

International Perspectives on Bio-energy and Forestry

M. Hosny El Lakany

Adjunct Professor

Forestry Department, UBC

International Perspectives on Bio-energy and Forestry

- Bio-energy & Forestry sectors high on international agendas, almost independently.
- Need harmonize policies addressing both

International Perspectives on Bio-energy and Forestry

- Review historic evolution of international discussions of both sectors,
- Forests as a source of biomass (i.a.),
- Elements shaping forest sector in future,
- Implications to bio-energy sector.

International debate on Forests

- UNCED 1992 , (Forest Principals),
- Chapter 11, AGENCA 21,
- ECOSOC; Intergovernmental Forum on Forests, (IPF) 1995-97;
- Interg'l Forum on Forests (IFF), 97-00,
- United Nations Forum on Forests (UNFF), 2000-....
- Collaborative Partnership on Forests (CPF).

Bio-energy on international agenda

- UN Conference on New and Renewable Sources of Energy, 1981; Nairobi Plan of Action on NRSE;
- UNCED 92, Agenda 21;
- UN Millennium Declaration; MDG's;
- World Summit on Sust. Devel.'t , (WEHAB);
- Inter'l Conf. Ren. Energy, Bonn 2004;(Political Declaration & Intern'l Action Plan);
- CSD (2006-7); GEF; G-8 Task Force Renewable Energy; UNDP; WB

Global forest resources

- Coverage
- Growing stock, (Biomass);
- Deforestation;
- Plantations;
- Conservation

