

Statistics Norway



Statistisk sentralbyrå

Guide to environment statistics 2011

Guide to environment statistics 2011

This booklet contains a selection of statistics published by Statistics Norway in 2011. 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

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Environmental protection expenditure

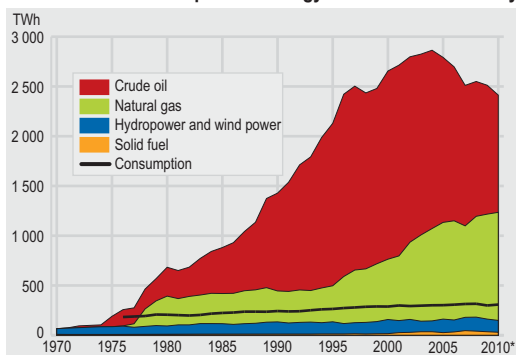
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Standard symbols in the tables

Category not applicable	.
Data not available	..
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Not for publication	: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. 2010

	Total		Oil Million tonnes	Gas mtoe	Coal mtoe
	mtoe	Per cent			
World, total	10 465.3	100	4 065.6	2 719.0	3 680.7
China	1 960.4	18.7	199.9	81.0	1 679.6
USA	1 392.4	13.3	351.0	503.1	538.4
Russia	1 209.0	11.6	504.1	523.6	181.4
Saudi Arabia	547.8	5.2	481.0	66.9	0.0
Canada	354.4	3.4	230.9	122.7	0.8
Iran	332.4	3.2	41.9	42.4	248.2
Australia	329.7	3.2	163.1	132.2	34.5
India	317.4	3.0	24.0	43.1	250.4
Indonesia	316.9	3.0	47.8	76.7	192.4
Mexico	198.7	1.9	155.5	38.4	4.8
Norway	193.5	1.8	101.1	91.1	1.3

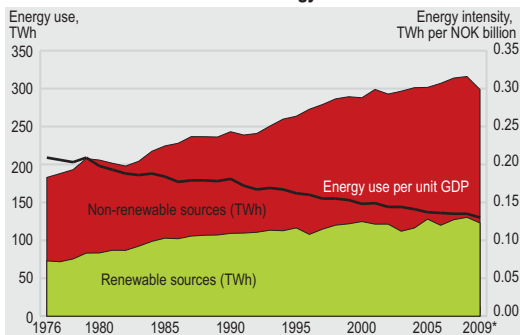
Source: International Energy Agency - IEA.

More information

Latest article	http://www.ssb.no/energiregn_en/ http://www.ssb.no/ogprodre_en/
StatBank Norway	http://www.ssb.no/en/table/energiregn/
IEA	http://www.iea.org

Energy

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



¹ GDP at constant 2009 prices. Ocean transport not included.

Source: Statistics Norway.

Energy use per capita. Selected countries. kWh per capita

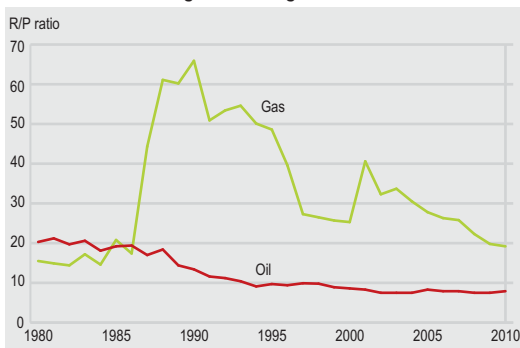
	1990	2000	2009
World	19 592	19 402	21 116
EU-27	40 657	41 011	38 882
Iceland	96 234	129 617	192 452
USA	89 939	94 582	82 653
Finland	66 882	73 215	72 999
Norway	58 190	67 674	68 754
Sweden	64 794	62 982	57 376
Japan	41 760	48 041	43 556
Denmark	39 693	41 017	39 589
China	8 932	10 188	19 919
India	4 382	5 288	6 874

Source: International Energy Agency - IEA.

More information

International Energy Agency <http://www.iea.org/>

R/P-ratio^{1, 2} for Norwegian oil and gas reserves



¹ The R/P ratio, or the ratio between reserves and the current annual rate of production, indicates how many years it will take before the reserves are exhausted. ² Because of a change in the classification system for petroleum resources, there is a break in the time series between 2000 and 2001.

