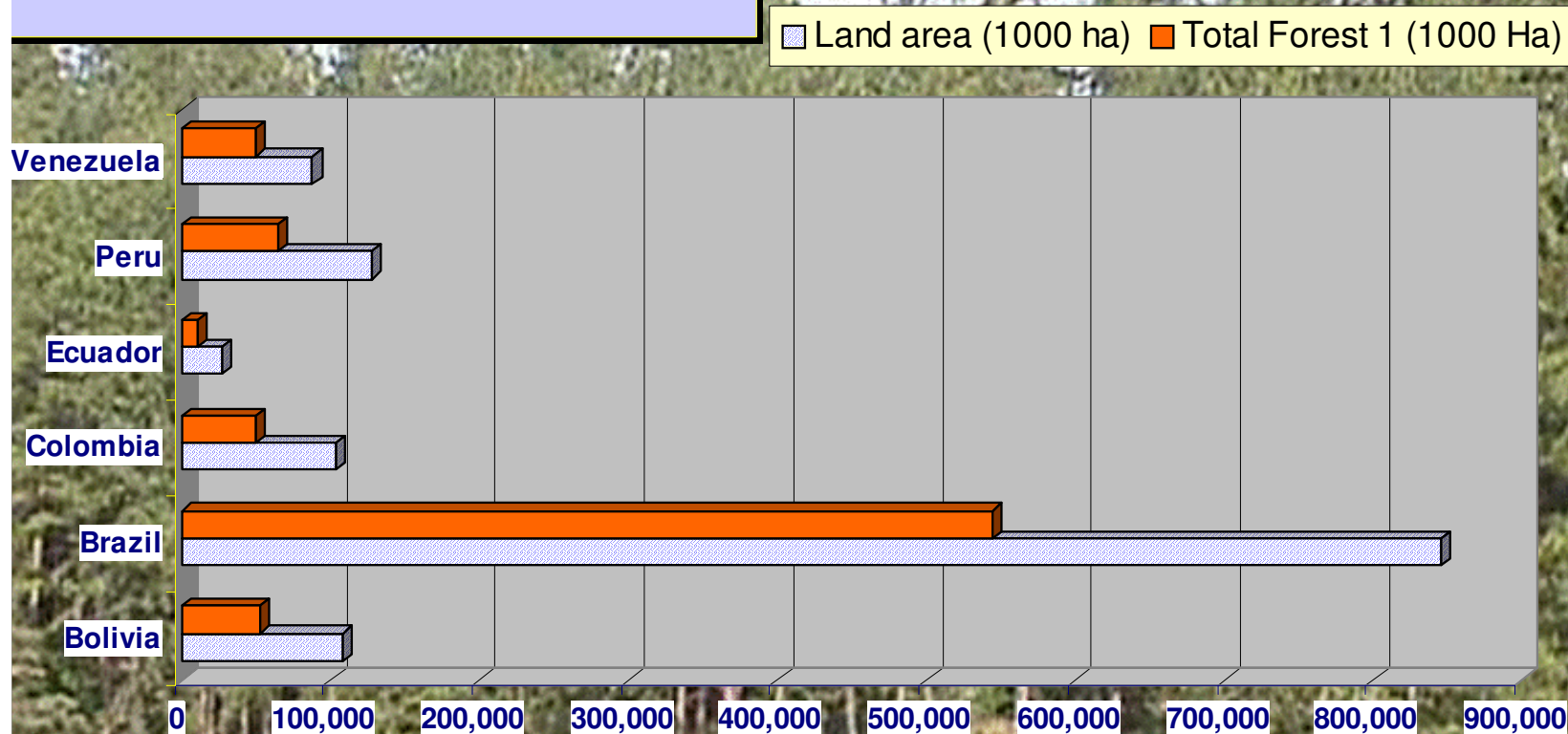
US\$ Mill



Gross Domestic Product

Per Capita Gross Domestic Product

## Forest Resources - 2000



## 2. General Statistics

Country	Forest Area 2000				
	Percentage of Land Area (%)	Area Per Capita (Ha)	Forest Plantations (1000 Ha)	Wood Volume in Forest 2 (m3/ha)	Wood Biomass in Forest 3 (T/Ha)
Bolivia	48,9	6,5	46	114	183
Brazil	64,3	3,2	4,982	131	209
Colombia	47,8	1,2	141	108	196
Ecuador	38,1	0,9	167	121	151
Peru	50,9	2,6	640	158	245
Venezuela	56,1	2,1	863	134	233

