



# CONTENTS

*See page 413 for English summary*

<b>Foreword</b> .....	5
<b>Contents in brief and editors</b> .....	6
<b>List of tables and figures</b> .....	17
<b>Explanation of symbols</b> .....	28
<b>Tree species</b> .....	28
<b>Maps</b> .....	29
<b>Sammandrag</b> .....	403
<b>Summary</b> .....	413
<b>Index</b> .....	429

\* new figure or table

## I FOREST RESOURCES

<b>Text</b>	[in Finnish] .....	
	Literature .....	39
<b>Figures</b>	1.1 Mean growing stock volumes on forest land .....	41
	1.2 Land use in Finland .....	42
	1.3 Forestry land, growing stock and annual increment of the growing stock by forest ownership category .....	42
	1.4 Growing stock volumes on forest and scrub land since the 1920s .....	43
	1.5 Age structure of forests in the 1960s and 2000s .....	43
	1.6 Tree species dominance, growing stock volumes, annual increment of the growing stock and total drain on forest and scrub land by tree species .....	44
	1.7 Annual increment of the growing stock and growing stock drain .....	44
	1.8 Transaction prices paid for forestry land by province, 1985–2006 .....	45
	1.9* Greenhouse gas emissions and removals from forest land carbon pools in Finland, 1990–2005 .....	45
<b>Tables</b>	1.0 Finland's forest resources in brief .....	46
	<b>Area distributions</b>	
	1.1 Land use from the 1960s to the 2000s .....	47
	1.2 Forestry land .....	48
	1.3 Distribution of forestry land into mineral-soil sites and mires .....	49
	1.4 Drainage situation on forestry land .....	50
	1.5* Ownership of forestry land and forest land .....	51
	1.6 Number of non-industrial, private forest holdings, January 1, 2006 .....	52
	1.7 Transaction prices paid for forestry land, 2005–2007 .....	53

1.8	Transaction prices paid for forestry land by province, 1985–2006 .....	54
1.9	Tree-species dominance on forest land .....	55
1.10	Age of forest stands on forest land .....	56
1.11*	Forest land available for wood supply by stand development class .....	57
1.12	Establishment methods applied in seedling stands and young thinning stands on forest land .....	58
1.13*	Forest land available for wood supply by silvicultural state of forest stands .....	59
1.14*	Reasons for impairment in silvicultural state of forest stands on forest land available for wood supply .....	60
1.15*	Proposals for fellings during the following 10-year period after the inventory on forest land available for wood supply .....	61
	<b>Volume and structure of the growing stock, and volume increment</b>	
1.16	Growing stock volumes on forest and scrub land by tree species .....	62
1.17*	Growing stock volumes on forest and scrub land available for wood supply by tree species .....	63
1.18	Volume of the growing stock on forest and scrub land by forest ownership category .....	64
1.19	Mean growing stock volumes on forest land .....	65
1.20*	Mean growing stock volumes on forest land available for wood supply by development class .....	66
1.21	Growing stock volumes by roundwood assortment on forest and scrub land .....	67
1.22	Diameter distribution of the growing stock on forest land from the 1960s to the 2000s .....	68
1.23	Annual increment of the growing stock on forest and scrub land .....	69
1.24*	Annual increment of the growing stock on forest and scrub land available for wood supply .....	70
1.25	Mean annual increment of the growing stock on forest land .....	71
	<b>Growing stock drain and change in carbon stocks in trees</b>	
1.26	Total drain by forest ownership categories, 2006 .....	72
1.27	Total drain, 1953–2006 .....	73
1.28*	Finnish greenhouse gas emissions, 1990–2005 .....	74

## 2 FOREST BIODIVERSITY AND HEALTH

<b>Text</b>	[in Finnish] .....	
	Literature .....	81
<b>Figures</b>	2.1 Nature conservation areas .....	82
	2.2 Deposition of sulphur (S) and nitrogen (N), 2003 .....	83
	2.3 The portion of ozone during the growing period in certain areas of Finland, 1992–2006 .....	83
	2.4 Lead and cadmium concentration in mosses in 1985, 1995 and 2005–2006 .....	84
	2.5 Defoliation frequency distribution for pine, spruce and broadleaves on mineral-soil sites, 1986–2006 .....	85
	2.6 Proportion of damaged conifers (degree of defoliation > 25%) in various European countries, 2006 .....	85
<b>Tables</b>	<b>Forest biodiversity and protection</b>	
	2.1 Areas of protected forests and forests under restricted forestry use, January 1, 2005 .....	86
	2.2 Areas of protected forests and forests under restricted forestry use on forest and scrub land, January 1, 2005 .....	87
	2.3 Statutory nature conservation and wilderness areas on State land, October 11, 2007 .....	88

2.4	Implementation phase of nature conservation programmes, January 1, 2007 .....	89
2.5	Restorations of forests completed by the end of 2006 .....	90
2.6	Numbers of threatened species, 2000 .....	91
	<b>Ecosystem management in commercial forests</b>	
2.7	Especially valuable habitats as defined in the Finnish Forest Act in non-industrial, private forests, January 1, 2007 .....	92
2.8	Mean volume of decayed and other dead trees on forest and scrub land .....	93
2.9	Number of stems of certain broadleaves important for the biodiversity on forest and scrub land .....	94
2.10	Preserving the special features and retained stock of valuable habitats in roundwood removals in non-industrial, private forests, 1996–2006 .....	95
2.11	Retention trees in clear fellings in non-industrial, private forests, 1996–2006 .....	96
2.12	Degree of water protection in connection with harvesting and soil cultivation in non-industrial, private forests, 1996–2006 .....	97
	<b>Forest health</b>	
2.13*	Degree of forest damage on forest land available for wood supply .....	98
2.14*	Symptoms of forest damage reducing stand quality in timber production on forest land available for wood supply .....	99
2.15*	Occurrence of damaging agents reducing stand quality in timber production on forest land available for wood supply .....	100
2.16	Forest fires, 1970–2006 .....	101
2.17	Forest damage compensations, 1980–2006 .....	102