Global Forest Resources Assessment 2005

Progress towards sustainable forest management

FAO
FORESTRY
PAPER

147



THE WORLD'S FORESTS

30%

OF TOTAL LAND AREA

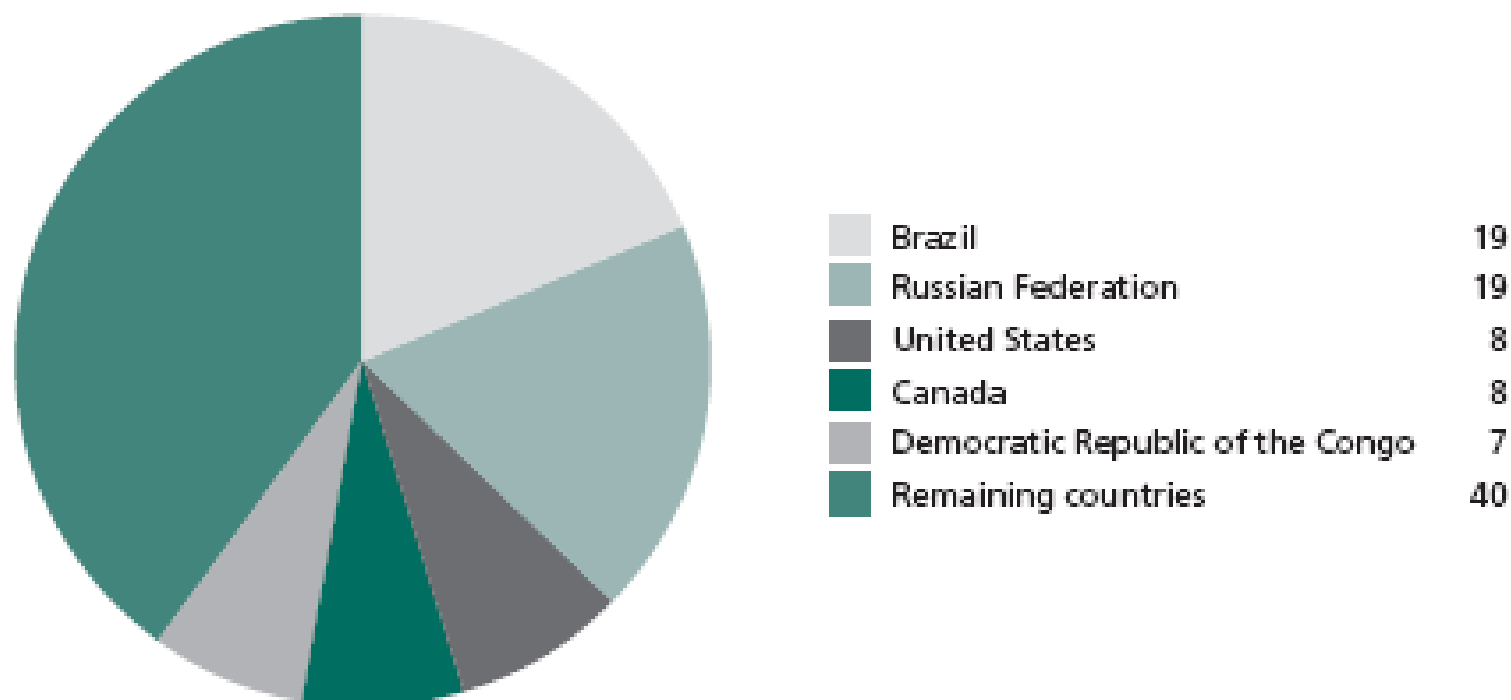
4,000,000,000 ha



THE WORLD'S FORESTS



FIGURE 5.8
Five countries with greatest total growing stock 2005
(%)



