

Timber Harvesting and Long-distance Transportation of Roundwood 2020

Metsätehon tulokalvosarja 4-EN/2022
Metsäteho Result Series 4-EN/2022

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About statistics

- Includes volumes and direct harvesting / transportation costs of timber assortments concerning domestic roundwood by the forest industries and State forest enterprise as well as proportions of harvesting methods.



Timber Harvesting Costs 2020

Unit cost of timber harvesting decreased from 2019

- The average cost of timber harvesting was 10.86 €/m³ (over bark)
 - change -3.3%, real cost change -0.4%
- The average cost of mechanised timber harvesting was 10.86 €/m³ (over bark)
 - change -3.3%
- Costs by felling method:
 - First thinning 17.17 €/m³ (change 0.0%)
 - Other thinning 13.84 €/m³ (change -2.3%)
 - Regeneration felling 8.16 €/m³ (change -1.8%)
- The share of mechanised timber harvesting was 100.0%
- The share of timber from regeneration felling was 57.1% (change +2.6 percentage points)
- The share of delivery sales in domestic wood supply was 12.0%



Long-distance Transportation Costs of Roundwood 2020

Unit cost of long-distance transportation of roundwood decreased from 2019

- The average cost of long-distance transportation was 8.74 €/m³
 - change -0.5%, real cost change +2.0%
- The average cost by timber truck to mill was 7.70 €/m³
 - change -2.8%, real cost change -0.4%
- The average transport distance lengthened and was 167 km
 - changes: road transportation (-2.6%), railway (+0.3%) and water transportation (-13.3%)
- The share of road transportation decreased by -1.7 percentage points and share of rail transportation increased by +1.8 percentage points
- The average overhead of domestic wood procurement was 3.23 €/m³
 - change +7.1%



Statistics 2020 Tables

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Costs and Timber Volume, 2020

	Costs		Timber volume	Transport volume	
	Mill. €	%	Mill. m ³	Mill. m ³ km	%
Harvesting	437.2		40.3		
Long-distance transportation	412.5	100		7 927	100
Road transportation	335.8	81		4 102	52
Rail transportation	69.3	17		3 478	44
Water transportation	7.5	2		347	4



Unit Costs in Harvesting by Felling Method, 2020

€/m ³	First thinning	Other thinning	Regeneration felling	Total
Harvesting				10.86
Mechanised harvesting ^{*)}	17.17	13.84	8.16	10.86
- share of volume	7.9	34.9	57.1	100
- share of costs	12.6	44.5	42.9	100

^{*)} Includes mechanised felling as well as forest haulage related to mechanised and motor-manual felling



Unit Costs in Harvesting and Long-distance Transportation by Timber Assortments, 2020

€/m ³	Mechanised harvesting ^{*)}	Long-distance transportation
Pine logs	7.72	7.98
Spruce logs	7.11	6.98
Plywood logs	7.91	10.31
Logs average	7.41	7.56
Pine pulpwood	12.80	9.80
Spruce pulpwood	13.18	8.82
Birch pulpwood	14.83	9.52
Pulpwood average	13.40	9.47
Average	10.86	8.74

^{*)} Includes mechanised felling as well as forest haulage related to mechanised and motor-manual felling



Long-distance Transportation of Roundwood, 2020

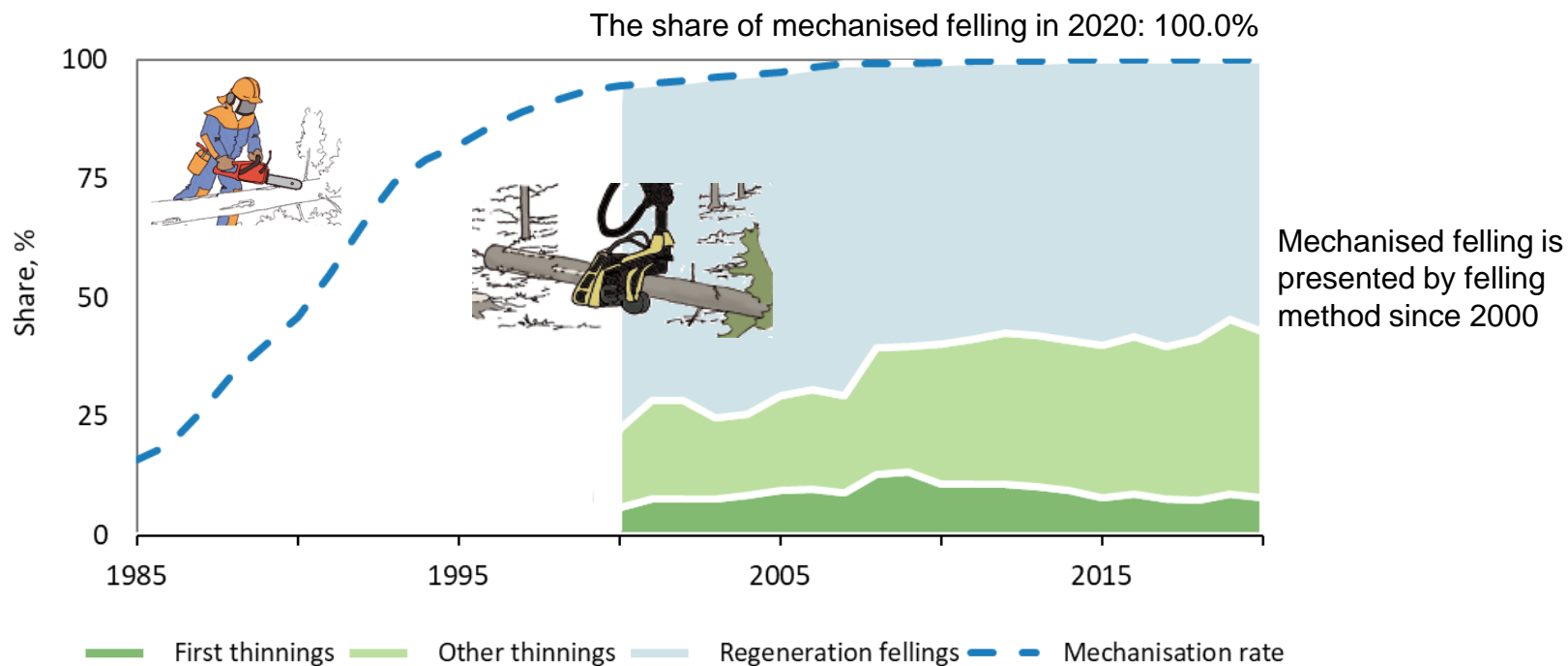
	Domestic roundwood				
	1 000 m ³	%	km	cent/m ³ km	€/m ³
Total long-distance transportation	47 218		167	5.2	8.74
Total by road	46 572	98.6	88	8.2	7.21
By road to mill	34 640	73.3	102	7.6	7.70
Rail transportation sequence	11 472	24.3	350	3.3	11.40
By road to railway	10 815	22.9	47	12.3	5.84
Rail transportation	11 472	24.3	303	2.0	6.04
Water transportation sequence	1 151	2.4	301	4.1	12.09
By road to floating/barge	1 120		52	10.1	5.30
Water transportation	1 151		249	2.6	6.46