1 Total natural and forest plantations.

2 Volume over bark of living trees above 10 cm diameter at breast height.

3 Mass of the woody part above ground, that includes the stem, bark, branches and twigs.

Source: FAO, 2001. Global forest resources assessment-2000. Main Report, FAO Forestry



## 2. General Statistics

### FOREST PRODUCTION AND TRADE, Year 2003

Country	Roundwood production1 (1 000 m3)	Sawnwood production (1 000 m3)	Wood-based panels production2	Wood pulp production3	Imports of forest products	Exports of forest products
<b>Bolivia</b>	2 856	347	12		35 514	28 462
<b>Brazil</b>	238 536	21,200	6 283	8,869	728 253	2 830 024
<b>Colombia</b>	9 959	599	207	209	415 446	142 829
<b>Ecuador</b>	6 263	750	196	2	270 931	95,213
<b>Peru</b>	10 265	557	56		234 316	93,905
<b>Venezuela</b>	5 034	501	302	268	190 898	98,277

1. Represents the sum of wood fuel, including wood for charcoal, sawlogs and veneer logs; pulpwood, round and split.

2. Represents the sum of veneer sheets, plywood, particle board and fibre board.

3. Represents the sum of mechanical wood pulp, semi-chemical wood pulp, chemical wood pulp and dissolving wood pulp.

Source: FAO, Yearbook of Forest Products, 2003.



# 3. Traditional and innovative Finance Mechanisms

## Financing Sources and Instruments for Forest Management Investments

	Traditional	Innovative	Forestry			Implementation					
			Production	Social	Environmental	Bolivia	Brazil	Colombia	Ecuador	Perú	Venezuela
Credit Lines and Project Financing						**					
Bank credit lines (including SME and micro-credits)	X		X	X		H	H	M	L	N	
Targeted grants	X	X	X	X	X	H	H	M	H	M	
Project loans grants from international agencies	X	X	X	X	X	H	H	M	M	M	
Debt-related instruments (debt-for-nature swaps)		X			X	L	L	L	M	M	
Environmental and Forestry Funds											
National forestry funds	X		X	X	X	H	H	H	H	H	
Environmental funds	X			X	X	M	M	M	M	M	
Conservation trust funds		X			X	H	H	M	H	L	
Market Development Instruments											
Forestry-based carbon offset payments		X			X	M	M	L	M	L	
Water resource use charges		X		X	X	M	M	H	H	L	
Tradable development rights/extraction quotas	X	X	X	X	X	H	M	M	H	L	
Tradable protection right payments		X			X	H	M	M	H	L	
Bioprospecting fees		X		X	X	M	M	L	M	L	
Private Capital Instruments											
Venture capital funds		X	X		X	M	M	L	M	M	
Securitization		X	X	(X)		N	N	L	N	N	
Guarantees (policy guarantees, forest business guarantees)	X	X	X		(X)	L	L	L	L	L	
Grants by Philanthropies, NGOs											
Conservation grants	X	X			X	M	M	M	M	M	
Research and development grants		X	(X)	X	X	M	M	M	M	L	
No reimbursable social development financing	X	X		X		L	L	L	L	L	
Sustainable forest business development grants		X	X	(X)		M	M	M	M	M	
	Source: Inter-American Development Bank; Forest Financing in Latin America; Feb/2002										
	Key: X applicable, (X) applicable but with limitations					High (H); Medium (M); Low (L); None (N) Own Adaptation: Jorge Muñoz Nov/06					
						Based on "Estrategías y mecanismos financieros para la conservación y el uso sostenible de los bosques" studies to the Amazon Region - Nov/06					
	** Not available										



## 4. Finance Mean Conclusions and Suggestions \*\*

### HIGHLIGHTS

1. Not enough "finance mechanisms" to guaranty forestry activities and sustainable forest management sfm; There is no only one recipe; Shall to consider multiple factors
2. Limited markets to the forest goods and very reduced markets to the forest services ;;;
3. Financial disadvantages of the Forestry Sector such as the long time return vs. short time activities or expectations of the bankers and the investors
4. Non acceptable guaranties ( rapidly convertible in cash) to financial sector from forestry activity.