### 3 SILVICULTURE

<b>Text</b>	[in Finnish] .....	
	Literature .....	108
<b>Figures</b>	3.1 Natural and artificial regeneration, 1965–2006 .....	109
	3.2 Artificial regeneration and clear fellings, 1970–2006 .....	109
	3.3 Number of seedlings delivered for planting, 1966–2006 .....	110
	3.4 Proportion of qualified seed used in nurseries by main tree species, 1991–2006 ..	110
	3.5 Tending of seedling stands and improvement of young stands, 1950–2006 .....	111
	3.6 Forest fertilisation, 1964–2006 .....	111
	3.7 Forest drainage, 1980–2006 .....	112
	3.8 Construction and basic improvement of forest roads, 1950–2006 .....	112
	3.9 Area treated with fellings, 1970–2006 .....	113
	3.10 Total costs of silvicultural and forest-improvement works, 1963–2006 .....	113
	3.11 Financing of silvicultural and forest-improvement works in non-industrial, private forests, 1963–2006 .....	114
	3.12 The proportions of different silvicultural and forest-improvement works in the total costs, 1967–2006 .....	114
<b>Tables</b>	3.0 Silvicultural and forest-improvement works in brief, 2006 .....	115
	<b>Silvicultural and forest-improvement works</b>	
	3.1 Amounts of silvicultural and forest-improvement works, 2006 .....	116
	3.2 Preparation of regeneration areas, 2006 .....	117
	3.3 Preparation of regeneration areas, 1956–2006 .....	119
	3.4 Artificial regeneration by forest ownership category, 1951–2006 .....	120
	3.5 Artificial regeneration by tree species, 1970–2006 .....	121
	3.6 Afforestation of arable land, 1971–2006 .....	122
	3.7 Number of domestic seedlings delivered for planting, 1980–2006 .....	123
	3.8* Amounts of seed collected 2002–2006 .....	124
	3.9 Amounts of seed used in nurseries, 2006 .....	125

3.10	Tending of seedling stands and improvement of young stands, 1951–2006 .....	126
3.11	Pruning, 1983–2006 .....	127
3.12	Forest fertilisation, 1976–2006 .....	128
3.13	Ditch cleaning and supplementary ditching, 1951–2006 .....	129
3.14	First-time ditching, 1960–2000 .....	130
3.15	Construction and basic improvement of forest roads, 1956–2006 .....	131
3.16	Area treated with fellings, 2006 .....	132
3.17	Area treated with fellings, 1970–2006 .....	135
	<b>Costs of silvicultural and forest-improvement works</b>	
3.18	Total costs of silvicultural and forest-improvement works, 2006 .....	136
3.19	Total costs of silvicultural and forest-improvement works by type of work, 2006 .....	137
3.20	Total costs of silvicultural and forest-improvement works by type of work, 1970–2006 .....	140
3.21	Total costs of silvicultural and forest-improvement works by forest ownership category, 1963–2006 .....	141
3.22	Financing of silvicultural and forest-improvement works in non-industrial, private forests, 2006 .....	142
3.23	State loans and grants used for securing wood production, maintaining biodiversity and management of forest nature in non-industrial, private forests, 2006 .....	143
3.24	Unit costs of silvicultural and forest-improvement works, 2006 .....	145
3.25	Unit costs of ditch cleaning and supplementary ditching, 2006 .....	147
3.26	Unit costs of construction and basic improvement of forest roads, 2006 .....	148
3.27	Unit costs of some silvicultural and forest-improvement works in non-industrial, private forests, 1967–2006 .....	149

## 4 ROUNDWOOD MARKETS

<b>Text</b>	[in Finnish] .....	
	Literature .....	156
<b>Figures</b>	4.1 Variation in stumpage prices by forestry centre, 2006 .....	157
	4.2 Average stumpage prices in private forests by felling season, 1949/50–2006/07 .....	158
	4.3 Real stumpage price index by felling season, 1949/50–2006/07 .....	159
	4.4 Monthly stumpage prices of roundwood, 1986–2007 .....	159
	4.5 Weekly roundwood trade in non-industrial, private forests, 2005–2007 .....	160
	4.6 Commercial roundwood removals by month .....	160
	4.7 Commercial roundwood removals by forest ownership category, 1970–2006 .....	161
	4.8 Roundwood inventories of the forest industries, 1990–2007 .....	161
<b>Tables</b>	4.0 Key figures for the roundwood markets, 2006 .....	162
	<b>Roundwood trade in private forests</b>	
	4.1 Roundwood trade in non-industrial, private forests, 2006–2007 .....	163
	4.2 Roundwood trade in non-industrial, private forests by type of sale, 1988–2006 ...	164
	<b>Roundwood prices in private forests</b>	
	4.3 Average monthly stumpage and delivery prices in non-industrial, private forests, 2006–2007 .....	165
	4.4 Average stumpage prices in non-industrial, private forests by forestry centre, 2006 .....	166
	4.5 Average delivery prices in non-industrial, private forests by forestry centre, 2006 .....	167
	4.6 Average stumpage prices in non-industrial, private forests, 1949/50–2006 .....	168