Short Term Trends of Finnish Wood Supply

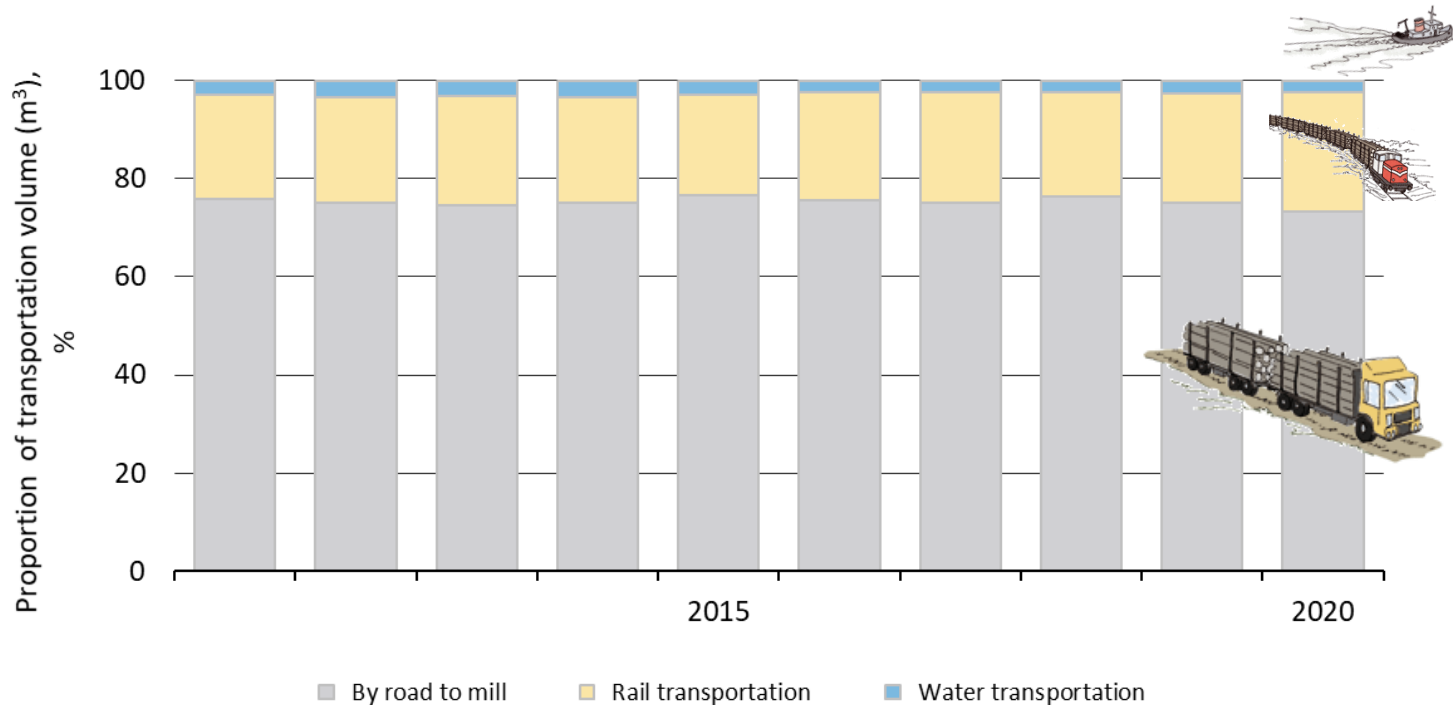
Metsäteho Statistics



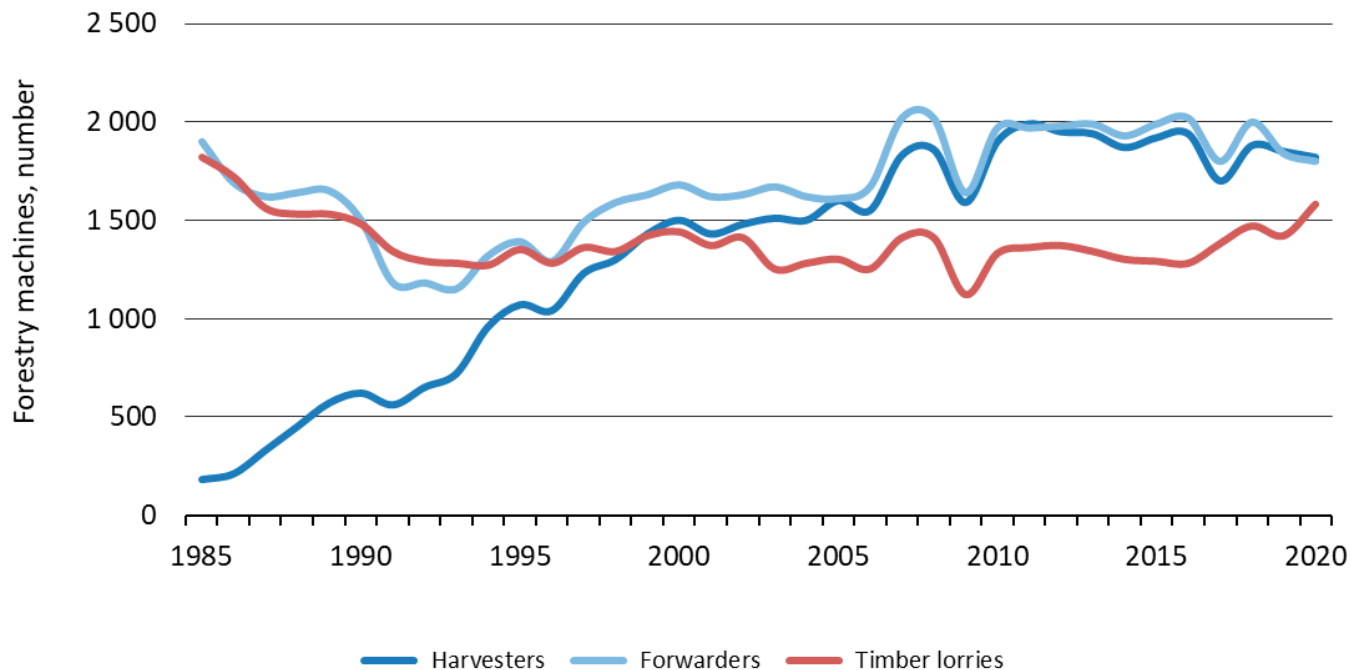
Mechanisation of Felling, 1985–2020



Long-distance Transportation Techniques, 2011–2020



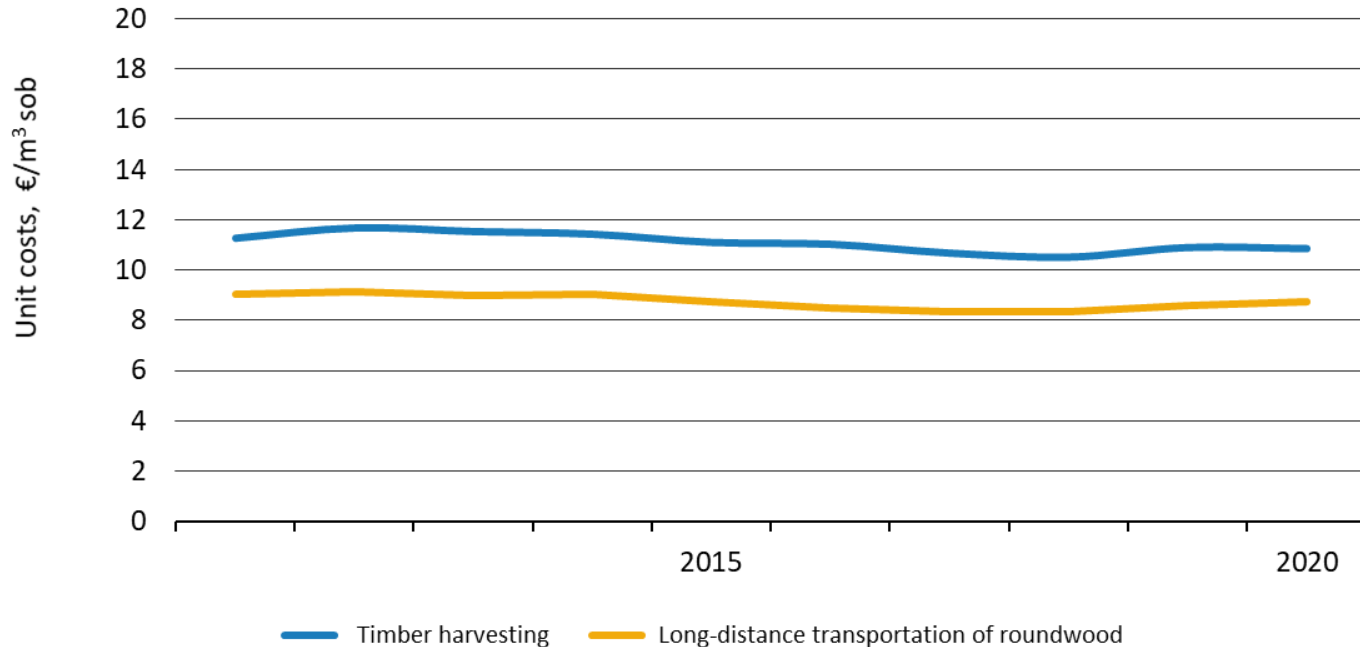
Forestry Machines, 1985–2020



Source: Natural Resources Institute Finland



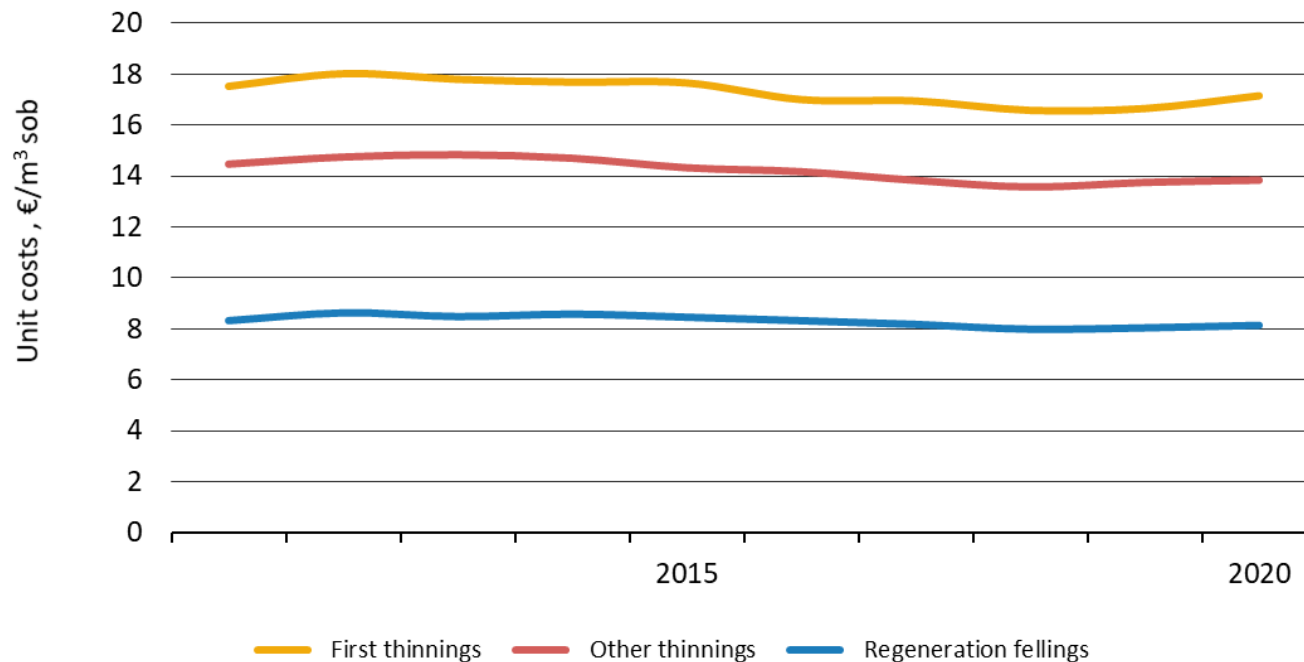
