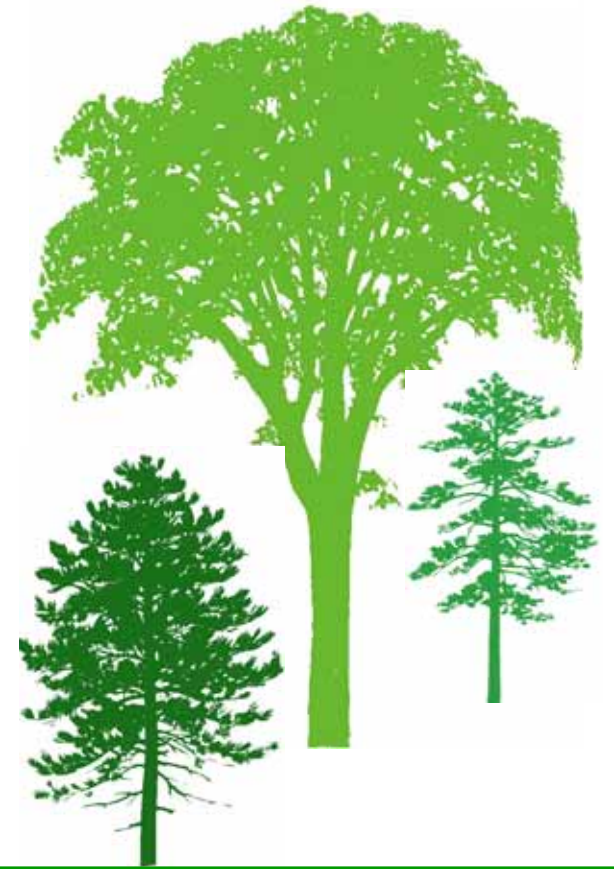


ForestRe

Forestry Preparation for international Investors

Preparação para Investidores Florestais Internacionais



ITTO Presentation by Phil Cottle, CEO ForestRe

23-24 November 2006; Curitiba, Brazil

Contents

Conteúdo



- ❑ **Why, what is ForestRe?**
- ❑ **Origins & size of institutional investment**
- ❑ **Structure & market players**
- ❑ **Timberland demand drivers**
- ❑ **Growing the business & attracting international Investment**
- ❑ **Sources**



ForestRe?

ForestRe: Specialist Insurance



ForestRe: Especialista em Seguro

- ❑ established in 2005
- ❑ London A rating expected in 2007
- ❑ as a new dedicated mono-line forestry insurance company
- ❑ to insure:
 - natural forest**
 - reafforestation & afforestation**
 - plantations**
 - tree crops &**
 - biofuel feedstocks**



Lloyd's of London building

ForestRe Mission

ForestRe: Missão



- ❑ **to increase significantly the insurance capacity for forest & tree crop enterprises**
- ❑ **to focus on small forestry enterprises so...**
- ❑ **to facilitate finance & investment into all forestry as an asset class supported by conventional and environmental revenue streams (water, carbon, biofuels...)**

Presentation Objective

Objetivo da Apresentação



- ❑ To review the appetite of international financial markets for timberland, generically and within emerging and advanced developing economies
 - ❑ Quite different from forest products finance
 - ❑ What is the basis of institutional demand for forestry?
- ❑ What do 'city' investors bring to forestry sector?
- ❑ How may forestry enterprises attract international investment?

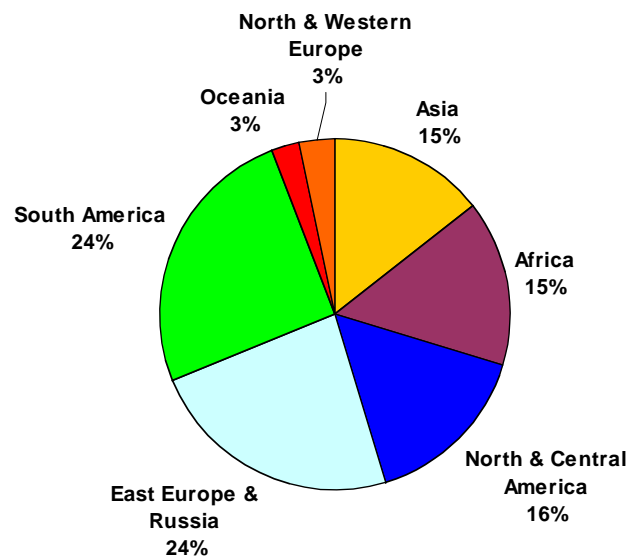
Forests, Production & Investment

Floresta, Produção e Investimento em terras para a produção em conjunto com a comunidade local visando a preservação

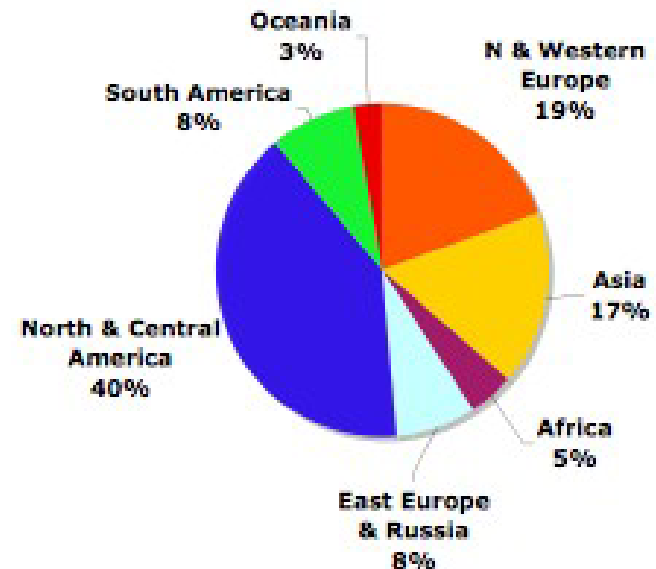


Weak correlation between forest area and production:

Distribution of Global Area of Natural & Plantation Forest by Continent



Distribution of Global Production of Round Wood by Continent (FAO 1998)



