

Forest-based development
and investment trends
in the Asia-Pacific region:
Where are the areas for
opportunity?

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Future Survey by WFS, 2004

Top ten trends:

- Ecological footprint growing
- Hope in decline
- New nuclear weapons
- Bird flu
- Response to AIDS
- Surplus males in China and India
- Sustainable forest management
- Workforce trends in US
- Transportation innovation
- Novel futures: rapid growth

The world currently loses approximately 13
million hectares of forest
cover a year

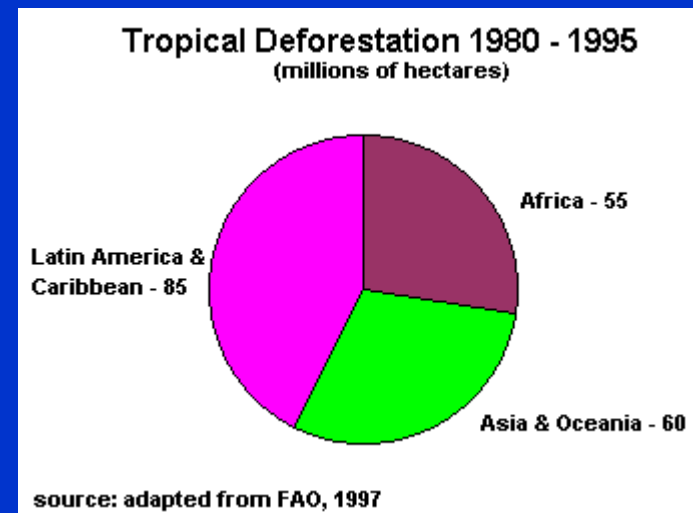
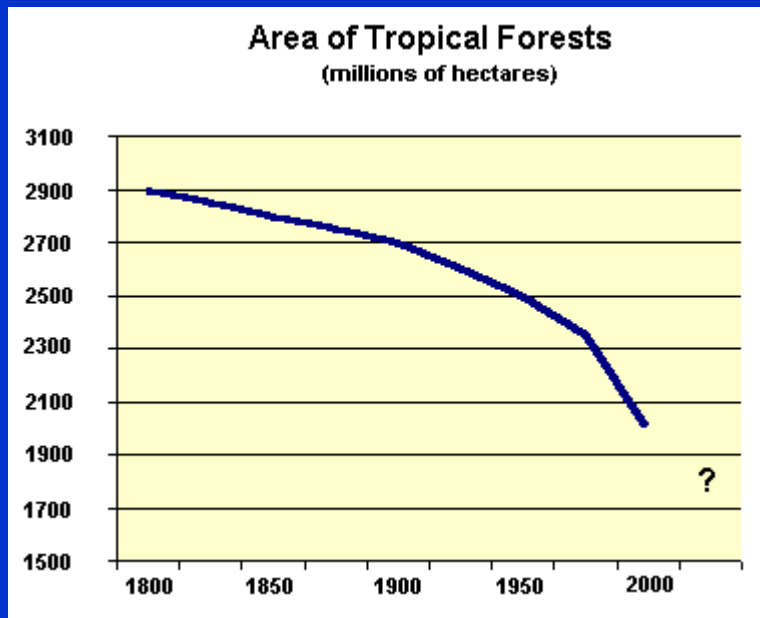
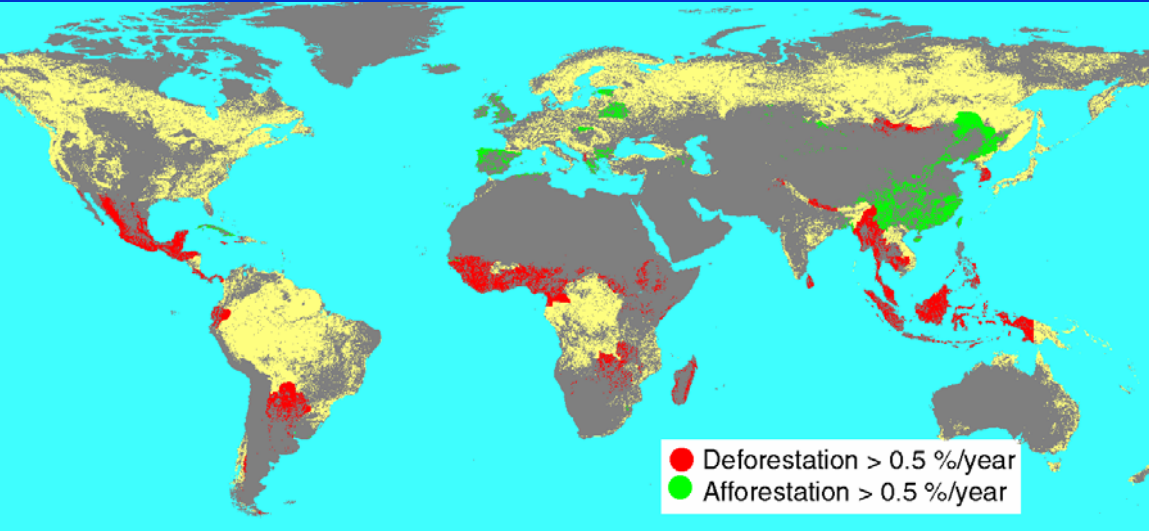
"Deforestation
continues at an
unacceptable rate"