### SUGGESTIONS

1. Interinstitutional coalition and conciliation; including participation of private sector with an integral proposal of a General Forestry Law which allows to modernize regulations for the forestry resources management, conservation, and use, in line with the current needs of the different Sectors
2. Consolidate industrial forestry sector to access national and international markets with high quality competitive products and well categorized forest services
3. "Bridge" mechanisms (equity investments, venture capital founds) to join unproductive forest periods with finance sources expectations. Estimule international long-term private investment abroad in the forestry sector
4. Structure guaranty systems from forest sector. Forest Risk Capital Funds



## 4. Finance Mean Conclusions and Suggestions \*\*

### HIGHLIGHTS

5. In terms of value and volume, inaccurate information about finance supply resources, just as, goals of

National Forestry Programmes. Does not exist National Forestry Plans Finance Strategies NFPFS

6. Undervaluation of forests and timber

7. Inaccurate information about forest prices and markets in order to make investment and financing decisions

8. Forestry stakeholders ignorance about Capital Markets opportunities

### SUGGESTIONS

5. Budget financial resources vs. goals of National Programmes of Forestry. Development of The National Forest Plans Finance Strategies NFPFS

6. Develop Models for Economic Valuation of forests and timber

7. Stimule and create National or Regional Private Forestry Register Offices to keep statistical and trade information of the whole forestry activity; to be available to general public (e.g.. investors, banks)

8. Attract domestic and foreign investment with the international technical co-operation to dynamize the generation of Capital Markets opportunities

## 4. Finance Mean Conclusions and Suggestions \*\*

### HIGHLIGHTS

**9. Finance and forestry sectors: Mutually strangers**

**10. General perception of high risk associate to the growing forest activity**

**11. Major financing to the forest plantations, passing over sustainable forest management sfm**

**12. Little contribution of the Forestry Sector to the Gross Domestic Product GDP : < 5%**

### SUGGESTIONS

**9. Promotion of Forestry into Finance Sector; A competitive strategy for funding to the Forestry Sector**

**10. Map of forest risks and coverages in order to minimize false perception; Prepare a programme on forestry and environmental education and public information.**

**11. Consolidate environmental services collection and payment system as a financial mechanism to support the development of the Forestry Sector, by means of the creation of a national environmental services market**

**12. Integral promotion of wood and non wood for domestic consumption and for exports in international events; Support to products marketing; Economic and fiscal benefits to the producers and exporters.**



## 4. Finance Mean Conclusions and Suggestions \*\*

### HIGHLIGHTS

13. Economic advantages of other land use compared to sustainable forest management; occupation of lands devoted to permanent forestry production