4.7	Average delivery prices in non-industrial, private forests, 1983–2006 .....	169
	<b>Roundwood production</b>	
4.8	Commercial roundwood removals by forestry centre, 2006 .....	170
4.9	Commercial roundwood removals, in non-industrial, private forests, 2006 .....	170
4.10	Commercial roundwood removals out of standing and delivery sales, in non-industrial, private forests, 2006 .....	171
4.11	Commercial roundwood removals, in the forest industries' forests, 2006 .....	172
4.12	Commercial roundwood removals, in the forests of Metsähallitus, 2006 .....	172
4.13	Commercial roundwood removals by roundwood assortment, 1955–2007 .....	173
4.14	Commercial roundwood removals by forest ownership category, 1955–2007 .....	174
4.15	Total roundwood removals by forestry centre, 2006 .....	175
4.16	Total roundwood removals from non-industrial, private forests by forestry centre, 2006 .....	176
4.17	Total roundwood removals by roundwood assortment, 1985–2006 .....	177
4.18*	Estimates of cutting possibilities by forestry centre .....	178
	<b>Roundwood inventories of the forest industries</b>	
4.19	Roundwood inventories of forest industries on 30 June, 1980–2007 .....	179
4.20	Roundwood inventories of forest industries on 31 December, 1980–2006 .....	180
	<b>Wood fuel</b>	
4.21	Prices paid by heating and power plants for solid wood fuel, 2000–2006 .....	181

## 5 HARVESTING AND TRANSPORTATION OF ROUNDWOOD

<b>Text</b>	[in Finnish] .....	
	Literature .....	186
<b>Figures</b>	5.1 Harvesters in commercial roundwood production, 1982–2006 .....	187
	5.2 Degree of mechanisation in timber fellings, 1985–2006 .....	187
	5.3 Forwarders in commercial roundwood production, 1982–2006 .....	188
	5.4 Timber lorries in commercial roundwood transportation, 1982–2006 .....	188
	5.5 Imports of roundwood and wood residues by port and check point, 2006 .....	189
<b>Tables</b>	5.0 Harvesting and transportation of domestic roundwood in brief, 2006 .....	190
	<b>Harvesting equipment</b>	
	5.1 Forestry machines operating in harvesting and transportation of roundwood, 1982–2006 .....	191
	5.2 Harvesting and transportation costs of roundwood, 1990–2006 .....	192
	<b>Harvesting and transportation of roundwood</b>	
	5.3 Unit costs in mechanised harvesting by roundwood assortment, 2000–2006 .....	193
	5.4 Unit costs in mechanised harvesting and proportion of harvested roundwood by felling method, 2000–2006 .....	193
	5.5 Long-distance transportation of roundwood, 2006 .....	194
	5.6 Volumes and costs in long-distance transportation of roundwood, 1982–2006 .....	195
	5.7 Road transportation of roundwood and forest industry products in Finland, 1995–2006 .....	196
	5.8 Railway transportation of roundwood and forest industry products in Finland, 1985–2006 .....	197
	5.9 Exports and imports transportation of roundwood and forest industry products, 2006 .....	198
	5.10 Unit costs in harvesting and transportation of roundwood, 1985–2006 .....	199
	5.11 Unit costs in harvesting of roundwood out of delivery sales in non-industrial, private forests, 1991–2006 .....	200

## 6 MULTIPLE-USE FORESTRY

<b>Text</b>	[in Finnish] .....	
	Literature .....	206
<b>Figures</b>		
6.1	Moose winter population and bags of moose, 1964–2006 .....	207
6.2	Winter herd and culled reindeer, 1980–2006 .....	207
6.3	Minimum populations of large predators, 1980–2006 .....	208
6.4	Market supply of wild berries and mushrooms, 2006 .....	208
<b>Tables</b>		
	<b>Forest game</b>	
6.1	Bags of game, 2006 .....	209
6.2	Bags of game, 1980–2006 .....	210
6.3	Moose population, 1976–2006 .....	211
6.4	Minimum populations of large predators and numbers of predators shot, 1980–2006 .....	212
	<b>Wild berries, mushrooms and lichen</b>	
6.5	Market supply, purchase prices and picking incomes of wild berries and mushrooms, 2006 .....	213
6.6	Market supply and picking incomes of wild berries and mushrooms, 1977–2006 .....	214
6.7	Lichen exports from Finland, 1980–2006 .....	215
	<b>Reindeer husbandry</b>	
6.8	Reindeer husbandry, 1959–2007 .....	216
	<b>Peat production</b>	
6.9	Peat resources by forestry centre .....	217
6.10	Peat production, consumption and exports, 1980–2007 .....	218