Unit Costs in Timber Harvesting and Long-distance Transportation of Roundwood, 2011–2020



Costs have been deflated by Indexes of forest machinery costs and lorry traffic costs (2020=100).



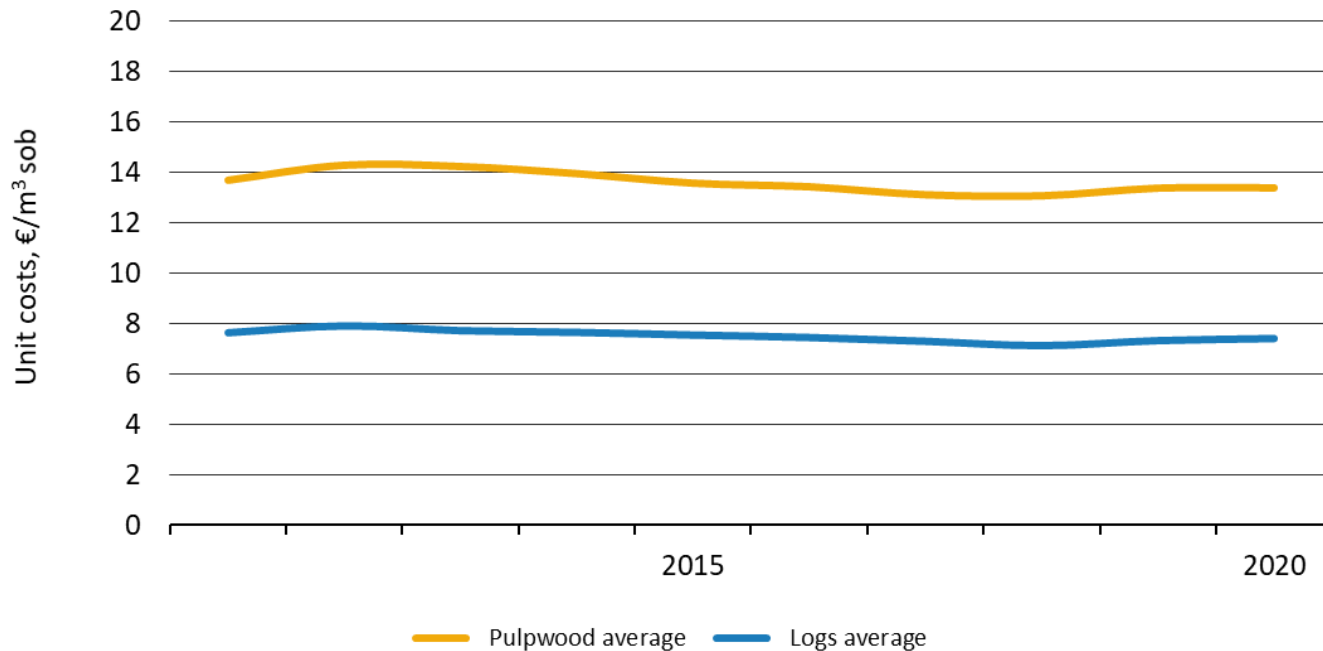
Unit Costs in Mechanised Harvesting by Felling Method, 2011–2020



Costs have been deflated by Index of forest machinery (2020=100).



