

Guide to environment statistics 2012

Statistics Norway

Statistisk sentralbyrå



Guide to environment statistics 2012

This booklet contains a selection of statistics published by Statistics Norway supplemented by selected data from other national and international sources. More information can be found in reports, in articles on our web-site, and in StatBank Norway.

The booklet is available in electronic format at http://www.ssb.no/english/subjects/01/sa_nrm

In the electronic version, a click on the web addresses in the "More information-boxes" will give direct access to the statistics.

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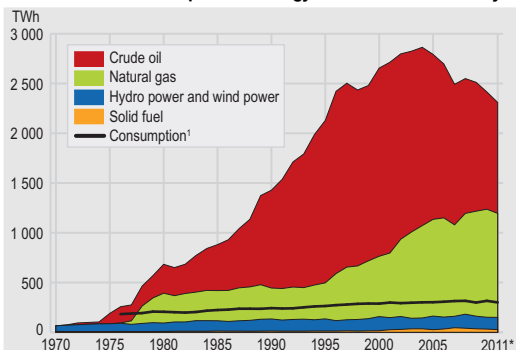
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Category not applicable	.
Data not available	..
Data not yet available	...
Not for publication	:
Nil	-
Less than 0.5 of the unit employed	0
Less than 0.05 of the unit employed	0,0
Provisional or preliminary figure	*
Break in the homogeneity of a vertical series	—
Break in the homogeneity of a horizontal series	
Decimal point	.

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Extraction and consumption¹ of energy commodities in Norway



¹ Including the energy sectors, excluding ocean transport.

Source: Statistics Norway, Norwegian Petroleum Directorate and Norwegian Water Resources and Energy Directorate.

Production of oil, gas and coal. World total and selected countries. 2011*

	Total		Oil Million tonnes	Gas Mtoe	Coal Mtoe
	Mtoe	Per cent			
World, total	10 809	100.0	4 106	2 813	3 889
China	2 138	19.8	203	86	1 849
USA	1 435	13.3	361	535	540
Russia	1 257	11.6	513	556	188
Saudi Arabia	604	5.6	529	75	0
Iran	346	3.2	219	126	1
Indonesia	342	3.2	47	80	216
Canada	339	3.1	173	133	34
India	336	3.1	44	38	253
Australia	301	2.8	20	49	231
Mexico	208	1.9	160	42	6
Qatar	197	1.8	63	135	0
Norway	184	1.7	93	90	1

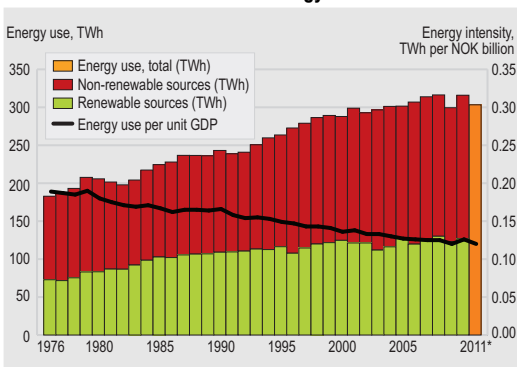
Source: International Energy Agency - IEA.

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IEA	http://www.iea.org

Energy

Energy use per unit GDP¹ and total energy use (TWh). Renewable and non-renewable energy sources



¹ GDP at constant 2010 prices. Ocean transport not included.

Source: Statistics Norway.

Energy use per capita. Selected countries. kWh

	1990	2000	2010
World, total	19 592	19 402	21 893
EU-27	40 657	41 011	40 147
Iceland	96 234	129 617	198 395
USA	89 939	94 582	83 977
Finland	66 882	73 215	79 755
Norway	58 190	67 674	77 993
Sweden	64 794	62 982	64 253
Japan	41 760	48 041	45 830
Denmark	39 693	41 017	40 790
China	8 932	10 188	21 222
India	4 382	5 288	6 951

Source: International Energy Agency - IEA.

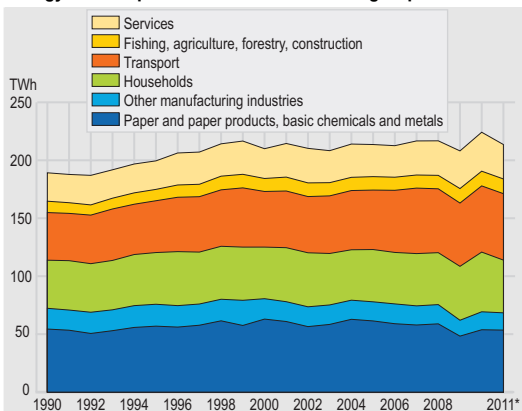
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IEA

<http://www.iea.org/>

Energy

Energy consumption in different consumer groups¹



¹ Excluding the energy producing industries and energy products used as raw materials.

Source: Statistics Norway.

Energy consumption in different consumer groups. Per cent

	1990	2000	2010	2011*
Energy consumption, total	100	100	100	100
Manufacture of pulp and paper, basic chemicals and metals	29	30	24	25
Other manufacturing industries, mining and quarrying	9	8	7	7
Households	22	21	23	21
Transport	22	23	25	27
Fishing, agriculture, forestry, construction	5	5	6	6
Services	13	12	15	14

Source: Energy balance, Statistics Norway.

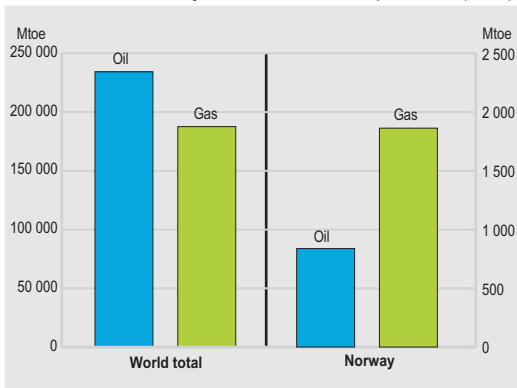
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StatBank Norway <http://www.ssb.no/en/table/energiregn/>

Energy

Proved reserves of oil and natural gas by the end of 2011. World total and Norway. Million tonnes oil equivalents (Mtoe)



Source: BP - Statistical Review of World Energy 2012.

Proved reserves of fossil energy commodities

	Oil Billion barrels	Gas Trillion m ³	Coal Billion tonnes
World, 31 December 1991	1 032.7	131.2	..
World, 31 December 2001	1 267.4	168.5	..
World, 31 December 2011	1 652.6	208.4	860.9
North America ¹	217.5	10.8	245.1
Latin and Central America	325.4	7.6	12.5
Europe incl. former Soviet Union	141.1	78.7	304.6
Middle East	795.0	80.0	1.2
Africa	132.4	14.5	31.7
Asia and Oceania	41.3	16.8	265.8
Norway ²	6.9	2.1	0.0

¹ North America includes Mexico.

