INTERNATIONAL EXPERT WORKSHOP ON BIODIVERSITY MAINSTREAMING

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Mainstreaming into productive sectors and country experiences

I Forests

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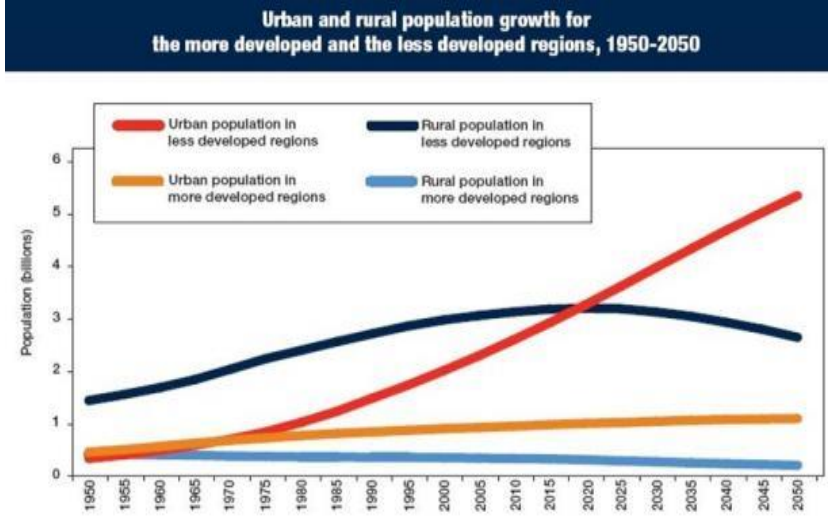
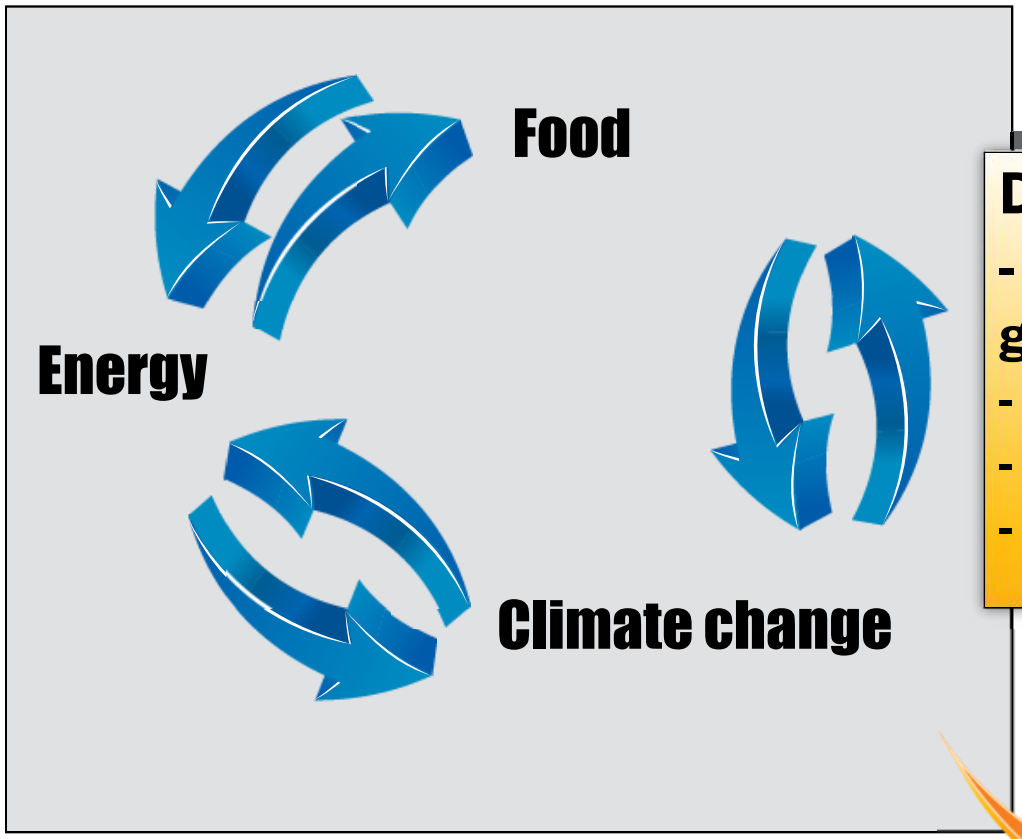
Overview

- Why is mainstreaming a promising alternative to biodiversity preservation?
- Some concrete opportunities for biodiversity mainstreaming
- Some inspiring country cases

Frame: The Rio+20 challenges



These challenges may be compiled into 3:



Demographic changes:

