PARTNER REINSURANCE COMPANY LTD

FACILITATING INVESTMENT ARole for Insurers?

Insuring the Performance of Certified Sustainable (Forest) Projects

Phil Cottle & Ignacio Murtagh

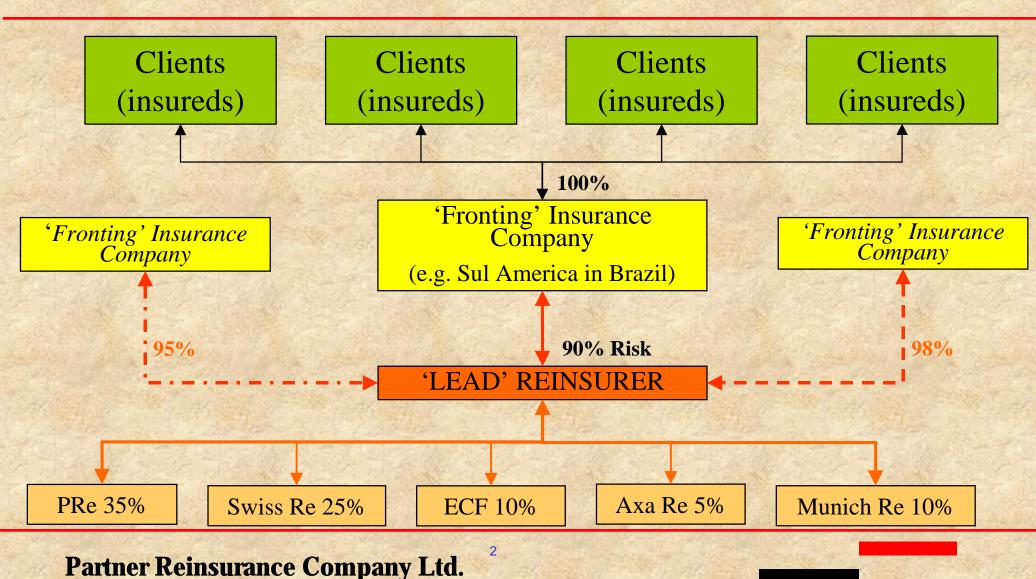
Katoomba

Rio de Janeiro 23 - 26 October 2001

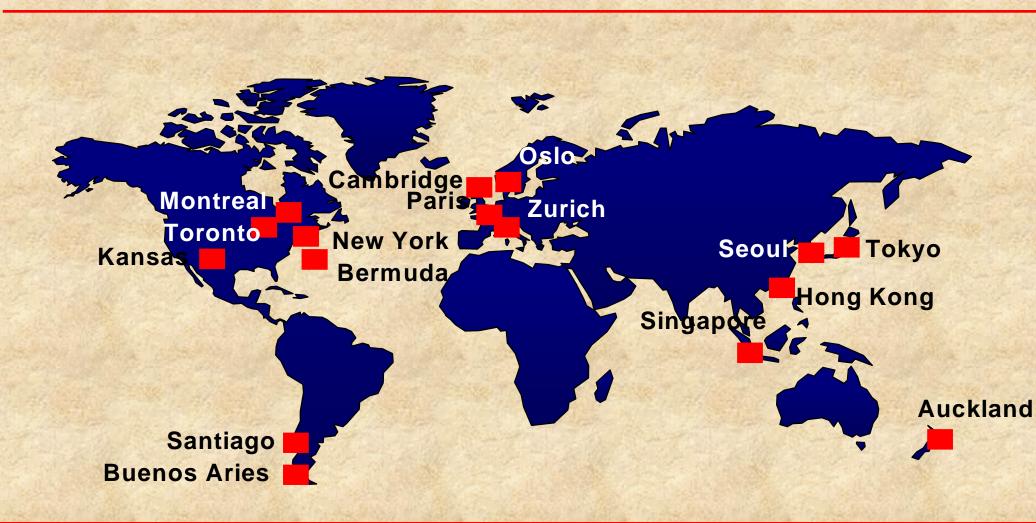
Source: FSC

Partner Reinsurance Company Ltd.