## 7 FOREST SECTOR'S LABOUR FORCE

<b>Text</b>	[in Finnish] .....	
	Literature .....	224
<b>Figures</b>		
7.1	Distribution of the population in 2006 according to the Labour Force Survey .....	225
7.2	Employed persons in forestry, 1980–2006 .....	226
7.3	Employed persons in the wood-products industries, 1980–2006 .....	226
7.4	Employed persons in the pulp and paper industries, 1980–2006 .....	227
7.5	Unemployment rate in the forest sector, 1980–2006 .....	227
7.6	Index of real earnings by branch of industry, 1980–2006 .....	228
7.7*	Accident frequency of employees in the forest sector, 1996–2005 .....	228
<b>Tables</b>		
7.0	Labour force in the forest sector in brief, 2006 .....	229
	<b>Labour force</b>	
7.1	Total labour force, 1970–2006 .....	230
7.2	Employed persons in the forest sector, 1970–2007 .....	231
7.3	Employed persons in the forest sector by forestry centre, 1990–2006 .....	232
7.4	Employed persons in the forest sector by gender, 1984–2006 .....	233
7.5	Employed persons in forestry by employment status, 1970–2007 .....	234
7.6	Employed persons in forestry, forest improvement works and road transportation of roundwood by type of work, 1970–2006 .....	235
7.7	Days actually worked in the forest sector and agriculture, 1971–2006 .....	236
7.8	Employed persons in the forest industries, 1980–2007 .....	237
7.9	Unemployed persons in the forest sector, 1980–2007 .....	238

	<b>Wages and salaries</b>	
7.10*	Average hourly earnings of forestry workers, 1994–2007 .....	239
7.11*	Average hourly earnings of employees in the forest industries, 1995–2006 .....	240
7.12	Index of real earnings in the forest sector, 1980–2007 .....	241
	<b>Labour disputes</b>	
7.13	Labour disputes in the forest industries, 1970–2007 .....	242
	<b>Occupational accidents</b>	
7.14*	Accidents at work in the forest sector, 1976–2006 .....	243
7.15*	Accident frequency of employees in the forest sector, 1996–2005 .....	244
	<b>Forestry education</b>	
7.16	Forestry education, number of students graduating annually, 1971–2006 .....	245
7.17	Education for forest industries, number of students graduating annually, 1971–2006 .....	246

## 8 WOOD CONSUMPTION

<b>Text</b>	[in Finnish] .....	
	Literature .....	252
<b>Figures</b>	8.1 Wood consumption in Finland 2006 .....	253
	8.2 Roundwood consumption by category of use, 1955–2006 .....	254
	8.3 Wood consumption by forest industries by branch of industry, 1955–2006 .....	254
	8.4 Consumption of logs by forest industries, 1955–2006 .....	255
	8.5 Consumption of pulpwood and imported chips by forest industries, 1955–2006 .....	255
	8.6 Consumption of domestic and imported roundwood by forest industries, 1955–2006 .....	256
	8.7 Roundwood consumption by forest industries by category of use, 2006 .....	256
	8.8 Energy consumption in Finland by source of energy, 2006 .....	257
	8.9 Total energy consumption and consumption of wood-based fuels, 1970–2006 .....	258
	8.10 Consumption of wood-based fuels, 1970–2006 .....	258
<b>Tables</b>	8.0 Wood consumption in brief, 2006 .....	259
	8.1 Wood consumption in Finland, 1956–2006 .....	260
	8.2 Wood consumption by forest industries, 1956–2006 .....	261
	8.3 Wood consumption by forestry centre, 2006 .....	262
	8.4 Roundwood consumption by source of origin and forestry centre, 2006 .....	263
	8.5 Consumption of forest industry by-products and other wood residues by forestry centre, 2006 .....	264
	8.6 Wood consumption by forest industries by branch of industry, 1960–2006 .....	265
	8.7 Total wood consumption by wood-products industries, 1980–2006 .....	267
	8.8 Wood consumption by sawmilling industry, 1980–2006 .....	268
	8.9 Wood consumption by plywood and veneer industry, 1980–2006 .....	269
	8.10 Total wood consumption by pulp industries, 1980–2006 .....	270
	8.11 Wood consumption by mechanical pulp industry, 1980–2006 .....	271
	8.12 Wood consumption by chemical pulp industry, 1980–2006 .....	272
	8.13 Solid wood fuel consumption in energy generation by forestry centre, 2006 .....	273
	8.14 Wood-based fuel consumption in energy generation, 1960–2006 .....	274
	8.15* Rawmaterial for forest chips consumed by heating and power plants, 2000–2006 .....	275
	8.16 Wood pellets, 2001–2006 .....	275

## 9 FOREST INDUSTRIES

<b>Text</b>	[in Finnish] .....	
	Literature .....	281
<b>Figures</b>	9.1 Production of the forest industries, 1990–2007 .....	282
	9.2* Added value generated by forest industry production, 1975–2006 .....	282
	9.3 Production and domestic consumption of sawn goods and plywood, 1955–2006 .....	283
	9.4 Production of pulp, and paper and paperboard, 1955–2006 .....	283
	9.5 Annual turnover of the forest industries in Finland, 1974–2006 .....	284
	9.6 Profitability of the forest industries in Finland, 1974–2006 .....	284
<b>Tables</b>	9.0 Production and foreign trade of forest industry products in brief, 2006 .....	285
	<b>Production and domestic consumption of forest industry products</b>	
	9.1 Production of sawn goods and wood-based panels, 1955–2007 .....	286
	9.2 Production of wood pulp, 1955–2007 .....	287
	9.3 Production of paper and paperboard, 1955–2007 .....	288
	9.4 Domestic consumption of sawn goods, 1955–2006 .....	289
	9.5 Domestic consumption, collection and utilisation of paper and paperboard, 1994–2006 .....	290
	9.6 Turnover of the forest industries in Finland, 1974–2006 .....	291
	<b>Energy and investments</b>	
	9.7 Electricity consumption by the forest industries in Finland, 1970–2006 .....	292
	9.8 Mill fuels of the forest industries in Finland, 1992–2006 .....	293
	9.9 Investments of the forest industries in Finland, 1975–2006 .....	294
	<b>Profitability of the forest industries</b>	
	9.10 Profitability and financial position of the forest industries in Finland, 1974–2006 .....	295
	<b>Greenhouse gas emissions</b>	
	9.11* Fuel-based greenhouse gas emissions by the forest industries, by branch of industry, 1990–2005 .....	296
	9.12* Fuel-based greenhouse gas emissions by the forest industries, by fuel category, 1990–2005 .....	297