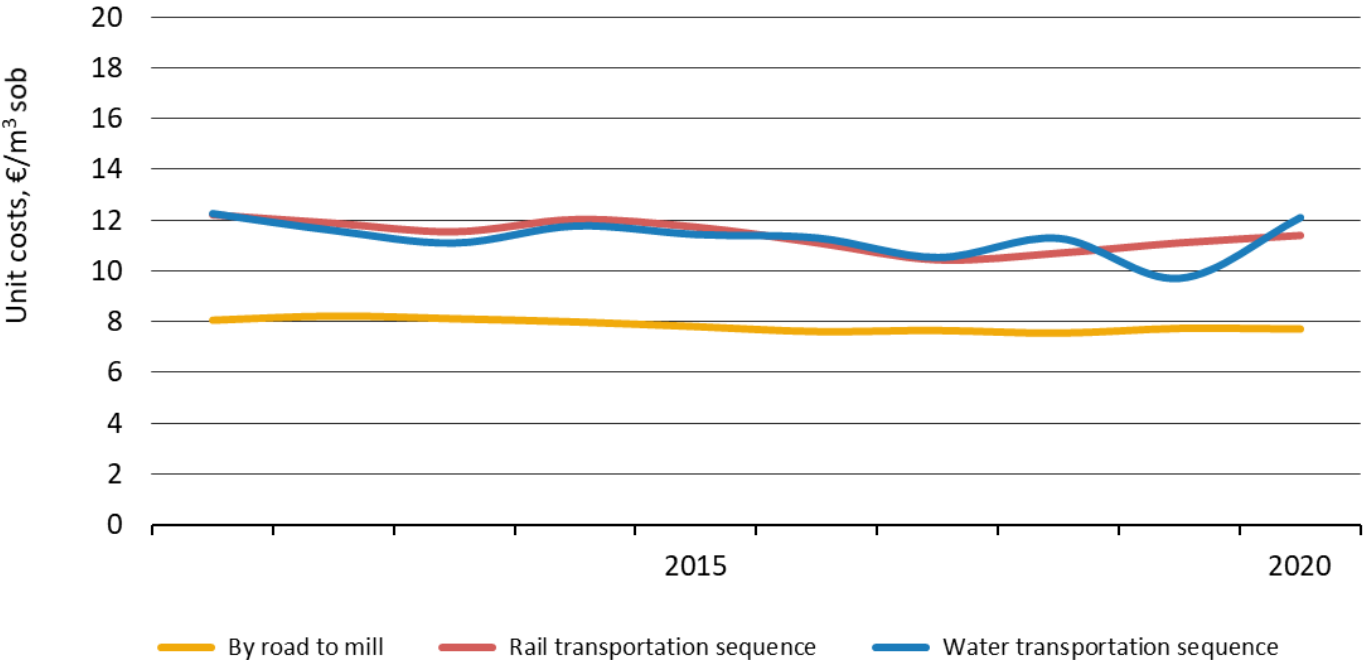
Unit Costs in Mechanised Harvesting by Timber Assortments, 2011–2020



Costs have been deflated by Index of forest machinery (2020=100).



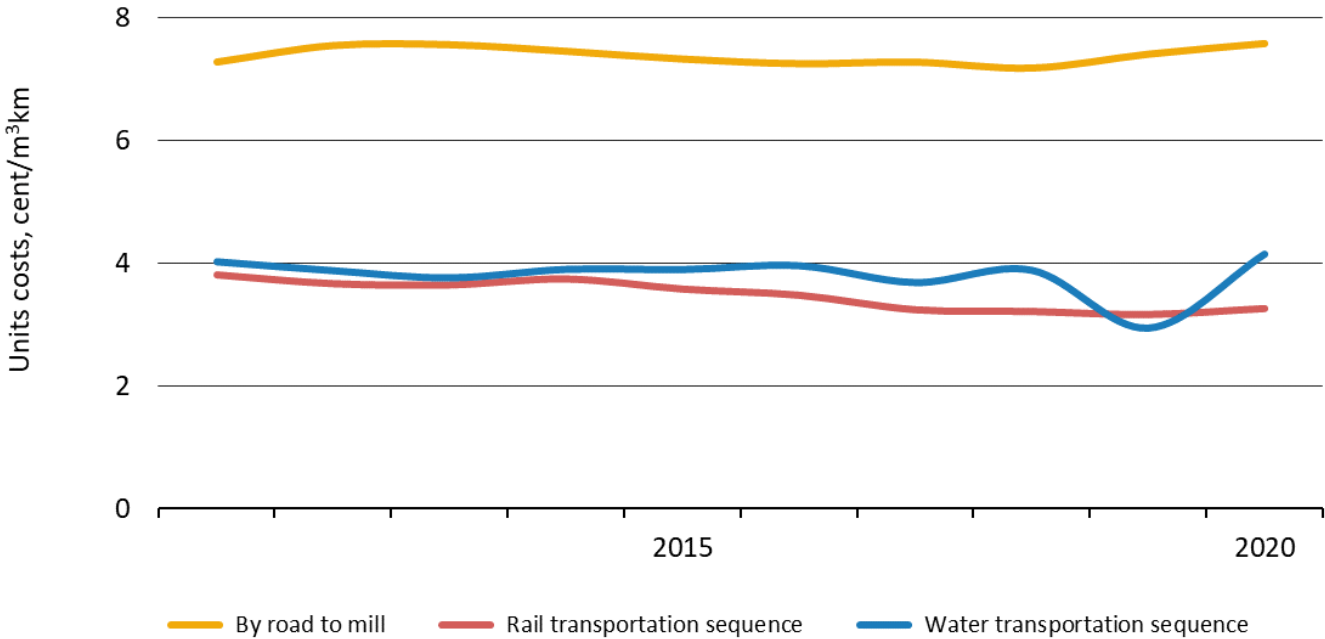
Unit Costs in Long-distance Transportation of Roundwood 2011–2020 (1/2)



Costs have been deflated by Index of lorry traffic costs (2020=100).



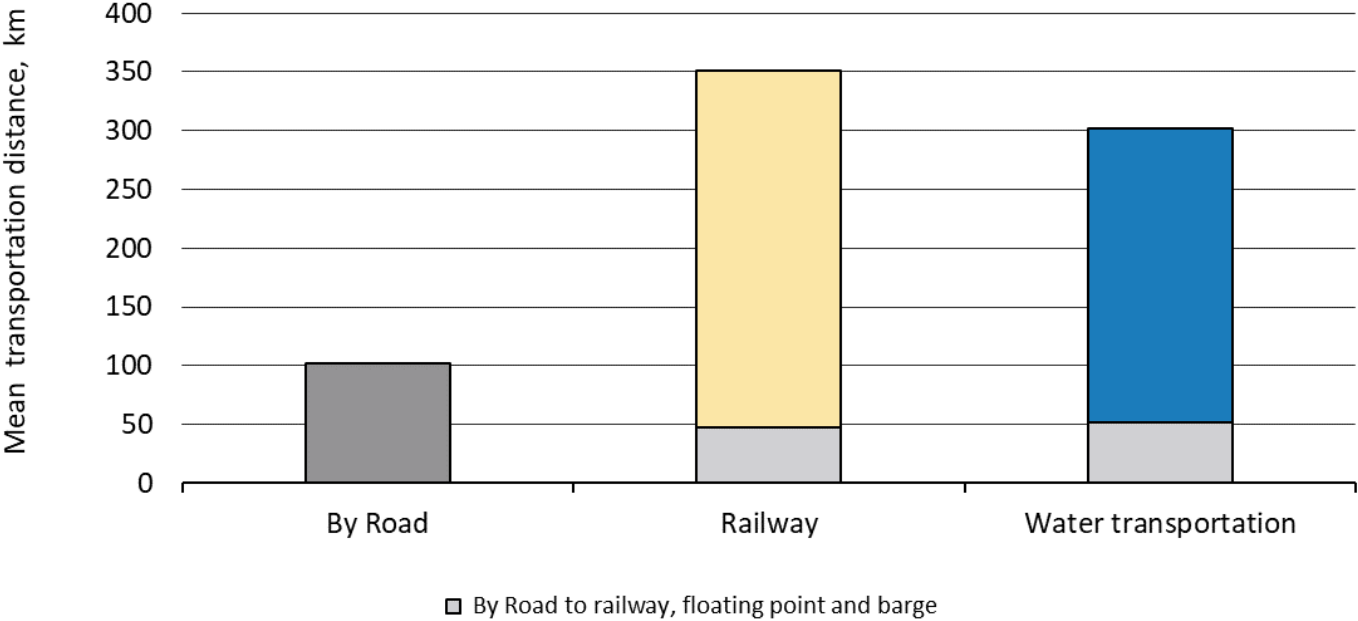
Unit Costs in Long-distance Transportation of Roundwood 2011–2020 (2/2)