Source: Statistics Norway and Norwegian Petroleum Directorate.

Proven reserves of fossil energy commodities

	Oil Billion barrels	Gas Billion m ³	Coal Billion tonnes
World, 31 December 1989	1 006.4	122.4	..
World, 31 December 1999	1 085.6	148.6	..
World, 31 December 2010	1 383.2	187.1	860.9
North America ¹	74.3	9.9	245.1
Latin and Central America	239.4	7.4	12.5
Europe incl. former Soviet Union	139.7	63.1	304.6
Middle East	752.5	75.8	1.2
Africa	132.1	14.7	31.7
Asia and Oceania	45.2	16.2	265.8
Norway ²	6.7	2.0	0.0

¹ North America includes Mexico.

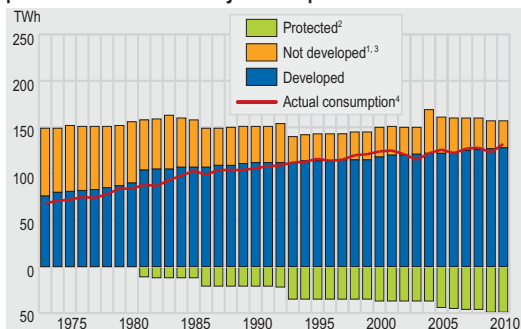
² Norwegian coal reserves in Svalbard were 24 million tonnes in 2010.

Source: BP - Statistical Review of World Energy 2011 and Store Norske Spitsbergen Kulkompani.

More information

Overview	http://www.ssb.no/olje_gass_en/
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Hydropower resources: developed, not developed and protected. Actual electricity consumption



¹ Includes projects under licensing and planning. ² Hydrometric areas that are permanently preserved by the parliament are not included in the figures prior to 1981. ³ The large increase in 2004 is due to mapping of small power plants between 50kW and 10 000 kW that is included in the potential. ⁴ Gross 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	2009	2010
From Norway to other countries				
Total	16 401	20 529	14 633	7 123
Sweden	12 329	15 763	7 768	4 174
Denmark	3 958	4 634	3 834	1 459
Netherlands	0	0	2 920	1 377
Finland	114	131	112	114
To Norway from other countries				
Total	408	1 474	5 650	14 673
Sweden	399	919	2 634	7 993
Denmark	7	146	1 453	4 056
Netherlands	0	0	1 215	2 259
Russia	0	236	223	209
Finland	2	174	126	156
Net export from Norway	15 993	19 055	8 983	-7 549

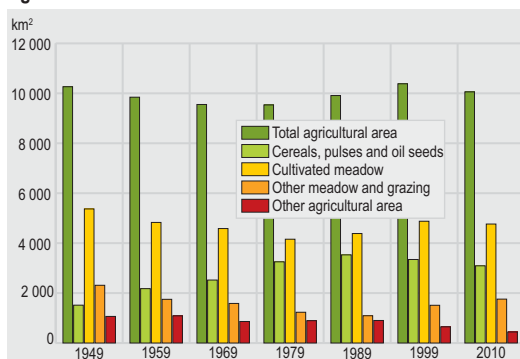
Source: Statistics Norway.

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StatBank Norway	http://www.ssb.no/en/table/elektrisitetar/ http://www.ssb.no/en/table/muh/

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

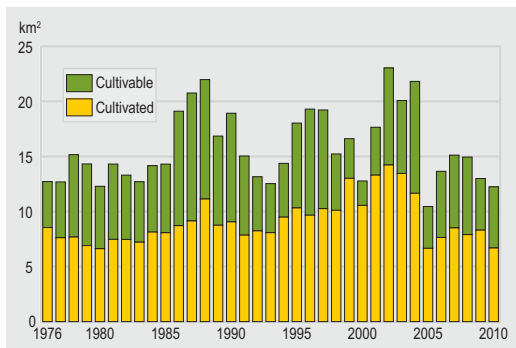
	Norway	Sweden	Denmark	Finland
1991	0.2	1.0	0.6	0.3
1995	0.6	2.6	1.4	2.1
2000	2.0	5.4	6.0	6.6
2005	4.2	6.9	5.4	6.5
2010	5.7	14.2	6.4	7.5

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).

