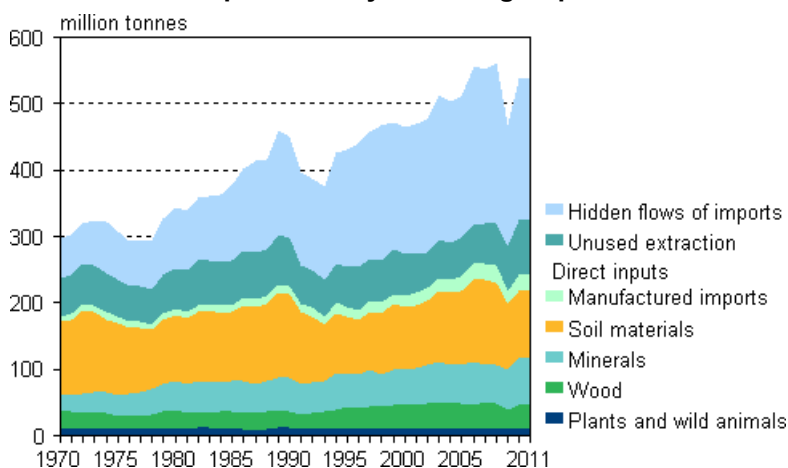


# Economy-wide material flow accounts 2011

## Finnish imports of goods heavier than exports

Last year, Finland imported nearly 62 million tonnes of goods. A fifth of the weight of the imported goods was biotic, in particular agricultural and forestry products, refined wood products and food. The import volume of food (2.3 million tonnes) doubled in the past decade, and that of wood products grew even more. However, a majority of imported goods were abiotic, mainly energy minerals, oil products, chemicals, ores and metals. The single largest product groups were crude oil (11.2 million tonnes), coal, gas and iron ore.

### Total material requirement by material groups 1970–2011



Last year, the export volume was 45 million tonnes. The export volume of biotic products was nearly the same as that of abiotic ones. In addition to wood and paper products, the highest volumes were seen in oil products, chemicals, base metals and stone products. The export volumes in the forest industry were clearly lower than during the early years of the millennium. The exports of abiotic products was larger than those of biotic products for the first time in 2009. The degree of refining in exported goods is clearly higher than in imported goods.

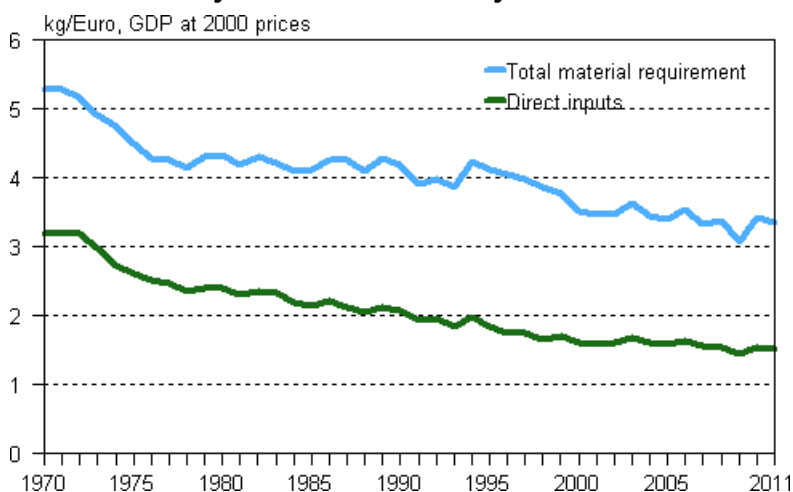
Total material requirement in Finland's national economy in 2011 was 540 million tonnes, slightly more than in the previous year. The calculation includes natural resources taken in Finland but not used, as well as indirect material flows abroad related to imported goods, so-called hidden flows. The amount of unused,

but extracted natural resources was 80 million tonnes in Finland last year, and the amount of international hidden flows was estimated to be 215 million tonnes. The national economy's direct use of materials was 245 million tonnes.