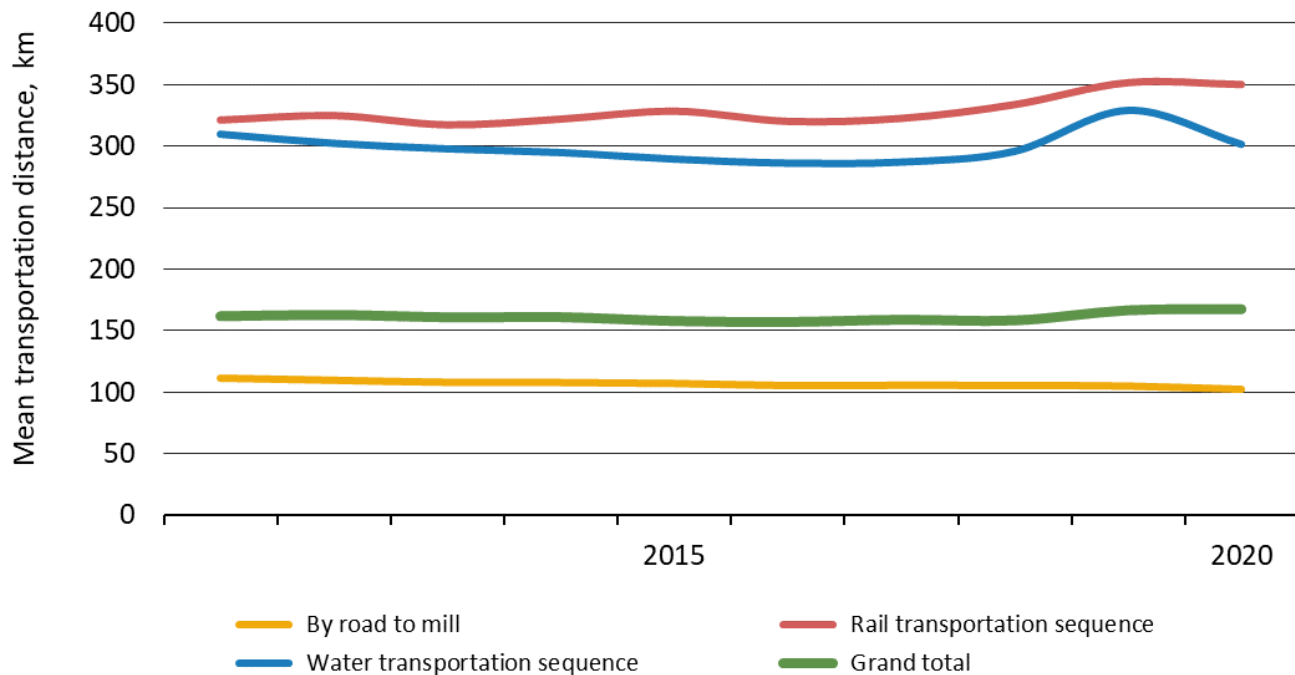
Costs have been deflated by Index of lorry traffic costs (2020=100).



