

A large background image showing a scenic landscape with a forested hillside in the foreground, a lake in the middle ground, and snow-capped mountains in the distance under a cloudy sky.

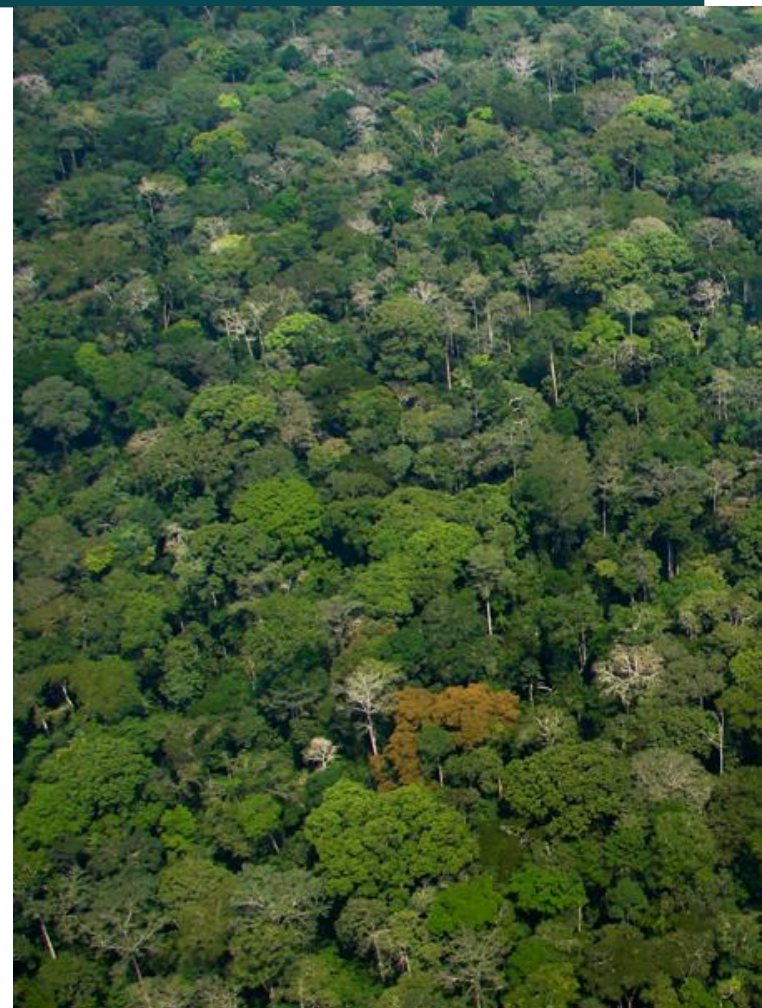
Forest Biodiversity Status, trends, drivers, gaps and opportunities

Special Information Seminar
Biodiversity for food and agriculture: take stock for the future
Rome, 13 April 2013



FOREST BIODIVERSITY

- Over 80,000 tree species
- Planted forests:
 - 7% total forest area,
 - 50% industrial round wood production
- Long-lived, mostly wild species and populations managed in natural ecosystems, most genetically diverse organisms
- Dynamic *in situ* conservation of genetic diversity and processes
- Country reports on FGR: over 3,800 species threatened at different levels
- Most threats are related to human induced processes of forest degradation and deforestation, including land use change.