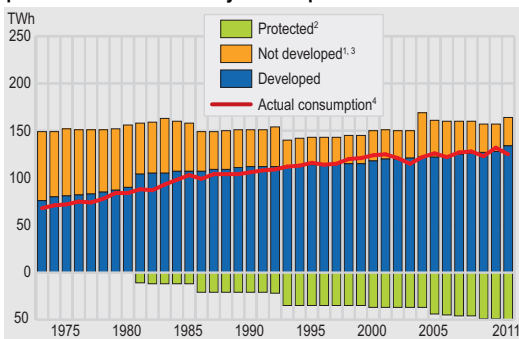
² Norwegian coal reserves in Svalbard were 12 million tonnes in 2011.

Source: BP - Statistical Review of World Energy 2012 and Store Norske Spitsbergen Kulkompani.

More information

Overview	http://www.ssb.no/olje_gass_en/
BP	http://www.bp.com
Store Norske Spitsbergen Kulkompani	http://www.snsk.no

Hydropower potential: developed, not developed and protected. Actual electricity consumption



¹Includes projects under licensing and planning. ²Hydrometric areas that are permanently preserved by the parliament are not included in the figures prior to 1981. ³The large increase in 2004 is due to mapping of small powerplants between 50kW and 10 000 kW that is included in the potential. ⁴Gross domestic consumption. This includes own use by the power plants and transmission losses in the grid.

Source: Norwegian Water Resources and Energy Directorate.

Electricity trade between Norway and other countries. GWh

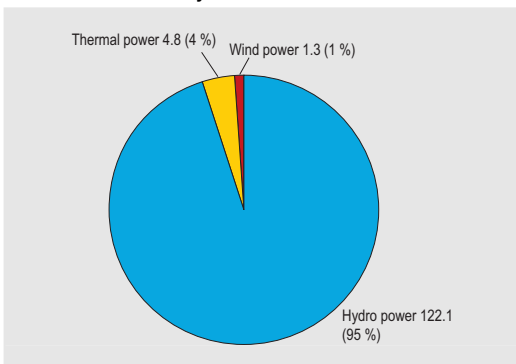
	1990	2000	2010	2011
From Norway to other countries				
Total	16 401	20 529	7 123	14 329
Sweden	12 329	15 763	4 174	7 106
Denmark	3 958	4 634	1 459	3 600
Netherlands	0	0	1 377	3 492
Finland	114	131	114	131
To Norway from other countries				
Total	408	1 474	14 673	11 255
Sweden	399	919	7 993	7 026
Denmark	7	146	4 056	2 413
Netherlands	0	0	2 259	1 489
Russia	0	236	209	199
Finland	2	174	156	127
Net exports from Norway	15 993	19 055	-7 549	3 074

Source: Statistics Norway.

More information

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Production of electricity. 2011. TWh



Source: Statistics Norway.

Energy consumption in households, per household and per person¹. kWh

	1990	1995	2000	2005	2010
Energy consumption per household	23 594	24 098	22 795	22 172	23 445
Electricity	17 300	18 779	17 836	16 802	18 183
Heating oil, kerosene, LPG	2 851	1 908	1 414	1 234	958
Fuel wood	3 239	3 231	3 407	3 890	3 786
Coal, gas, district heating	203	181	138	246	519
Energy consumption per person	9 762	10 219	9 882	9 742	10 551

¹ Energy consumption in residences and holiday cottages. Excl. energy use for private cars and tools and equipment for outdoor use.

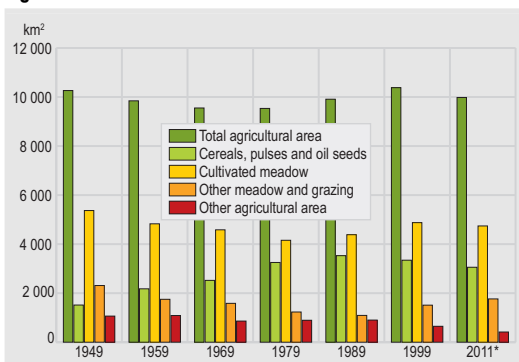
Source: Statistics Norway.

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Agriculture

Agricultural area in use



Source: Statistics Norway.

Areas farmed ecologically or in the process of conversion in the Nordic countries. Percentage of total agricultural area

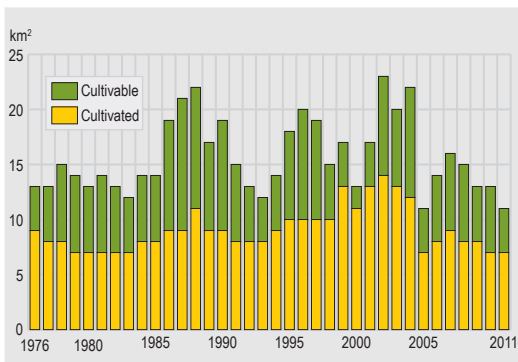
	Norway	Sweden	Denmark	Finland
1991	0.2	1.0	0.6	0.3
1995	0.6	2.6	1.4	2.1
2000	2.0	5.4	6.0	6.6
2005	4.2	6.9	5.4	6.5
2010	5.7	14.2	6.4	7.5
2011*	5.6	15.7	6.4	7.9

Source: Debio and Statistics Norway (Norway); KRAV, Statistics Sweden and Swedish Board of Agriculture (Sweden); Danish Plant Directorate and Statistics Denmark (Denmark); KTTK, Evira and TIKE (Finland).

More information

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StatBank Norway	http://www.ssb.no/en/table/stjord/

Irreversible conversion of cultivated and cultivable land



Source: Norwegian Agricultural Authority and KOSTRA (Municipality-State-Reporting), Statistics Norway.

Nitrogen and phosphorus in commercial fertilisers¹ and manure. Tonnes

	Nitrogen		Phosphorus	
	Commercial fertilisers	Manure	Commercial fertilisers	Manure
1990	110 418	42 425	16 002	12 030
2000	107 410	39 331	13 325	12 578
2005	106 882	38 871	12 660	12 395
2008	116 351	37 758	13 403	12 302
2009	82 549	37 655	7 071	12 237
2010	83 081	37 592	7 669	12 094
2011*	96 851	37 206	8 901	11 946

¹ Commercial fertilisers refer to sold quantity from wholesalers and importers. Sales in 2008, 2009 and 2010 are affected by stockpiling due to expected price increase in 2009.

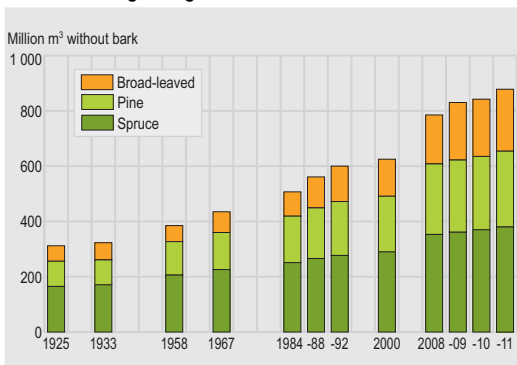
Source: Norwegian Food Safety Authority and Statistics Norway.