- Moderate population growth

- Urbanization

- Aging

- Migration

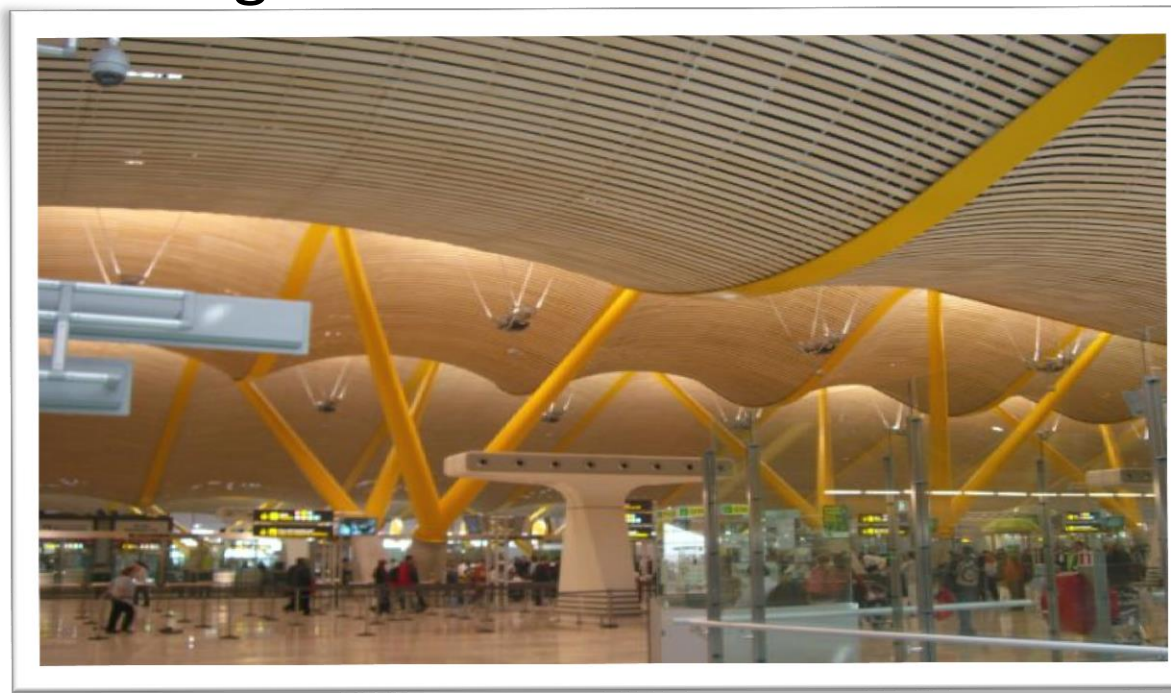
+ increasing living standards

Rio+20 main messages:

- need to integrate better 3 pillars of sustainability
- the key Humankind challenges are deeply interlinked and cannot be solved in isolation

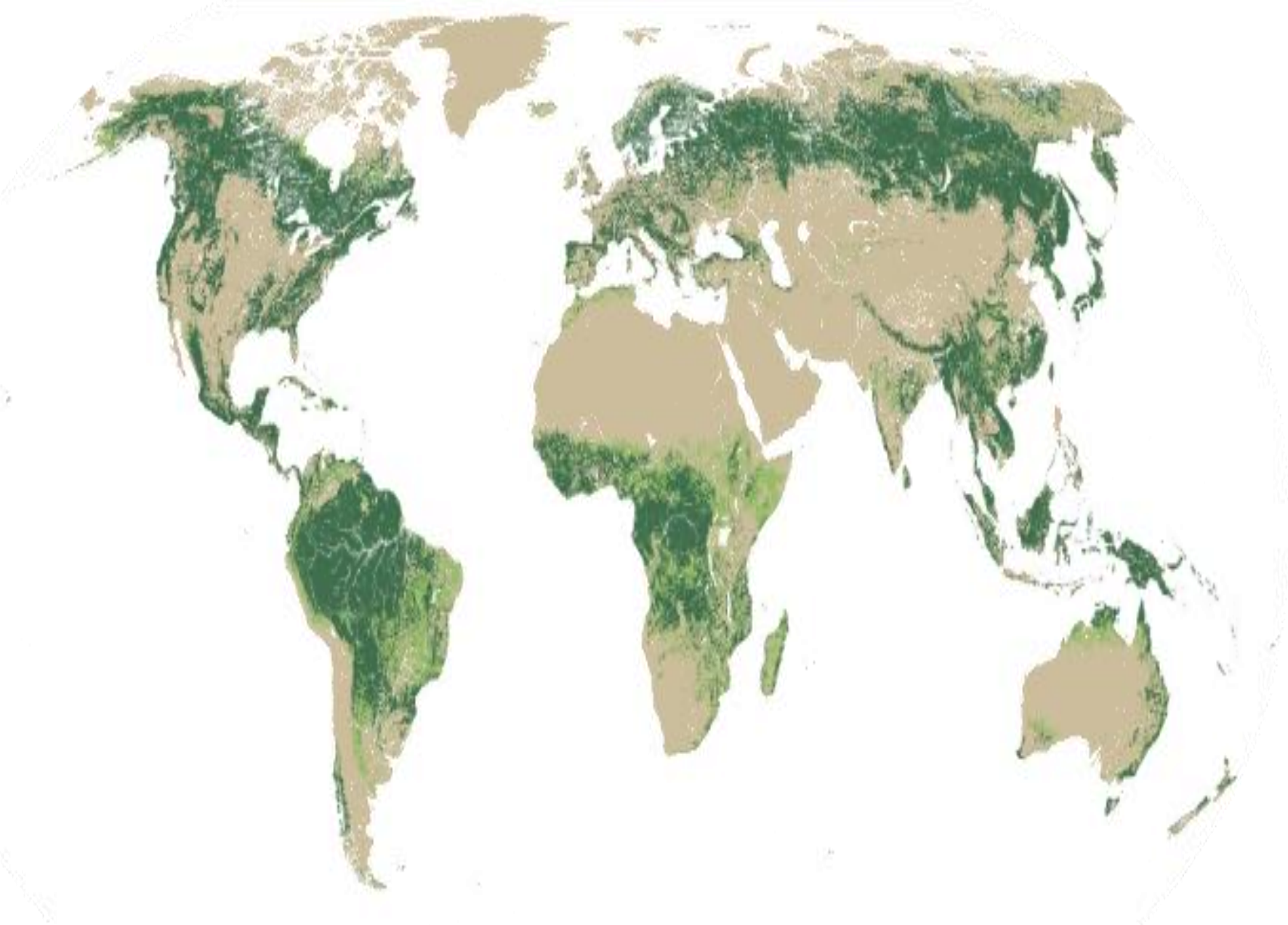
Why is mainstreaming into forestry a promising alternative to biodiversity preservation? The opportunity of bio-economy