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Latest article	http://www.ssb.no/stjord_en/
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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 manure². 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	37 558	7 669	12 157

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.

² The coefficients for calculating N from manure have been revised. Furthermore, a few more livestock are included.

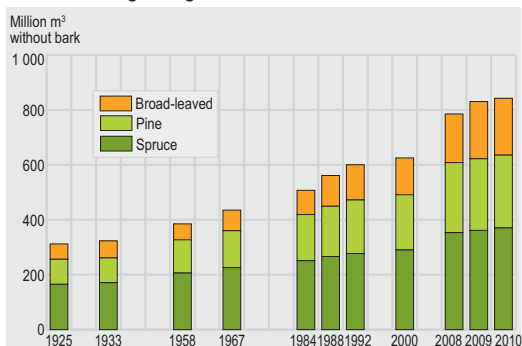
Source: Norwegian Food Safety Authority and Statistics Norway.

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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

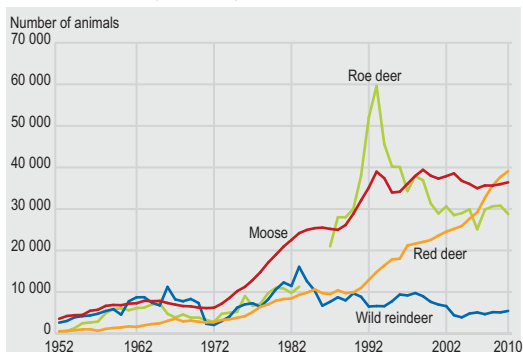
Source: The Global Forest Resources Assessment 2010, FAO.

More information

Latest article	http://www.ssb.no/lst_en/
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
2006/07	2	4	79	82
2007/08	5	13	77	111
2008/09	5	12	90	136
2009/10	8	18	89	147
2010/11	13	10	105	157

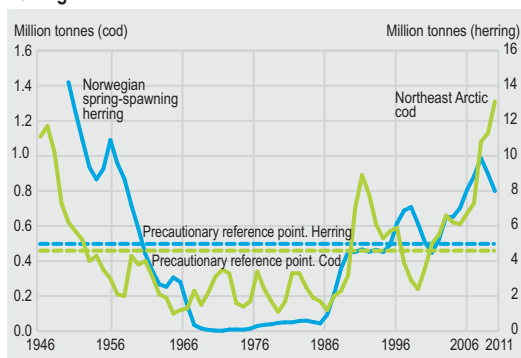
Source: Statistics Norway.

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Fish and fisheries

Spawning stock biomass and precautionary reference point 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

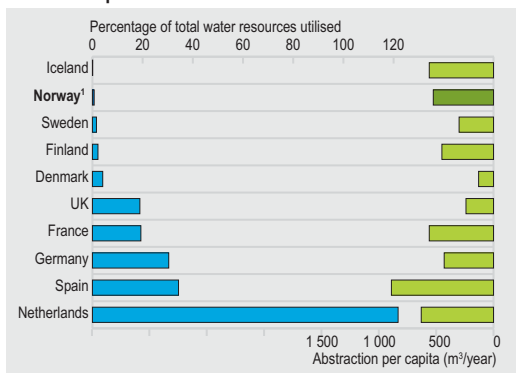
	1980	1990	2000	2010*
Fisheries. Fish and shellfish, total	2 400	1 592	2 699	2 674
Pelagic fish	1 703	1 101	2 079	1 793
Cod fish	599	315	479	675
Flatfish and other demersal fish	27	88	63	53
Other fish	21	15	8	3
Molluscs and crustaceans	50	73	71	150
Fish farming, salmon and trout	8	150	489	982

Source: Directorate of Fisheries and Statistics Norway.

More information

Latest article	http://www.ssb.no/fiskeri_en/ http://www.ssb.no/fiskeoppdrett_en/
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Other data sources	http://www.fiskeridir.no/ http://www.imr.no http://www.ices.dk

Percentage of total freshwater resources utilised and abstraction per inhabitant. Selected countries



¹ Data for Norway updated by Statistics Norway.

Source: OECD and Statistics Norway.