14. Legal uncertainty; insecurity in relation to land tenure and illegal logging

15. Payment for environmental forest goods and services do not included in Free Trade Agreements

16. Precarious monitoring, control y evaluation systems

### SUGGESTIONS

13. A sectorial and cross-sectorial coordination mechanism; Generation of value added and competitiveness improvement

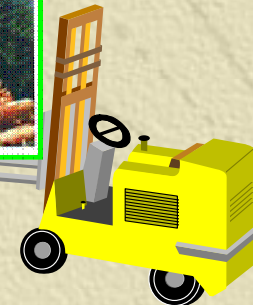
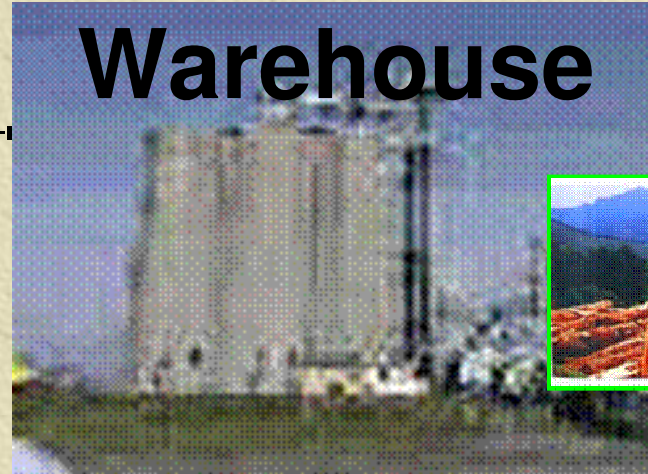
14. Application of the Sustainable Forestry Development Strategy and implementation or reform to the forestry law regulations under the basic principles of sustainable forestry management; Structure an illegal logging prevention strategy; guarantee a proper implementation

15. Coordination of government participation at different levels and of society as a whole in the planning and execution of its respective Free Trade Agreements

16. Private and Public Supervision and Control of Forest plans, programmes and projects.

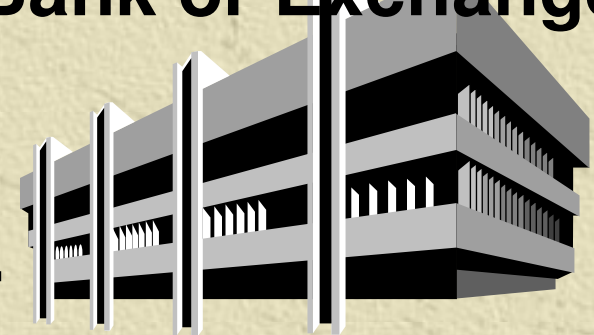
## 5. A successful forestry finance method developed by Bolivia and Colombia

Warehouse



Bank or Exchange

Certificate of Deposit



Loan = Bank

Alternative financing = Private Investors



# *Repo's Advantages*

## *To The Investors*

- ◆ *Innovative Mechanism of Investment*
- ◆ *Risk / Portfolio Diversification*
- ◆ *Competitive Profitability*
- ◆ *Independent Risk Evaluation From Forestry Activity*
- ◆ *Liquid Market "Paper"*
- ◆ *Banking or exchange Safety and Trust*

## *To The Forestry Stakeholders*

*Competitive Cost*

*Permanent Cash Flow*

*Rollover*

*Don't lose stocks*

*Wood is guarantee*

## 6. *Forestry Securitization*

Is the process of conversion of existing assets (any commodity) or future cash flows into marketable securities.



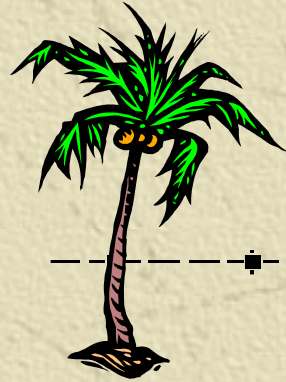
Securitization deals with the conversion of assets which are not marketable into marketable ones.

