



FINLAND & FORESTS



Euroopan unioni
Euroopan aluekehitysrahasto

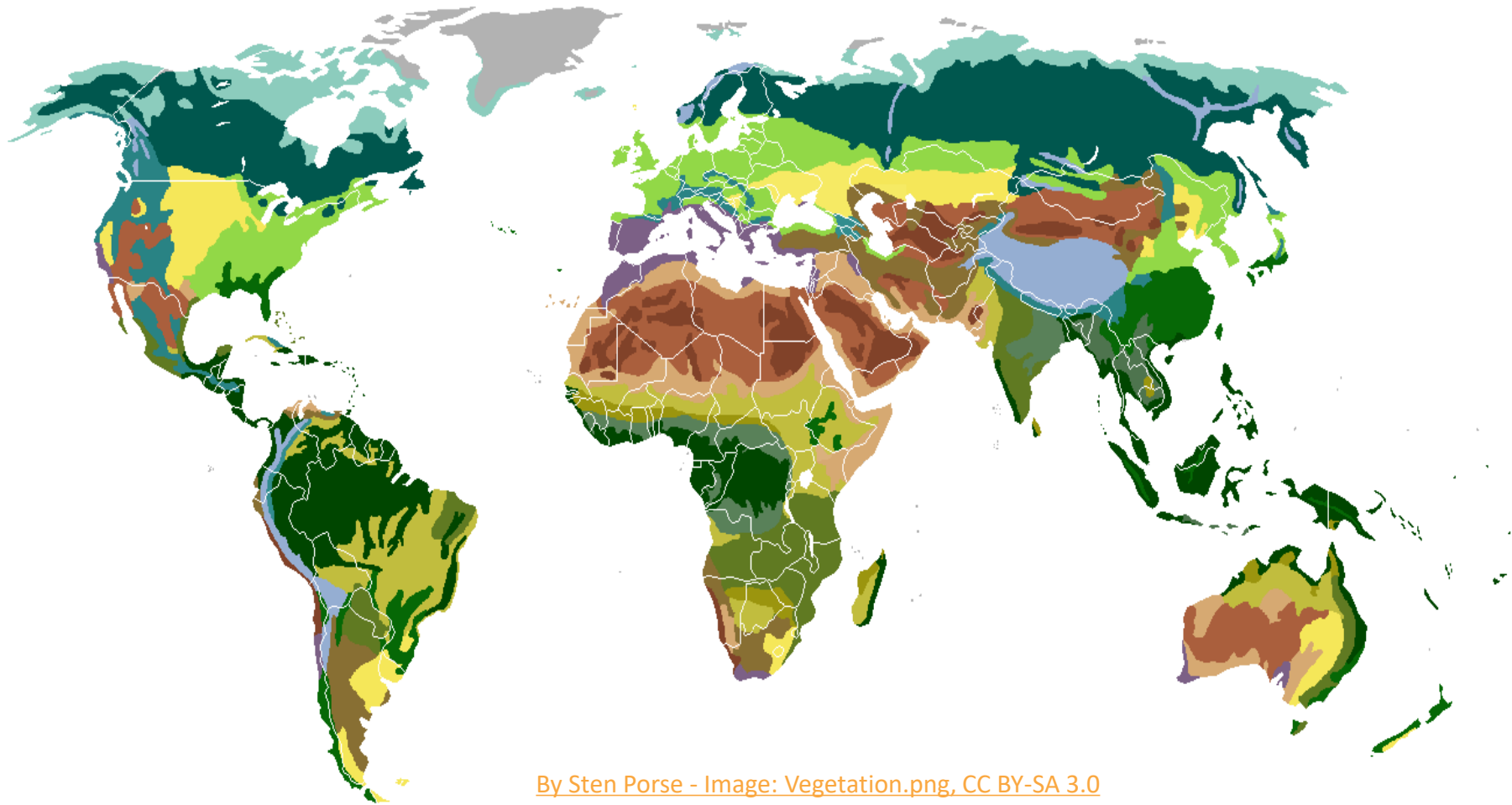
Vipuvoimaa

EU:lta
2014–2020

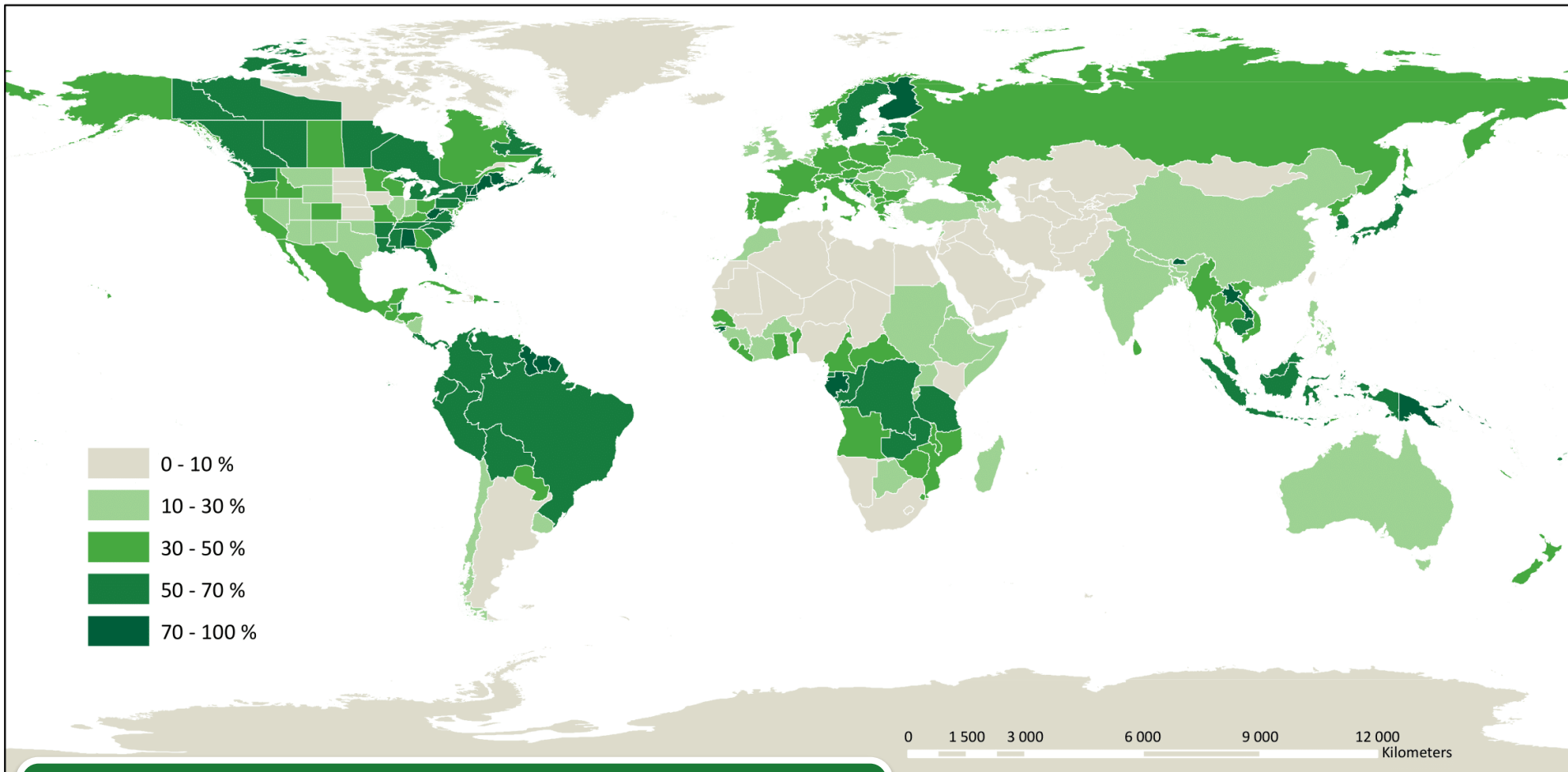


metsäkeskus
forest centre

Vegetation zones and boreal forest



Forest area as a percentage of total land area



Data sources:

- **World:** FAO Global Forest Resources Assessment 2015
- **United States:** Oswalt et al. Forest Resources of the United States, 2017
- **Canada:** CCFM publications