Use of fresh water, by industries and households¹. Norway. 2006 or latest available year

	Estimated water use Million m ³
Total	2 549
Households	372
Primary industries	845
Manufacturing industries	1 027
Mining and quarrying	44
Services	127
Others	134

¹ Leakages not included.

Source: Statistics Norway.

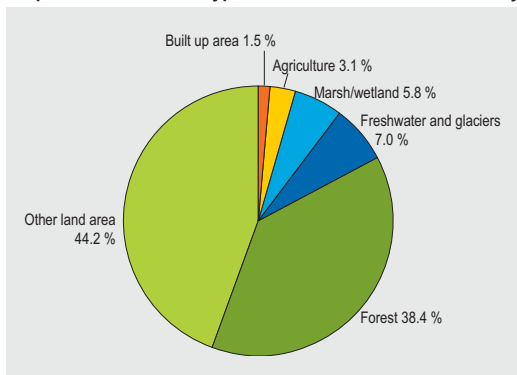
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StatBank Norway http://www.ssb.no/en/table/vann_kostra/

Land and land use

Proportions of different types of land cover. Mainland Norway



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

Total area and distribution of area¹. 2011. 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.

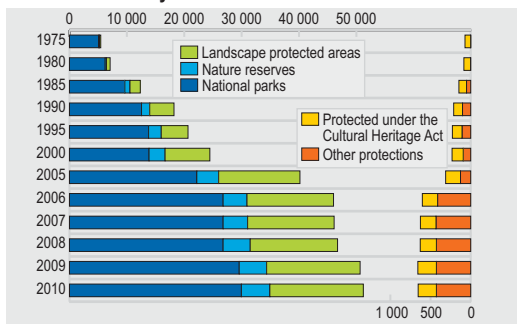
Source: Norwegian Mapping Authority.

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

Land and land use

Protected areas¹ by conservation form. km². 31 December



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

Source: Directorate for Nature Management.

Land use in the shore zone by municipality group. 1 January 2010. Per cent

	Potentially accessible areas		Land use		
	Less than 25 degrees steepness	25 degrees and more steepness	Influence area around buildings < 50m	Cultivated land	Road and railway surface
All municipalities with shoreline	49.4	19.9	16.3	11.8	2.5
Municipalities along the Oslo fjord ¹	34.2	5.2	51.6	5.8	3.2
Municipalities with high pressure on land areas ¹	43.9	11.6	28.9	13.0	2.6
Municipalities with low pressure on land areas ¹	51.6	22.2	12.1	11.9	2.1

¹ The government's shore zone management areas.

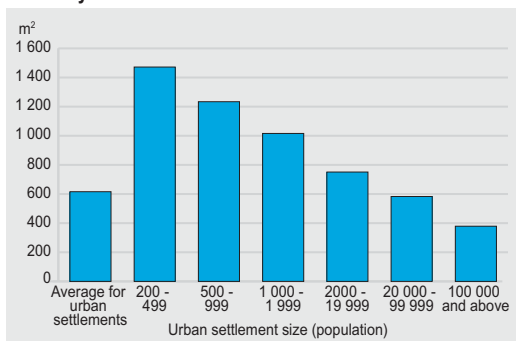
Source: Statistics Norway.

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Land and land use

Urban settlement area per capita, by size of population. 1 January 2011



Source: 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

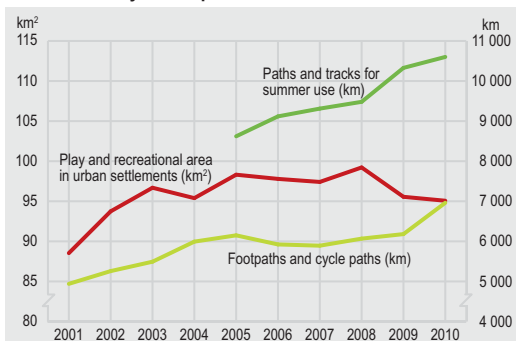
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Land and land use