## 10 FOREIGN TRADE BY FOREST INDUSTRIES

<b>Text</b>	[in Finnish] .....	
	Literature .....	303
<b>Figures</b>	10.1 Total value of exports of Finland, 1970–2006 .....	304
	10.2 Foreign trade in roundwood and wood residues, 1965–2006 .....	304
	10.3* Proportion of imported wood of the wood procurement of the Finnish forest industries .....	305
	10.4 Foreign trade in roundwood and forest industry products by product group, 2006 .....	305
	10.5 Value of exports of Finnish forest industry products by country, 2006 .....	306
	10.6 Percentage value of Finland's exports of forest industry products by country, 1970–2006 .....	306
	10.7 Production and exports of forest industry products, 1970–2006 .....	307
	10.8 Unit values of exports of wood-products industries, 1970–2006 .....	308
	10.9 Unit values of exports of pulp and paper industries, 1970–2006 .....	308

<b>Tables</b>	10.0	Finland's foreign trade in brief, 2006 .....	309
		<b>Roundwood and wood residues</b>	
	10.1	Imports of roundwood and wood residues, 2002–2006 .....	310
	10.2	Imports of roundwood and wood residues, 1965–2007 .....	311
	10.3	Imports of roundwood by roundwood assortment, 1965–2007 .....	312
	10.4	Imports of roundwood and wood residues by country, 2006 .....	313
	10.5	Imports of roundwood and wood residues by country, 1989–2006 .....	314
	10.6	Exports of roundwood and wood residues, 2002–2006 .....	315
	10.7	Exports of roundwood and wood residues, 1965–2006 .....	316
	10.8	Exports of roundwood and wood residues by country, 2006 .....	317
		<b>Forest industry products</b>	
	10.9	Finnish foreign trade by country, 2006 .....	318
	10.10	Value of exports of forest industry products by country, 2000–2006 .....	319
	10.11	Exports of forest industry products, 2000–2006 .....	320
	10.12	Value of exports of forest industry products, 2000–2006 .....	321
	10.13	Exports of wood-products industries by country, 2006 .....	322
	10.14	Value of exports of wood-products industries by country, 2006 .....	323
	10.15	Exports of wood-products industries, 1970–2006 .....	324
	10.16	Exports of pulp and paper industries by country, 2006 .....	325
	10.17	Value of exports of pulp and paper industries by country, 2006 .....	326
	10.18	Exports of pulp industry, 1970–2006 .....	327
	10.19	Exports of paper industry, 1970–2006 .....	328
	10.20	Imports of forest industry products, 2002–2006 .....	329
	10.21	Imports of wood-products industries products, 1983–2006 .....	330
	10.22	Imports of pulp and paper industries products, 1983–2006 .....	331

## II FOREST SECTOR IN FINLAND'S NATIONAL ECONOMY

<b>Text</b>		[in Finnish] .....	
		Literature .....	337
<b>Figures</b>	11.1	Value added in the forest sector and all industries, 2006 .....	338
	11.2	Value added in the forest sector and its share in gross domestic product, 1975–2006 .....	338
	11.3	Annual changes in the total GDP and the forest sector's contributions to change, 1976–2006 .....	339
	11.4	The share of the forest sector in the regional GDP by forestry centre, 2005 .....	339
	11.5	Gross stumpage earnings 1965–2006, expressed in 2006 monetary value .....	340
	11.6	The real return on non-industrial private timber production by component, 1983–2006 .....	340
<b>Tables</b>	11.0	Value added in various industries of the national economy, 2006 .....	341
		<b>The significance of the forest sector in gross domestic product</b>	
	11.1	Output, value added and operating surplus in forestry at current prices, 1995–2006 .....	342
	11.2	Output, value added and operating surplus in wood-products industries at current prices, 1980–2006 .....	343
	11.3	Output, value added and operating surplus in pulp and paper industries at current prices, 1975–2006 .....	344
	11.4	Gross domestic product and value added in forest sector and agriculture, 1960–2006 .....	345
	11.5	Value added of the forest sector at current prices and its share in the total regional GDP by forestry centre, 2005 .....	346
	11.6	The development of multi-factor productivity in the forest sector, 1975–2006 .....	347