CHANGE IN FOREST AREA 1990-2005

DEFORESTATION 13 million ha/yr

NET FOREST LOSS

1990-2000 8.9 million ha/yr

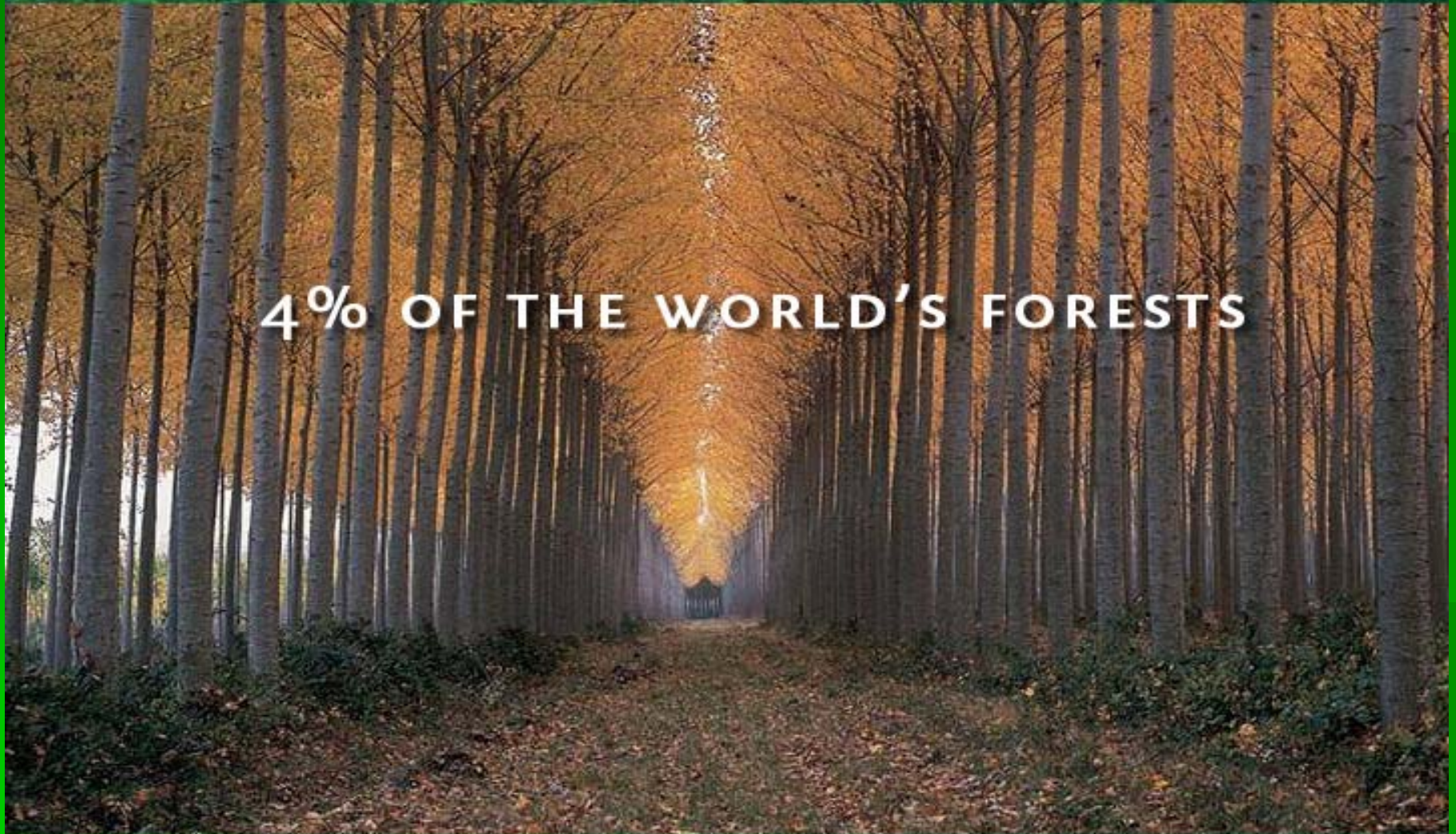
2000-2005 7.3 million ha/yr

200 KM² PER DAY



FOREST PLANTATIONS

4% OF THE WORLD'S FORESTS



Forest plantations are increasing

FIGURE 5.5
Ten countries with largest area of productive forest plantations 2005
(%)