- Forests and agriculture (oceans) are the supply source for the new bio-economy that may allow to end the carbon era
- Huge opportunity for combating climate change & rural livelihoods



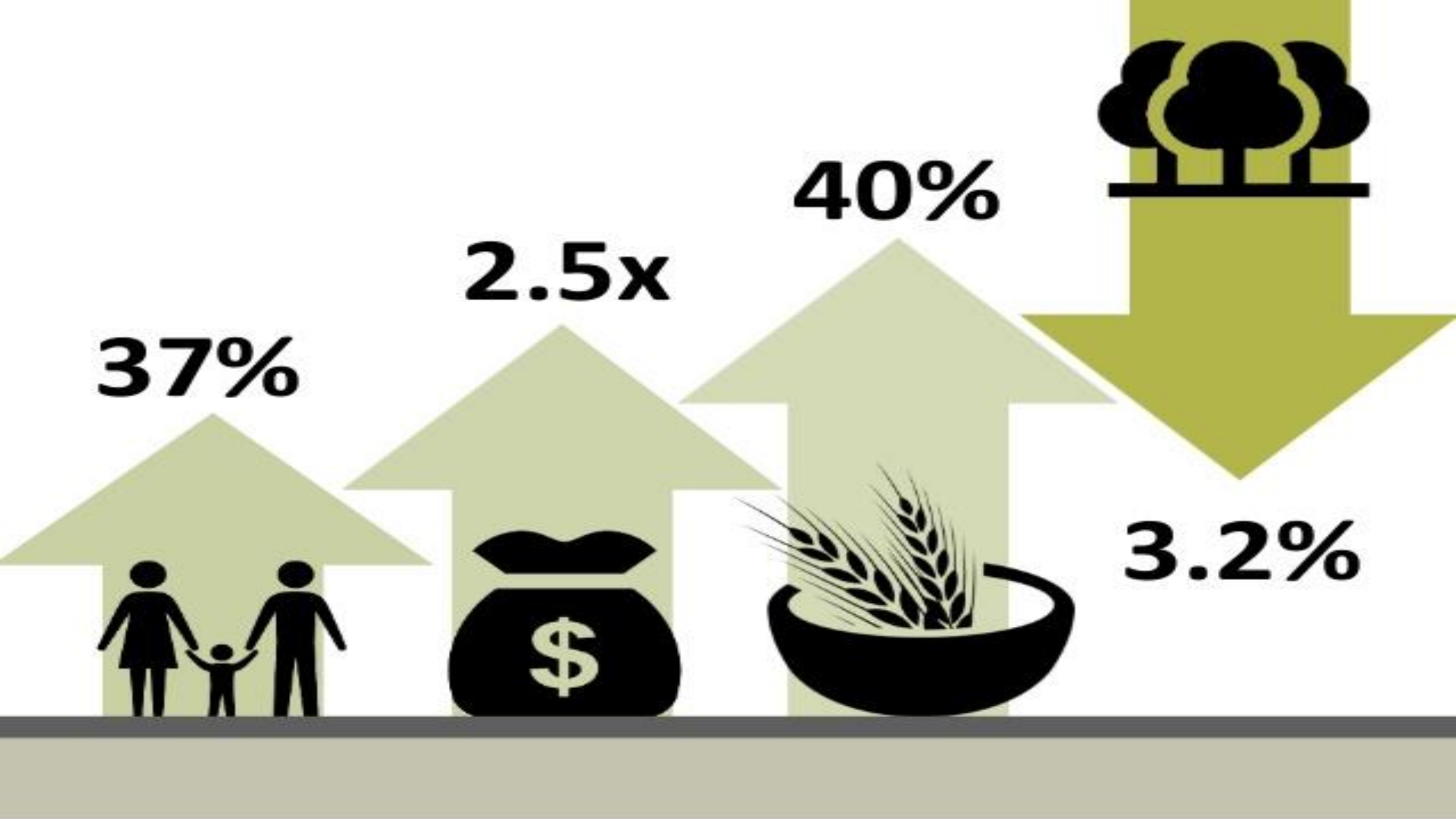
Why is mainstreaming into forestry a promising alternative to biodiversity preservation?
The land perspective