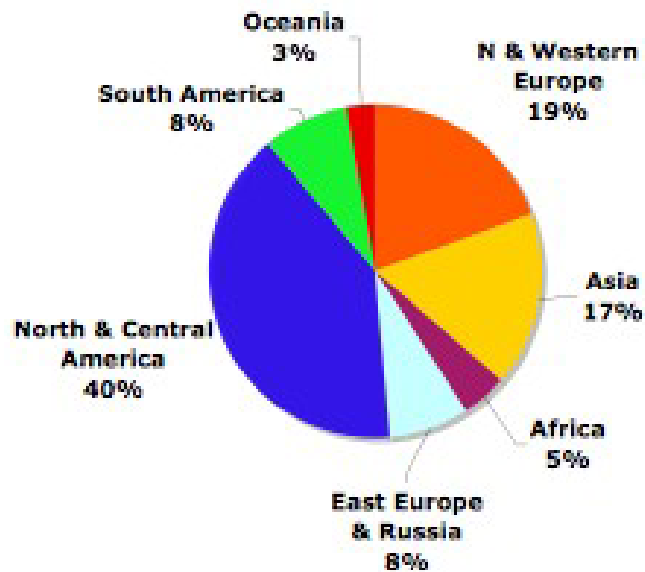
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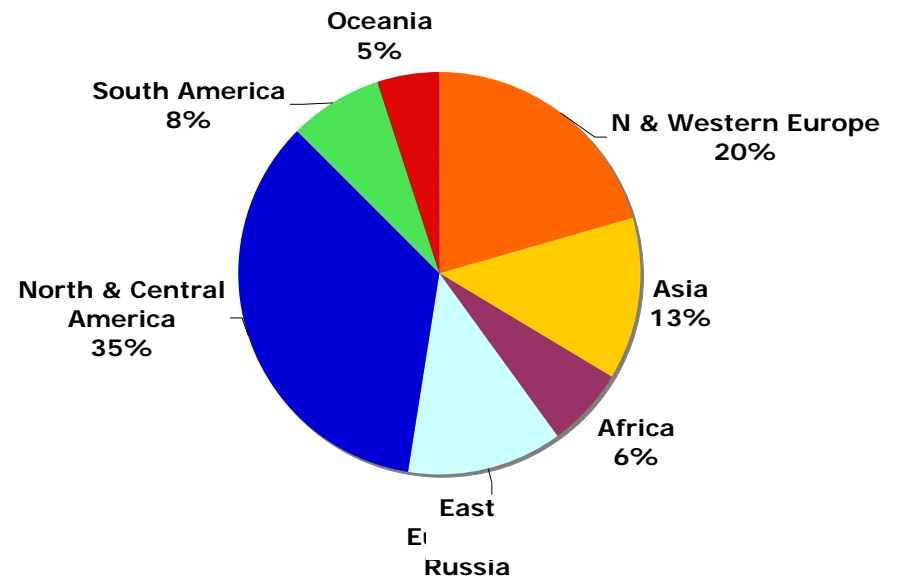


Better correlation between forest production & investibility

Distribution of Global Production of Round Wood by Continent (FAO 1998)



Value of Investable Forestry (US\$473,956m excluding high risk nations)

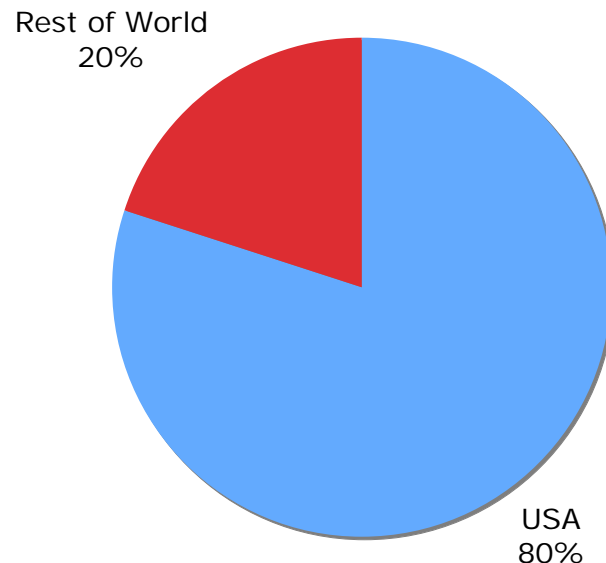


Investment dominated by the USA

Investimentos em florestas para produção em conjunto com a comunidade local dominado pelos EUA



Most of the current institutional investment is in the USA



Huge domination by the USA.

Factors

- International competition forced forest product companies to restructure responding to low cost fibre
- Vibrant log market
- Stable
- Low risk
- Good financial infrastructure

Rest of world:

Australia, new Zealand, South Africa, Brazil, Chile, Argentina, Asia

Origin of Institutional Investment

Origem do Investimento Institucional



Transition towards Institutional investors

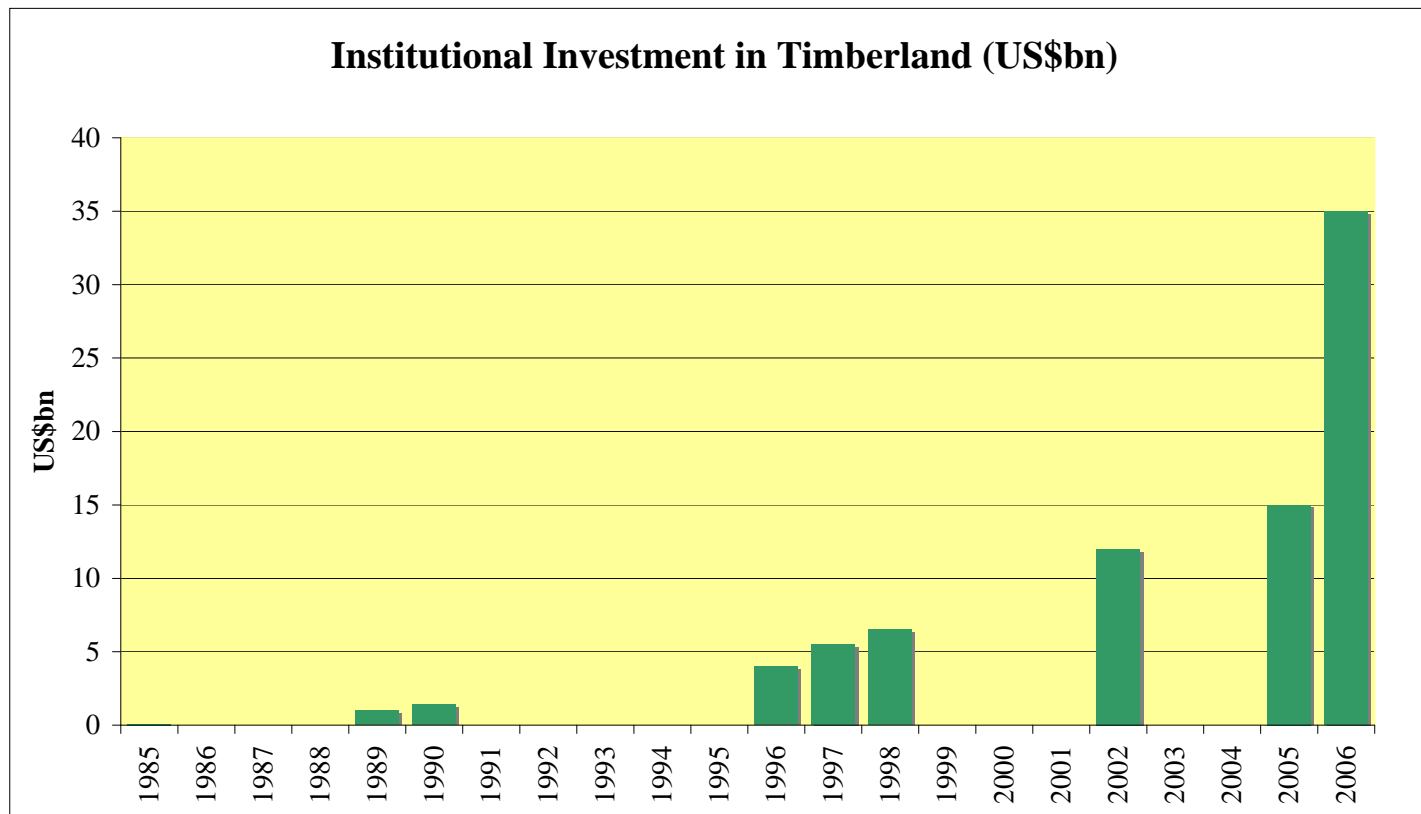
- ❑ 1980s:- timber land transactions all between forest products companies
- ❑ Accounted for only 18% timber area (rest = private owners)
- ❑ Cyclical prices put product companies under financial spotlight
- ❑ Restructuring, taking timberland off balance sheet at low prices reflecting their 'book' value.
- ❑ Bought cheaply by institutions, installed professional managers
- ❑ New performance targets (ROI) not cheap timber supplies for mills.
- ❑ New class of investor emerged driven by ERISA - US law on retirement income security.
- ❑ These new investors accounted for 60% of transactions in 1990s

Rapid Increase in Invested \$



Rápido crescimento do dinheiro investido

Investment increased from US\$1bn 1989 to US\$35bn 2007



USA Timberland Investment 2006

Investimento dos EUA em Áreas de Plantações para Corte em 2006



- ❑ Institutional investment community US\$35bn
- ❑ Private Owners US\$150bn
- ❑ Forest Products US\$ 50bn

Note: proportions vary by source of information

- ❑ Still only 8% to 15% total timberland investment is by institutions. This is probably in excess of potential in new economies in the medium term.