More information

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Forest

Volume of the growing stock¹



¹ As from the inventory cycle 2005-2009, forest areas above the coniferous forest line are included.
Source: Statistics Norway and National Forest Inventory.

Forest area and other wooded area in selected European countries

	Forest area. 1 000 km ²	Other wooded area. 1 000 km ²	Forest area per capita. Decares
Norway	101	27	21.1
Sweden	282	30	30.6
Finland	222	11	41.8
Denmark	5	0	0.9
UK	29	0	0.5
Germany	111	0	1.4
France	160	16	2.6
Spain	182	96	4.0

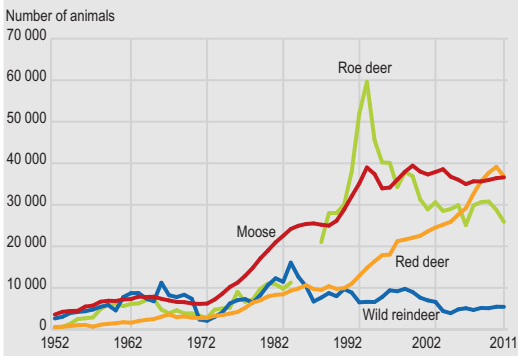
Source: The Global Forest Resources Assessment 2010, FAO.

More information

Overview	http://www.ssb.no/skog_en/
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StatBank Norway	http://www.ssb.no/en/table/lst/
FAO	http://www.fao.org/forestry/fra/en/

Game species

Number of moose, red deer, wild reindeer and roe deer killed



Source: Statistics Norway.

Average number of large predators killed per year

	Wolf	Bear	Wolverine	Lynx
1866-1875	42	122	59	157
1926-1935	4	3	12	4
1966-1975	-	-	17	43
1996-2005	4	5	37	87
2006/2007	2	4	79	82
2007/2008	5	13	77	111
2008/2009	5	12	90	136
2009/2010	8	18	89	147
2010/2011	13	10	105	157
2011/2012	9	16	112	92

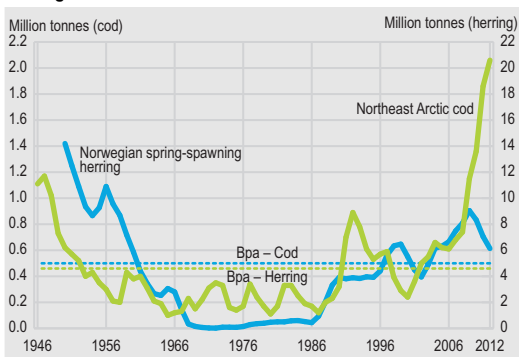
Source: Statistics Norway.

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StatBank Norway	Click on "More tables in StatBank" in Latest articles above

Fish and fisheries

Spawning stock biomass and precautionary reference point (Bpa) for Northeast Arctic cod and Norwegian spring-spawning herring



Source: The International Council for the Exploration of the Sea - ICES.

Norwegian catches by groups of fish species, molluscs and crustaceans. Sales of farmed salmon and trout. 1 000 tonnes

	1980	1990	2000	2011*
Fisheries. Fish and shellfish, total	2 400	1 592	2 699	2 290
Pelagic fish	1 703	1 101	2 079	1 369
Cod fish	599	315	479	725
Flatfish and other demersal fish	27	88	63	49
Other fish	21	15	8	3
Molluscs and crustaceans	50	73	71	144
Fish farming, salmon and trout	8	150	489	1 118

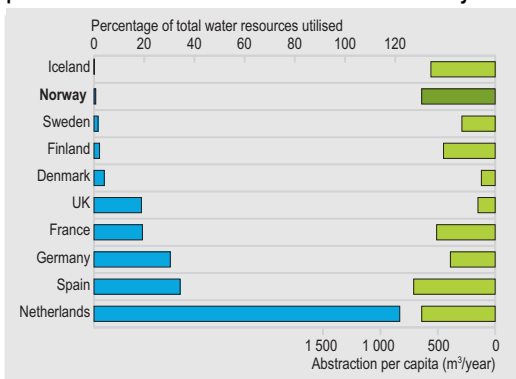
Source: Directorate of Fisheries and Statistics Norway.

More information

Latest article	http://www.ssb.no/fiskeri_en/ http://www.ssb.no/fiskeoppdrett_en/
StatBank Norway	http://www.ssb.no/en/table/fiskeri/ http://www.ssb.no/en/table/fiskeoppdrett/
Other data sources	http://www.fiskeridir.no/ http://www.imr.no http://www.ices.dk

Water

Percentage of total freshwater resources utilised and abstraction per inhabitant. Selected countries. 2009 or latest available year



Source: OECD.

Municipal water supply

		2005	2010	2011
Population connected to municipal water supply	Per cent	84.7	83.5	84.1
Total water delivered via the municipal distribution system	Million cubic metres	..	744	740
Distributed to households (residences/apartments)	Per cent	..	41	41
Distributed to households (holiday cottages, etc.)	Per cent	..	1	2
Distributed to manufacturing industry	Per cent	..	12	13
Distributed to service sector	Per cent	..	6	6
Distributed to primary industries	Per cent	..	3	3
Distributed to other sectors/use	Per cent	..	5	4
Leakages	Per cent	..	31	32
Average household consumption	Litres/person*day	202	213	209

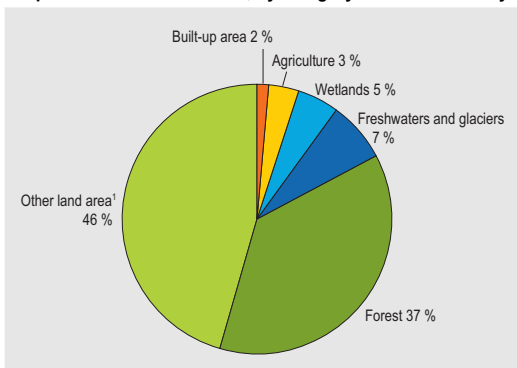
Source: KOSTRA (Municipality-State Reporting System).

More information

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Land and land use

Proportion of land resources, by category. Mainland Norway



¹ Other land area consists of open firm ground, bare rock, gravel and block fields.

Source: Norwegian Mapping Authority, The Norwegian Forest and Landscape Institute and Statistics Norway.

Total area and distribution of area¹. 2012. km²

	Total	Distribution of area, land/freshwater		Distribution of area, continental/islands	
		Land	Freshwater	Continental	Islands in the ocean
Kingdom of Norway	385 186	365 246	19 940	301 483	83 672
Mainland	323 787	304 248	19 539	301 483	22 275
Svalbard	61 022	60 627	395	.	61 020
Jan Mayen	377	371	6	.	377

¹ The figures for land and freshwater have been quality improved and the sum differs from sum of the continental/islands distribution.