- Forests cover 31% of the planet and agriculture around the same area, the rest are desserts and high mountains, small % cities and infrastructure



Why is mainstreaming into forestry a promising alternative to biodiversity preservation? The land perspective

- 2/3 of forests are seminatural
- There is not sufficient land for covering all the existing demands separately (food, bio-products, biodiversity, climate change, soil, water, landscape, social values, etc.)
- There is no scientific or empirical evidence that shows that it cannot be achieved in a combined and wise way (Satoyama, GIAHS)
- Mono-functional land use has much more negative trade-offs that managing the complexity of synergy (impacts of intensive land use, social exclusion for IP and communities living in the non productive areas, alibi for not integrating biodiversity into land uses despite its low cost)
- The public funding of PES does not need to sustain everything if a moderate use of the productive capacities is used (150 B wood & NWFP vs. 2 B PES)


37%
2.5x
40%
3.2%

Some concrete opportunities for biodiversity mainstreaming: Forest landscape restoration

GPFLR has identified 1(2) B ha suitable for FLR without affecting food security:

- 2nd most voted option in Rio Dialogues (2012)
- increase forest cover 31 -> 39% (47%) (+25/50%)
- improve soil protection, water cycle, biodiversity, CC mitigation and adaptation, sustainable raw material production, livelihoods, food, etc.
- Important anti-seasonal labour demand
- include agroforestry and silvo-pastoral systems
- Importance of assisted natural regeneration
- mainly in drylands (social and political stabilization)
- REDD+ bridge
- IFIs

Some concrete opportunities for biodiversity mainstreaming: Restoring degraded forests

- Consistent approach towards firewood in Sub-Saharan Africa (sustainable, ownership respectful, formal economy, decent employment)
- Controlled used of fire
- Enrichment planting
- Progressive forest management
- Low cost option

Some concrete opportunities for biodiversity mainstreaming: Integrating food security and NWFP

- **Silvo-pastoral** systems once tree coverage restored allows to use important fodder resources, reduce intensive livestock (induced cereal demand and GHG) and fire risk, improve food quality
- Agro-forestry
- Pollination and apiculture: relevance for agriculture, biodiversity, health, income
- Bamboo based building: earthquake resistance, C-neutral, rural income, local supply
- **Tenure** rights of local communities is a key requisite for a sustainable access and use of forest based food and other NWFP

Some concrete opportunities for biodiversity mainstreaming: Mosaic structures

- Avoid the simplification of landscapes due to massive land abandonment or afforestation
- Fine tuned FLR
- Preserve agriculture in the best sites and with a minimum share (ecotones)
- Research on past use of **fire** as a resilience and landscape diversification tool

Some concrete opportunities for biodiversity mainstreaming: Accelerated maturing of young stands

- High water consumption and water use, low biodiversity, returns and resilience
- Thinnings:
  - requisites: market, infrastructure
  - employment, renewable energy and posts

Some concrete opportunities for biodiversity mainstreaming: Integrated rural land use planning