Deforestation

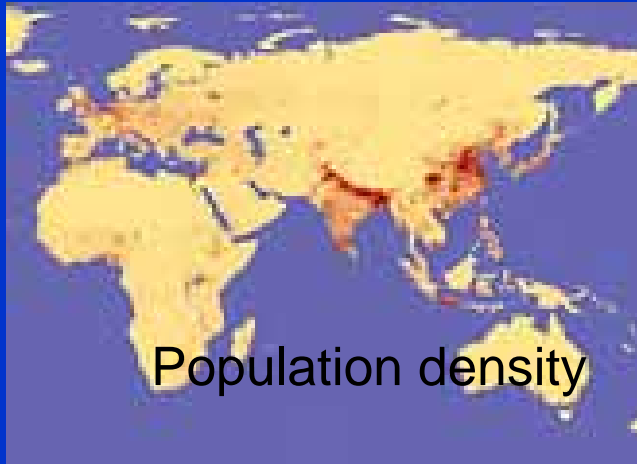


By the time this
discussion ends (30
mins), the world
would have lost
800 ha of tropical
forests

Deforestation



Some statistics



Forest area by region

Africa	17%
Asia	14%
Oceania	5%
Europe	27%
N&C America	14%
South America	23%



Why the concern?

Timber
Biodiversity
Disease
NWFP
Poverty
Aesthetics
Ecological
Services
Global
warming...