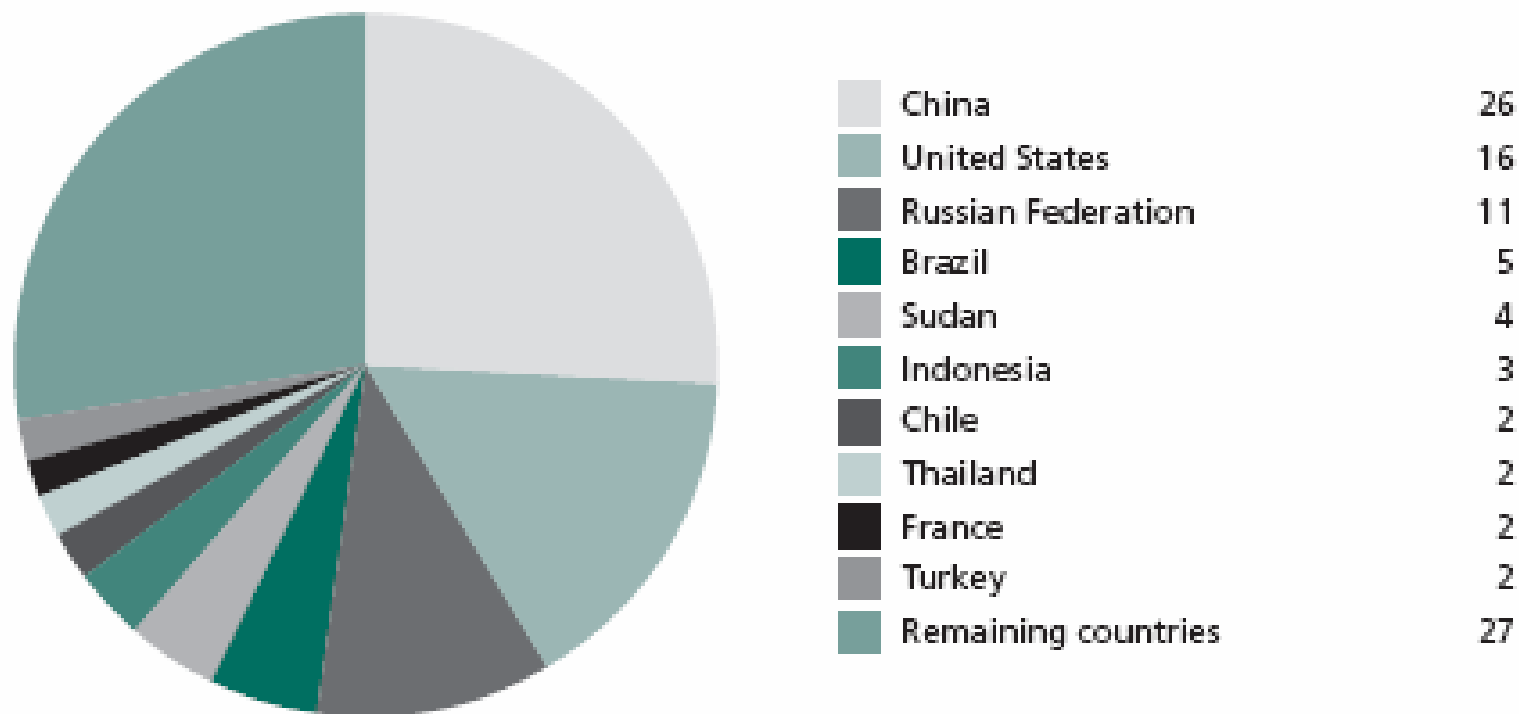
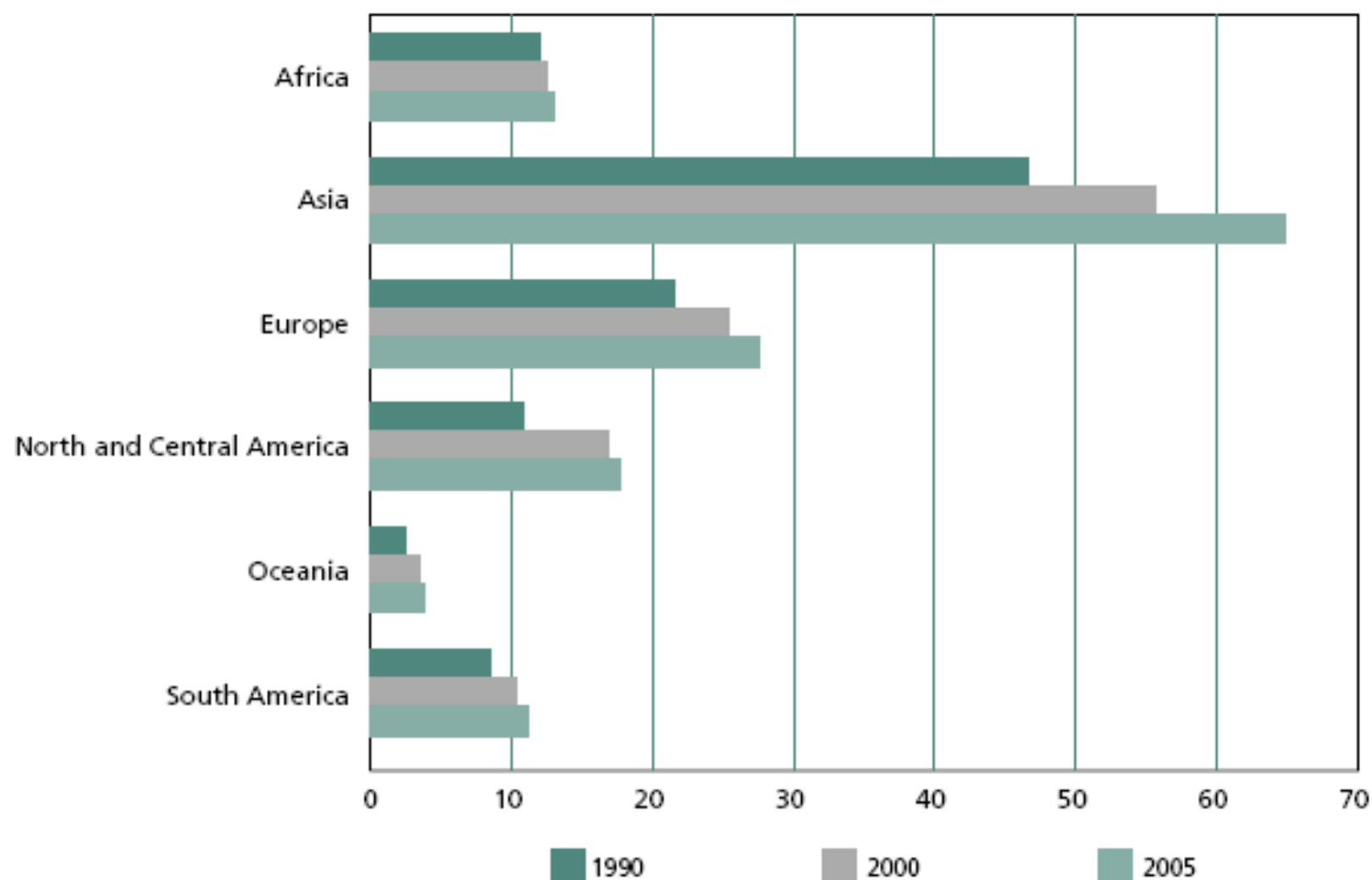


FIGURE 7
Changes in forest plantation area 1990–2005
(million ha)



- More than 300 million hectares of forests are designated for soil and water conservation
- 11% of the world's forests are designated for the conservation of biological diversity

FIGURE 11
Designated functions of forests globally 2005
(%)