Features of Finnish nature

- Midnight sun
- 187 888 lakes (larger than 500 m²)
- Cold and dark winter





Finland and Forests

- Finland promotes wood as building material
- Finland has the largest share of strictly protected forest in Europe – 9% of Finland's total forest area
- Finland has unique everyman's rights that allow everyone to enjoy our forests
- Forest industry products account for fifth of Finland's export goods
- Forest sector generated 36% of total value added to Finnish bioeconomy



Growing stock by tree species

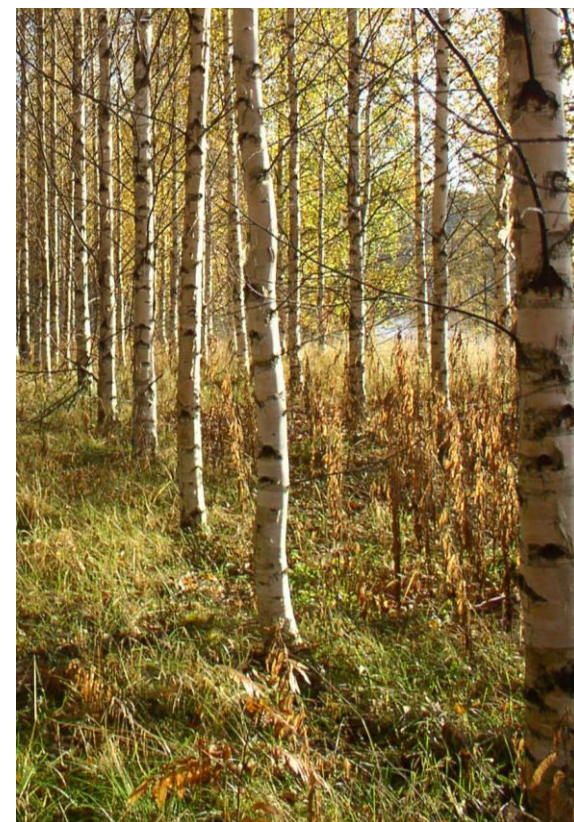
Scots pine
Pinus silvestris
48%



Norway spruce
Picea abies
34%

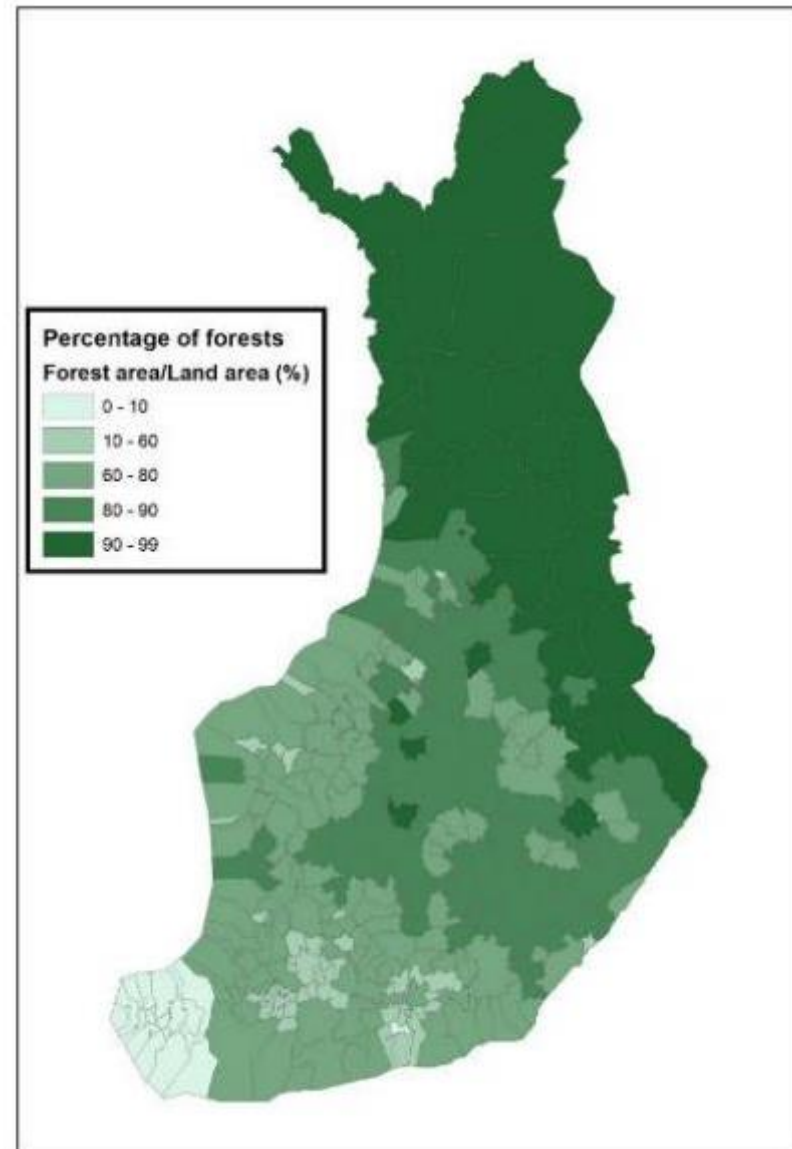


Birch
Betula pendula
15%



Finland – the most forested land in Europe

- The total area of Finland is almost 30.4 million hectares, of which 23 million hectares is forest
- 14 million hectares of forests are owned by 600 000 private forest owners
- Low number of tree species, mostly spruce or pine dominated mixed stands



Everyman's rights

Everyman's rights ensure the rights to hike, pick berries and mushrooms, and enjoy forests and lakes in various ways.

- Nearly every fifth Finn over the age of 20 owns some forest,
- Thanks to the everyman's rights everyone certainly has an opinion on how they should be managed.
- Several interest groups with different opinions on forestry: hikers, cyclists, hunters, conservationists, etc.
- Several needs emerges: concerning nature values, maintenance of hiking trails, watersheds etc.



Key numbers - Finland versus the World

Interesting facts	World	Finland	Finland/World, %
Population, million	7 600	5.5	0.07
Forest area, million ha	3 999	22.8	0.57
Forest growing stock, billion m ³	531	2.4	0.44
Production of wood pulp (2018), million t	175.6	10.5	6.0
Exports of sawnwood (2018), million m ³	452.3	10.6	2.4