11.7	The development of labour productivity in the forest sector, 1975–2006 .....	348
11.8	The development of capital productivity in the forest sector, 1975–2006 .....	349
	<b>The forest sector's influence on gross domestic product</b>	
11.9	Effects of an increase in final demand on domestic output and on value added at purchasers' prices, 2004 .....	350
11.10	Effects of an increase in final demand for forest industry products on domestic output by industry, 2004 .....	351
11.11	Employment effects of an increase in final demand, 2004 .....	352
11.12	Employment effects of an increase in final demand for forest industry products by industry, 2004 .....	353
11.13	Share of individual industrial sectors in exports of goods and services, 2004 .....	354
	<b>Costs, incomes and returns in timber production</b>	
11.14	Gross stumpage earnings by forest ownership category, 2006 .....	355
11.15	Gross stumpage earnings by roundwood assortment, 2002–2006 .....	356
11.16	Stumpage earnings by forest ownership category, 1995–2006 .....	357
11.17	Incomes and expenses (coverage calculation) in non-industrial, private forestry per unit of forest land area, 1993–2006 .....	358
11.18	Incomes and expenses (coverage calculation) in non-industrial, private forestry by forestry centre, 2006 .....	359

## 12 INTERNATIONAL FOREST STATISTICS

<b>Text</b>	[in Finnish] .....	
	Literature .....	368
<b>Figures</b>	12.1 Roundwood production, 1961–2005. Whole world .....	369
	12.2 Production of sawn goods and wood-based panels, 1961–2005. Whole world .....	369
	12.3 Production of wood pulp and paper and paperboard, 1961–2005. Whole world ...	370
	12.4* Proportion of strictly protected forests (MCPFE Class 1.1) of total forest area in EU-countries, 2005 .....	370
	12.5 Finland's position among the leading producers and exporters of some major forest industry products, 2005 .....	371
<b>Tables</b>	12.0 International forest statistics in brief .....	372
	<b>Global forest resources</b>	
	12.1 Global forest resources .....	373
	12.2 Forest resources in Europe .....	374
	12.3 Protected forests in Europe, 2005 .....	376
	<b>Production of roundwood and forest industry products</b>	
	12.4 Production, foreign trade and apparent consumption of roundwood and forest industry products in the European Union, 2006 .....	378
	12.5 Roundwood production by country, 2005 .....	380
	12.6 Production of sawn goods and wood-based panels by country, 2005 .....	381
	12.7 Production of wood pulp, paper and paperboard by country, 2005 .....	382
	12.8* Production of recovered paper, recovered fibre pulp and other fibre pulp by country, 2005 .....	383
	<b>Foreign trade in roundwood and forest-industry products</b>	
	12.9 Exports of roundwood and wood residues by country, 2005 .....	384
	12.10 Imports of roundwood and wood residues by country, 2005 .....	385
	12.11 Exports of sawn goods and wood-based panels by country, 2005 .....	386
	12.12 Imports of sawn goods and wood-based panels by country, 2005 .....	387
	12.13 Exports of wood pulp, paper and paperboard by country, 2005 .....	388
	12.14 Imports of wood pulp, paper and paperboard by country, 2005 .....	389

12.15	Value of foreign trade of roundwood and forest industry products by country, 2005 .....	390
12.16	World production and foreign trade of roundwood and the wood-products industries, 1961–2006 .....	391
12.17	World production and foreign trade of the pulp and paper industries, and the value of foreign trade in all forest products, 1961–2006 .....	392
	<b>Persons employed and value added in the forest sector</b>	
12.18*	Persons employed in the forest sector in Europe, 2005 .....	393
12.19*	Value added of the forest sector in Europe, 2005 .....	394
	<b>International roundwood prices</b>	
12.20	Roadside prices of roundwood in Sweden, 1979–2007 .....	395
12.21	Roadside prices of roundwood in Norway, 1979–2007 .....	396
12.22	Roadside prices of roundwood in Estonia, 1996–2007 .....	397
12.23	Roadside prices of roundwood in Lithuania, 1995–2007 .....	398
12.24	Roadside prices of roundwood in Austria, 1980–2006 .....	399
12.25	Roadside prices of roundwood in Germany, 1992–2006 .....	400
12.26	Roadside prices of roundwood in Switzerland, 1980–2007 .....	401
	<b>Development projects in the forest sector</b>	
12.27	Forest sector development projects supported by the Ministry for Foreign Affairs, 2006 .....	402

## KÄYTETYT SYMBOLIT – EXPLANATION OF SYMBOLS

“	Toisto – <i>Repetition</i>
-	Ei mitään ilmoitettavaa – <i>Magnitude nil</i>
0	Suure pienempi kuin puolet käytetystä yksiköstä – <i>Magnitude less than half</i>
0,0	<i>of unit employed</i>
.	Tieto epälooginen esitettäväksi – <i>Category not applicable</i>
..	Tietoa ei ole saatu tai se on liian epävarma esitettäväksi – <i>Data not available or too uncertain for presentation</i>
...	Salassapitosäännön alainen tieto – <i>Data subject to secrecy</i>
*	Ennakkotieto – <i>Preliminary data</i>
€	1 euro = 5,94573 mk – <i>1 euro = FIM 5.94573</i>

Aikasarjan katkaiseva vaakasuora viiva osoittaa, että viivan eri puolilla olevat tiedot eivät ole täysin vertailukelpoisia.

*A horizontal line drawn across a time series indicates substantial breaks in the homogeneity of the series.*

Taulukoiden luvut on pyöristetty erikseen, minkä vuoksi summat eivät aina täsmää.

*The figures in the tables have been rounded separately and therefore the sums do not always match.*

Puumäärät on ilmaistu kuorellisina kuutiometreinä (m<sup>3</sup>), ellei toisin mainita.