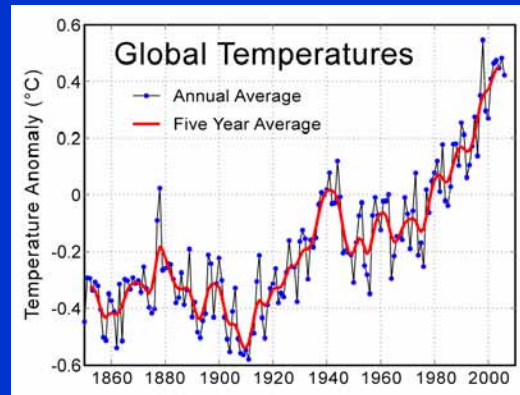
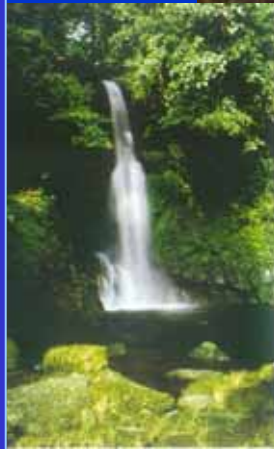
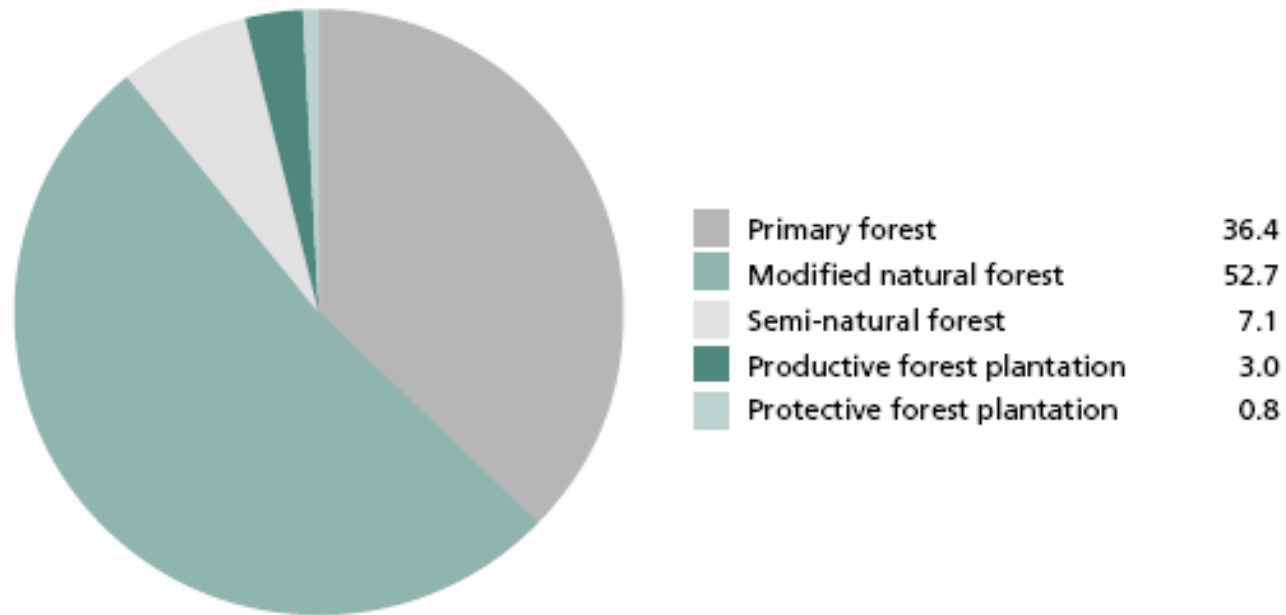


FIGURE 6
Forest characteristics 2005
(%)



572 million ha of forests

507 million ha natural forests

65 million ha plantations

255 million ha production
forests (45%)