### ***Capital Markets:***

Is the alternative to credit lines or traditional bank resources



# General Structure



*Forward contract*

*Constant Value; No prices*



**Trustee**

**Payment Guarantee**

**Forestry / Wood  
Trade / Sawmill  
Enterprise**

**Payment**

**Flow of Funds**

**Payment  
Right Cession  
of Forward  
Contract**

**Local  
Trust/  
Trustee**

**INVESTORS**

**“Green”  
Values**

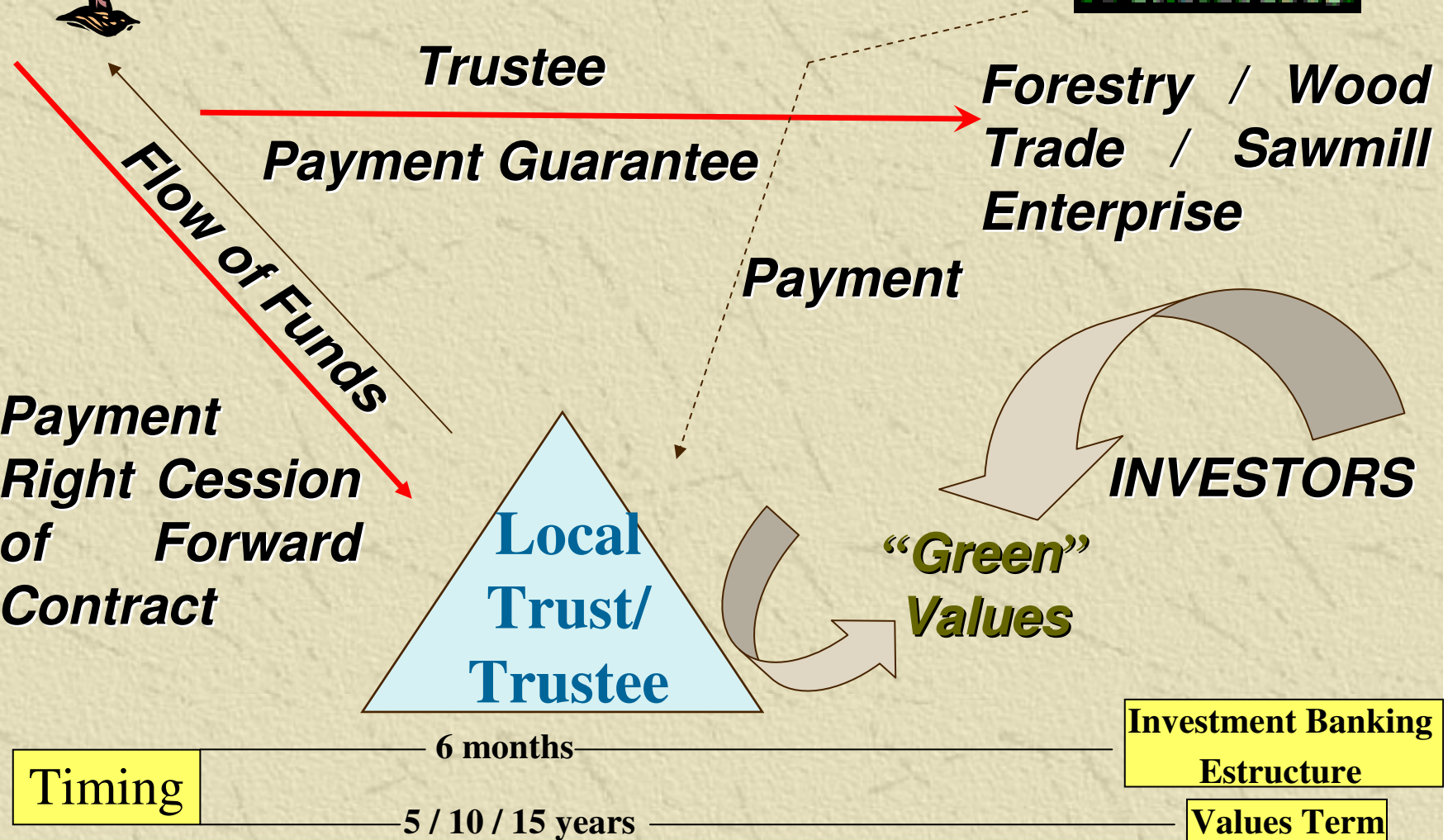
**Timing**

6 months

5 / 10 / 15 years

**Investment Banking  
Estructure**

**Values Term**



# Securitization Benefits

## Finance and Economics

Economic growth of developing countries and emerging markets

Canalize Finance and Investment Funds

No maximum investment size

Low-cost for economy scale and investment size

Innovative financing mechanism

## Forest

Long-term private investment abroad

Build forestry acceptable guarantees

Explicitly covers and transfer risks

Link Forest Sector and Capital Markets

Long-term contracts = Safe Markets

Competitive products or services in local and world markets

Remunerative trade conditions (market access, prices)

Carbon sequestration “included”