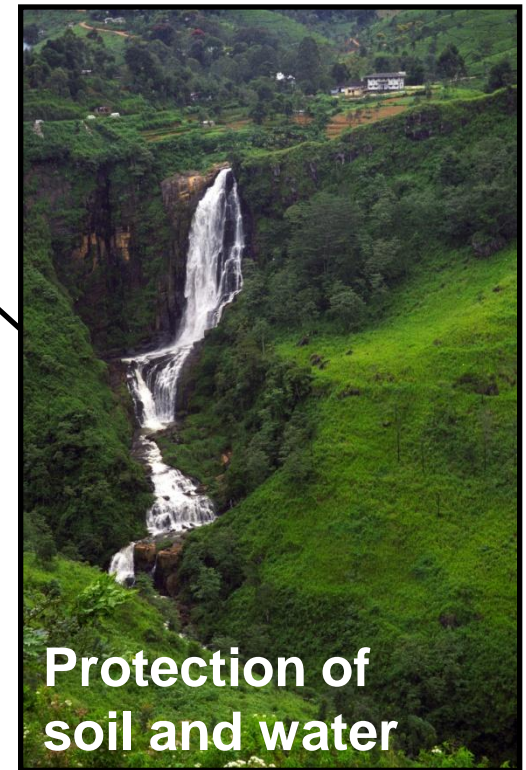
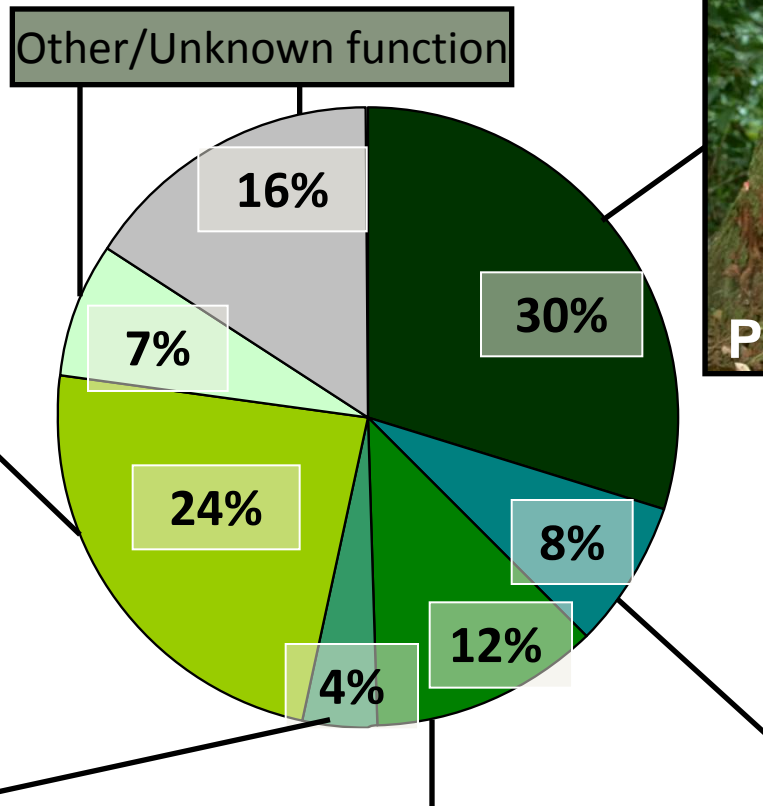
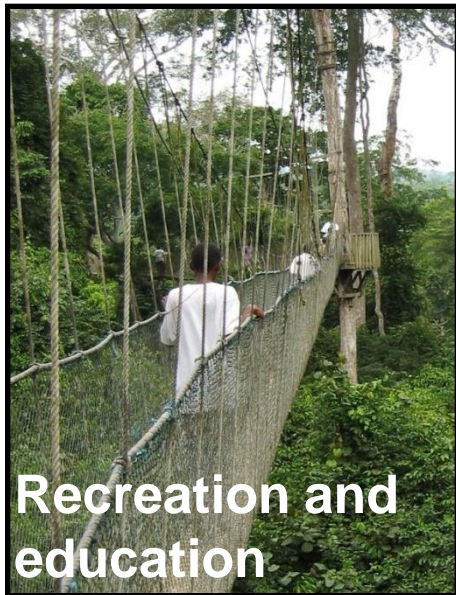