Figure 1a

Asia Pacific Growth of protected areas to end-1994

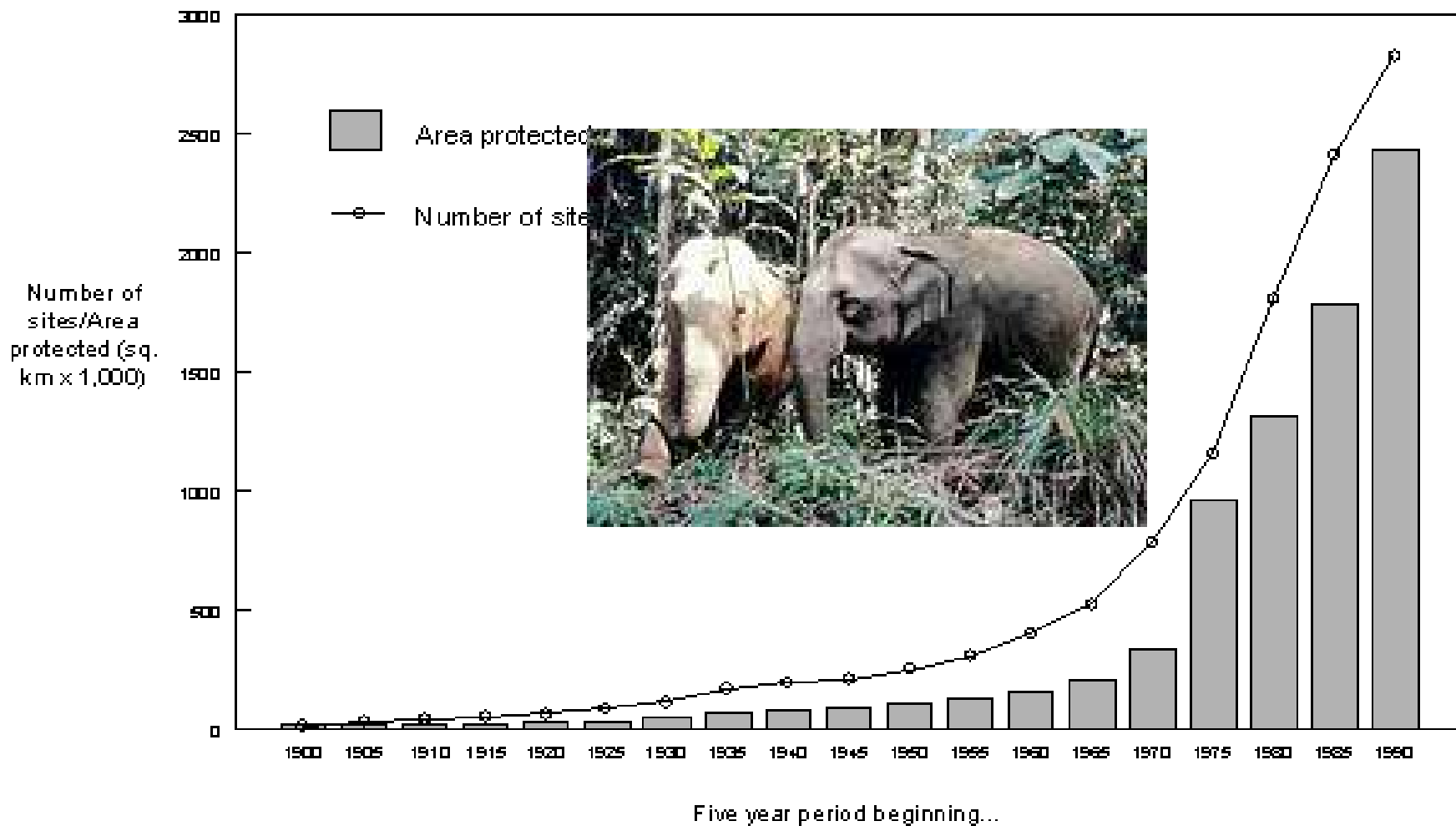
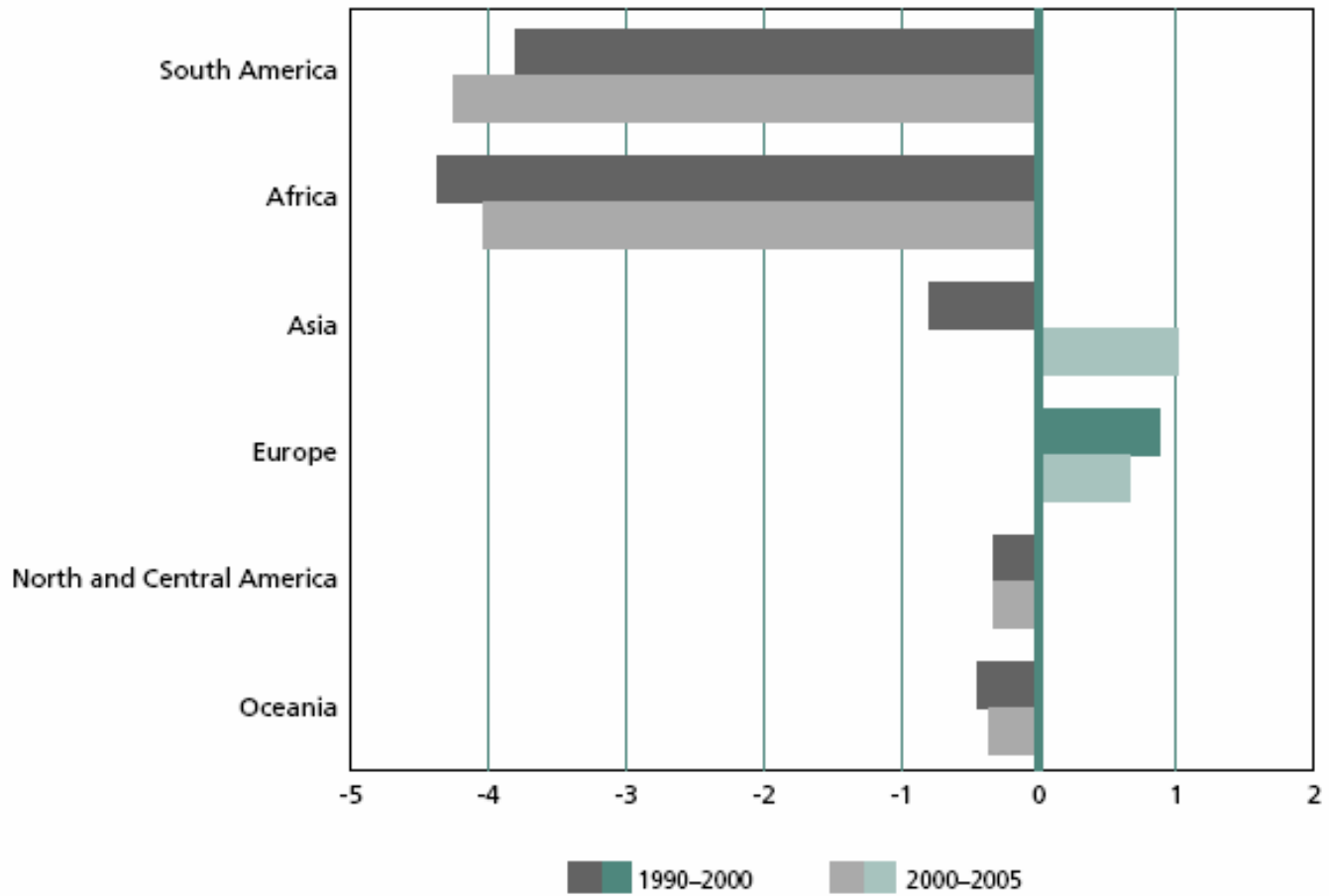