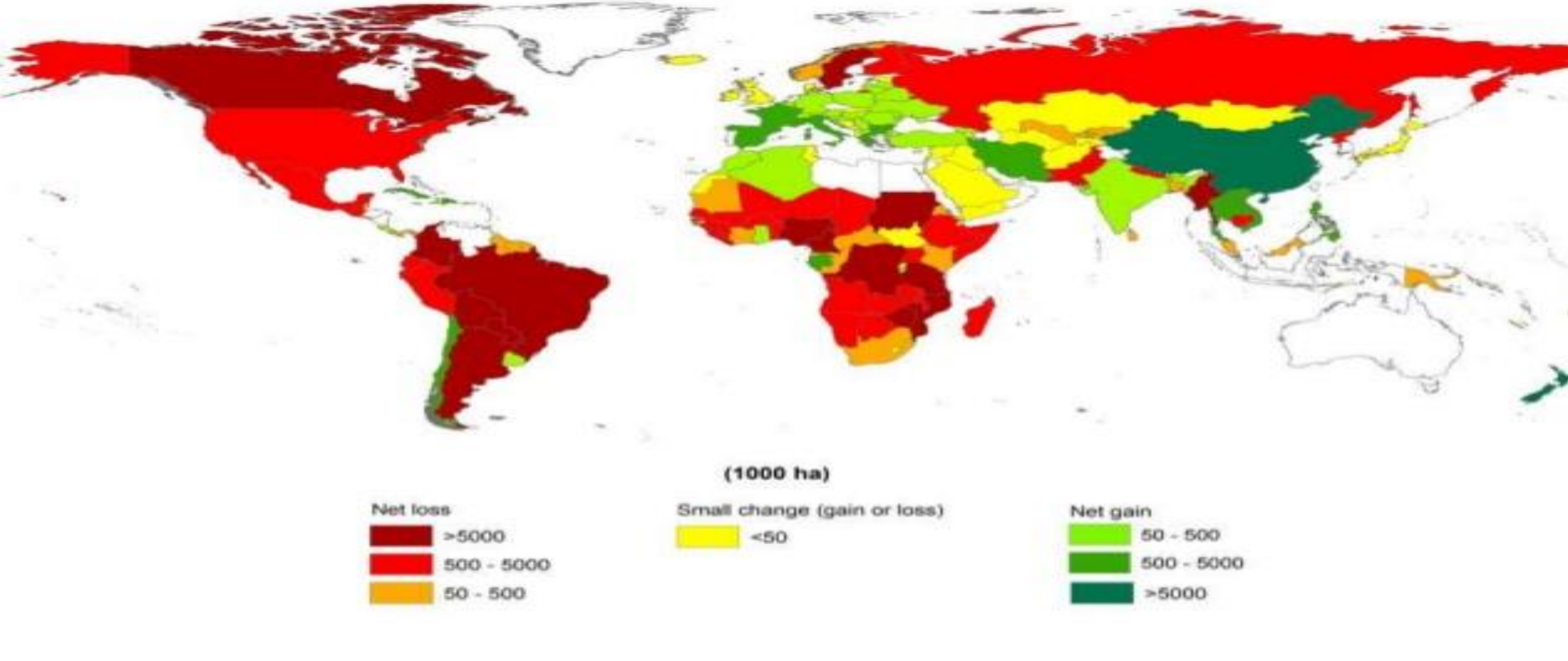
- Integration of land use planning, disaster risk reduction, infrastructures, biodiversity, forest management and FLR (consistency)
- Basis for public intervention (permits, incentives)

Some concrete opportunities for biodiversity mainstreaming: PES

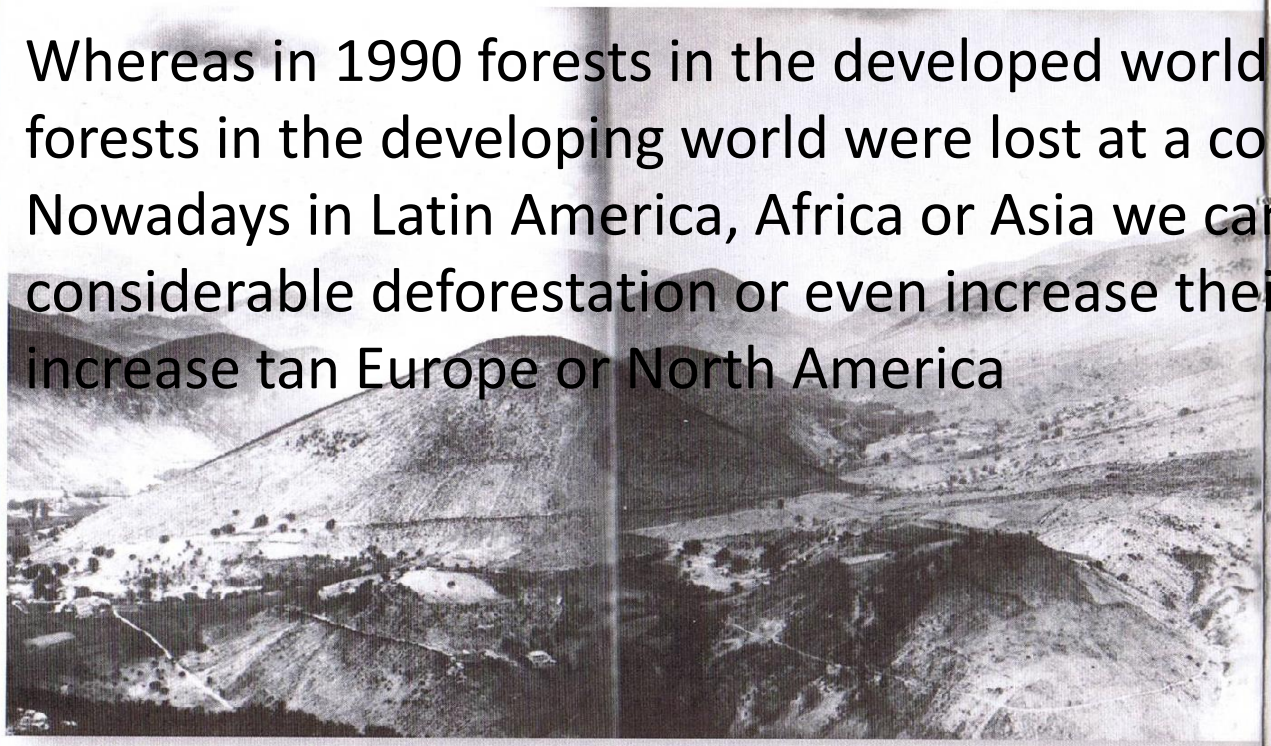
- PES is crucial for integrating biodiversity into forest management
- Focus can be on actions, non-actions or **indicators**
- Broad approach and scientific based
- Permanent monitoring