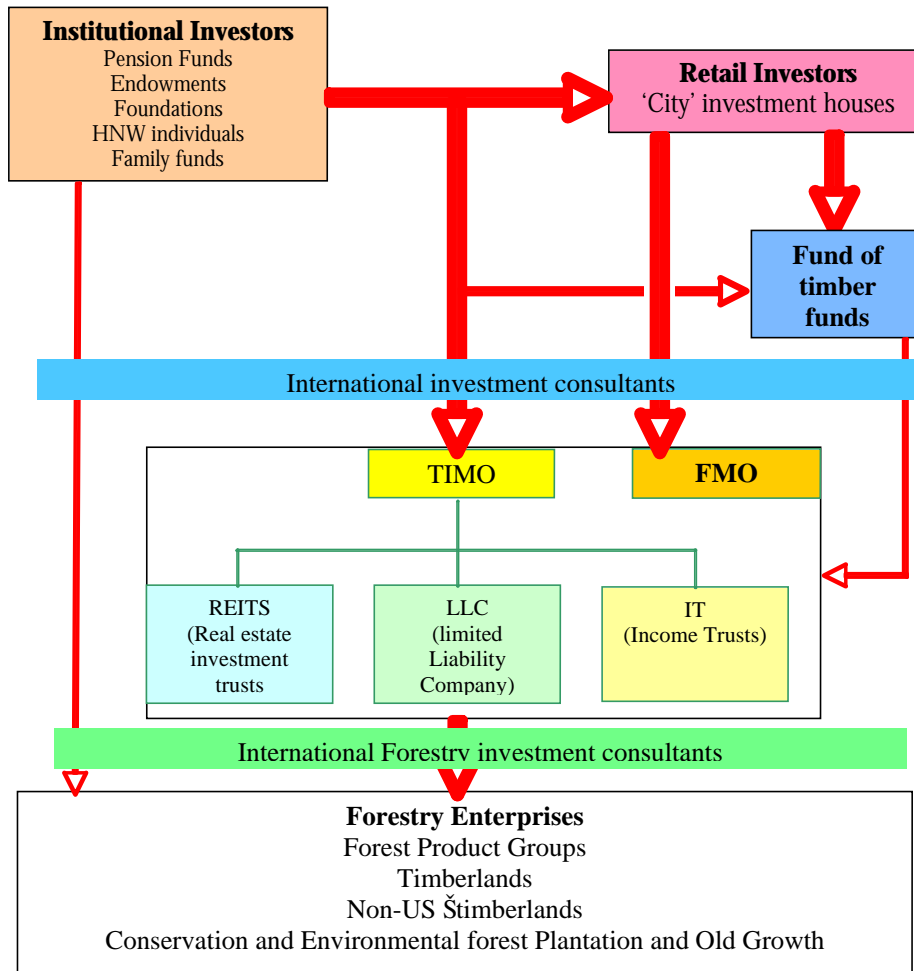


Institutional Investors Structure & Market Players

Investidores Institucionais Estrutura & Apostadores de Mercado

Overview Investment Sector

Vista Geral do Setor de Investimento



© ForestRe Limited 2006

Huge domination by USA

TIMO

- Timber Investment Management Organisations

FMO

- Forest Management Organisation
- Note that non-USA timberlands and old growth forests are very much a specialist market and form a minute proportion of propositions.

Note Investors:

- roughly 20% short term, high annual returns 20% - 30% ('level 1')
- Balance = 80% L-term looking for about 8% p.a. over 25 - 30 years (level 2') ¹⁴

Some Institutional Examples

Exemplos de Instituições



Type of investment Vehicle	Some Corporate examples
TIMO	Campbell Group ,Portland Oregon, USA: US\$6.5bn Forest Capital Partners, Boston USA: US\$1.6bn Forest Investment Associates, Atlanta, USA; US\$ 200m Forestland Group, NC USA: All FSC certified GMO Renewable Resources LLC – Harvard had 10% in forestry US\$2.6bn Hancock Natural Resources Forest Land Group LLC Plum Creek LLC TimberWest LP RMK Timberland Group
Timber Companies REITS	Weyerhaeuser Pope & Talbot International Paper Rayonier
FMO	Al Pac (Canada) New Forests, The Nature Conservancy Global Forest

TIMOs



- ❑ Specialist and identify timberland portfolio globally
- ❑ Raise funds to invest (35% - 60%; debt - equity)
- ❑ Strong asset base of owned or leased land with 8%-15% returns according to risk profile based on products (and eco-services)
- ❑ Cash flow projection is key in amount and timing (immediately or back-loaded (latter being greater risk))
- ❑ Will use securitisation to attract investor funds
- ❑ REITS are general investment vehicles, not timber only.

FMOs



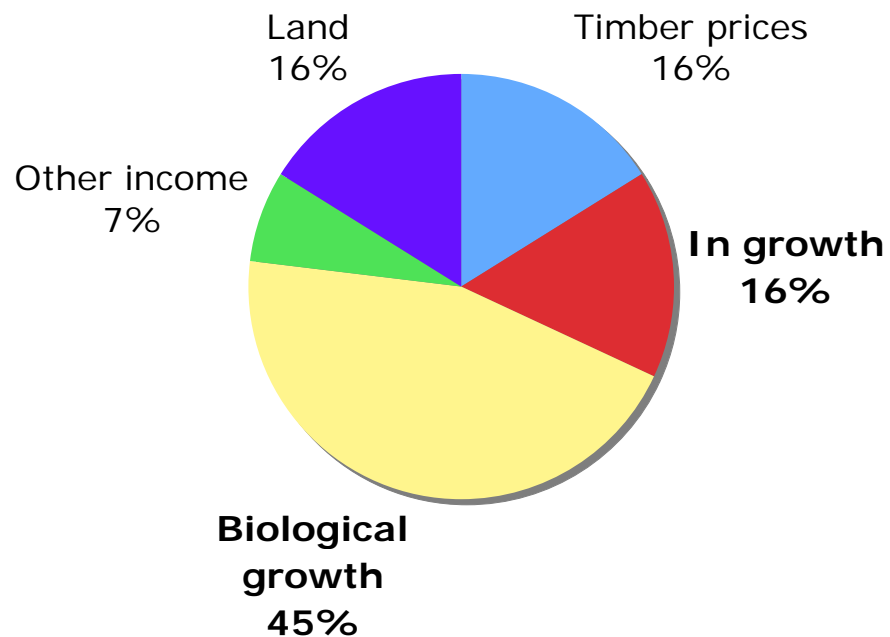
- ❑ Select and manage own forests, adding value through intensive management expertise
- ❑ Hands-on, using advanced analytical tools for optimum asset management, growth models, timber price movements
- ❑ Heavy use of forestry consultants in management and may focus on additional non-timber income streams
- ❑ Can enter participatory agreement with landowners
 - Site preparation and management, or
 - As contract grower model with guaranteed min price for harvested timber

Basis of Timberland Returns

Base de Retorno de Áreas de Plantações para Corte



Components: Timberland Average Returns USA



QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Other Timberland Incentives

Outros Incentivos à Áreas de Plantações para Corte



- ❑ Tax advantages (UK, NZ, Australia, Germany)
- ❑ Subsidies to costs of inputs from credit to physical requisites (Chile [Law 701], Brazil , Uruguay, Panama)
- ❑ Brazil has cheaper loans from BNDES, the development bank and other tax advantages.

But

- ❑ **Never the main reason for investment.**



Timberland Demand Drivers

Tendência da Demanda no setor Florestal

Timberland; USA Supply Issues

Florestas de produção; questões sobre fornecimento nos EUA.



- ❑ decrease in sales of government timberland now at about 29% area sold
- ❑ increase in land use for conservation and primary environmental objectives (TNC purchases)
- ❑ changing legislation protecting forests for flora and fauna preservation - impacts on timber harvesting.