*Wood quantities are expressed in cubic metres, solid volume overbark (m<sup>3</sup>), unless otherwise indicated.*

## PUULAJIT – TREE SPECIES

### Pääpuulajit – *Main tree species*

Mänty – *Scots pine – Pinus sylvestris*  
 Kuusi – *Norway spruce – Picea abies*  
 Rauduskoivu – *Silver birch – Betula pendula*  
 Hieskoivu – *Downy birch – Betula pubescens*  
 Haapa – *European aspen – Populus tremula*  
 Harmaaleppä – *Grey alder – Alnus incana*  
 Tervaleppä – *Black alder – Alnus glutinosa*  
 Pihlaja – *Mountain ash – Sorbus aucuparia*  
 Raita – *Goat willow – Salix caprea*

### Muut havupuut – *Other coniferous*

Kontortamänty <sup>1</sup> – *Lodgepole pine – Pinus contorta* <sup>1</sup>  
 Sembramänty <sup>1</sup> – *Stone pine – Pinus cembra* <sup>1</sup>  
 Lehtikuusi <sup>1</sup> – *Larch – Larix sp.* <sup>1</sup>  
 Pihta <sup>1</sup> – *Fir – Abies sp.*  
 Tuija <sup>1</sup> – *Thuja – Thuja sp.* <sup>1</sup>  
 Kataja – *Common juniper – Juniperus communis*  
 Marjakuusi – *English yew – Taxus baccata*

<sup>1</sup> Vierasperäinen – *Exotic*

### Muut lehtipuut – *Other broadleaves*

Halava – *Bay willow – Salix pentandra*  
 Kynäjalava – *Fluttering elm – Ulmus laevis*  
 Vuorijalava – *Wych elm – Ulmus glabra*  
 Metsälehmus – *Small-leaved lime – Tilia cordata*  
 Poppeli <sup>1</sup> – *Poplar – Populus sp.*  
 Saarni – *European ash – Fraxinus excelsior*  
 Tammi – *Pedunculate oak – Quercus robur*  
 Tuomi – *Bird cherry – Prunus padus*  
 Vaahtera – *Norway maple – Acer platanoides*

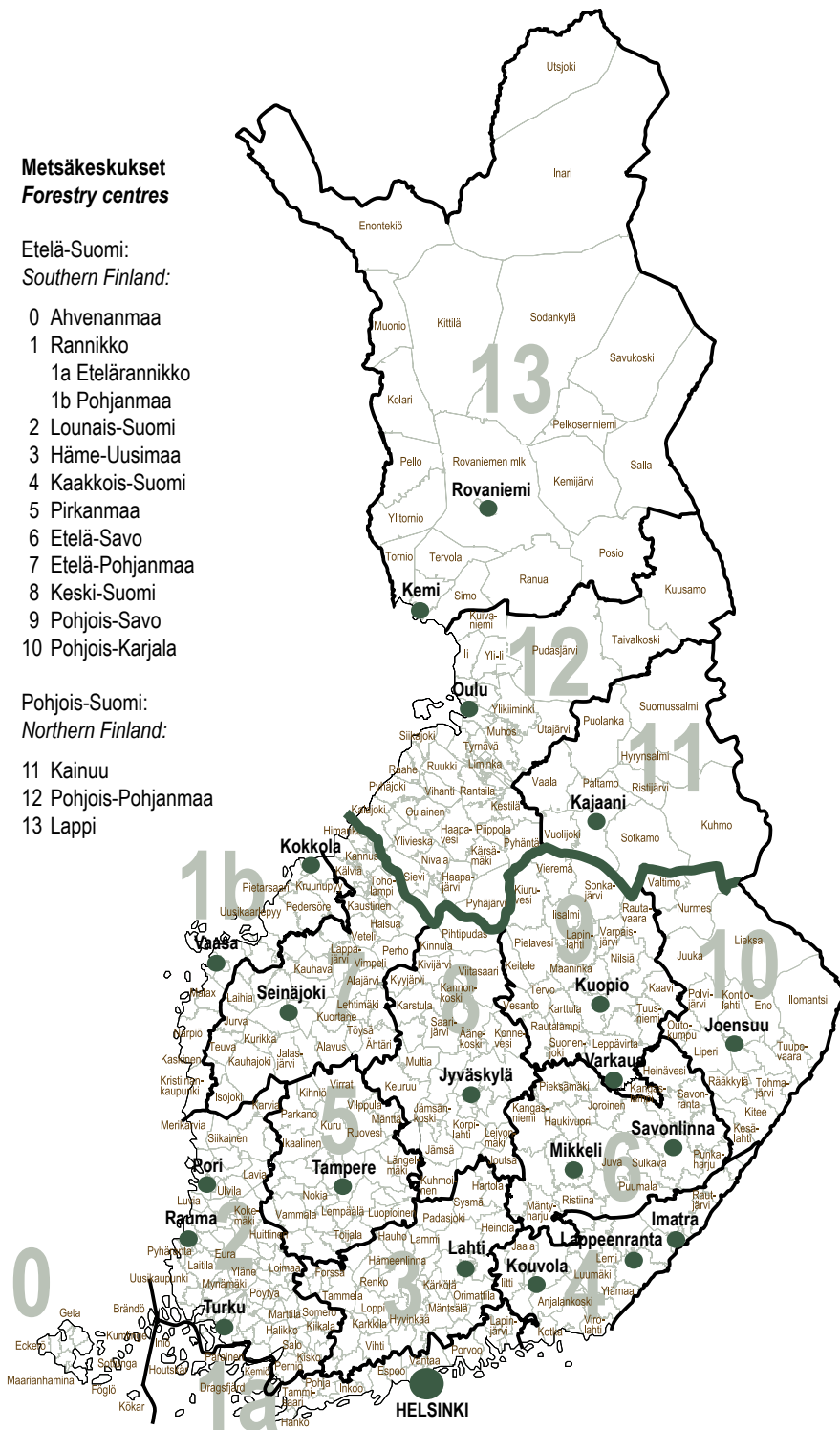
**Metsäkeskukset**  
**Forestry centres**