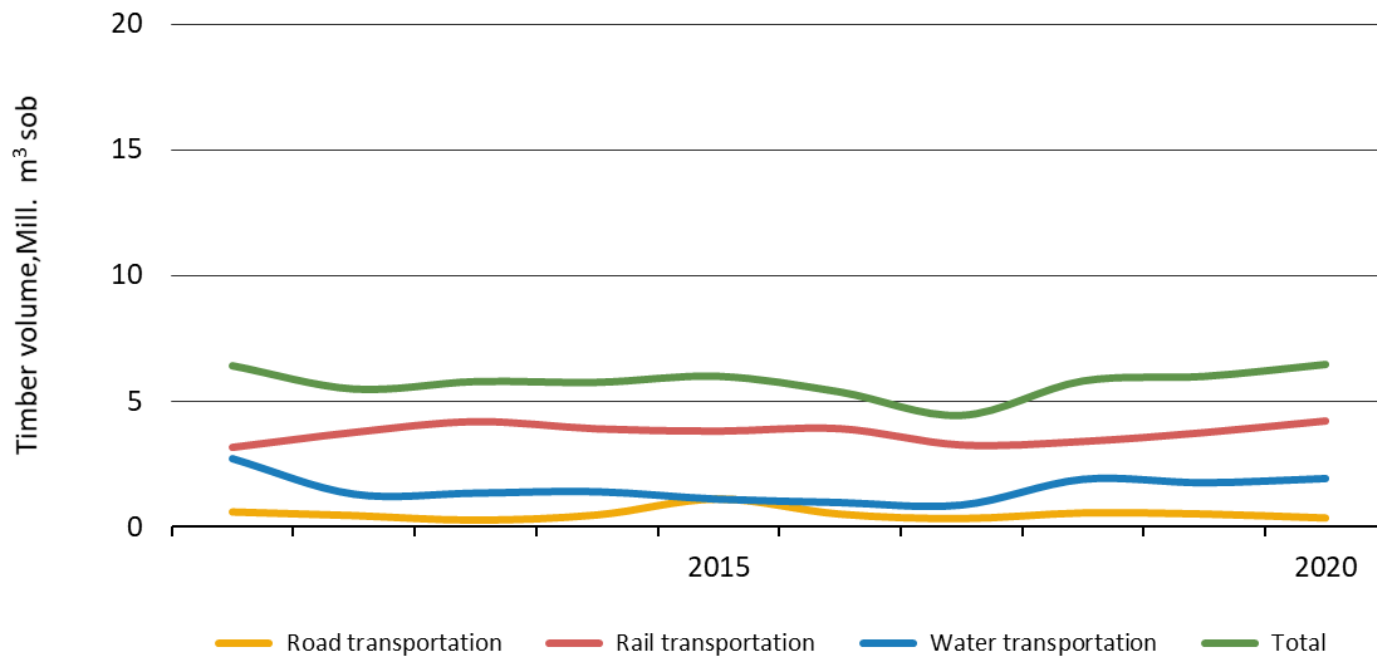
Mean Transportation Distance, 2020



Mean Transportation Distance, 2011–2020



Volumes of Imported Roundwood by Transportation Method, 2011–2020

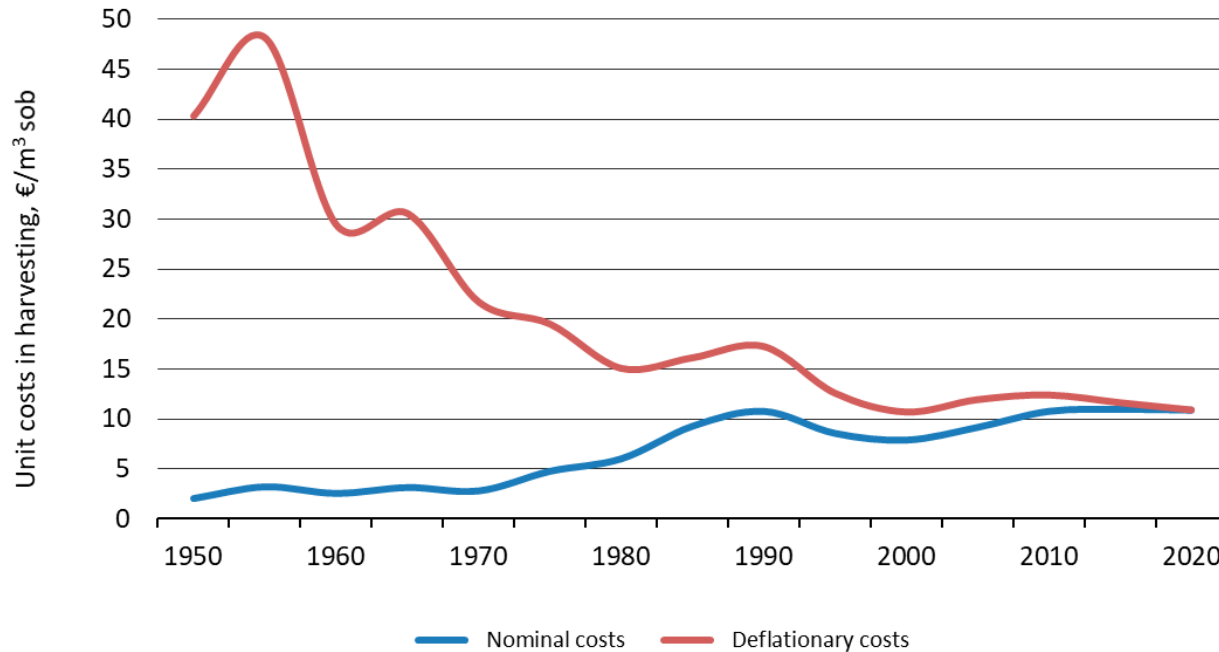


Long Term Trends of Finnish Wood Supply

Metsäteho Statistics



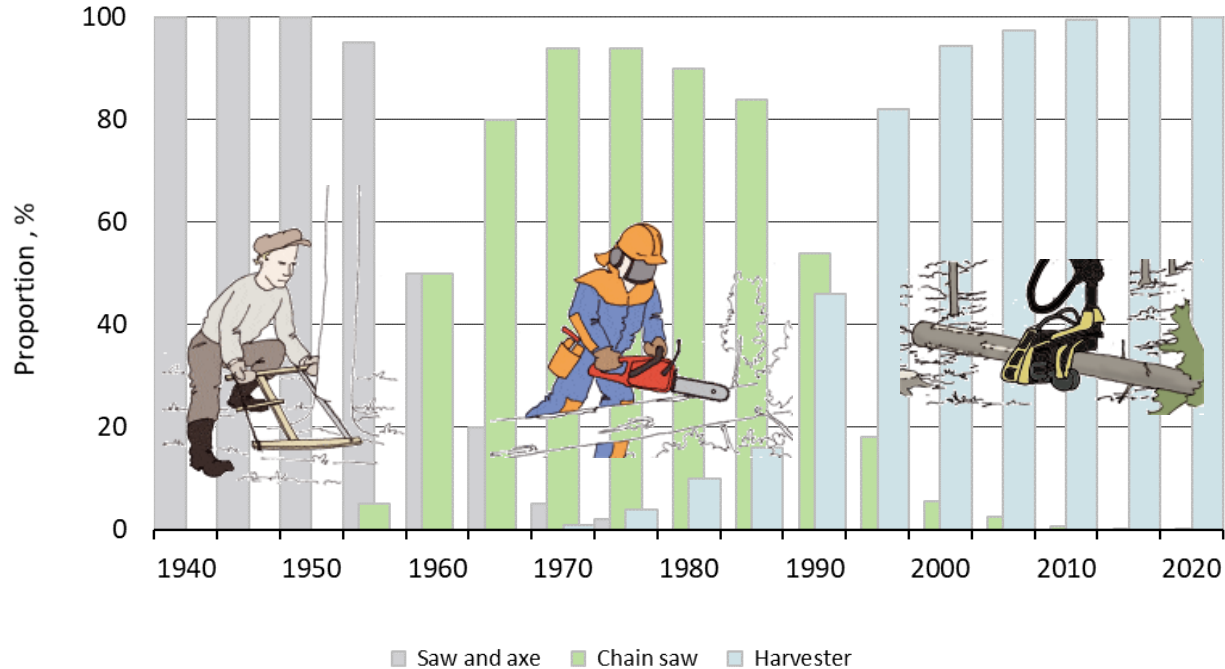
Unit Costs in Timber Harvesting, 1950–2020



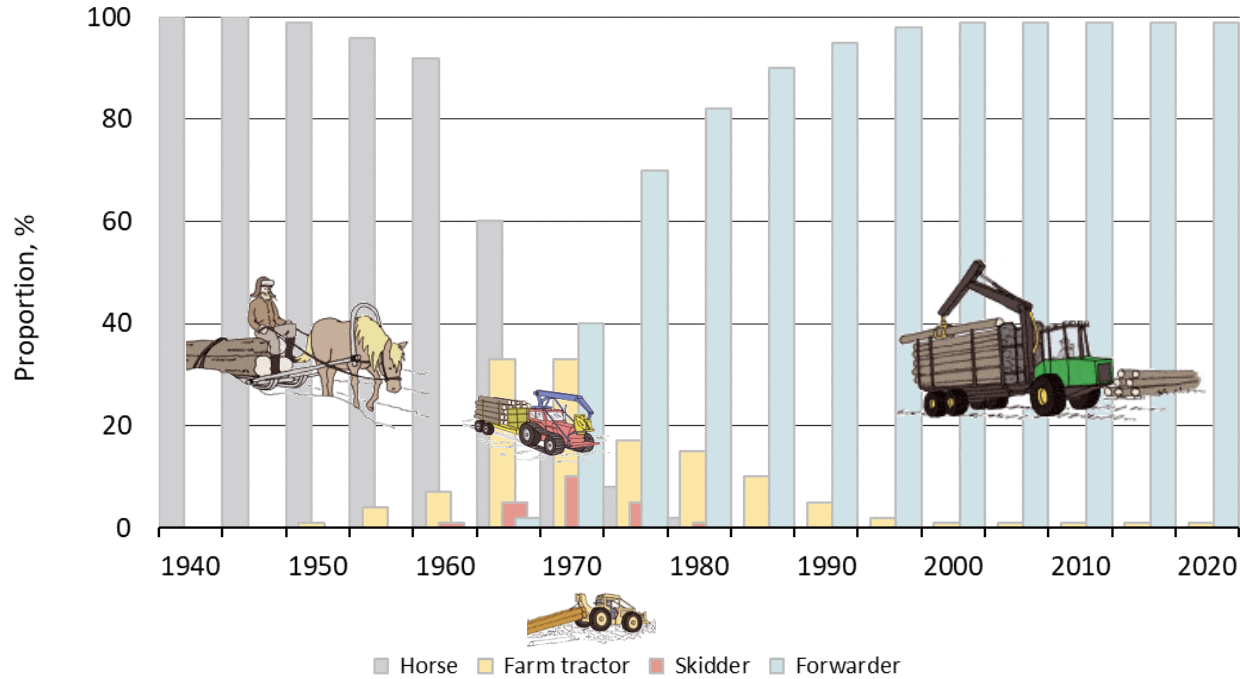
Costs have been deflated by the wholesale price index (2019=100).



