FOREST RESOURCES

Forests are among the most diverse and widespread ecosystems on earth, and have many functions: they provide timber and other products; deliver recreation benefits and ecosystem services including regulation of soil, air and water; are reservoirs for biodiversity; and commonly act as carbon sinks. The impact from human activities on forest health and on natural forest growth and regeneration raises widespread concern. Many forest resources are threatened by overexploitation, degradation of environmental quality and conversion to other types of land uses. The main pressures result from human activities: they include agriculture expansion, transport infrastructure development, unsustainable forestry, air pollution and intentional burning of forests.

To be sustainable, forest management must strive to maintain timber value as well as environmental, social and aboriginal values. This includes optimal harvest rates, avoiding excessive use of the resource, and at the same time not setting harvest rates too low (particularly where age classes are unbalanced), which can reduce productive capacity. Performance can be assessed against national objectives and international principles on sustainable forest management adopted at UNCED (Rio de Janeiro, 1992). Other international initiatives are the Ministerial Conferences for the Protection of Forests in Europe (Strasbourg, 1990; Helsinki, 1993; Lisbon, 1998), which led to the Pan-European Criteria and Indicators for Sustainable Forest Management, the Montreal Process on Sustainable Development of Temperate and Boreal Forests; and the UN Forum on Forests. The main challenge is to ensure a sustainable management of forest resources, avoiding overexploitation and degradation, so as to maintain adequate supply of wood for production acitivities, and to ensure the provision of essential environmental services, including biodiversity and carbon sinks.

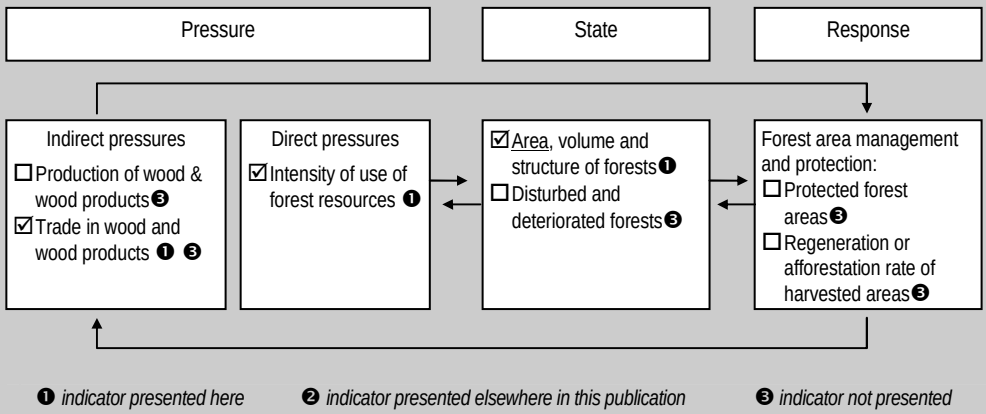
Indicators presented here relate to:

- *the intensity of use of forest resources (timber), relating annual productive capacity to actual harvest. Annual productive capacity is either a calculated value, such as annual allowable cut, or an estimate of annual growth for existing stock. The choice depends on forest characteristics and availability of information. NB: a measure based on a national average can conceal variations among forests. Changes in annual harvest, annual growth and growing stock are given as complementary information.*
- *area of forest and wooded land, as a percentage of total land area and per capita, along with changes in the area of forest and wooded land since 1970.*

These indicators give insights into quantitative aspects of forest resources. They present national averages that may conceal important variations among forests. They should be related to information on forest quality (e.g. species diversity, forest degradation), on output of and trade in forest products and be complemented with data on forest management practices and protection measures.