Act as insurers of insurance companies - we take their risk

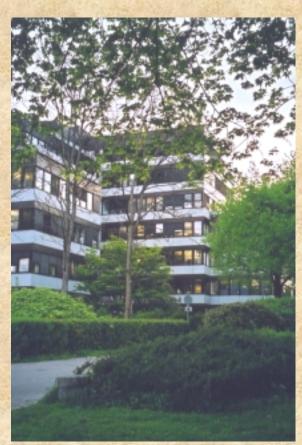


PartnerRe Centres



Introduction to PartnerRe (PRe)

- Largest specialist forestry / Agriculture risk team
- Major global capacity for forestry & agricultural risks (Zurich Branch)
- Specialists in Catastrophe Insurance relevant for climate change
- Forms long term ethical relationships essential for environmental projects
- Product design for the insurance/forestry industry



PartnerRe Zurich

Main Agricultural Reinsurers

Munich Re	2	2 %
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Hannover Re15 %

Lloyds
9 %

PartnerRe8 %

ERC Group 7 %

Swiss Re
7 %

St Paul Re 5 %

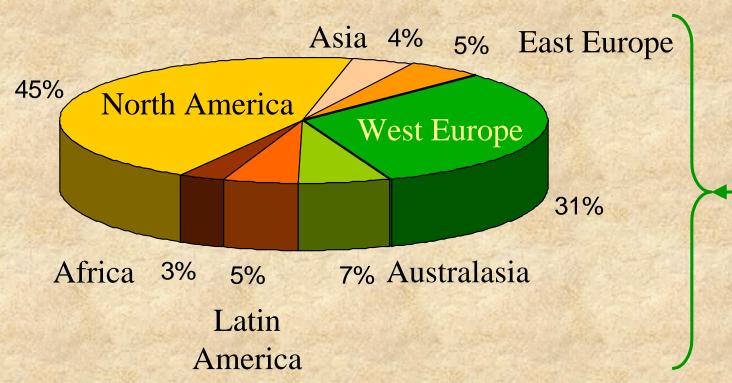
QBE 5 %

Global Reinsurance Market Premium is estimated at

\$ 1.2 billion in 2000

(Private Sector)

Global Agriculture Premiums (inc. Forests) = US\$7bn

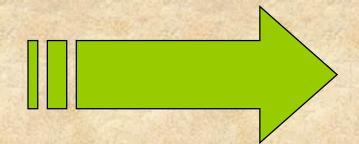


Traditional Commercial
Insurance = US\$365 billion
Premiums Globally

Forestry Share? <1% or US\$70m on 3.5bn ha

Reasons for Low Volume of Forestry Insurance

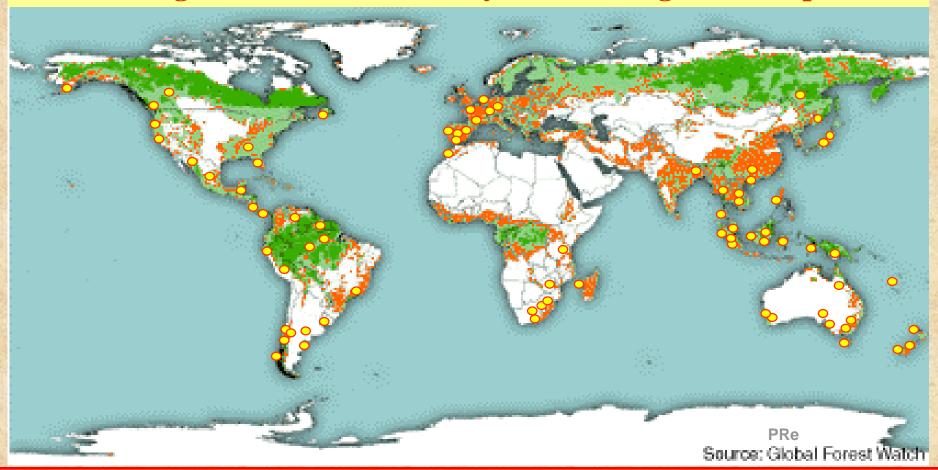
- Lack of forestry risk assessment skills among insurers
- Low awareness of insurance options by foresters & investors
- Therefor... limited coverage on offer to forestry sector
- Very little communication between sector and insurers



No progress to meet required needs

PRe; Widely Based Global Forestry Risk Assessments

PRe: Long Term Global Forestry Risk Management Expertise





Typical Forestry/Crop Insurance Products (usually one year contracts)

icts

Hazards

- Fire (all causes)
- Options
 - Drought/rainfall deficit
 - Disease
 - ⇒ Wind
 - Frost (seedlings)
 - Wild animals
 - Strike, Riot, Civil Commotion

Insured interest

- Loss of crop
 - Timber / fibre / rubber / Crude palm oil / grains
- Asset protection
- Increased costs of working
- Business Interruption
- Capping expenditure on fire fighting & other costs
- Stabilising state budgets

Who Buys Forestry Insurance? (usually state / private commercial operations)

- Small forest Owners
 - Forest Growers in Australia, Spain, France, Panama, UK,...
- Banks, & other Financial Institutions
 - Their borrowers are secured
- Pulp, Paper & Timber Corporations
 - Chile, South Africa, Australia, Spain, Brazil, Argentina, China, Indonesia
- State, Provincial & National Governments
 - Japan, Mexico, Canada

New Forestry Financial 'Environments'

Environmental services

- Salinity
- Down stream liabilities (soil stability, avalanche and landslide)
- Renewable Energy
- Carbon sequestration directly or indirectly (Steel)
- Reserves & parks
- Biodiversity / biochemistry

Rural Development

- Social forestry, community forestry, group action
- Traditional commercial forestry operations



Issues We Must Address in Environmental Projects



Forestry environmental projects ...