Exports of paper and Paperboard (2018), million t	406.3	10.3	2.5

Finland - key numbers

- Population 5.5 million
- Total land area 30.4 million ha
- Total forest area 22.8 million ha
- State of ownership
 - Families 53%
 - State 35%
 - Companies 12%



Finland – Forest facts

- Forest area per capita 4.4 ha
- Standing timber stock 2 356 million m³
- Annual forest growth 105.5 million m³
- Annual loggings 70 million m³
- Conservation areas 3 million ha
 - The share of forest area 13%



Five leading wood pulp producing countries

Wood pulp	Production, 1000 Mt	Imports, 1000 Mt	Exports, 1000 Mt	Annual Net Consumption, 1000 Mt
World	175 622	58 713	59 069	175 266
USA	49 368	5 353	7 732	46 989
Brazil	17 813	424	12 043	6 194
Canada	17 590	331	9 912	8 009
Sweden	11 622	395	3 484	8 533
Finland	10 450	408	3 136	7 721

Source: Forest Products 2015, FAO



Five leading paper and paperboard producing countries

Paper and paperboard	Production, 1000 Mt	Imports, 1000 Mt	Exports, 1000 Mt	Annual Net Consumption, 1000 Mt
World	406 295	105 522	110 597	401 220
Germany	22 602	10 693	13 211	20 084
USA	72 397	9 485	11 598	70 283
Finland	10 320	377	9 850	846
Sweden	10 164	802	9 809	1 157
Canada	10 587	2 670	7 618	5 640

Source: Forest Products 2015, FAO



Five leading sawnwood producing countries

Sawnwood	Production, 1000 Mt	Imports, 1000 Mt	Exports, 1000 Mt	Annual Net Consumption, 1000 Mt
World	452 255	130 829	134 450	448 634
Canada	47 114	1 280	30 795	17 599
Russian Federation	34 650	62	23 810	10 901
Sweden	18 174	438	12 832	5 780
Finland	10 640	427	7 881	3 186
Germany	21 466	4 971	7 179	19 258

Source: Forest Products 2015, FAO





Forest Management



Cuttings

Total roundwood removals in 2018

- Total of 78.2 million m³ harvested.
- 89% consisted of logs and pulpwood, the rest consisted of energy wood
- 2.3 million m³ of logging residues and stumps were also harvested from forests for burning.