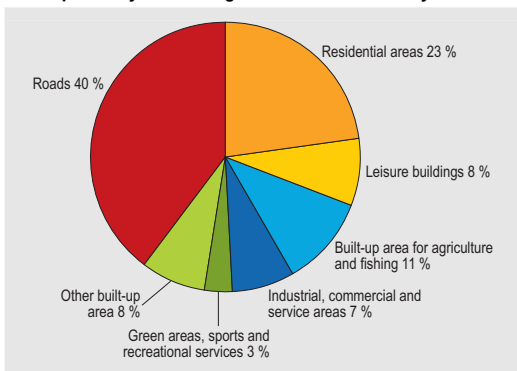
Source: Norwegian Mapping Authority.

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Norwegian Mapping Authority	http://www.statkart.no/eng/Norwegian_Mapping_Authority/

Land and land use

Built-up area by main categories. Mainland Norway. 2011



Source: Norwegian Mapping Authority, Norwegian Forest and Landscape Institute and Statistics Norway.

Urban settlements, area and residents

	Area. km ²	Residents	Share of total population resident in urban settlements. Per cent
2000	2 139	3 396 382	76
2002	2 194	3 474 623	77
2003	2 225	3 514 417	77
2004	2 218	3 536 454	77
2005	2 219	3 560 137	77
2006	2 263	3 607 813	78
2007	2 294	3 655 391	78
2008	2 334	3 722 786	79
2009	2 340	3 780 068	79
2011	2 403	3 899 115	79
2012	2 423	3 958 038	79

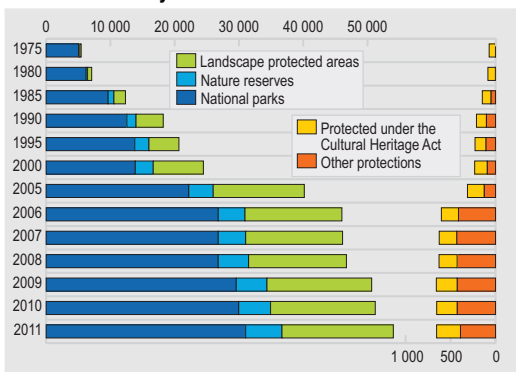
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Land and land use

Protected areas¹ by conservation form. km². 31 December



¹ Areas on Svalbard are protected according to the Svalbard law and are not included.

Source: Statistics Norway, Directorate for Nature Management and Directorate for Cultural Heritage.

Land use in the shore zone by municipality group. 1 January 2011. Per cent

	Potentially accessible areas		Land use		
	Less than 25 degrees terrain steepness	25 degrees and more terrain steepness	Influence area around buildings < 50m	Cultivated land	Road and railway surface
All municipalities with shoreline	49.5	19.8	16.6	11.9	2.2
Municipalities along the Oslo fjord ¹	34.3	5.1	51.5	5.8	3.3
Municipalities with high pressure on land areas ¹	43.6	11.7	29.0	13.1	2.6
Municipalities with low pressure on land areas ¹	51.5	22.2	12.3	11.9	2.1

¹ The government's shore zone management areas.

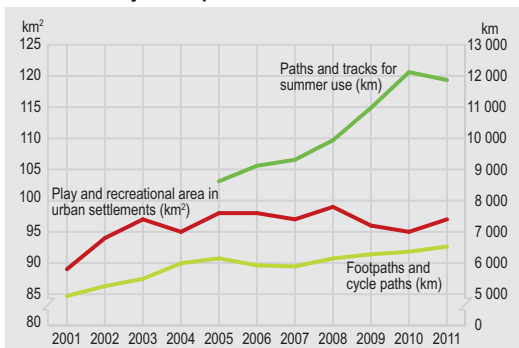
Source: Statistics Norway.

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StatBank Norway	http://www.ssb.no/en/table/arealvern http://www.ssb.no/en/table/strandsone/

Land and land use

Play and recreational area in urban settlements. Footpaths and cycle paths and paths and tracks for summer use administered by municipalities



Source: KOSTRA (Municipality-State Reporting System).

Approval of applications for exemptions. 2001 and 2011

Type of area and activity	Year	Applications that include exemptions, approved	Percentage of applications for exemptions approved
New buildings in agricultural areas, nature areas and outdoor recreation areas	2001	3 646	74
	2011	1 506	84
New buildings in areas along rivers and lakes where building is prohibited	2001	269	80
	2011	250	77
New buildings in the coastal zone where building is prohibited	2001	1 096	67
	2011	1 045	78
Projects in areas set aside for protection of the cultural heritage	2001	96	55
	2011
Motor traffic in outlying fields and waterways	2001	11 863	94
	2011	13 879	97

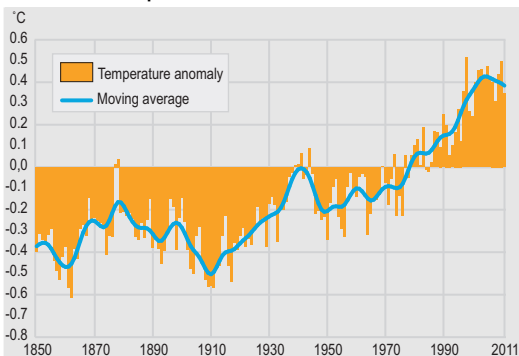
Source: KOSTRA (Municipality-State Reporting System).

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StatBank Norway	http://www.ssb.no/en/table/miljo_kostr/

Climate change

Global mean temperature¹



¹ Deviation from the normal value for the period 1961-1990.

Source: Climate Research Unit - University of East Anglia and Hadley Centre - UK Meteorological Office.

CO₂ emissions, selected countries

	CO ₂ emissions 2010. Million tonnes	Change from 1990. Per cent	CO ₂ emissions per capita 2010. Tonnes
USA	5 697	11.9	18.4
Russia	1 593	-36.2	11.1
Japan	1 192	4.4	9.4
Germany	819	-21.4	10.0
UK	502	-14.7	8.1
France	388	-2.5	6.2
Ukraine	290	-59.7	6.3
Finland	64	12.5	11.9
Sweden	53	-7.0	5.6
Denmark	50	-7.1	9.1
Norway	45	30.6	9.3

Source: UNFCCC and UNSD.

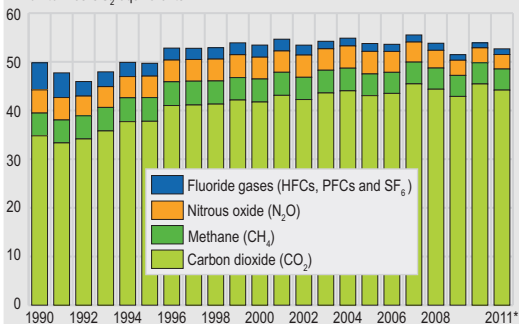
More information

Temperature	http://hadobs.metoffice.com/hadcrt3/diagnostics/global/nh+sh/
Emissions	http://unfccc.int/ghg_data/items/3800.php http://unstats.un.org/unsd/demographic/

Climate change

Norwegian emissions of greenhouse gases

Million tonnes CO₂ equivalents



Source: Statistics Norway and Norwegian Climate and Pollution Agency.