Some inspiring examples

Natural forest change (1990-2015)

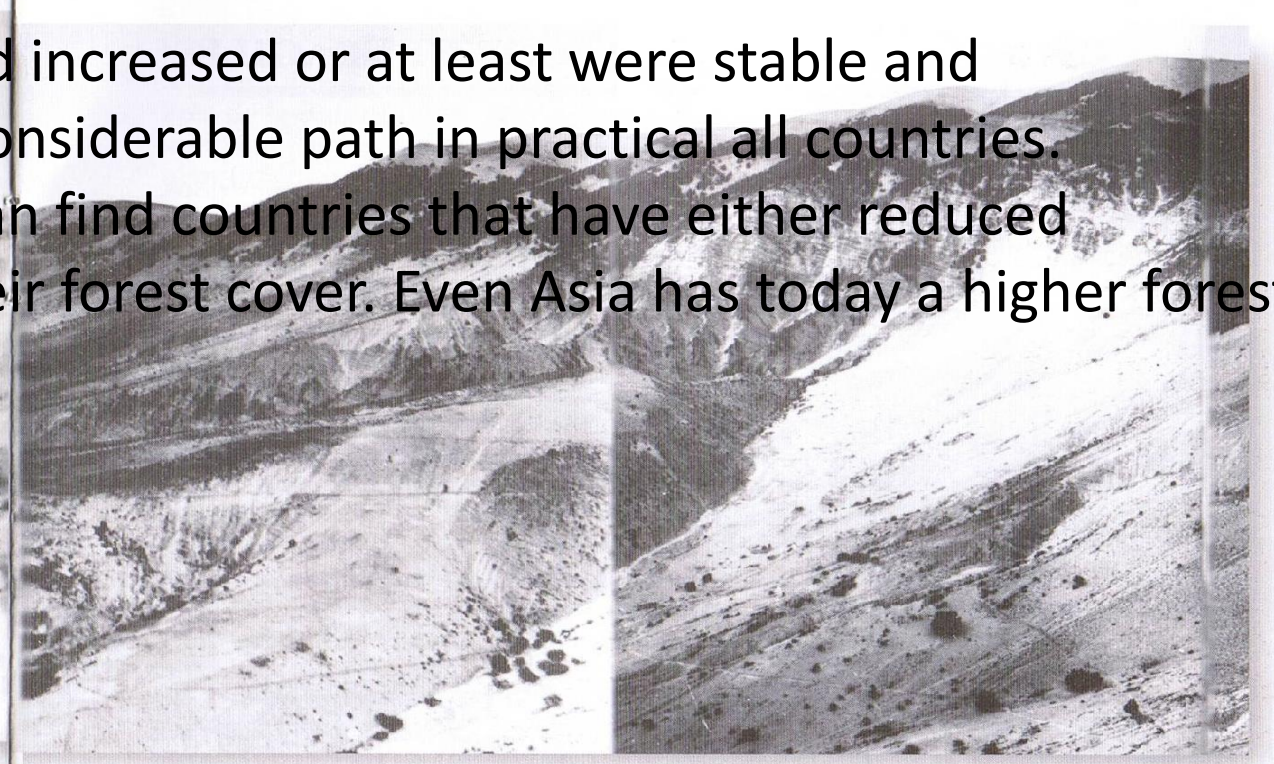


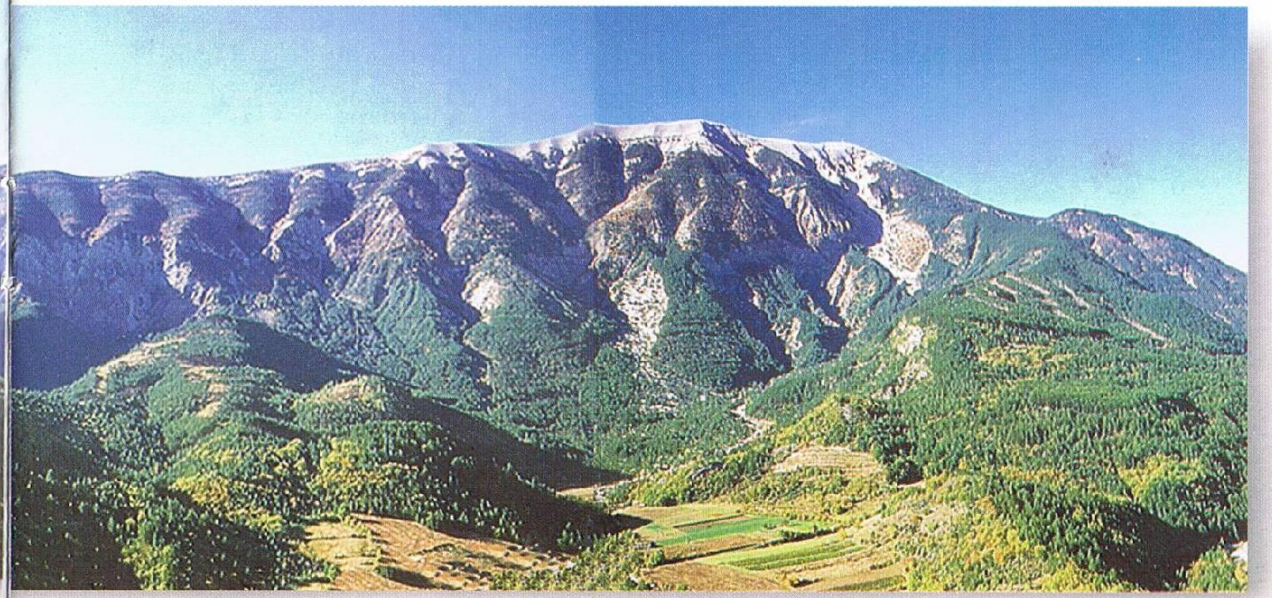
Whereas in 1990 forests in the developed world increased or at least were stable and forests in the developing world were lost at a considerable path in practical all countries. Nowadays in Latin America, Africa or Asia we can find countries that have either reduced considerable deforestation or even increase their forest cover. Even Asia has today a higher forest increase tan Europe or North America



Le Mont Ventoux au début du siècle...

... et aujourd'hui





Some inspiring country experiences: Central America: Costa Rica

Country	Costa Rica	El Salvador	Guatemala	Honduras	Nicaragua	Panamá	México
1990/2015 % p.a.	+0,3	-1,4	-1,2	-2,3	-1,5	-0,4	-0,2

- 1st country in the World adopting in 1996 a full country coverage policy of PES
- Broadly base forest fund (water, gasoline, foreign departure taxes, development aid)
- Clear political will
- Intensification of agriculture
- Research based policy decisions (CATIE): agroforestry (coffee)
- Circulus virtuosus: tourism

Some inspiring country experiences: South America: Chile

- Forest area 1990 vs 2015: **+0,6% p.a**