FIGURE 4
Annual net change in forest area by region 1990–2005
(million ha per year)





Fast growing timber plantations:

- NZ – 18% provides 98% wood needs
- Australia – 1% provides 50% wood needs

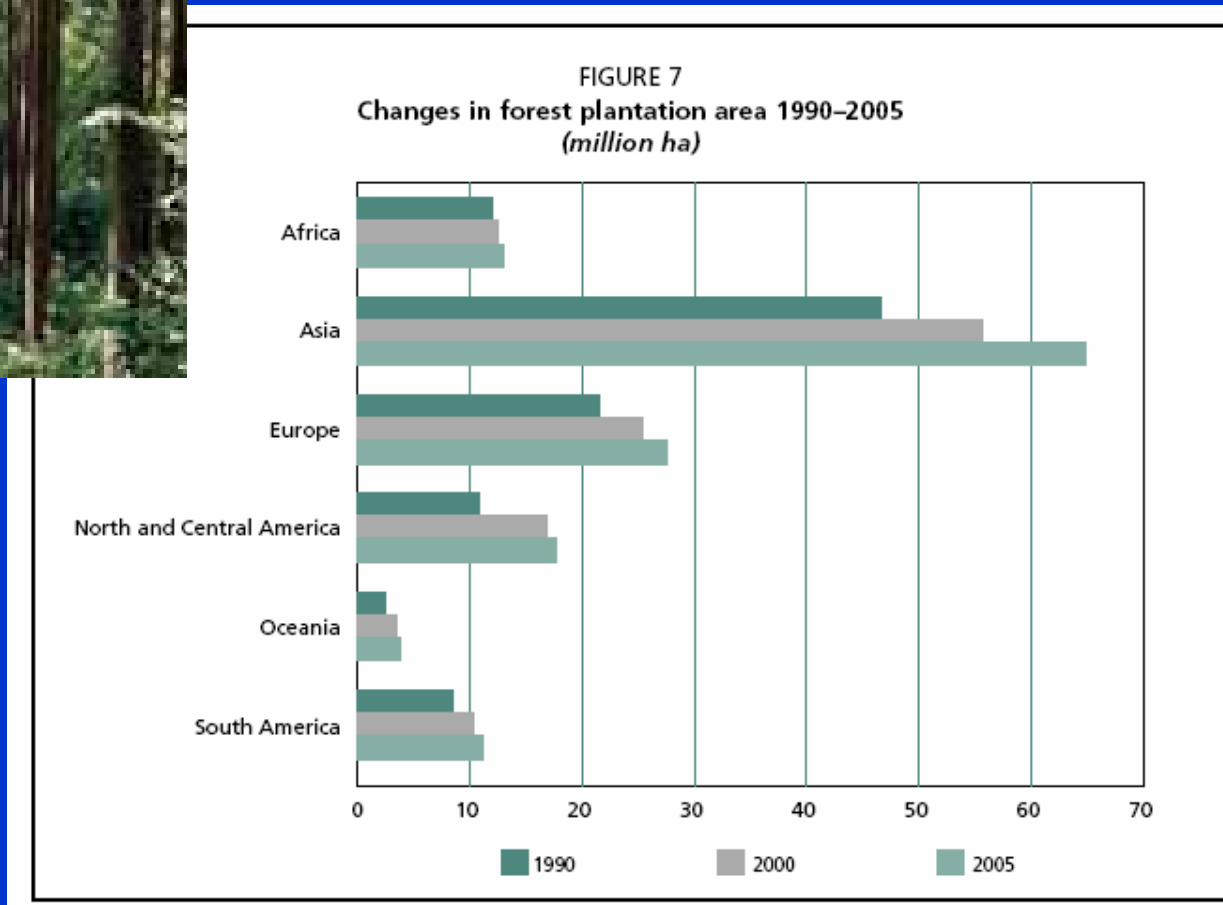
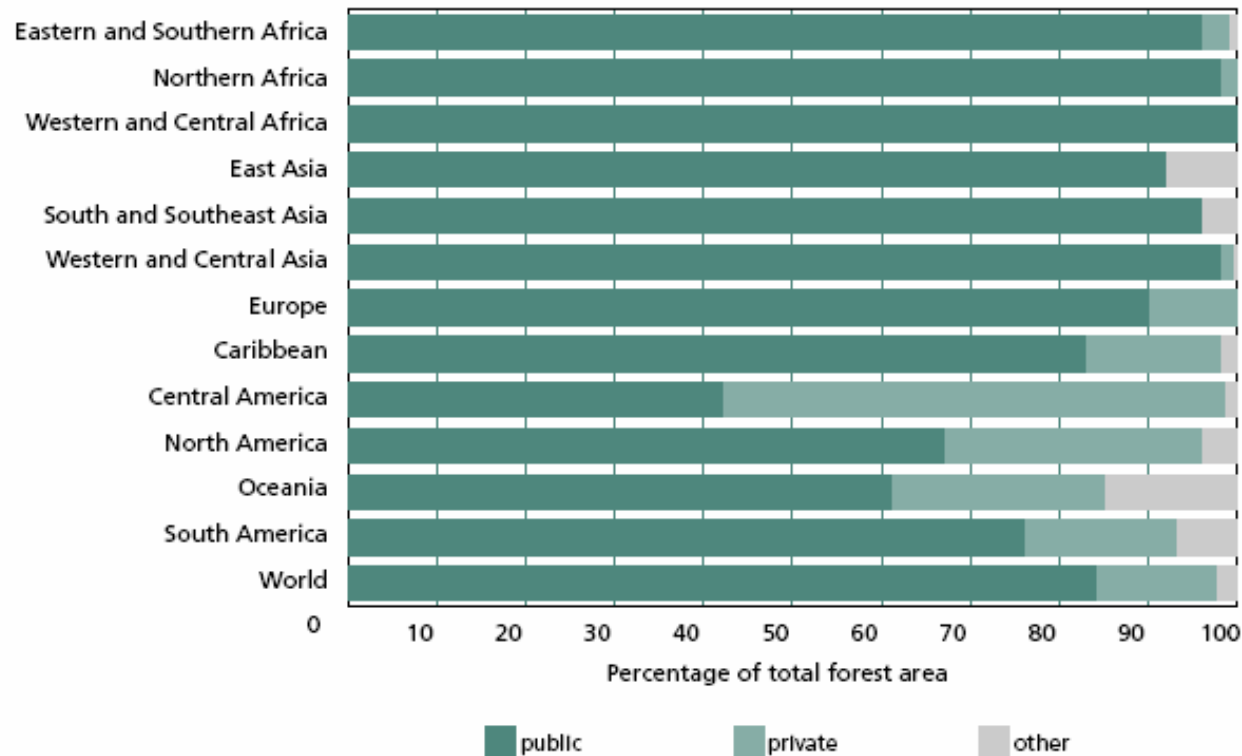