Emissions of greenhouse gases by source. Million tonnes CO₂ equivalents

	1990	2000	2010*	2011*
Total	49.8	53.4	53.9	52.7
Oil and gas extraction	7.7	12.6	13.8	13.4
Manufacturing industries and mining	19.1	17.0	12.1	11.9
Energy supply	0.3	0.5	2.3	2.1
Heating in other industries and households	2.6	1.8	1.9	1.4
Road traffic	7.8	8.5	10.1	10.1
Aviation, navigation, fishing, motor equip. etc.	5.6	6.3	7.2	7.2
Agriculture	4.5	4.5	4.3	4.2
Other	2.1	2.1	2.3	2.4

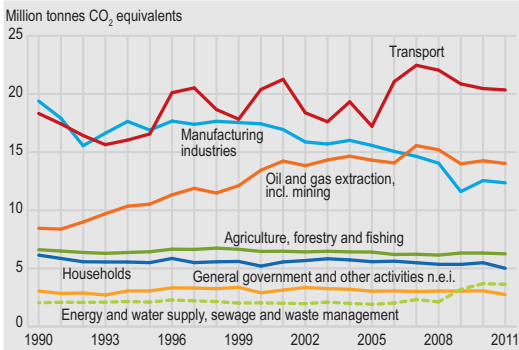
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

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Climate change

Emissions of greenhouse gases by industries and households



Greenhouse gas emissions and output, by households and industries. Per cent of total. 2011*

	Emissions of greenhouse gases. Per cent	Output. Per cent
Agriculture, forestry and fishing	10	2
Oil and gas extraction, incl. mining	22	14
Manufacturing industries	19	17
Energy and water supply, sewage and waste management	6	2
Transport	31	8
General government and other activities n.e.i.	4	57
Households	8	.

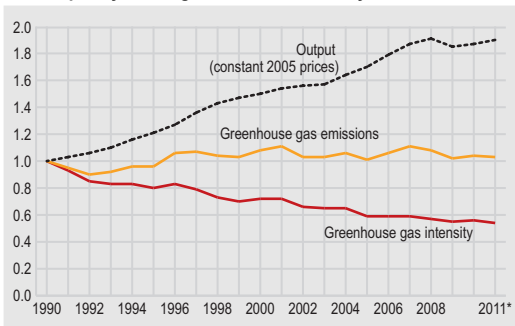
Source: Statistics Norway.

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Climate change

Greenhouse gas intensity¹, emissions of greenhouse gases and output by Norwegian economic activity^{2, 3}. Index 1990=1



¹ Greenhouse gas intensity is the ratio between emissions and output. ² Greenhouse gas emissions from Norwegian economic activity differ from the national data on air emissions that are published by Statistics Norway and the Norwegian Climate and Pollution Agency since both ocean transport and international air transport are included. ³ Excl. households.

Source: Statistics Norway.

Greenhouse gas emission intensity, by industry. Tonnes CO₂ equivalents per NOK million output

	1990	2000	2010*	2011*
Total for industries	30.9	22.3	17.3	16.7
Agriculture, forestry and fishing	168.7	120.0	91.3	87.7
Oil and gas extraction, incl. mining	32.1	27.6	29.3	29.1
Manufacturing industries	53.3	35.5	20.6	19.9
Energy and water supply, sewage and waste management	37.8	30.1	46.0	45.0
Transport, incl. ocean transport and international air transport	99.3	80.8	76.5	73.5
General government and other activities n.e.i.	3.2	2.0	1.5	1.3

Source: Statistics Norway.

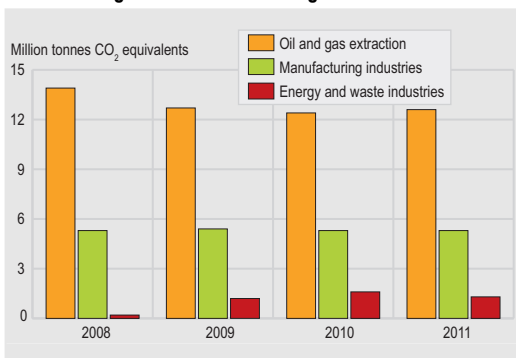
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Latest article http://www.ssb.no/nrmiljo_en/

StatBank Norway <http://www.ssb.no/en/table/nrmiljo/>

Climate change

Greenhouse gas emissions in the regulated sector¹



¹ Emissions from enterprises subject to the emission allowances regulation.

Source: Statistics Norway.

Greenhouse gas emissions and allowances allocated free of charge. Total for the period 2008-2011. Million tonnes CO₂ equivalents

	Emissions	Free allowances
Regulated sector, total	77.1	31.9
Industries with no free allowances	46.2	0.0
Industries eligible to free allowances	30.8	31.9
Oil and gas extraction – eligible to free allowances	5.3	4.6
Manufacturing industries eligible to free allowances	21.3	25.0
Manufacture of food products, beverages and tobacco products	0.3	0.4
Manufacture of paper and paper products	1.5	1.9
Manufacture of petroleum products, chemicals and basic metals	13.3	15.7
Manufacture of rubber and plastic products, mineral products	6.2	7.0
Energy and waste industries eligible to free allowances	4.2	2.3

Source: Statistics Norway.

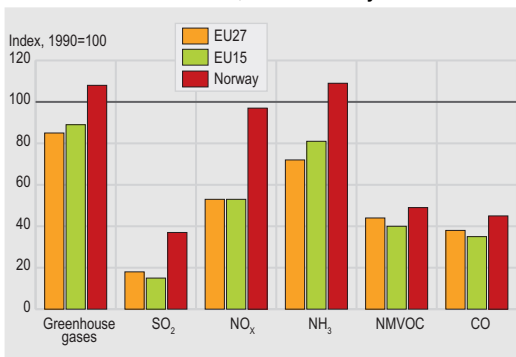
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Latest article

<http://www.ssb.no/magasinet/miljo/art-2012-05-08-01.html>

Climate change and air pollution

Emissions in 1990 and 2010, EU and Norway



Source: European Environment Agency - EEA, Statistics Norway and Norwegian Climate and Pollution Agency.

Norwegian emissions of carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), percentage change and GWP¹ values of the gases

	CO ₂ Million tonnes	CH ₄ 1 000 tonnes	N ₂ O 1 000 tonnes
1990	34.8	222.2	15.4
1995	37.8	231.8	14.2
2000	41.7	225.4	14.4
2005	43.1	212.4	14.9
2010*	45.5	206.9	9.9
2011*	44.2	206.3	9.6
Change 1990-2010 (per cent)	27.0	-7.2	-37.4
GWP value	1	21	310

¹ Impact on greenhouse effect of emission of 1 tonne of the gas compared with that of 1 tonne CO₂.

