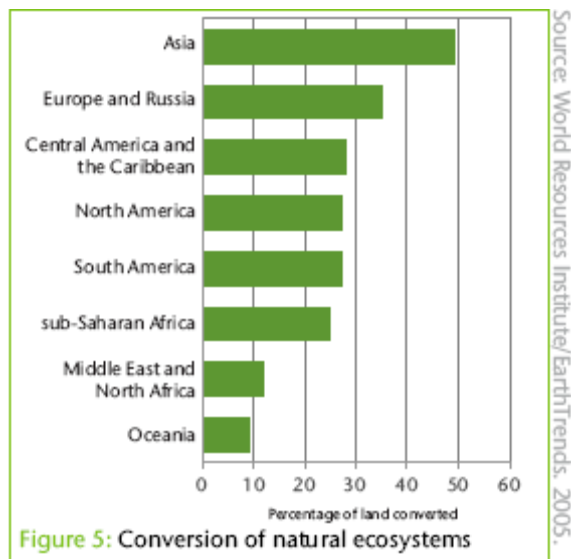




ECOSYSTEMS

Water scarcity

- Around **6,000 children die every day due to preventable infections spread by dirty water or improper sanitation facilities.**¹
- Around the world, 70% of water is used for agriculture.²
- Approximately **two-thirds of the world's population will be living in water-stressed countries by 2020**, defined as less than 1,700 cubic meters/person annually.³
- More than half of freshwater resources worldwide are in Latin America (31%) and Asia (27%).⁴



Climate change

- Climate change is one of the direct drivers of ecosystem change that is expected to become increasingly prominent over the next 50 years.⁵
- Frequent fluctuations in temperatures will increase coral bleaching and mortality.⁶

Habitat change

- Since 1900, about half of the world's wetlands have disappeared.⁷
- In the world, there are less than 4 billion hectares of forest, which accounts for 30% of land area globally.⁸
- Between 2000 and 2005, the annual net decrease in forest area was about 7.3 million hectares (an area about the size of Sierra Leone or Panama), reduced from 8.9 million hectares per year from 1990 to 2000.⁹



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Biodiversity loss and invasive species

- Biodiversity tends to increase moving from the poles to the equator.¹⁰
- **One third of all species live in the Brazilian Amazon.**¹¹
- Marine and freshwater species in decline. According to the World Wildlife Fund, the marine species index declined around 30 percent from 1970 to 2000.¹² In the last century, 91 freshwater species went extinct.¹³
- Biological products and processes provide a base for approximately 40% of the world market.¹⁴
- It is estimated that the cost of invasive species to the United States economy alone is \$137 billion a year.¹⁵
- Pharmaceuticals derived from genetic resources have an estimated global market value of US \$75-150 billion annually.¹⁶

Overexploitation of oceans

- Within 20 to 30 years, the number of inhabitants in coastal zones around the world is expected to double.¹⁷
- An estimated half a billion people live within 100 kilometers of a coral reef.¹⁸
- Anthropogenic stress accounts for the majority of damage to coral reefs.¹⁹

Nutrient overloading

- Human activities, particularly agriculture, have significantly changed nutrient balances and cycles.²⁰
- **Soil nutrient depletion affects more than 85% of agricultural lands in Africa.**²¹

Pollution

- **Up to 90% of waste water in developing countries is discharged without treatment.**²²
- Between 2004 and 2009, the global market for electronic waste is projected to rise at an average annual growth rate of 8.8% from US \$7.2 billion to US \$11 billion.²³

Ecosystems for Development

Different industry sectors have different uses for and impacts on ecosystems and the services they provide. The sustainable use of ecosystems presents many opportunities for them to develop new technologies and products to serve as substitutes for ecosystem products or increase the efficiency of service use.

Notes

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