FIGURE 10
Ownership of forests by subregion 2000



Forest ownership

- *Asia: State*
- *Pacific: Community*
- *Am & Euro: > Private*

Forest policy...changes

- Implementation of forest policies?
- Resources, capacity, political will...
- Principal shift → strategies centred on participatory decision making, away from centralized forest management strategies

Community Forestry



- *Community Forestry*
- *Joint Forest Management*
- *Village Forestry*
- *Community-based Forest Management*

- Interest heightened over the last 2 decades
- Traditional rights respected
- More land allocated



Wood removals (mil m3) (roundwood/ fuelwood)

- *Asia-Pac – 228/ 199*
- *Africa 79/ 591*
- *Europe – 543/ 139*
- *Americas – 950/ 285*

Trends in A-P (natural forests):

- *South Asia & Insular SeA – declined; tighter regulations; logging bans*
- *More emphasis for protection, ecological services...*
- *Wood processing capacity – concentrated in Australia, NZ, China, Korea, Malaysia*
- *Contribution of forestry to GDP – declining; but still big earner in Cambodia, Solomons, PNG, Indonesia, Malaysia*

Non-Timber Forest Products

Value of NWFP removals 2005 (US\$1 000)

Region	Category of NWFP						Total
	Food	Exudates	Ornamental plants	Other plant products	Bushmeat	Other	
Africa	4 469	42 180	70	16 001	3 064	831 415	897 199
Asia	817 843	316 359	8	279 052	21	317 827	1 731 110
Europe	381 936	801	344 065	139 154	616 721	321 942	1 804 619
North and Central America	34 200	15 267	-	17 988	-	4 240	71 695
Oceania	-	0	0	11 463	181	6 946	18 590
South America	96 386	1 673	-	32 003	4 099	63 069	197 230
World	1 334 833	376 280	344 143	495 661	624 086	1 545 439	4 720 443



Number of people employed in forestry in 2000

Region	Number employed (1 000 person-years)			
	Primary production of goods	Provision of services	Unspecified	Total
Africa	465	305	100	870
Asia	4 425	3 008	875	8 308
Europe	412	63	471	946
North and Central America	415	55	135	605
Oceania	28	4	6	37
South America	215	20	9	245
World	5 960	3 455	1 596	11 011

Where to invest?