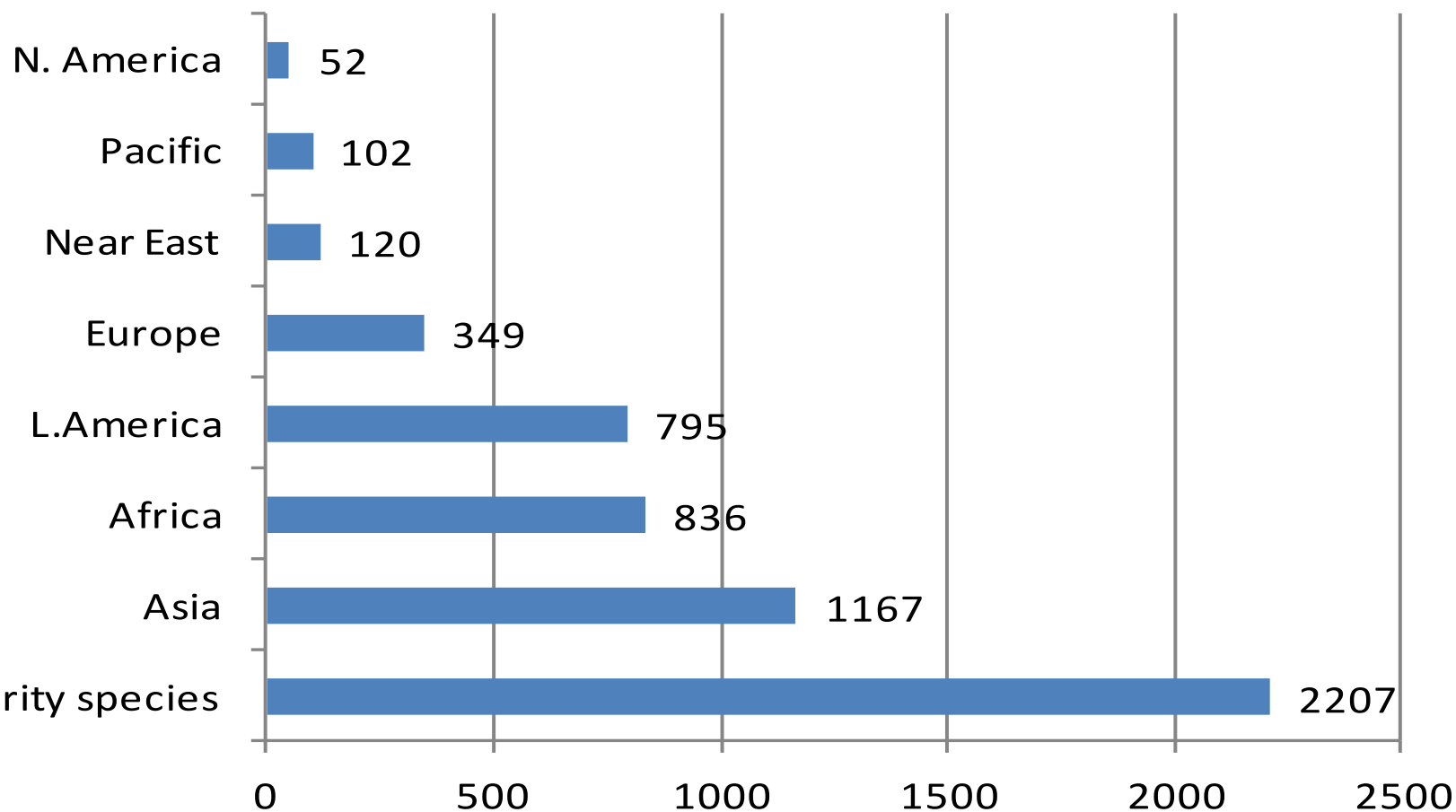
Multiple uses and functions

- Commodities from forest plants include a wide range of products (timber, wood energy, food, fodder, etc), which contribute to the economic development of countries and welfare of people.
- Environmental and ecosystem services
- Different management objectives and systems (production, protection, conservation ... often combined)