Consequently

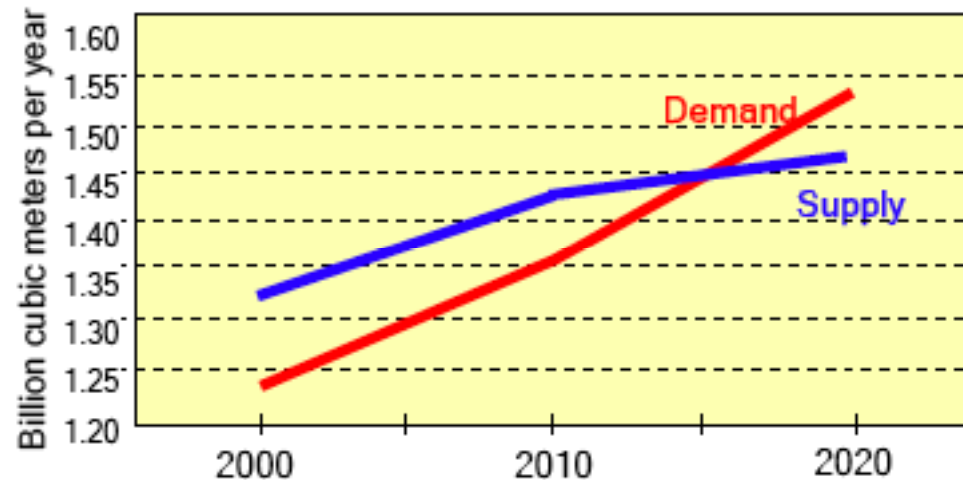
- ❑ **institutional investors looking outside of USA for prospects**

Demand for Forestry Products



Demanda para Produtos do Setor Florestal

- ❑ Reduced availability of [mixed tropical] hardwoods for fibre supply to plantation-based production (=> > > increased UPFRONT investment demands and thus risk)
- ❑ FAO forecast increased fibre demands of 1.7% annually from 1.5billion m³ to 1.9bn m³
- ❑ Yet companies divesting themselves of timberlands



Demand for Forestry Products



Demanda para Produtos do Setor Florestal

- Wood product demand proportional to:
 - global population growth
 - economic development from BRIC countries
 - Increases in disposable income
 - increase interest in timber as substitutes for building (energy content).

Forestry Demand Trends

Tendência da Demanda no setor Florestal



- ❑ Forestry demand also responding to:
 - triple bottom line investment goals
 - emerging markets for environmental services, carbon, water excluded hitherto from cash flows etc.
 - increasing appetite for alternative investments that are countercyclical and
 - offers opportunity for long term (30+ years) securitisation for the pension sector. A bond like structurebut
- **All these dependent on a physical demand for forest products and environmental services. Poyry estimate another 12% of production needed (3m tonnes).**

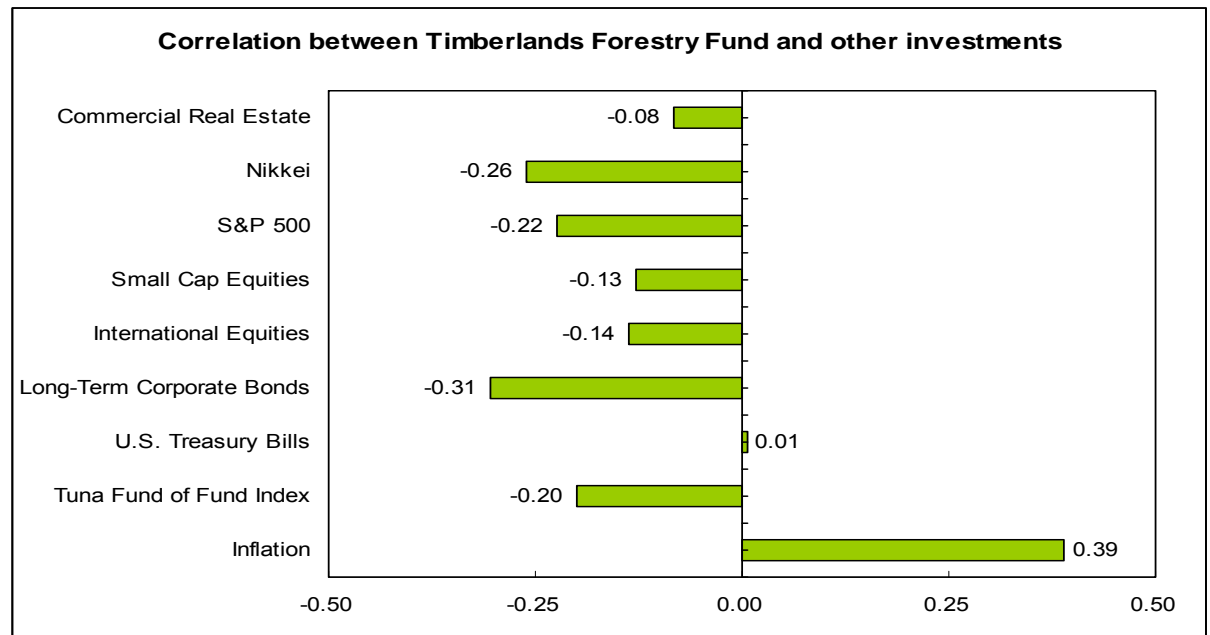
Forestry as an Asset class

Florestas como classe de ativos



□ In particular:

- Perceived as low risk, low volatility asset class
- attractive risk-adjusted returns (5% - 14% ∞ to region) over risk free rate (gov't bonds at almost 5%)
- negative correlation to other asset classes - when the market is down timberland/forestry tends to be up, which causes it to function as an effective, counter-cyclical hedge
- => benefits to a multi-asset portfolio



Forestry as Secure Bond?

Setor Florestal como Título de Seguro



Much present investor activity in forestry as a L-T bond

- ❑ compelling reason is that forestry can match long term liabilities of pension funds over 20-30 years
- ❑ both based on biological growth with forest hardwoods maturing at the time that a pensions holder want his income after 35 years
- ❑ age profile determines yield and liability (forestry and people) - a perfect hedge?
- ❑ One estimate international investor demand at US\$300 billion (X10 current levels)
- ❑ IFC and DFID funded work by Enviro-markets Ltd (working with ForestRe)



Growing the Business & Attracting International Investment

**Crescimento de Negócios & Atração dos
Investidores Internacionais**

Impact of International Investors

Impacto dos Investidores Internacionais



- ❑ Provides additional sources of finance to forestry owners
- ❑ Brings new skills and objectives into timberland management
- ❑ Incentivises increased local and regional forest governance
- ❑ Encourages an improved legal framework for investment that benefits all timberland transactions
- ❑ May bring in new types of owners with TBLI and environmental forest management objectives for wider forest base
- ❑ Encourages improved government support services to forest communities.