Fellings in 2018

- Intermediate fellings 580 191 ha
- Regeneration fellings 197 171 ha
- Average size of clearcutting areas 1.3 ha – 3.1 ha



Practices in even-aged forest management

Silvicultural practices

- Regeneration
- Pre-commercial thinning
- Fertilization
- Pruning
- Ditch maintenance

Cuttings

- Commercial thinning
- Regeneration cutting



Forest regeneration

Artificial forest regeneration area 96 200 ha (2018)

- Planting 74 500 ha
 - › 96% manually
- Seeding 21 700 ha
 - › 78% mechanically

Natural regeneration area 37 500 ha (2018)

Soil preparation area 105 400 ha (2018)



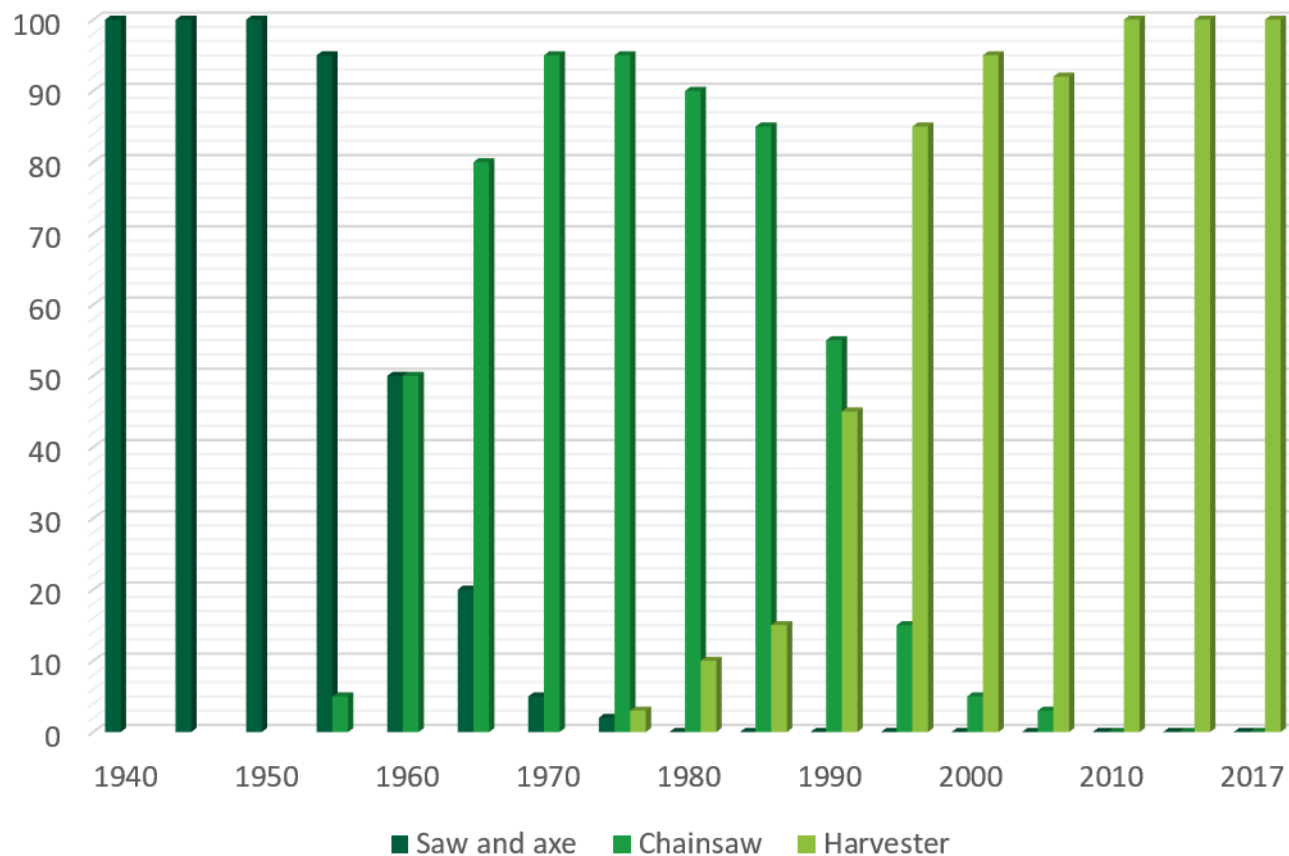
Forest operations in even-aged forest management