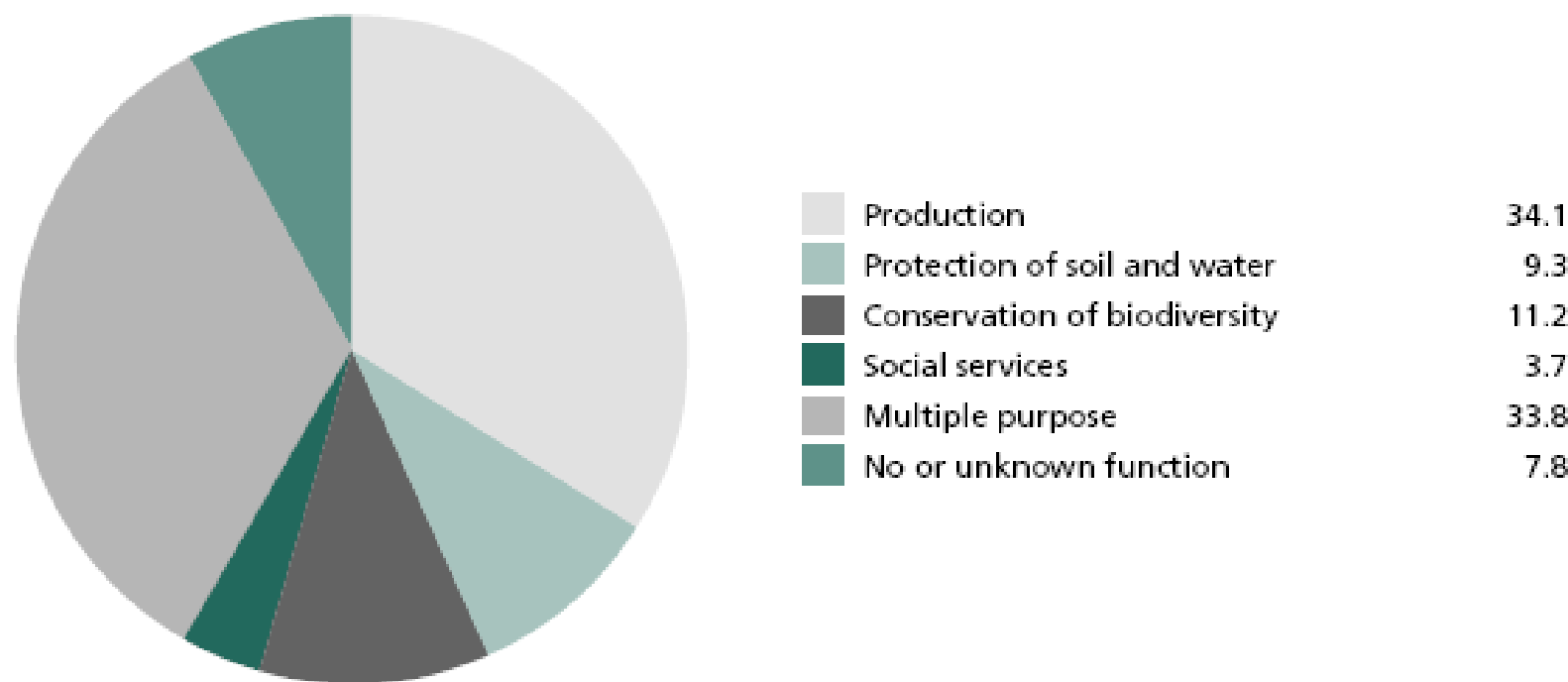
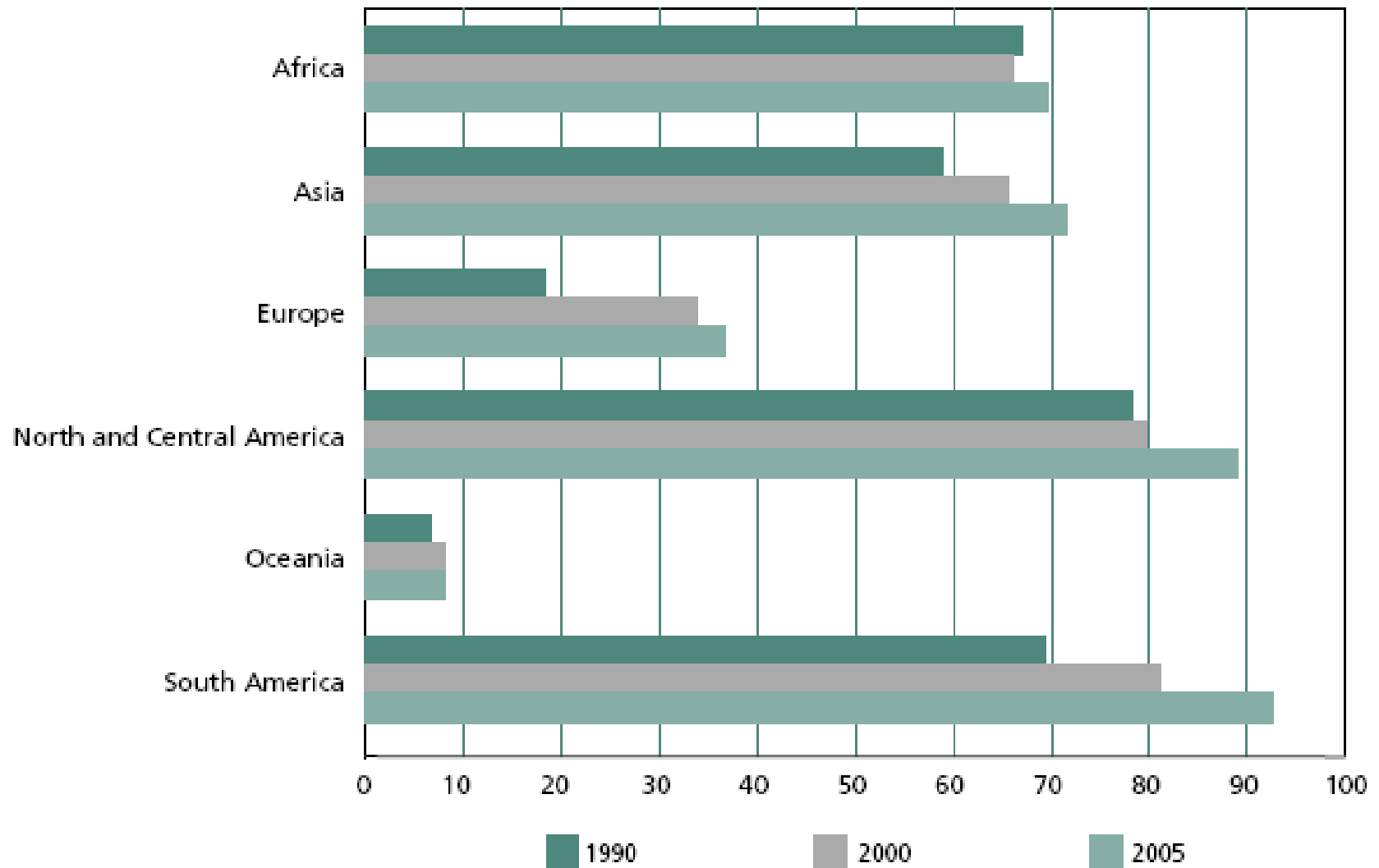