Management, conservation and use

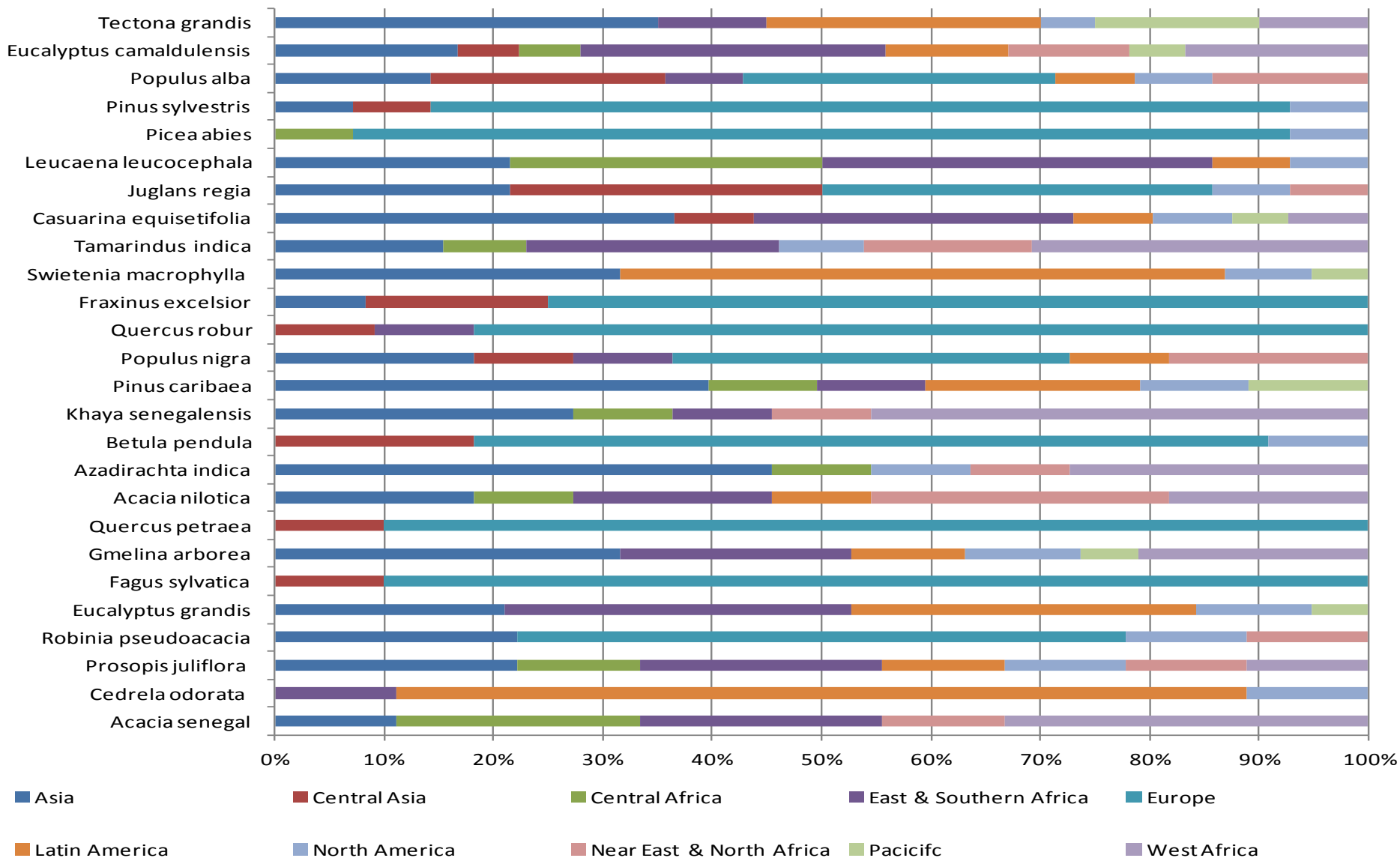




Country Reports FGR: 7950 species mentioned, 2207 priority species
(not only trees – mostly locally important species)