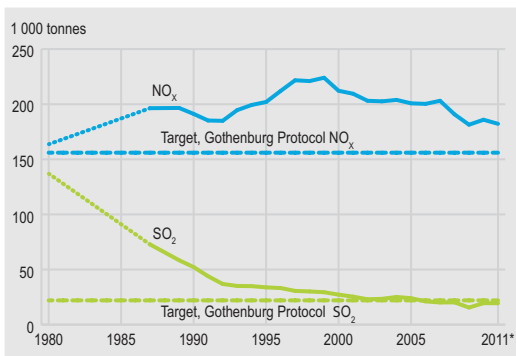
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information

Latest article	http://www.ssb.no/klimagassn_en/
StatBank Norway	http://www.ssb.no/en/table/luft/
International data	http://www.eea.europa.eu/publications/european-union-greenhouse-gas-inventory-2012 http://www.eea.europa.eu/publications/eu-emission-inventory-report-1990-2010

Air pollution

Emissions of NO_x and SO₂ and 2010 target, Gothenburg Protocol



Source: Statistics Norway and Norwegian Climate and Pollution Agency.

Emissions of NO_x and SO₂ by source. 1 000 tonnes

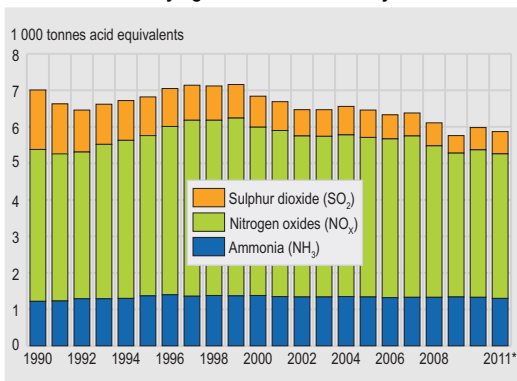
	1980	1990	2000	2011*
NO_x, total	164	191	212	182
Oil and gas extraction	12	27	45	50
Manufacturing industries and mining	26	24	24	21
Road traffic	50	61	52	35
Aviation, navigation, fishing, motor equip. etc.	69	74	87	70
Other sources	7	5	4	6
SO₂, total	136	52	27	19
Manufacturing industries and mining	106	37	20	14
Energy supply	1	1	1	1
Heating in other industries and households	12	3	1	1
Road traffic	4	3	0	0
Aviation, navigation, fishing, motor equip. etc.	13	7	3	3
Other sources	0	0	0	0

Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information

Overview	http://www.ssb.no/klima_en/
Latest article	http://www.ssb.no/agassn_en/
StatBank Norway	http://www.ssb.no/en/table/luft/

Emissions of acidifying substances in Norway¹



¹ Acid equivalents = total acidifying effect of SO₂, NO_x and NH₃.

Source: Statistics Norway and Norwegian Climate and Pollution Agency.

Emissions of SO₂ and NO_x per capita, selected countries

	SO ₂ kg per capita		NO _x kg per capita	
	1990	2010	1990	2010
UK	65	7	50	18
Germany	67	5	36	16
Russia ¹	32	9	24	17
Sweden	12	4	31	20
Denmark	34	3	53	23
Norway	12	4	45	38

¹ The figures apply to the European part within the EMEP area.

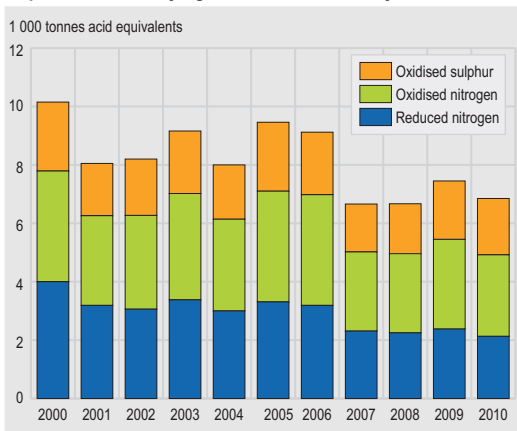
Source: EMEP - European Monitoring and Evaluation Programme: "Emissions as used in EMEP models" and UN (population figures).

More information

Latest article	http://www.ssb.no/agassn_en/
StatBank Norway	http://www.ssb.no/en/table/luft/
EMEP	http://www.ceip.at/

Air pollution

Deposition of acidifying substances in Norway



Source: EMEP.

Imports of ozone-depleting substances to Norway. ODP tonnes¹

	ODP-tonnes
1986	2 911
1990	2 196
1995	97
2000	60
2005	15
2010	2
2011	0

¹ The ozone-depleting potential (ODP) varies from one substance to another, and the figures are totals weighted according to the ODP of each substance (ODP factors).

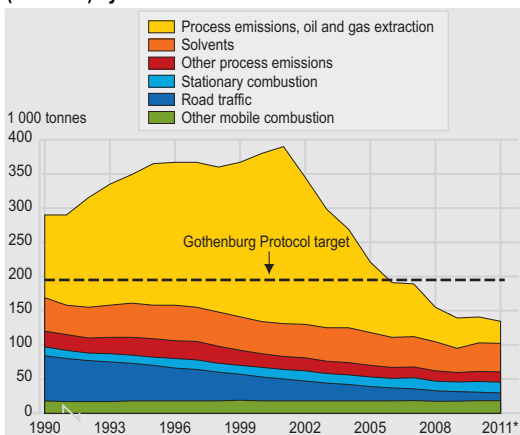
Source: Norwegian Climate and Pollution Agency.

More information

EMEP	http://www.emep.int/publ/reports/2012/Country_Reports/report_NO.pdf
State of the Environment Norway	http://www.environment.no/Topics/Climate/Ozone-layer/

Air pollution

Emissions of non-methane volatile organic compounds (NMVOCs) by source



Source: Statistics Norway and Norwegian Climate and Pollution Agency.

Emissions of carbon monoxide (CO) by source. 1 000 tonnes

	1990	1995	2000	2011*
Total	747	512	387	327
Oil and gas extraction	6	8	9	10
Manufacturing industries and mining	67	41	26	23
Energy supply	1	1	3	6
Heating in other industries and households	177	173	156	153
Road traffic	433	225	130	70
Aviation, navigation, fishing, motor equip. etc.	63	63	63	65
Agriculture	-	-	-	-
Other	1	1	0	0

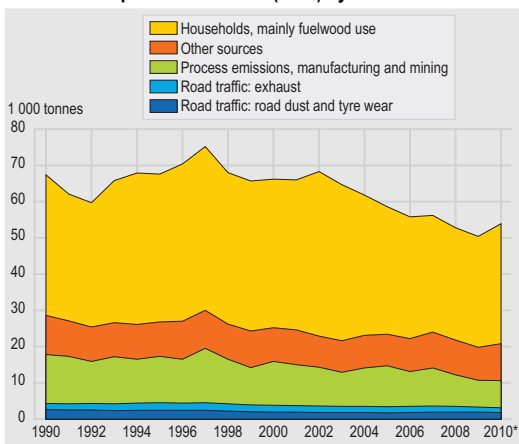
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information

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StatBank Norway	http://www.ssb.no/en/table/luft/

Air pollution

Emissions of particulate matter (PM₁₀) by source



Source: Statistics Norway and Norwegian Climate and Pollution Agency.