How Do We Find New Forests?

Como encontrar novos empreendimentos florestais



Nursery for forestry businesses: Valuations < US\$10m

❑ Out-grower schemes:

- 2 ha ; Finance from mill, & rotational inputs costs but liability on balance sheet of mill. Owners paid for labour
- Individual values about US\$3,000. Group values (and exposures) several US\$ millions

❑ Small Forestry enterprises :

- Family & friends financed, no debt, Poor access to credit from banks
- Limited managerial skills, service local markets
- Values up to about US\$5m

❑ Cooperative or association forestry

- Make use of public or foreign capacity funds,
- Loans difficult due to lack of security for banks

Forestry Business - Development

Desenvolvimento no Setor Florestal



'In-growth' of forest enterprises; Valuations > US\$10m

❑ Joint ventures:

- Debt financed, high levels of skills, some equity finance from local region
- Too small for international investors - need developing using management input services

❑ Small listed corporations :

- Board management, local and international markets
- Have mastered legal frameworks for small business development incentives. Empowered!
- Values US\$20m+

❑ Large multinationals

- International traders and negotiators. Ear of government, influence national policy
- Corporate governance manages risk, risk low, returns predictable.

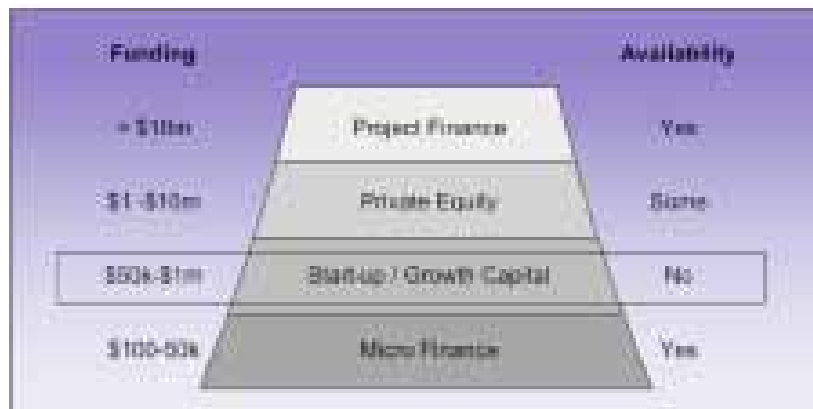
Access to Information by SMFEs

Acesso à Informação por SMFE's



Credit access

- World Bank reports and the Forestry Investment Forum from June 06 all point out the lack of credit access for SMFE



Source: Shell Foundation, 2005

Risk management options

- SMFEs have little information about risk management options - nor indeed do many larger enterprises
- Risk management providers (insurers and agencies) do not normally advertise or promote their added value to SMFE
- => information gap

Cost & timeliness?

- Rarely known or understood.

Insurers Role in Credit Access

Regras de Investidores para Acesso à Crédito



Credit access & risk management

- ❑ FRe established to provide risk transfer services to SMFEs under US\$20m, and especially large numbers under US\$1m
- ❑ covers are for material damage (loss) to forests due to named causes
- ❑ working with Gains Partners & Enviro-markets to provide a one-stop shop for transfer of perceived forestry risk
- ❑ additional covers include political risk insurance now and others such as credit risk in due course.
- ❑ Can use natural forest as collateral for other [forest] development (e.g. Brazilian forest raised US\$15m)

ForestRe Core Products



Principais Coberturas ForestRe Seguradora

- ❑ Loss of insured interest such as growing trees, fruit & yield
 - due to fire & allied perils
- ❑ Fire fighting cost protection
- ❑ Business interruption
 - increased costs of working
 - Process plant overheads
- ❑ Optional protection from:
 - Wind storm
 - hail, snow



Source: CSIRO Australian Bush fire

Risks to Forests & Tree Crops

Riscos à Florestas & Árvores para Corte



Production risks:

1. fire
2. hurricane
3. drought
4. land invasion by settlers/loggers

Impact of these production risks depends on portfolio size, spread, species, enterprise types

Notes

1. fire risk impact is inversely related to tree age & can be catastrophic
2. limited insurance availability for wind, unless in a balanced portfolio
3. systemic impact of drought risks, fire correlated, reduces growth
4. invasion takes time to develop and to control - governance an essential factor is risk management

Nature of Catastrophic Risks



Riscos de Catastrofes da Natureza

□ Infrequent

- Insurers now estimate exposure up to a 250 year return period for accurate risk pricing (data dependent)
- Losses due to 20 - 50 yr events add significantly to the average value of expected losses