- operate in immature, opaque & fragmented markets
- investor funds operating in unfamiliar sectors (forestry)
- perceived risk profile is very high financiers are risk-averse
- sustainability requirements conflict with traditional financial hurdle rates/expectations.
 - > thus absence of J.V. money in forestry as require high hurdle rates

Can Reinsurers (R/I) Provide an Investment Catalyst?

So that...

- secure investors' / banks' funds in the projects
- reduce risk of failure
- increase viability of lower IRR projects
- raise project market profile and quality
- raise security of environmental products & services
- hence raise liquidity



- assess & model risk profile for probability of achieving targets
- comprehensive project overview linked to enhanced management capacity
- a multi-line, multi-year approach

Assess Risk Profile Directly or On Basis of SFM type Certification (e.g. FSC)

POLITICAL

- sovereign risk on international trades / concession rights etc
- forestry policy

TYPE & MANAGEMENT

- eligibility for insurance?
- pre-feasibility secure data and analysis?
 (robustness relies on technical analysis of productive capacity)
- projected product output calculations
- implementation & management skills
- Certificate of Project Design?

CLIMATIC

- natural hazard risk profile, frequency, severity and catastrophe planning...
- natural variability, attritional loss and interaction with projected climate trends

PROJECT ENVIRONMENT RISKS

Risk Frequency
Quantum & Profile

SOCIO-ECONOMIC

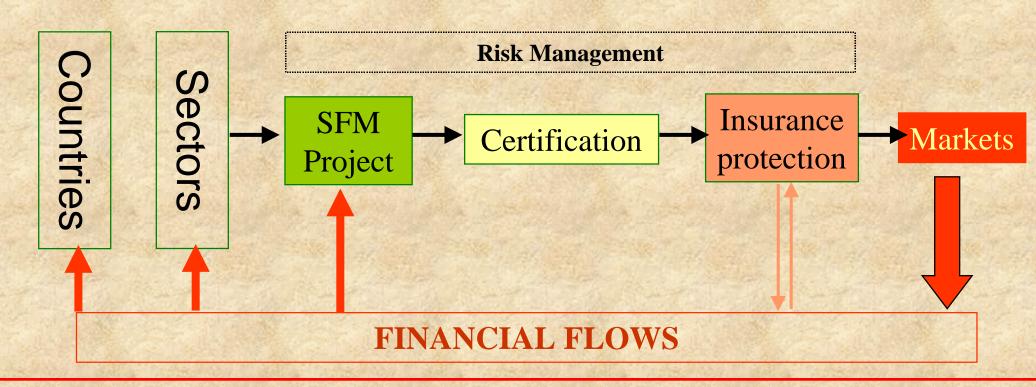
- property rights to land, and crops etc
- local equitable stakeholding established
- understanding, royalties, employment, guardianship, sustainability / SFM certification?

FINANCIAL

- does the project make economic sense - otherwise moral hazard?
- how strong is the operator's credit profile i.r.o. long term provision?
- Legal ownership of non-timber products / credits

What Benefits Accrue if Insurers Provide Long Term Protection?

SFM, certification and insurance can together deliver significant economic benefits given the current nature of the forestry sector & can provide a catalyst for long term sustainable rural development



Sustainable Projects Require Sustainable Insurance (Long Term Protection - but Against What?)

What are the benefits required?

- Guaranteed performance (fibre yields, Carbon CERUs)?
- Project performance risks (fire, earthquake etc.)
- Financial returns
- Unbudgeted costs
- Delivery of carbon credits (CERU) 2008-2012 to buyer?
- Down stream liability (water quality, land slide, infrastructural damage
- Catastrophy events (hurricanes, earthquake)
- Loss of access to markets following loss of Certification?

PRe Require Projects to Test Need and Service

- Currently have quoted for 10 year product yield guarantee as support for bank finance for potential CDM
- Working on substantial US forest investment fund protection
- Looking at forestry wind protection and wind farm generation capacity in Ireland
- Would like to develop a global sustainable forestry facility

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