- Driven by diversification of cupper mining dependence and doubts on the viability of cattle and cereal based agriculture for exports (1970)
- Dual forestry:
  a) highly concentrated plantation based model (6 now 2 corporations)
  b) native forests protected and mostly state owned
- Efficient forest service: also natural forests expanded

Some inspiring country experiences: South America: Uruguay

- Forest area 1990 vs 2015: **+3,4%**
- Diversification of cattle-based agriculture
- Marginal land ownership changes
- Overcoming log export orientation (industrialization)
- Small plantations

Some inspiring country experiences: South America: Brazil

Country	Brazil	Paraguay	Venezuela	Argentina	Colombia	Perú	Ecuador	Bolivia
1990/2015 % p.a.	-0,4	-1,3	-0,4	-1,0	-0,4	-0,2	-0,6	-0,5

- 2,5 Mio 1990/2000 to 1,0 Mio 2010/2015 **(-60%)**
- Strong internal political debates and struggles
- Political decision around 2006 (Forest law)
- Strong capacities in remote sensing (15 days country wide monitoring)
- New plantations and private estates in Amazonas (80%) need to preserve a % of natural forests
- Strong efforts in identifying and preserving public estates (60%) and especially indigenous forests (20%)
- Deforestation municipalities and private estates over-deforesting access to public credits and grants impeded