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 2010

Type of area and activity	Year	Applications that include exemptions, approved	Percentage of applications for exemptions approved
New buildings in agricultural areas, areas of natural environment and outdoor recreation areas	2001	3 646	74
	2010	1 936	84
New buildings in areas along rivers and lakes where building is prohibited	2001	269	80
	2010	249	60
New buildings in the coastal zone where building is prohibited	2001	1 096	67
	2010	1 122	74
Projects in areas set aside for protection of the cultural heritage	2001	96	55
	2010
Motor traffic in outlying fields and waterways	2001	11 863	94
	2010	13 875	95

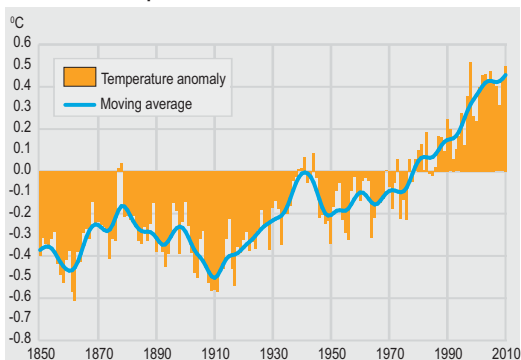
Source: KOSTRA (Municipality-State Reporting System).

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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. 2008 and change from 1990

	CO ₂ -emissions 2008. Million tonnes	Per cent of world total, 2008	Change from 1990. Per cent
China	7 032	23.3	185.8
USA	5 461	18.1	11.9
Russia	1 709	5.7	-23.1
Japan	1 208	4.0	10.4
Germany	787	2.6	-18.1
UK	523	1.7	-8.3
France	377	1.3	-5.5
Ukraine	324	1.1	-49.6
Finland	57	0.2	10.9
Denmark	46	0.2	-8.7
Sweden	49	0.2	-5.1
Norway	44	0.1	27.7

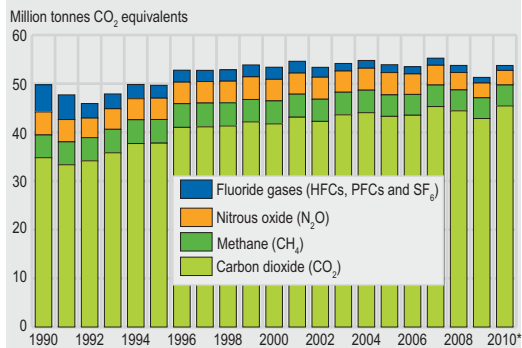
Source: Norway: Statistics Norway and Norwegian Climate and Pollution Agency. Other countries: UN Statistics Division/CDIAC (Carbon Dioxide Information Analysis Center).

More information

Emissions	http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749&crd=
Temperature	http://hadobs.metoffice.com/hadcrut3/diagnostics/global/nh+sh/ http://cdiac.ornl.gov/

Climate change

Emissions of greenhouse gases 1990-2010*



Source: Statistics Norway and Norwegian Climate and Pollution Agency.

Emissions of greenhouse gases by source. Million tonnes CO₂ equivalents

	1990	2000	2009*	2010*
Total	49.8	53.4	51.3	53.7
Oil and gas activities ¹	7.7	12.6	13.7	13.8
Manufacturing industries ¹	19.1	17.0	11.3	11.9
Energy supply	0.3	0.5	1.8	2.1
Road traffic	7.8	8.5	9.8	10.1
Other transport ²	5.6	6.3	6.6	7.3
Agriculture, non-combustion	4.5	4.5	4.2	4.2
Other emission sources	4.8	3.9	3.9	4.4

¹ Including combustion and process emissions from offshore and onshore activities (mainly gas terminals).

² Including motor equipment etc.

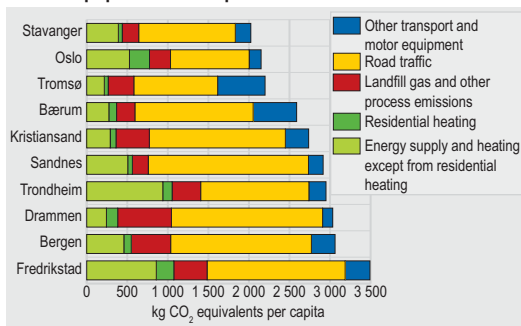
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

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Climate change

Emissions of greenhouse gases from different sources¹. The ten most populous municipalities. 2009



¹ Agriculture, manufacturing industries and oil and gas activities are not included.