FOREST RESOURCES: ONGOING WORK AND REFERENCES

♦ **OECD CORE SET AND RELATED INDICATORS**



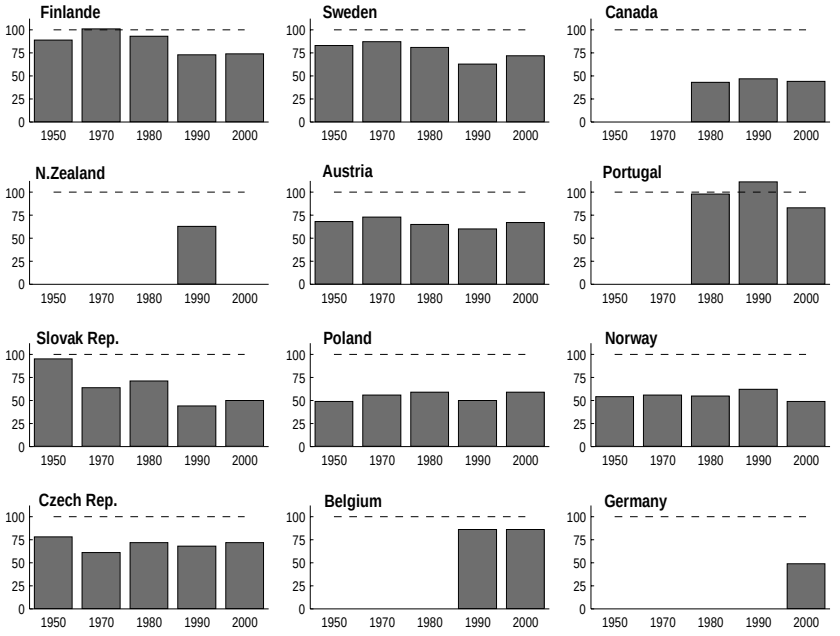
❶ *indicator presented here* ❷ *indicator presented elsewhere in this publication* ❸ *indicator not presented*

♦ **REFERENCES**

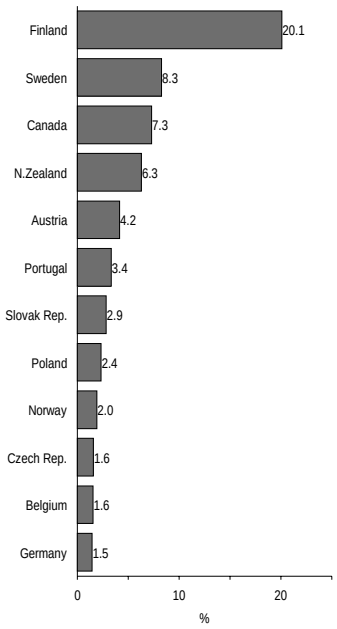
🕮 OECD (1995), Forestry, Agriculture and the Environment
🕮 OECD (1995), Workshop on Forestry, Agriculture and the Environment — Country Case Studies
🕮 OECD (2001), OECD Environmental Outlook, Chapter 10, Forestry
🕮 OECD (1999), OECD Environmental Data — Compendium 1999

INTENSITY OF USE OF FOREST RESOURCES 13

Intensity of use of forest resources (harvest as % of annual growth)



Forest products as % of national exports of goods, 2003



	Intensity of use of forest resources harvest as % of annual growth					Annual harvest % change since 1980	Annual growth % change since 1980	Exports of forestry products % of national exports 2003
	1950s	1970s	1980s	1990s	2000s			
Canada ♦	..	..	43	47	44	14.6	12.0	7.3
Mexico ♦	..	..	23	24	17	-35.1	-10.4	0.1
USA ♦	61	56	56	60	..	..	..	1.4
Japan ♦	..	..	..	54	42	-32.5	..	0.2
Korea ♦	..	42	..	7	6	-16.6	..	0.7
Australia ♦	..	..	40	..	57	15.7	-17.6	1.5
N.Zealand ♦	..	..	..	63	..	70.9	..	6.3
Austria ♦	68	73	65	60	67	53.3	47.8	4.2
Belgium ♦	..	..	..	86	86	..	..	1.6
Czech Rep. ♦	78	61	72	68	72	3.7	4.5	1.6
Denmark ♦	85	118	75	60	69	2.6	12.2	0.4
Finland ♦	89	101	93	73	74	-7.2	17.4	20.1
France ♦	..	..	81	82	60	8.3	46.9	1.4
Germany ♦	..	..	..	..	49	..	..	1.5
Greece ♦	..	..	71	..	60	-12.2	2.9	0.3
Hungary ♦	..	60	70	67	53	-22.0	2.2	1.1
Ireland ♦	27	28	35	68	68	144.5	27.3	0.3
Italy	88	..	43	..	46	-2.7	-9.7	1.0
Luxembourg ♦	..	..	49	72	52	5.8	-0.2	0.3
Netherlands ♦	..	..	41	42	60	..	..	1.0
Norway ♦	54	56	55	62	49	11.3	25.6	2.0
Poland ♦	49	56	59	50	59	-1.2	-0.5	2.4
Portugal ♦	..	..	98	111	83	..	..	3.4
Slovak Rep. ♦	95	64	71	44	50	12.5	60.4	2.9
Spain ♦	..	59	46	40	52	94.3	72.7	1.1
Sweden ♦	83	87	81	63	72	..	..	8.3
Switzerland ♦	..	..	71	78	78	..	..	1.3
Turkey ♦	..	67	82	52	43	-40.2	13.4	0.3
UK ♦	..	..	48	59	65	72.7	27.9	0.5
OECD ♦	..	..	57	..	56	8.0	9.5	1.8