Directing fund flows to SFM

**Use for:** New plantation projects, joint venture, acquisition, expansion, modernization and restructuring of debt

## Social

Commercial strengths

Social development

More job

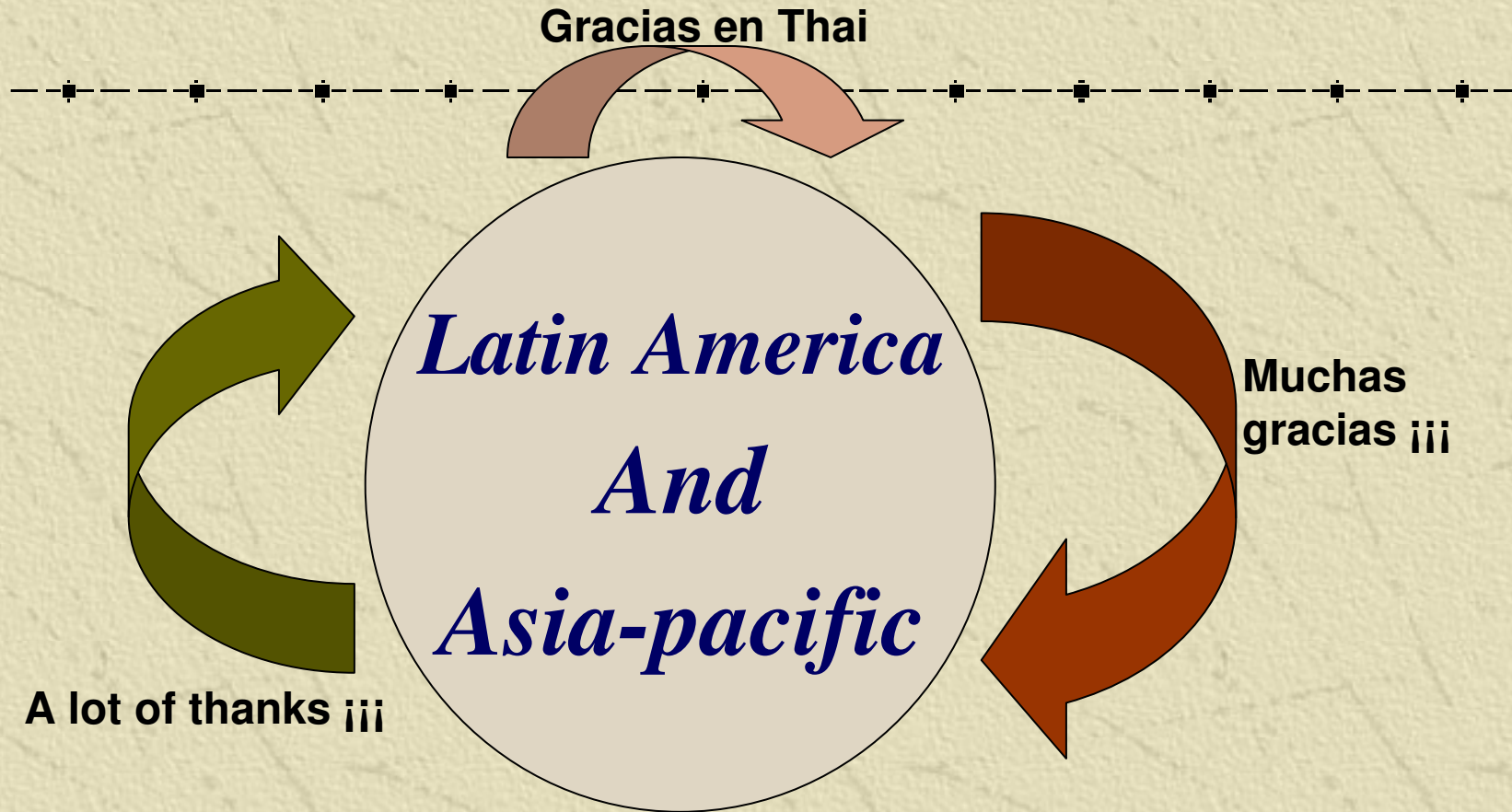
Open to all countries, involving beneficiaries and financing sources in decision-making

Access to financing and financial stability



# Jorge Alexander Muñoz Sánchez

## Investment Banking to The Forest



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