Source: Statistics Norway and Norwegian Climate and Pollution Agency.

Greenhouse gas emissions and output, by households and industries. Per cent of total. 2010*

	Emissions of greenhouse gases. Per cent	Output. Per cent
Agriculture, forestry and fishing	9	2
Oil and gas extraction, incl. mining	21	15
Manufacturing industries	18	19
Energy, water supply and construction	6	9
Transport	34	8
Services ¹	2	30
General government ²	2	17
Households	8	.

¹ Services incl. wholesale, maintenance, hotels and restaurants.

² General government incl. education and health and social work.

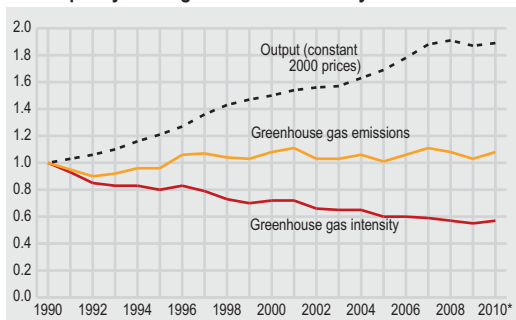
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Climate change

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*
Total for industries incl. in Norwegian economic activities	35.8	25.8	20.5
Agriculture, forestry and fishing	165.5	117.7	90.4
Oil and gas extraction, incl. mining	41.9	36.1	39.8
Manufacturing industries	54.0	36.3	20.0
Energy, water supply and construction	16.2	14.0	17.5
Transport	128.1	113.3	125.3
Services ¹	3.5	1.8	1.3
General government ²	4.1	2.5	2.6

¹ Services incl. wholesale, maintenance, hotels and restaurants.

² General government incl. education and health and social work.

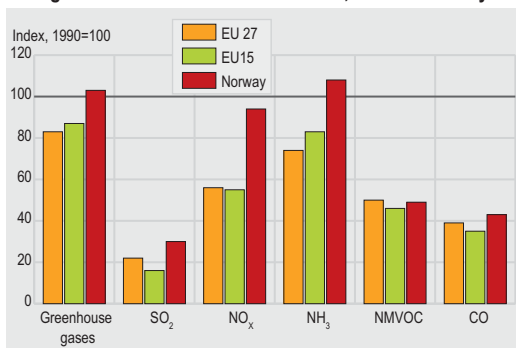
Source: Statistics Norway.

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Climate change and air pollution

Changes in emissions from 1990 to 2009, EU¹ and Norway



¹ The EU provides figures for SO_x rather than SO₂.

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

Emissions of (CO₂), methane (CH₄) and nitrous oxide (N₂O), percentage change and GWP¹ value of the gases

	CO ₂ Million tonnes	CH ₄ 1 000 tonnes	N ₂ O 1 000 tonnes
1990	34.8	222.2	15.3
1995	37.8	231.6	14.1
2000	41.7	224.9	14.3
2005	43.3	210.7	14.8
2010*	45.4	204.8	9.7
Change 1990-2010 (per cent)	30.6	-7.8	-36.7
GWP value ¹	1	21	310

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

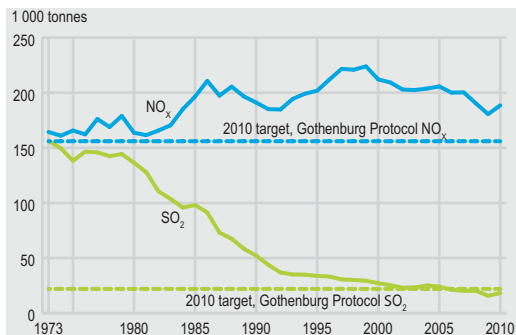
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information

Latest article	http://www.ssb.no/klimagassn_en/
StatBank Norway	http://www.ssb.no/tabell/luft_en/
International data	http://www.eea.europa.eu/publications/european-union-greenhouse-gas-inventory-2010/ http://www.eea.europa.eu/publications/european-union-emission-inventory-report