□ Severe

Example Australia

Pre-loss annual mean

= 1.17%

Post-loss mean

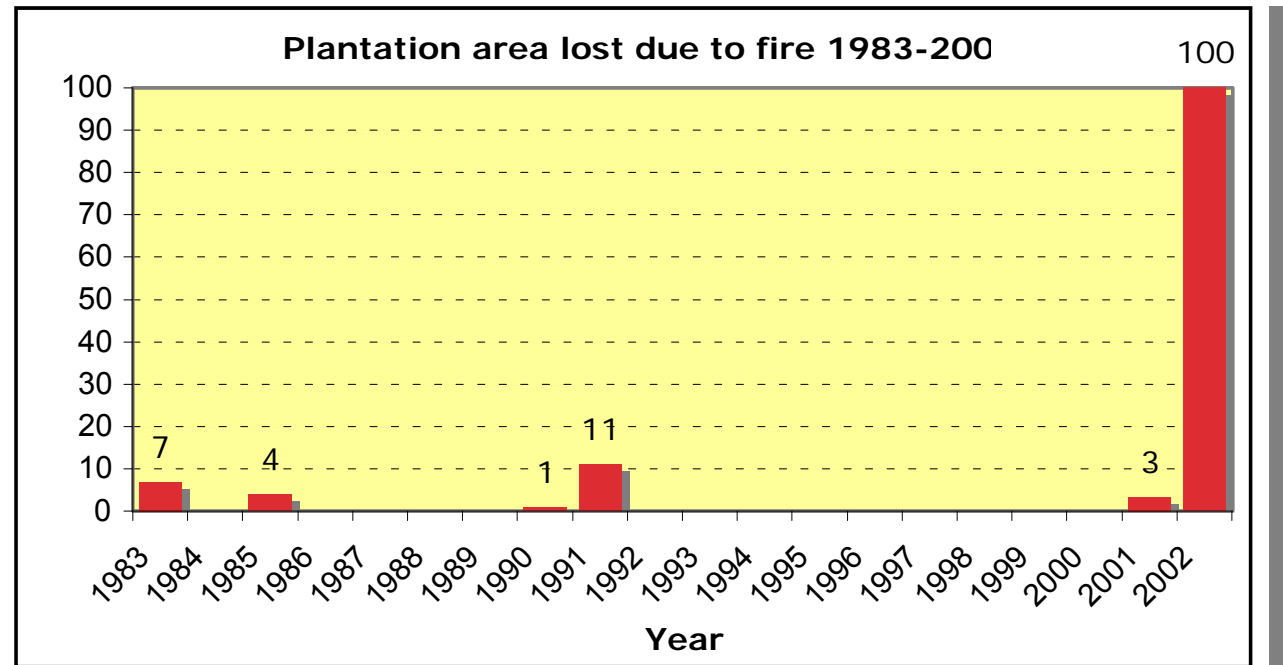
=4.92%

....Called the

'Loss cost'

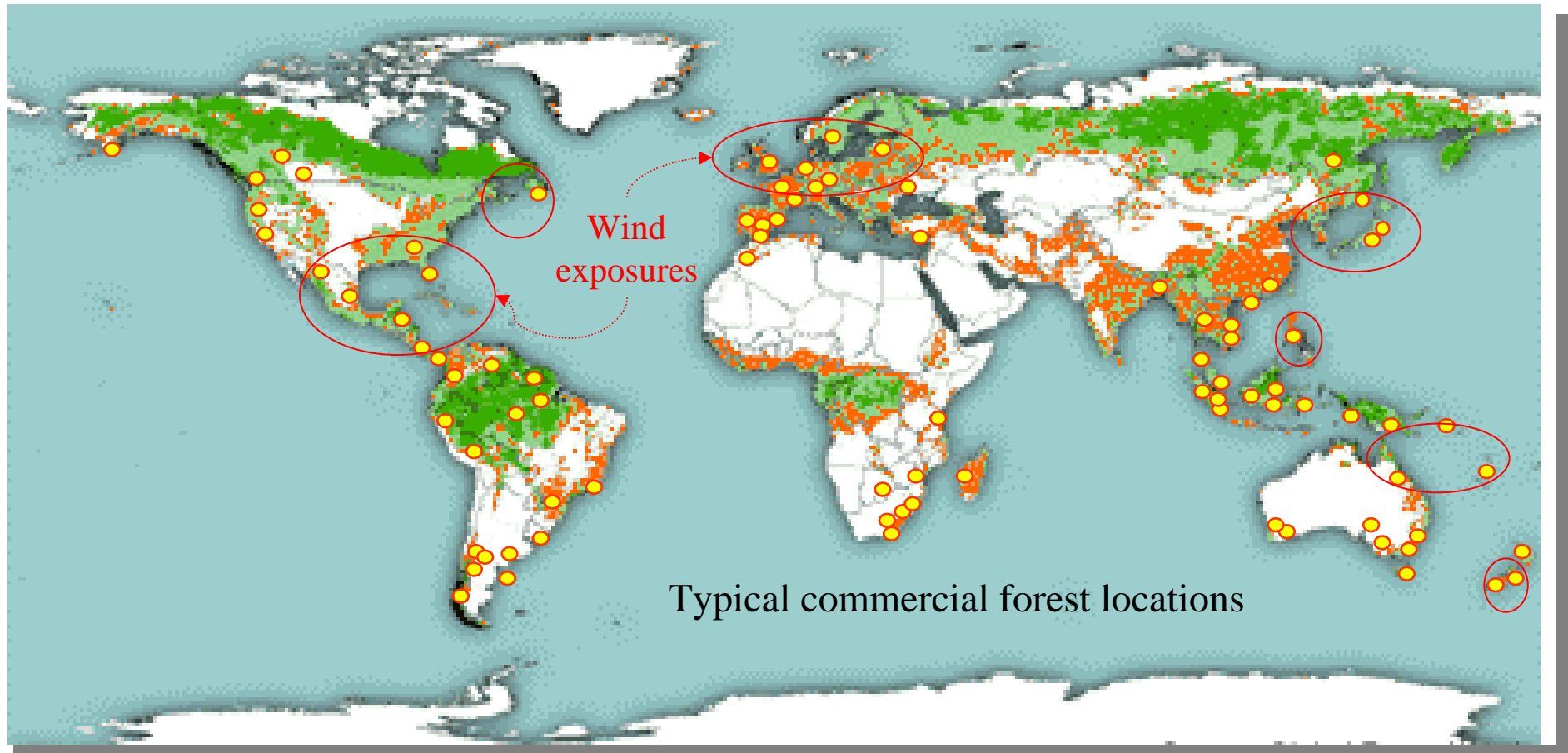
Cat Loading = 420%

over this period.