Emissions of heavy metals. kg

	1990	1995	2000	2010*
Lead	188 720	24 592	9 840	5 654
Mercury	1 459	846	739	584
Cadmium	1 173	1 047	778	590
Copper	25 614	22 890	23 687	26 211
Chromium	12 786	11 352	8 701	2 945
Arsenic	3 508	3 300	2 900	1 819

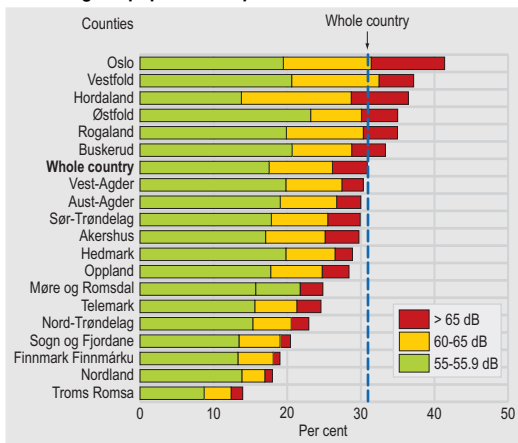
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information

Latest article	http://www.ssb.no/milgiftn_en/
StatBank Norway	http://www.ssb.no/en/table/luft/

Noise

Percentage of population exposed to road traffic noise. 2007



Source: Statistics Norway and Directorate of Public Roads.

Noise annoyance index¹, by source

	Index 2007	Percentage 2007	Change 1999-2007. Per cent
Total – all identified sources	603 900	100	9
Road traffic	476 700	79	15
Manufacturing	27 100	4	5
Other industry	15 100	3	-1
Air traffic	25 100	4	-13
Railways	21 900	4	-31
Other sources ²	38 000	6	...

¹ The index is calculated by multiplying the number of exposed persons within each sound level with an average degree of annoyance for the sound level in question. ² Construction, motor racing tracks and shooting ranges.

Source: Statistics Norway.

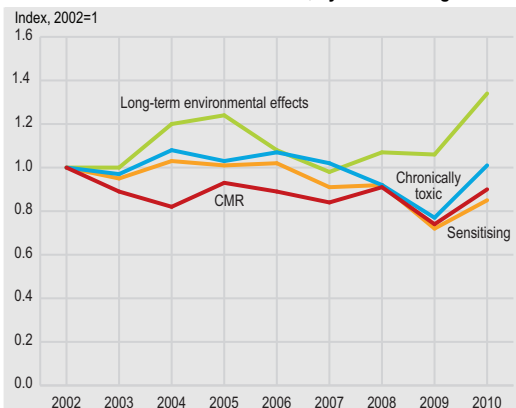
More information

State of the Environment Norway

<http://www.environment.no/Topics/Noise/>

Hazardous substances

Emissions of hazardous substances, by hazard categories



Source: Statistics Norway.

Consumption and emissions of hazardous substances, by hazard categories. 1 000 tonnes

	2002	2004	2010
Consumption			
CMR (carcinogenic, mutagenic and reprotoxic)	3 001	1 953	1 025
Chronically toxic	160	186	148
Sensitising	141	154	131
Long-term environmental effects	587	609	599
Emissions			
CMR (carcinogenic, mutagenic and reprotoxic)	4,4	4,1	3,9
Chronically toxic	0,8	0,8	0,8
Sensitising	3,7	3,7	3,1
Long-term environmental effects	4,8	6,0	6,5

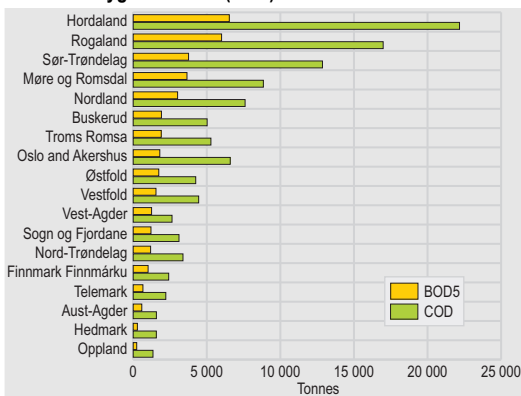
Source: Statistics Norway.

More information

Latest report	http://www.ssb.no/english/subjects/01/04/rapp_emissions_en/
State of the Environment Norway	http://www.environment.no/Topics/Hazardous-chemicals/

Water pollution

Municipal waste water. Discharges of organic material measured as biochemical oxygen demand (BOD5) and chemical oxygen demand (COD). Counties. 2010



Source: Statistics Norway.

Inputs of phosphorus and nitrogen to the North Sea region. Tonnes

	Phosphorus		Nitrogen	
	Total	Of this from municipal waste water	Total	Of this from municipal waste water
1985	1 465	928	32 231	11 929
1995	836	344	26 855	10 362
2005	653	216	21 107	7 123
2008	622	209	22 389	8 753
2009	609	207	22 442	8 199

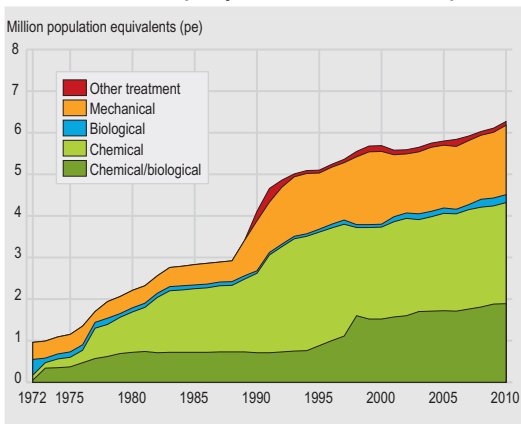
Source: Norwegian Institute for Water Research.

More information

Latest article	http://www.ssb.no/avlut_en/
StatBank Norway	http://www.ssb.no/en/table/avlut/
State of the Environment Norway	http://www.environment.no/Topics/Freshwater/ http://www.environment.no/Topics/Marine-areas/

Water pollution

Trend in treatment capacity at waste water treatment plants



Discharges of phosphorus and nitrogen from large wastewater treatment plants (50 pe or more)

	2000	2005	2008	2010
Phosphorus				
Total (tonnes)	825	735	802	813
Discharges per inhabitant connected (kg)	0.2	0.2	0.2	0.2
Treatment efficiency (per cent)	66.8	70.1	70.1	69.8
Nitrogen				
Total (tonnes)	13 191	11 880	12 702	13 313
Discharges per inhabitant connected (kg)	3.7	3.2	3.2	3.3
Treatment efficiency (per cent)	27.7	31.1	32.7	32.3

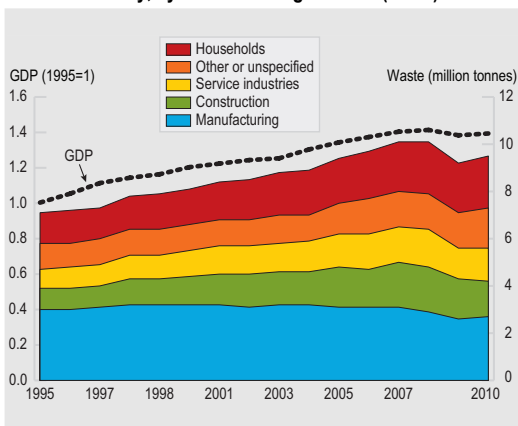
Source: Statistics Norway.