Etelä-Suomi:  
*Southern Finland:*

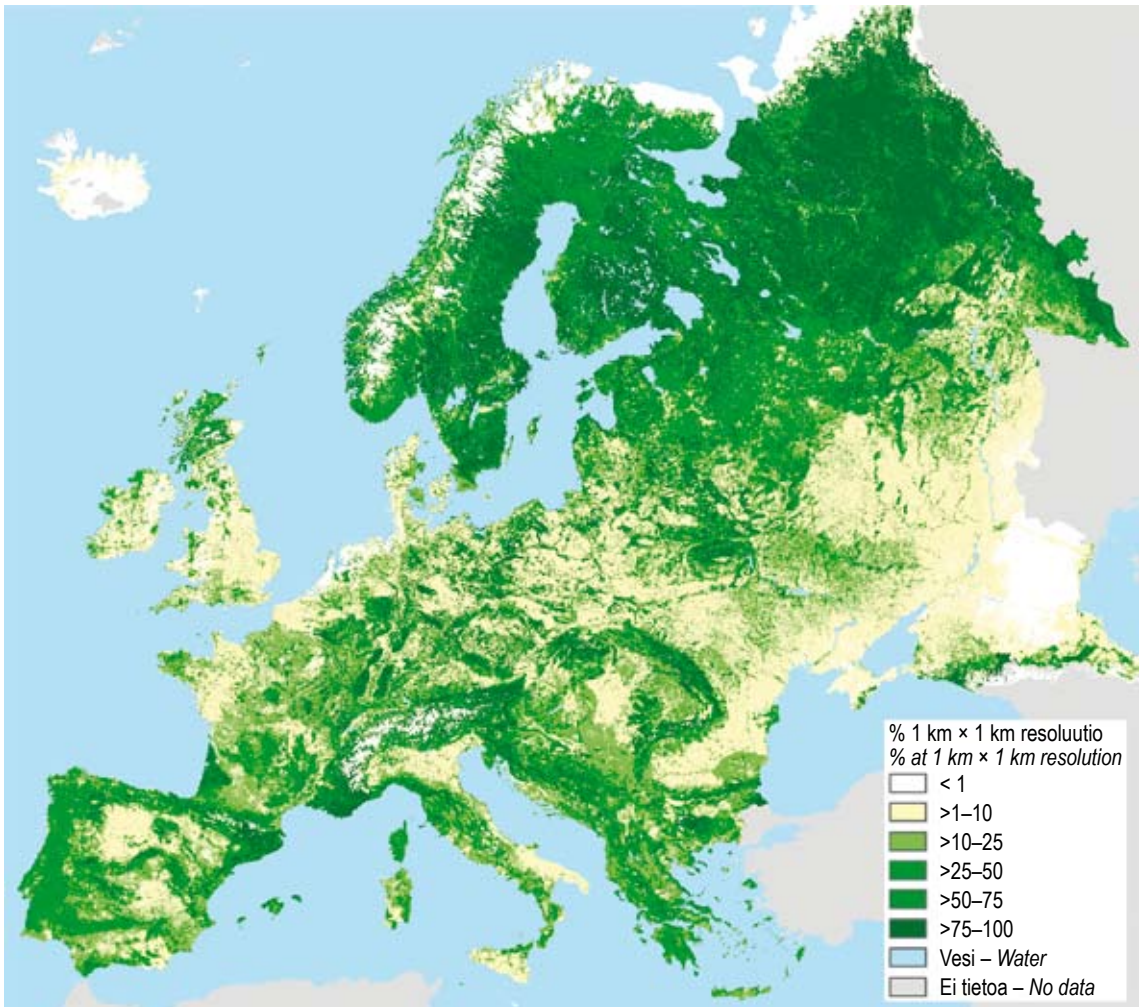
- 0 Ahvenanmaa
- 1 Rannikko
  - 1a Etelärannikko
  - 1b Pohjanmaa
- 2 Lounais-Suomi
- 3 Häme-Uusimaa
- 4 Kaakkois-Suomi
- 5 Pirkanmaa
- 6 Etelä-Savo
- 7 Etelä-Pohjanmaa
- 8 Keski-Suomi
- 9 Pohjois-Savo
- 10 Pohjois-Karjala

Pohjois-Suomi:  
*Northern Finland:*

- 11 Kainuu
- 12 Pohjois-Pohjanmaa
- 13 Lappi



**Kartta 1**   **Metsäkeskukset**  
*Map 1*   *Forestry centres*



Lähde – Source: Schuck, A., Van Brusselen, J., Päivinen, R., Häme, T., Kennedy, P. and Folving, S. 2002. Compilation of a calibrated European forest map derived from NOAA-AVHRR data. European Forest Institute. EFI Internal Report 13.

**Kartta 3 Metsän osuus maapinta-alasta**  
 Map 3 Proportion of forest from total land area