Total material requirement has almost doubled from 1970 to 2011. By international comparison, material requirement as direct input per capita is currently notably high in Finland, 45 tonnes per capita a year, while the EU average is 16 tonnes. Especially the direct input and the hidden flows from imports have grown; the former 2.3-fold and the latter 3.5-fold in 40 years. The material intensity of Finland's economy, or the amount of used material relative to GDP, has, however, shown a decreasing trend and, so far, it has been at its lowest or most efficient in 2009.

Statistics Finland started publishing the Economy-wide material flow accounts last year (2011). The time series of these data (1970-2009) were previously compiled by the Thule Institute of the University of Oulu. The accounts form part of environmental accounts, on which the European Union passed a regulation last year.

### Material intensity of Finland's economy 1970-2011



# Contents

## Tables

### Appendix tables

Appendix table 1. Total material requirement by material groups 2000–2011.....4

## Appendix tables

**Appendix table 1. Total material requirement by material groups 2000–2011**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
	1 000 tonnes											
Plants and wild animals	11 222	10 467	10 802	9 858	10 198	10 664	9 564	10 549	10 444	10 539	9 086	9 706
direct inputs	10 719	10 043	10 299	9 521	9 791	10 343	9 262	10 310	10 108	10 230	8 823	9 433
hidden flows	503	424	504	337	406	321	302	239	335	309	264	274
Wood	47 640	47 921	49 124	49 915	50 025	50 148	48 000	51 147	47 829	33 654	42 230	44 930
direct inputs	36 195	36 427	37 396	38 238	38 571	38 563	37 352	39 775	38 162	28 959	35 743	37 777
hidden flows	11 445	11 493	11 728	11 677	11 453	11 586	10 648	11 372	9 667	4 694	6 487	7 154
Minerals	142 287	148 190	149 110	163 421	145 843	139 121	160 981	141 046	150 455	140 863	176 033	183 179
direct inputs	52 038	55 465	57 630	62 759	56 982	57 196	64 485	56 783	58 201	60 610	71 062	71 667
hidden flows	90 249	92 725	91 479	100 662	88 860	81 925	96 497	84 263	92 254	80 253	104 971	111 513
Soil materials	129 443	127 865	129 426	140 775	141 943	147 274	160 591	163 852	161 307	134 381	138 456	134 207
direct inputs	94 955	94 205	98 152	106 182	108 822	110 842	123 159	127 191	123 928	97 273	101 083	100 858
hidden flows	34 487	33 660	31 274	34 593	33 121	36 432	37 432	36 661	37 379	37 108	37 373	33 349
Manufactured imports	133 654	135 021	138 212	147 641	154 875	163 759	177 519	184 961	190 841	148 284	170 597	168 414
direct inputs	17 325	17 721	17 796	19 511	20 279	21 430	23 238	24 662	26 238	20 876	24 988	25 391
hidden flows	116 330	117 300	120 417	128 131	134 596	142 328	154 281	160 299	164 602	127 408	145 609	143 023
Total	464 246	469 463	476 674	511 610	502 882	510 966	556 655	551 555	560 875	467 721	536 403	540 437
direct inputs	211 231	213 861	221 273	236 210	234 446	238 374	257 495	258 721	256 637	217 949	241 699	245 125
hidden flows	253 015	255 602	255 401	275 400	268 437	272 592	299 160	292 834	304 238	249 772	294 704	295 313

### Inquiries

Simo Vahvelainen 09 1734 3457

Leo Koltola 09 1734 3234

Jukka Muukkonen 09 1734 3224

Director in charge:

Leena Storgårds

[environmental.accounts@stat.fi](mailto:environmental.accounts@stat.fi)

[www.stat.fi](http://www.stat.fi)

Source: Economy-wide material flow accounts 2011, Statistics Finland