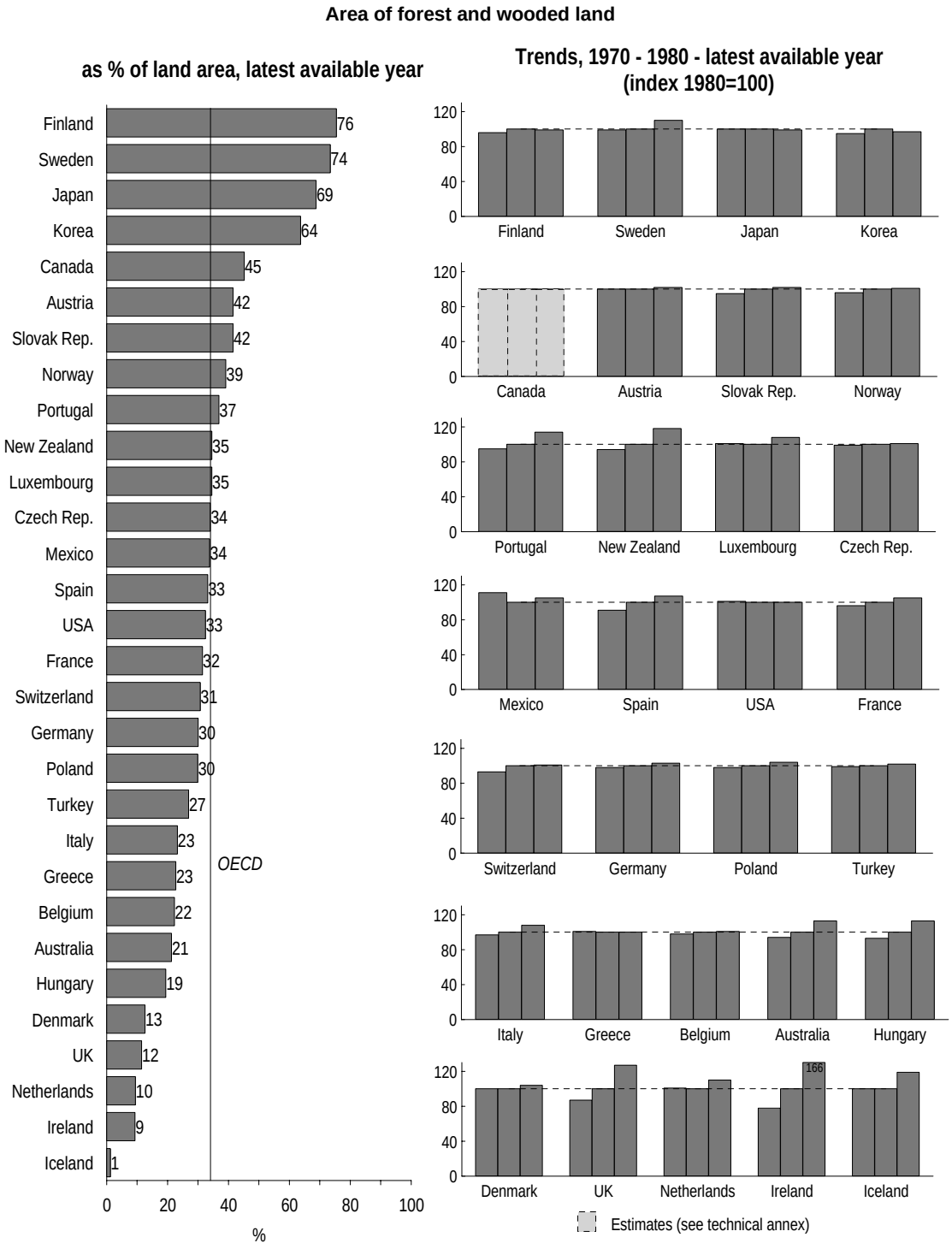
♦ *See Technical Annex for data sources, notes and comments.*

STATE AND TRENDS

SUMMARY

Intensity of forest resource use does not show an increase for many OECD countries and has decreased in most countries since the 1950s. At national level most OECD countries present a picture of sustainable use of their forest resources in quantitative terms, but with significant variations within countries.

14 FOREST AND WOODED LAND



STATE AND TRENDS SUMMARY

The area of forests and wooded land has generally increased or remained stable at national level in most OECD countries and has remained stable in the OECD as a whole, but has decreased at world level.