Forest operations: technology and logistics

- Forwarding
- Biomass recovery
- Secondary haulage



Felling Techniques, 1940–2017



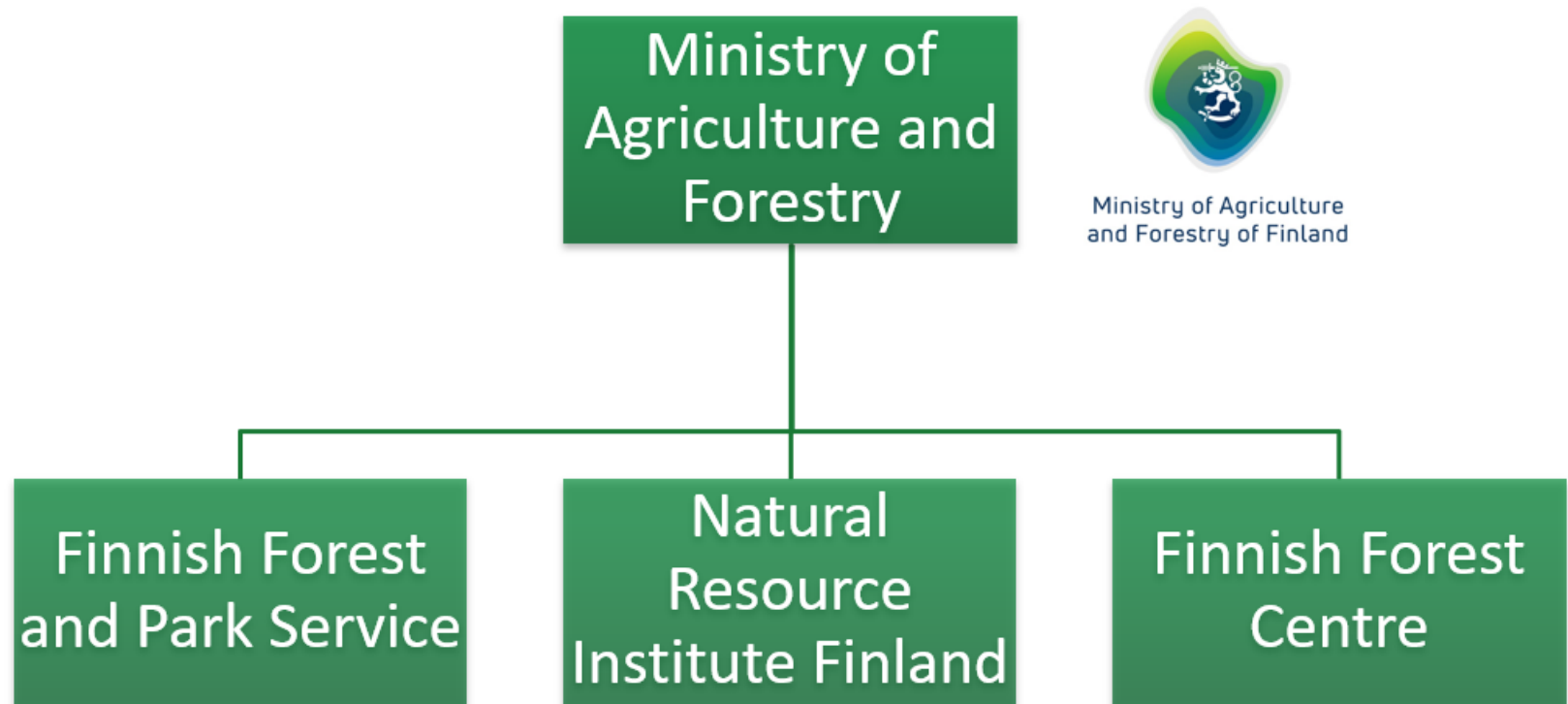
Source: Metsäteho Oy



Finnish Forest Centre



Our position in forestry administration



Ministry of Agriculture
and Forestry of Finland



METSÄHALLITUS

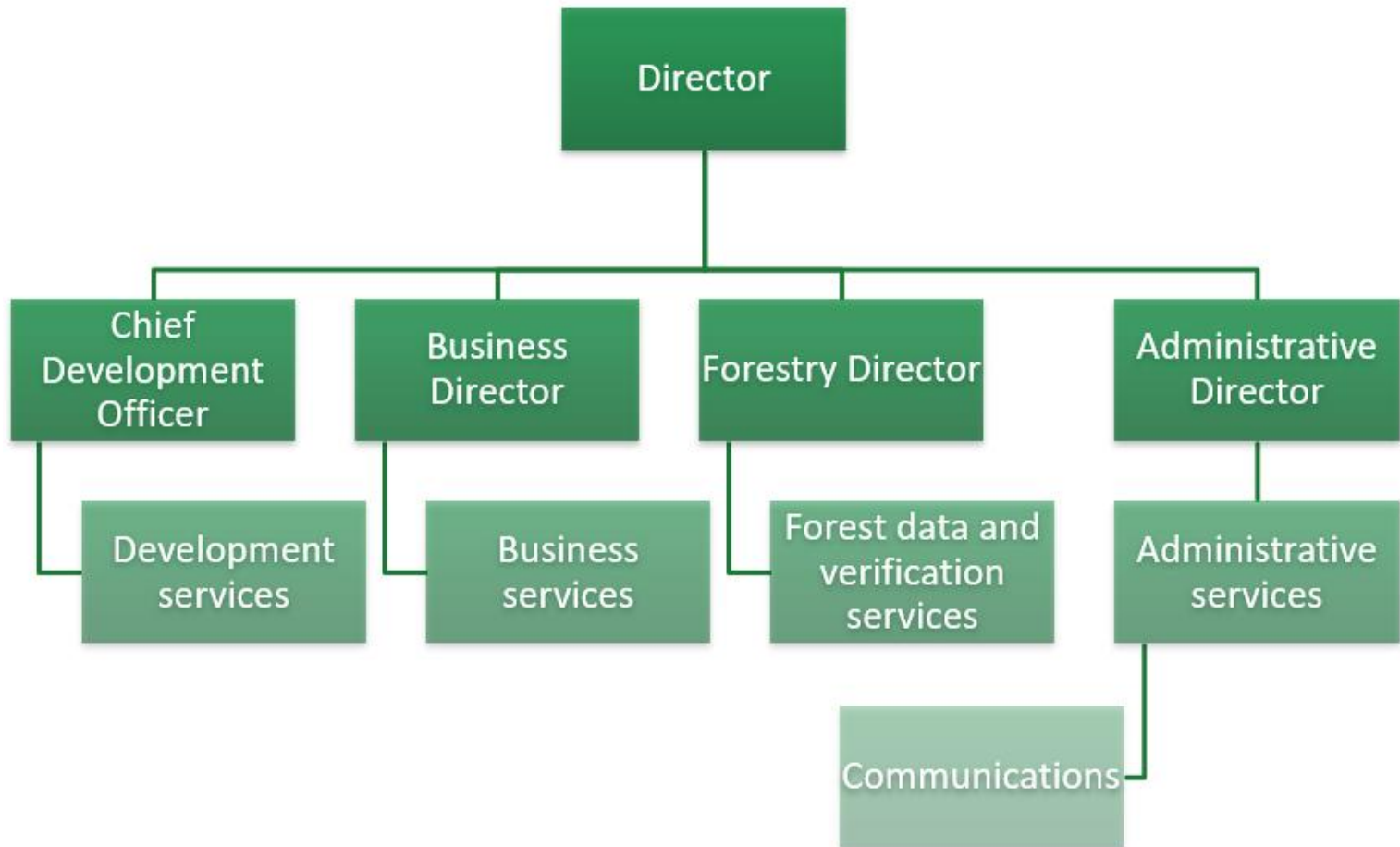


forest centre



metsäkeskus
forest centre

Organization of the Finnish Forest Centre



Forestry is logistics

Challenges

- Family forests: 700 000 owners, average size of the holding 30 ha.
- About 83% of the fellings take place in private family forests.
- Other forestry livelihoods!
- Multiple needs for biodiversity, recreation
- International agreements and regulation (BD Climate)