Some inspiring country experiences: Caribbean: República Dominicana

Country	República Dominicana	Cuba	Puerto Rico	Haiti
1990/2015 % p.a.	+2,4	+1,8	-2,2	-0,7

- Loss of subsistence agriculture (exc. Haiti)
- Strong political will (tourism)
- Important natural expansion

Some inspiring country experiences: EU-Mediterranean: Spain

Country	Spain	Greece	France	Italy	Portugal
1990/2015 % p.a.	+1,2	+0,8	+0,7	+0,8	-0,3

- Preservation of public forests and full country coverage by public forest service (late XIX Century)
- Afforestation plan (1939) strongly politically backed by Franco regime as a rural freedom tool: 4 Mio ha planted
- Rural abandonment accelerated since 1950: natural expansion as high as planting
- Forest fires risk achievements since 70s but huge investments in repression bring some release since 90s (2/3 of budget)
- Important protected area network
- Plantations in private land <5% of forests

Some inspiring country experiences: Non EU-Mediterranean: Turkey

Country	Turkey	Morocco	Algeria	Tunisia	Syria	Lebanon	Israel	Iran
1990/2015 % p.a.	+0,8	+0,5	+0,6	+1,9	+1,1	+0,2	+0,9	+0,7

- Very efficient full country coverage forest service
- 100% state owned
- Revolving fund 2,5 B $/a (2/3 forest income, 1/3 state and external funding)
- Very efficient fire repression system
- Afforestation with native species

Some inspiring country experiences: Sub-Saharan Africa: Cabo Verde

- Forest area 1990 vs 2015: **+1,8%** p.a.
- Considerable afforestation programs 80s supported by B
- Improvement of soil protection and fuel wood supply
- Use of *Prosopis*
- Highest forest coverage increase of Africa

Some inspiring country experiences: Sub-Saharan Africa: Gambia

Country	The Gambia	Senegal
1990/2015 % p.a.	+0,2	-0,5

- Early implementation of community based forest management

Some inspiring country experiences: Sub-Saharan Africa: Rwanda

Country	Rwanda	Lesotho	Swaziland
1990/2015 % p.a.	+1,7	+0,8	+0,9

- Strong and efficient law enforcement
- Political will for FLR
- Small countries advantage? (+Cabo Verde)

Some inspiring country experiences: Sub-Saharan Africa: Gabon

- Forest area 1990 vs 2015: **+0,4%** p.a.
- Political will
- Protected areas and forest certification

Some inspiring country experiences: Asia: South Korea

- Forest area 1990 vs 2015: -0,1% (63% forest cover, similar to N, S, FIN, CND)
- Inmense impact of war deforestation
- Mountainous nature
- Political and social will to revert deforestation
- Native species
- Full restored country
- Similar to Japan

Some inspiring country experiences: Asia: Bhutan

Country	Bhutan	Nepal
1990/2015 % p.a.	+0,4	-1,1 (2,1 1990/2000 to 0,0 2010/2015)

- Constitutional forest protection (60%)
- Mountainous country
- Soil protection key
- Export of hydropower is expected to bring 5 Bio $/a
- Nepal: political instability, weaker government but forefront community based forest management

Some inspiring country experiences: Asia: China

Country	China	Vietnam	DR Korea
1990/2015 % p.a.	+1,1	+1,8	-1,9

- Wars, poverty, hunger and instability brought forest cover in 70s to a dramatic low
- Political will to restore forest cover
- 80 Mio ha forest increase in 40 years
- Native species (intensive *Populus*)
- 85% of forests as long term lease to local farmers

Some inspiring country experiences: Asia: India

Country	India	Bangladesh	Myanmar	Thailand	Indonesia	Philippines	Lao
1990/2015 % p.a.	+0,4	-0,2	-1,2	+0,6	-1,1 (1990/2000 1,7 -> 0,7 2010/2015)	+0,8	+0,2

- Brits set up German influenced forest service in 1860 before than at home
- High rural population density considerable deforestation and degradation (fuel, fodder, agriculture)
- Joint management progressively implemented
- Trees outside forests copping with high wood demand
- Increasing efficiency in preserving remaining forests and restoration of degraded ones

Some conclusions

- Scientific and technical high quality management required
- We need all forests to preserve biodiversity, protect soil, combat change, regulate water cycle, etc. and most for the supply of bio-raw materials despite functional preference may diverge locally
- Considerable part of biodiversity adapted to smooth human management
- Clear and sure tenure rights crucial and policies need to adapt to prevailing ownership type
- PES is an excellent qualitative tool for biodiversity mainstreaming: stable funding crucial (revolving funds)
- Where plantations feasible, incentives need to take this into consideration (returns, environmental services)
- Parallel process may be supportive (land abandonment until certain degree, population stabilization, stable political conditions) or breaking (instability)


Thanks for your attention!
¡Muchas gracias por su atención!