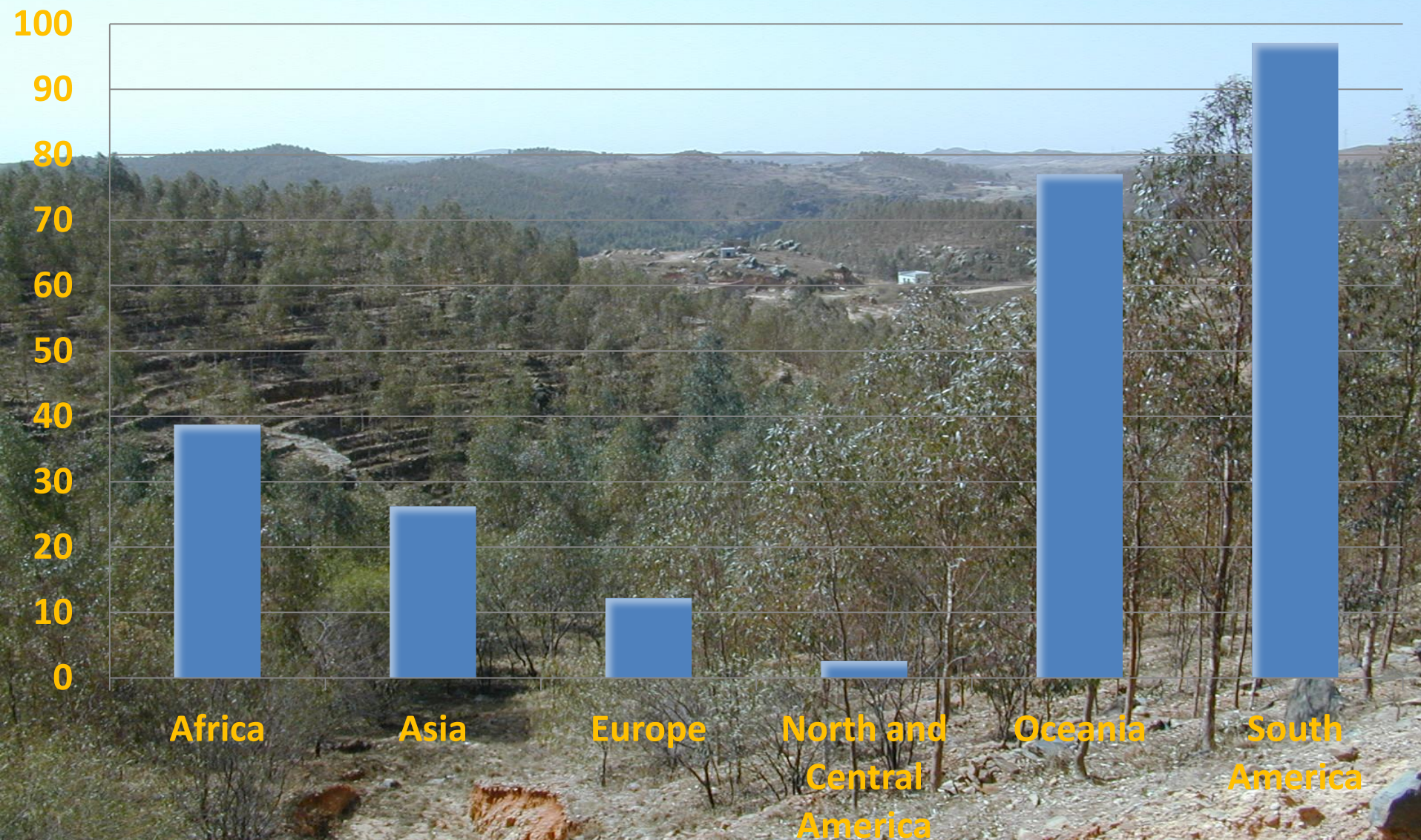


Only 25 priority species mentioned by 10 or more country reports





Proportion of planted forests consisting of introduced species, 2010 (%)





Trends and Drivers

- Forest loss and degradation
- Ecosystem restoration
- Decentralized/local management and development
- Climate change





Knowledge and Information

Country reports on FGR:

- A total of 620 species as genetically characterized
- 570 species are included in tree improvement programmes
- Over 800 species are targeted in *in situ* conservation programmes
- Over 1600 species are conserved *ex situ*, mainly living collections/stands





Gaps and Opportunities

- Indicators for FGR under development
- Inadequate information on actual status at country level
- A few species are very well studied and genetically characterised, mainly temperate species and a few important tropical planted species (less than 1% of 80,000)
- Quantitative genetic knowledge has led to significant productivity gains in a small number of tree species that have high value as plantation timber
- Genomic knowledge of forest trees lags behind that of model herbaceous species, but novel approaches have been developed to link markers to important traits.
- Great potential benefits from domestication



A low-angle, upward-looking photograph of a large, ancient tree. The trunk is thick and textured, with visible bark. The branches spread out in all directions, covered in lush green leaves. The sky is visible through the canopy. The text "THANK YOU" is overlaid in the center in a blue, sans-serif font.

THANK YOU