The annual consumption of wood is 70 million m³. One cutting is about 500 m³. This equals over 100 000 timber transactions annually.



Mission: Value and growth from the forest

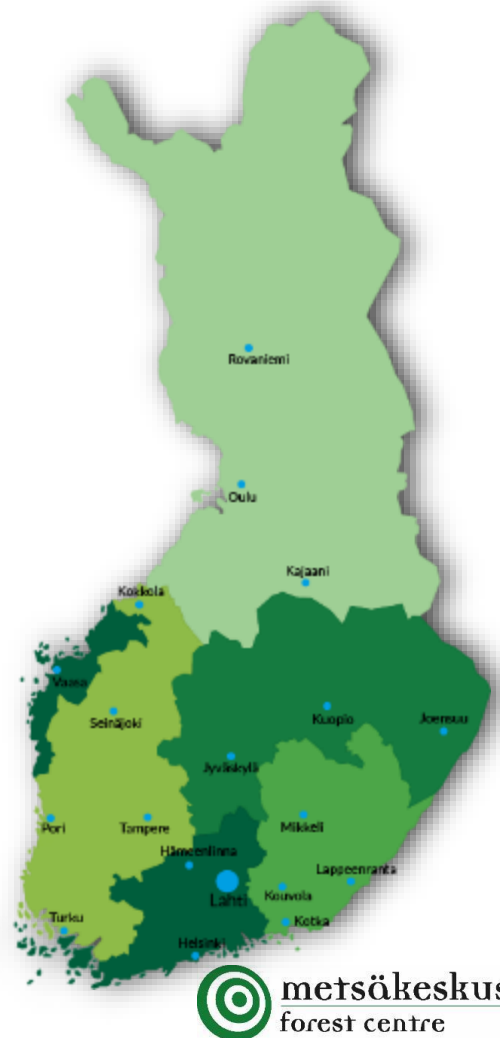
We implement forest policy:

- Advisory work, stakeholder communication and development work
- Incentives for family forest owners
- Regulation: enforcing forestry legislation

Resources:

- Five service areas and 578 employees
- 65 offices
- Budget financing 39.2 M€
- Project revenue 4.9 M€

We produce a high accuracy, wall to wall and up to date forest inventory data to achieve the goals.



Communication & development

Regional forest programs

- Supported by National Forest Program
- Stakeholder communication & co-operation
- Support good quality forest management (e.g. silviculture and forest health, nature management)
- Rural development and livelihoods (forestry, non-wood goods, nature tourism)



Communication and development

Advisory work 2018

- 8 266 contacted forest owners
- 843 contacted companies

Training 2018

- 16 600 forest owner participants in courses (in 2017)
- 3 400 firms participated in courses

Metsaan.fi Digital service

- 116 000 private forest owners have used the service
- 771 companies have registered to the service



Incentives for family forest owners

- Sustainable wood production (56 M€)
- Tending/harvesting of young forest
- Forest correction fertilization
- Remedial ditching
- Forest road construction
- Maintaining biodiversity and natural habitats in forests (6 M€)

70,000 subsidy documents processed
each year in Forest Data Interface



Regulation: enforcing forestry legislation

- Duties & Legislation
- Forest Act
- Rio Biodiversity Agreement 1992
- The Habitats Directive
- Nature Conservation Act
- The Antiquities Act
- Protecting watersheds
- Urban Planning Act

136 000 forest use declarations processed
in 2018 in Forest Data Interface





Operational Level Forest Inventory

see presentation:

<https://storymaps.arcgis.com/stories/19ae99f8f3594fde82dc7a9be4a89335>