Trends in natural forest investment

- **Income from taxes/royalties/
stumpage fees – too low**
- **Reinvestment to management
negligible**
- **Private sector investment – negligible
(insecure tenure)**
- **SFM?**

Forest valuation

- *For SFM to be economically attractive, valuation of all forest outputs needed*
- *Tragedy of the commons: Public ownership of benefits results in market failure*
- *Use and non-use values, ideally turned into financial flow to sector (Timber, ntfp, watersheds, biodiversity, aesthetics, tourism, CO2 sequestration...)*
- *These values appraised in forestry projects and policies*

Emerging Opportunities

With government budgets for SFM insufficient, alternative mechanisms needed:

They include:

- Technical assistance from donor agencies*
- Market forces to capture non-use values*
- Purchasing critical habitats by civil society groups*

Current Funding Opportunities

Current funding opportunities can be grouped into type of ecological service the mechanism is based upon:

1) Biodiversity:

- Conservation concession – ngos purchasing small but critical areas that are at risk*
- Debt-for-nature swaps – governments unwilling; one e.g. in Philippines*
- Bioprospecting – e.g. Merck & Co. with Costa Rica*

Current Funding Opportunities

2) Carbon:

- *Kyoto Protocol – application of CDM to afforestation and reforestation; not for natural forest management*
- *Market for carbon emissions trade – experimental*
- *Focus on plantation establishment on deforested land*
- *Avoided deforestation – WB; nascent stage*

Current Funding Opportunities

3) *Water:*

- *Most valuable among a wide range of ecological services*
- *Government administered transfer of tax money*

a) Japan

- ✓ *prefectures implemented tax schemes, to fund management of watersheds*
- ✓ *Tax collected with water bill/annual flat rate tax*
- ✓ *Justification for improving privately owned forests debated*

Current Funding Opportunities

3) Water....:

b) Korea

- ✓ *Government brokered money transfer from downstream to upstream communities*
- ✓ *Farmers upstream limit their economic activities to minimize degradation of water quality downstream*
- ✓ *Downstream residents pay \$0.10 per ton of water consumed*
- ✓ *Privatization of scheme*

c) Lombok Island, Indonesia

- ✓ *WWF, local NGOs, water company working to introduce payment scheme for watershed management*
- ✓ *Water for agriculture, domestic supply, local industries*
- ✓ *US\$0.60 per month by 43,000 households*

Current Funding Opportunities

4) *Combination of services:*

- *Australia – auction based approach “Bush Tender” to improve management of native vegetation on private land*
- *Vietnam – Can Gio Mangrove Forests – locals paid for protecting areas, limit use*
- *India - Periyar Tiger Reserve – communities manage park in exchange for tourist or resource concessions*
- *Komodo National Park – private company given tourism concession*
- *Asia-Pacific – Timber certification: demand for certified wood increasing; 30% price premium*

Institutional Arrangements

Institutional roles in developing and implementing financial incentives:

- 1) Government – with shrinking budget, governments need to focus on private sector investments and promote market-based approaches.***
- 2) Donors/Civil society/NGOs – International financing is indispensable for activities that provide global benefits. GEF and others likely to play bigger role. Int and local NGOs play facilitating role between various stakeholders, often acting as brokers.***
- 3) Private sector – taking on more responsibilities, and should be encouraged to invest in SFM.***

Scheme for investment

Mechanism	Government	Donor/Civil	Private
Timber tax	SFM		
Subsidy	Various		
PES	Water		
C credits	CO2 seq		
- Deforestation		CO2 seq	
Bioprospecting			Biodiversity
Debt-n-swap		Biodiversity	
Cons. concess		Biodiversity	
Ecotourism			Aesthetics

Conclusion

- *Ecosystem markets as source of financing mechanism for SFM still limited*
- *Private sector involvement in forestry critical*
- *Forging private-public partnerships for innovative financing mechanisms promising*
- *Need to focus on what can be achieved with existing funds and look at improving cost-efficiency through partnerships*
- *Increase level of understanding of financial mechanisms*
- *Remove policy, regulatory and administrative impediments*

"Countries that are facing the most serious challenges in achieving sustainable forest management are those with the highest rates of poverty and civil conflict"