FIGURE 12
Forests designated for conservation 1990–2005
(million ha)



Elements shaping forest sector in future

- Balance Economic; Environmental and Social values.
- Public perception;
- Pests & Diseases, fires, loss of Biodiversity; Global warming;
- Endemic and Epidemic diseases (Malaria, HIV/AIDS);
- Political unrest and armed conflicts

Elements shaping forest sector in future (cont.)

- Research;
- Education;
- Policies of other sectors (Agriculture, Energy, Recreation ..etc);
- International Forest “Arrangements”.

International action to realize full potential of Bio-energy

- FAO Comm. On Forestry, COFO 2005.
- Policies and Institutions: (fragmentation, coordination, cross-sec. approaches, legislations, overlap International Organizations);
- Capacities: (Training, tools for project dev't,, weak info. on resources, production, trade, consumption etc.);
- Tec. / Econ. (Conversion tech. & econ., energy balance, guidelines and standards, harvesting, transport & storage).

Harmonizing policies for forest resources management and bio-energy development

- Economic aspects: (econ's of conversion, competition with other uses,
- Technical aspects: (Sustainable Forest management ; Deforestation; Conservation; Plantations;)
- Social aspects: (Public pressure; Participatory management; Decentralization, Communications)

Harmonizing policies for forest resources management and bio-energy development (cont.)

- Trans-boundary issues (Externalities):
- Trans-national investments, Trade
- Certification;
- Forest Law Compliance; illegal logging and trade ;
- Public procurement policies;
- International Arrangements on Forests;
- Other issues of global concern (Poverty alleviation; Security