More information

Latest article	http://www.ssb.no/avlut_en/
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Waste

Waste in Norway, by source. Change in GDP (index)



Source: Statistics Norway.

Waste in Norway, by material. 1 000 tonnes

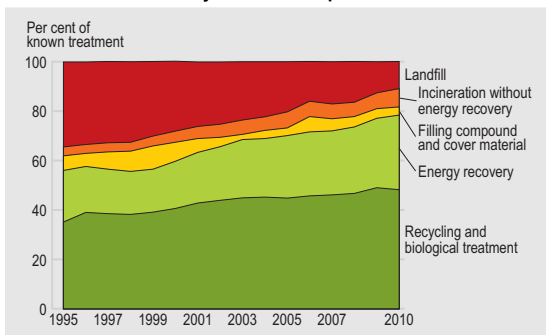
	1995	2000	2005	2010
Total	7 100	8 176	9 383	9 454
Paper, cardboard and pasteboard	1 037	1 118	1 198	1 107
Wood waste	1 334	1 300	1 584	1 660
Biodegradable waste	1 079	1 256	1 421	1 493
Plastic	377	414	413	439
Metals	593	758	920	1 066
Hazardous waste	573	611	970	1 162
Other materials	2 109	2 718	2 879	2 527

Source: Statistics Norway.

More information

Overview	http://www.ssb.no/avfall_en/
Latest article	http://www.ssb.no/avfregno_en/
StatBank Norway	http://www.ssb.no/en/table/avfregno/

Non-hazardous waste by treatment/disposal



Emissions from waste incineration and landfills. Percentages of total Norwegian emissions in 2010 and change since 1990

	Percentage of total Norwegian emissions	Percentage change from 1990
Incineration plants		
Sulphur dioxide	0.7	-63
Nitrogen oxides	0.4	-23
Carbon dioxide ¹	0.9	389
Lead	0.5	-99
Cadmium	0.2	-99
Mercury	15.0	-47
Arsenic	0.2	-98
Chromium	0.1	-99
Copper	0.0	-96
Total PAH	1.2	-20
Dioxins	1.1	-98
Landfills		
Methane (greenhouse gas) ¹	2.0	-36

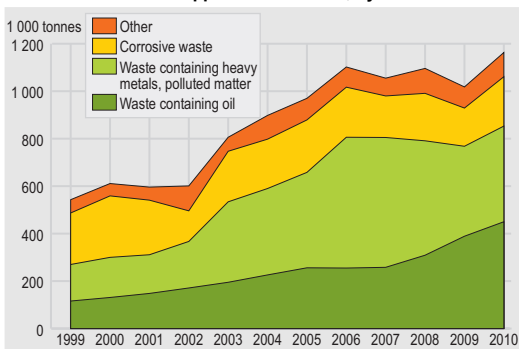
¹ Calculated as a percentage of total greenhouse gas emissions in CO₂ equivalents.

Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information

Latest article	http://www.ssb.no/avfhand_en/ http://www.ssb.no/avfregno_en/
StatBank Norway	http://www.ssb.no/avfregno_en/ http://www.ssb.no/en/table/avfregno/ http://www.ssb.no/en/table/luft/

Hazardous waste for approved treatment, by material



Source: Statistics Norway.

Hazardous waste handled at approved facilities, by type of treatment¹. 1 000 tonnes

Treatment	2003	2010
Generated in Norway, total	806	1 162
Material recycling	64	187
Energy recovery	105	155
Final disposal	647	748
Stock changes ²	..	72
Imported	255	377
Exported	77	174

¹ Exported waste is included in the actual treatment or disposal categories.

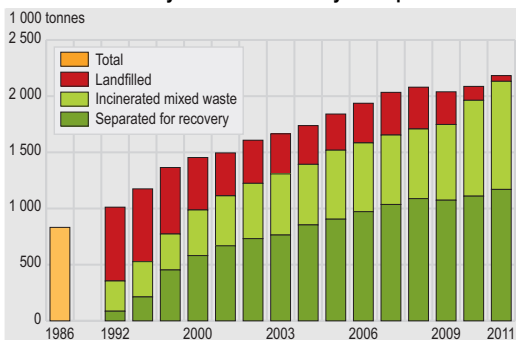
² Stock changes 2003 included in final disposal.

Source: Statistics Norway.

More information

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StatBank Norway	http://www.ssb.no/en/table/avfhand/ http://www.ssb.no/en/table/avfregno/ http://www.ssb.no/en/table/spesavf/

Household waste by method of recovery or disposal



Source: Statistics Norway.

Quantity of household waste and percentage for recovery. The ten largest municipalities. 2011

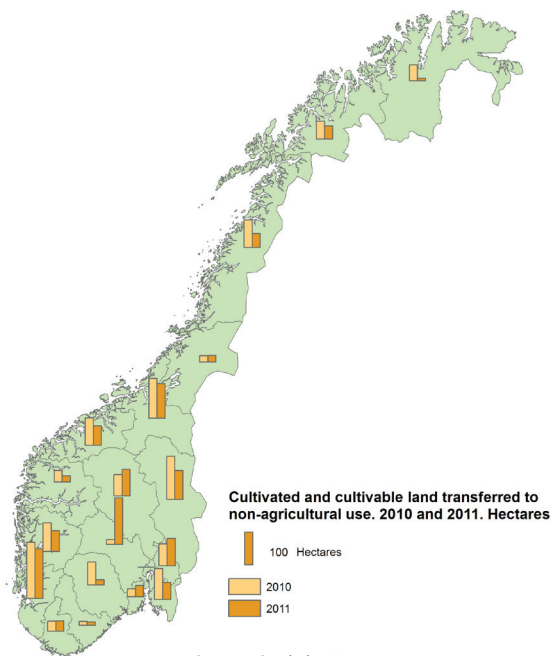
Municipalities by decreasing population	Household waste per capita. kg	Separated for recovery. Per cent
Oslo	387	49
Bergen	389	41
Trondheim	400	47
Stavanger	403	64
Bærum	408	52
Kristiansand	534	61
Fredrikstad	586	59
Tromsø	343	40
Sandnes	398	64
Drammen	541	60

Source: Statistics Norway.

More information

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Source: Statistics Norway.

Map data: Norwegian Mapping Authority.

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