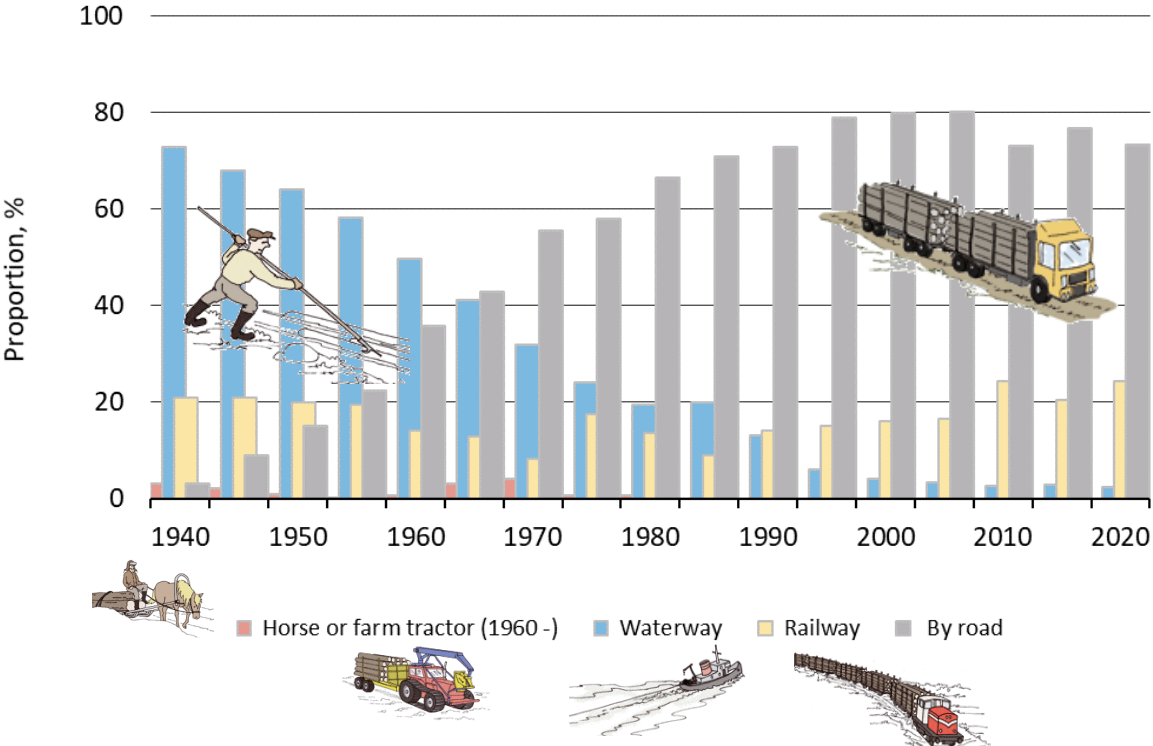
Felling Techniques, 1940–2020



Forest Haulage Techniques, 1940–2020



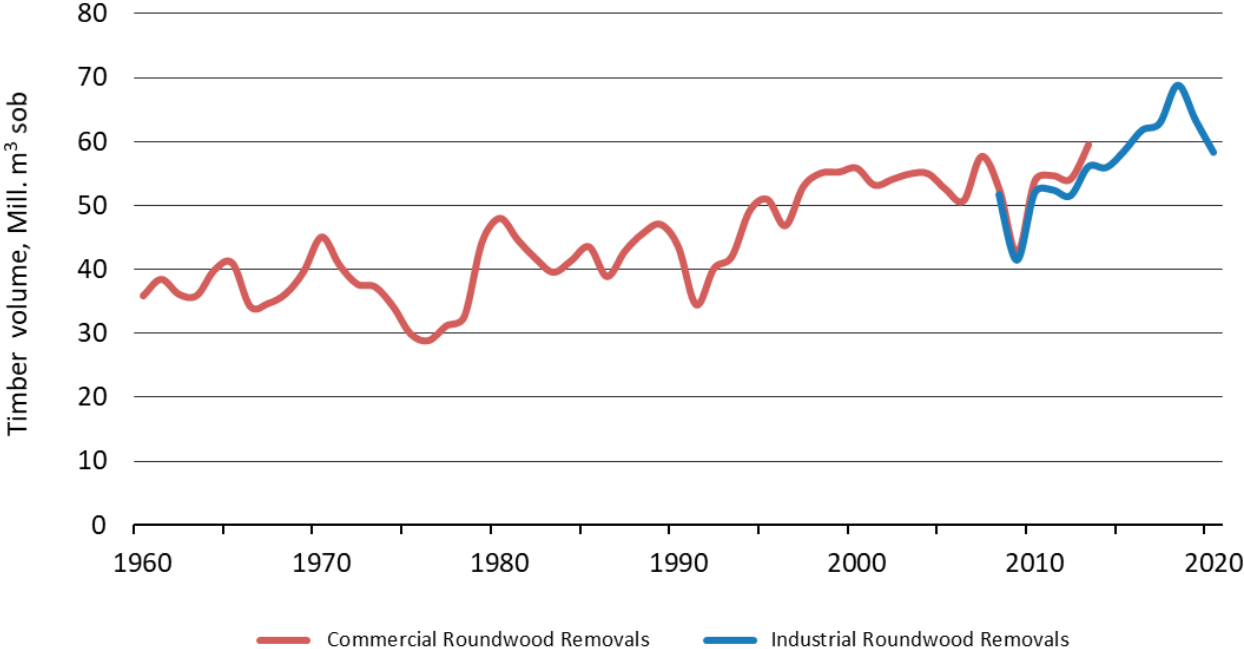
Long-distance Transportation Techniques, 1940–2020



Background Information of Finnish Wood Supply



Commercial Roundwood Removals, 1960–2020

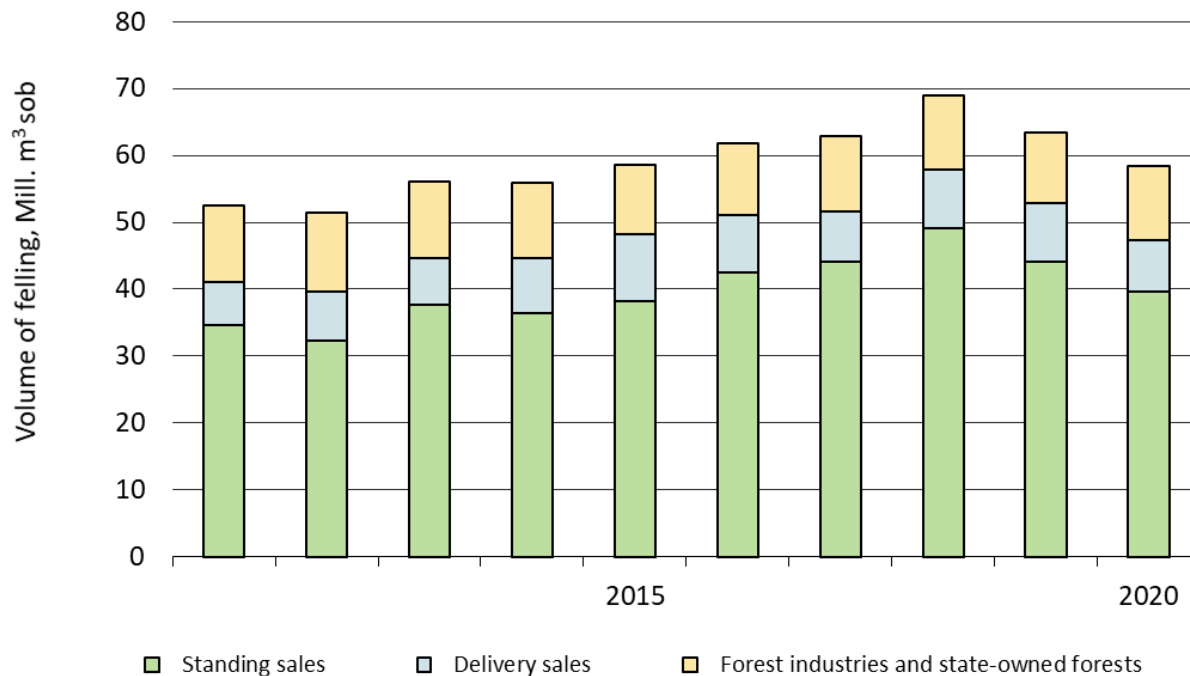


Commercial roundwood removal = industrial roundwood (logs and pulpwood) and energy wood (mainly small-sized trees)