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	2009*
NO_x, total	164	191	212	181
Shipping	55	56	66	52
Road traffic	50	61	52	40
Stationary combustion, oil and gas extraction	12	27	45	50
Other sources	47	47	49	38
SO₂, total	136	52	27	16
Process emissions, manufacturing and mining	61	30	17	8
Stationary combustion, manufacturing and mining	45	7	3	2
Shipping	11	6	3	3
Road traffic	4	3	0	0
Other sources, mainly combustion	15	6	4	3

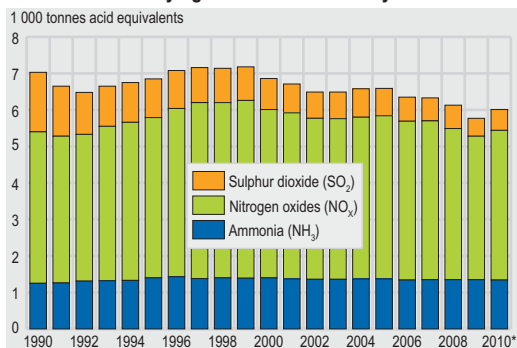
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information at www.ssb.no

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

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

Emissions of acidifying substances in Norway



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	2009	1990	2009
UK	65	6	51	18
Germany	67	5	36	17
Russia ¹	41	10	24	25
Sweden	14	3	36	16
Denmark	34	3	52	24
Norway	12	3	53	37

¹ Figures according to "Expert emissions used in EMEP models". The figures apply to the European part within the EMEP area.

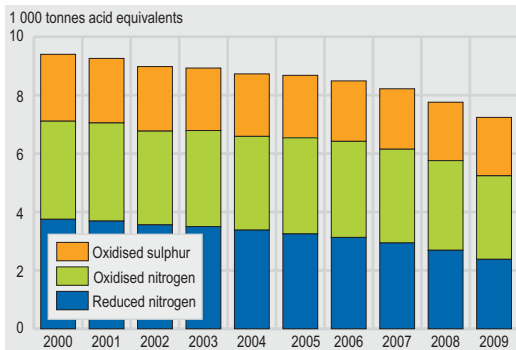
Source: EMEP - European Monitoring and Evaluation Programme.

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



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

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).

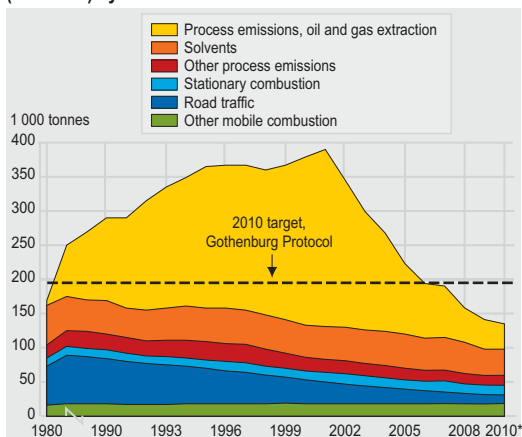
Source: Norwegian Climate and Pollution Agency.

More information

EMEP	http://www.emep.int/publ/reports/2010/Country_Reports/report_NO.pdf
State of Environment Norway	http://www.environment.no/Goals-and-indicators/Goals-and-indicators/Depletion-of-the-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	2009*
Total	747	643	512	319
Road traffic	433	344	225	86
Housing	152	159	163	134
Other sources	161	140	124	99

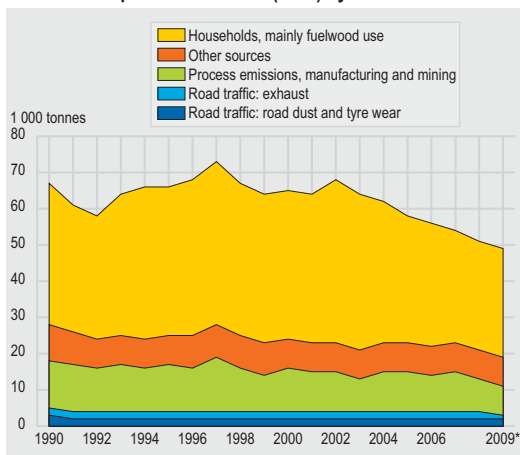
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information at www.ssb.no