Forest Risk Research

Pesquisa de Riscos no Setor Ambiental



Insurance Benefits

Benefícios do Seguro

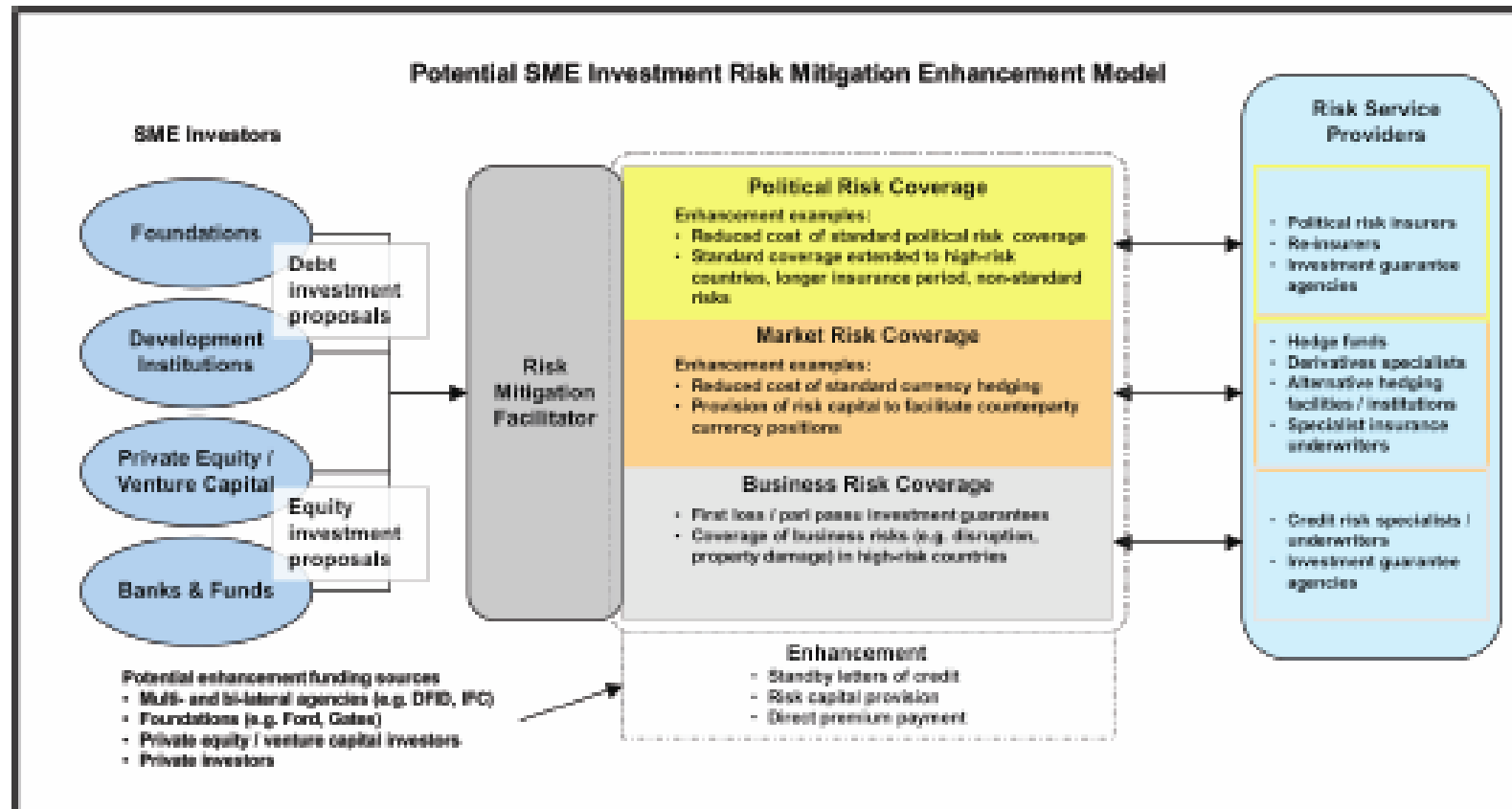


For SMFEs

- ❑ Quick, especially so if a group (scheme) design has been completed
- ❑ cheap. SMFE physical damage covers are about 1.5% on Total Values falling to 0.3% as values increase.
- ❑ easy to cover a cooperative and relatively cheaper for all growers.
- ❑ beneficiaries /y can be the bank (loan repayment) and/or grower for restitution
- ❑ loan is now secured and grower should pay less interest.
- ❑ political risk covers can be provided (costs \leq 2% of total value) for most territories of the world

Other Financial Instruments?

Outros Instrumentos Financeiros



How to Access Intl. Investors?

Como ter acesso à Investidores Internacionais



Organisations

- ❑ There is no easy route for SMFEs as they do not generally have the contacts.
- ❑ Try Enviro-markets &/or FRe as we have from London an international network and can make connections with:
 - ❑ Bank alternative investments groups
 - ❑ Investment groups - Henderson, Morley etc etc
 - ❑ Some private high net worth individuals
 - ❑ Existing Forest management organisations (FMOs)

Main Requirements of Institutions

Exigências dos Investidores Internacionais



- ❑ Mainly plantation, indigenous species, and some old growth natural forest
- ❑ According to risk: ROI on 8% - 20% 'risk free'
- ❑ Minimum investment of US\$50m - US\$100m
- ❑ A 5yr - 25 year investment horizon (permitting investor exits)
- ❑ Robust and verifiable valuations of assets and financial flows
- ❑ Legally secure land title, timber rights, sales contracts
- ❑ Identified and managed risks
- ❑ Listed or an ambition to list on an exchange

Preparation for Intl. Investors

Preparação para Investidores Internacionais



Your investment Opportunity

- ❑ obtain or start to obtain forest certification as this is the international indication of management attitude and discipline
- ❑ have all records in order and financial projections robust and models tested.
- ❑ a international investor will spend US\$1m on due diligence - make this as easy as possible, and as cheap as possible
- ❑ obtain what ever government endorsement you can and all possible capacity grants and assistance
- ❑ make sure your business model is scaleable upwards.

Enterprise Risk Components

Riscos ao Empreendimento



Investor Perception is reality



- ❑ Think about all these project risks and be prepared to discuss
- ❑ Prepare answers to all possible questions, especially about supply and demand for your forestry products and services
- ❑ Convince partners that you can execute the business plan if you have their investment (as a Level 1 investor) looking for quick high returns in preparing your project for a long term level 2 investor.

Sources:



Fontes:

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THANK YOU