Source: Natural Resources Institute Finland



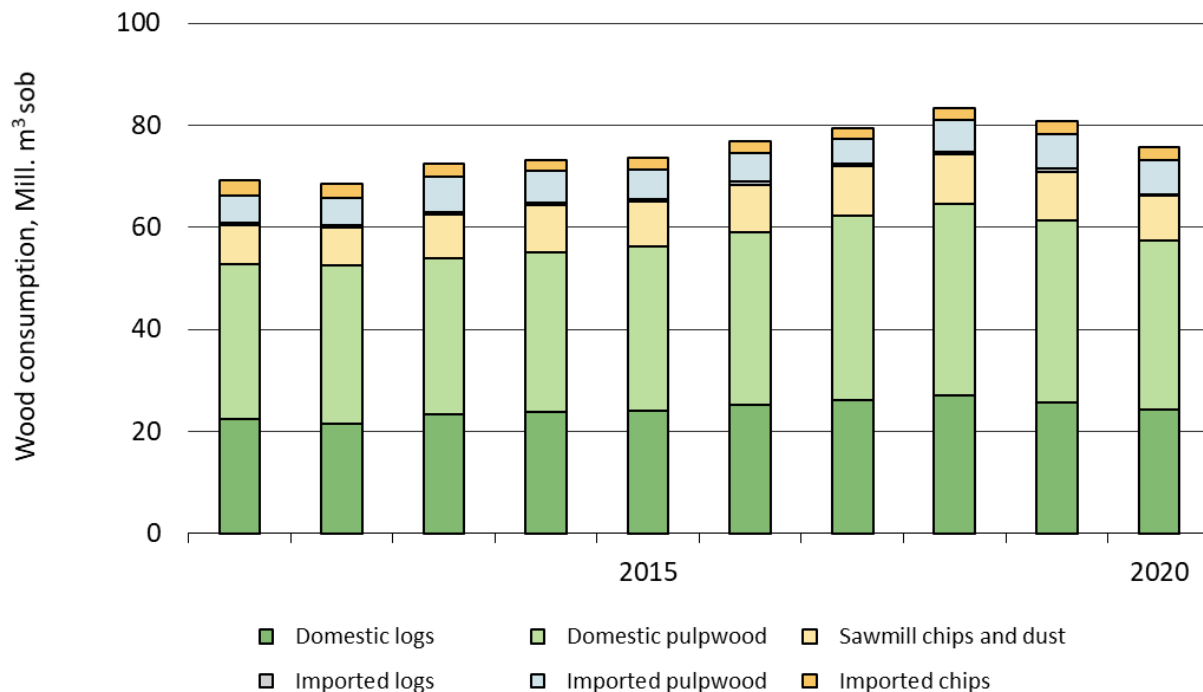
Industrial Roundwood Removals by Forest Ownership Category, 2011–2020



Source: Natural Resources Institute Finland



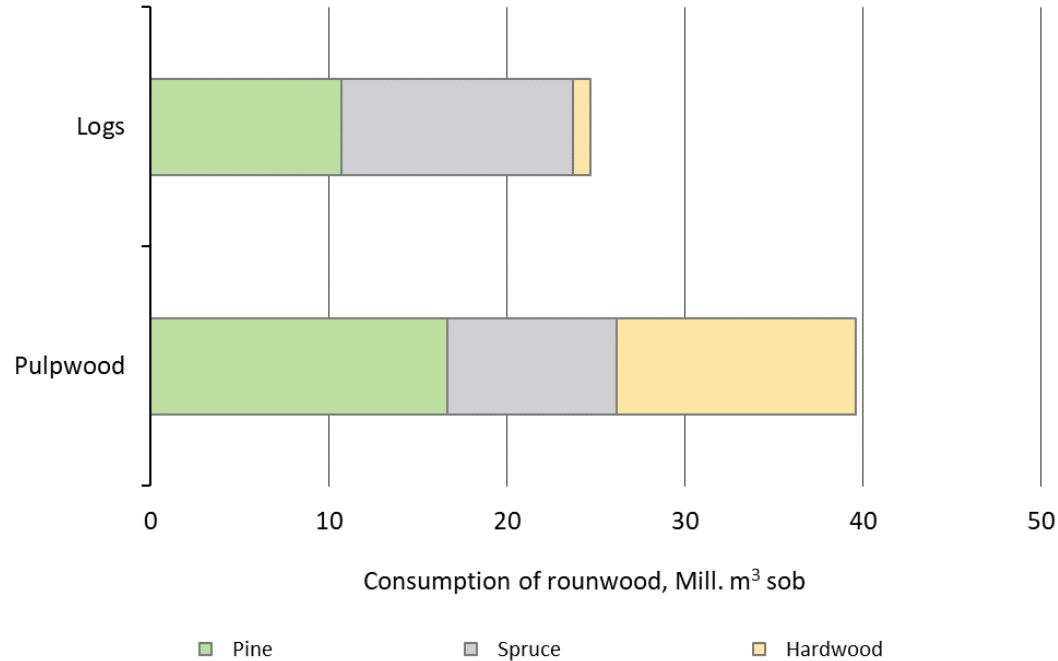
Roundwood Consumption by Forest Industries, 2011–2020



Source: Natural Resources Institute Finland



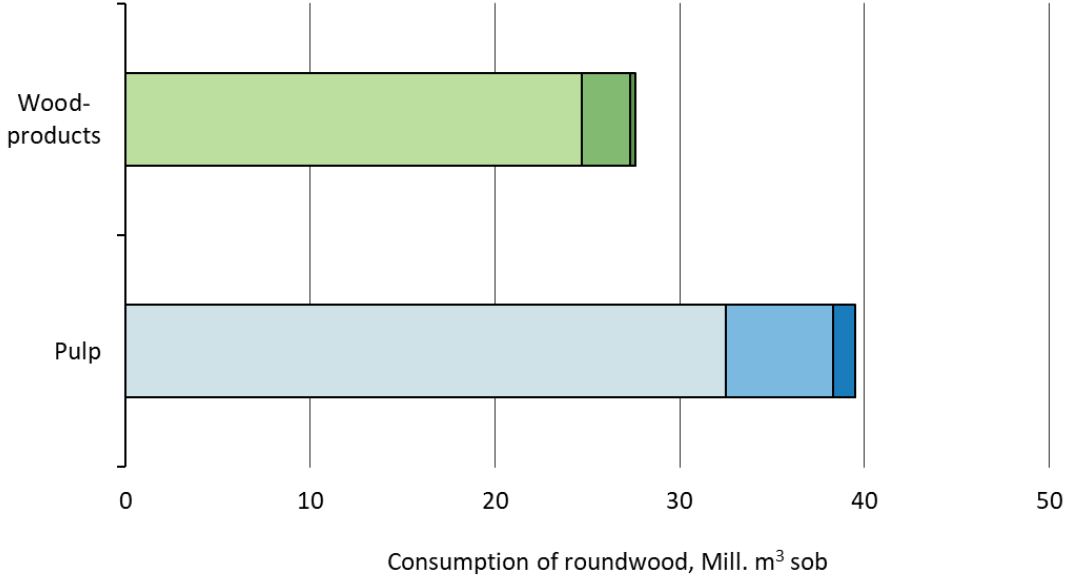
Wood Consumption by Forest Industries, 2020



Source: Natural Resources Institute Finland



Roundwood Consumption by Forest Industries by Branch of Industry, 2020



- Sawmilling
- Plywood and veneer industry
- Other wood-based
- Chemical pulp industry
- Mechanical pulp industry
- Semi-chemical pulp industry

Source: Natural Resources Institute Finland