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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	2009*
Lead	188 280	24 045	9 638	5 676
Mercury	1 463	855	739	513
Cadmium	1 174	1 049	777	490
Copper	23 022	19 881	20 762	22 864
Chromium	12 785	11 350	8 699	2 901
Arsenic	3 512	3 297	2 897	1 278

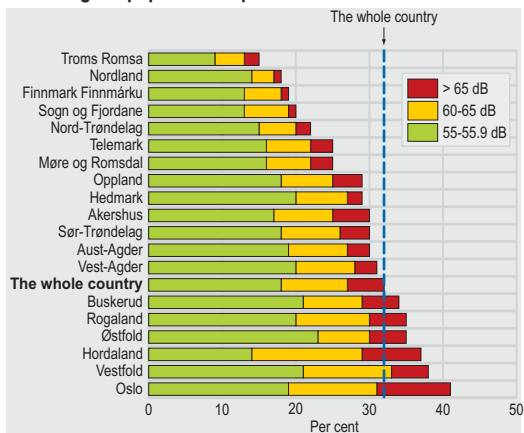
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

More information at www.ssb.no

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 person within each sound level with an average degree of annoyance for the sound level in question.

² Construction, motor racing tracks and shooting ranges.

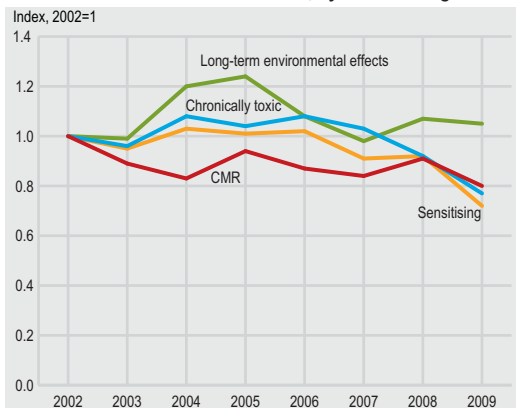
Source: Statistics Norway.

More information

State of 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	2009
Consumption			
CMR (carcinogenic, mutagenic and reprotoxic)	2 998	1 950	1 691
Chronically toxic	160	186	212
Sensitising	141	154	128
Long-term environmental effects	587	609	516
Emissions			
CMR (carcinogenic, mutagenic and reprotoxic)	4.1	3.9	3.3
Chronically toxic	0.8	0.8	0.6
Sensitising	3.7	3.7	2.7
Long-term environmental effects	4.8	6.0	5.1

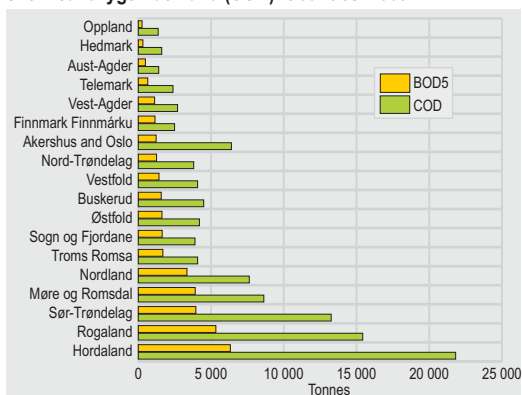
Source: Statistics Norway.

More information at www.ssb.no

Latest report http://www.ssb.no/english/subjects/01/04/rapp_emissions_en/

Water pollution

Municipal waste water. Discharges of organic material measured as biochemical oxygen demand (BOD5) and chemical oxygen demand (COD). Counties. 2009



Source: Statistics Norway.

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

Year	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

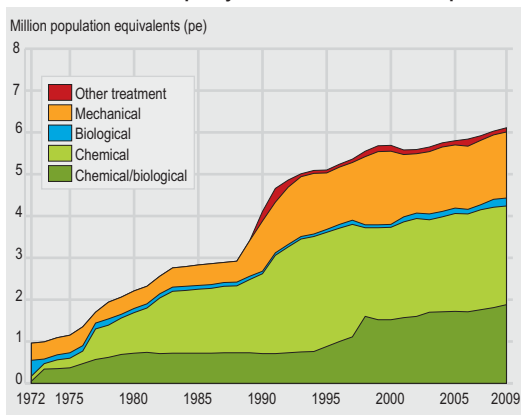
Source: Norwegian Institute for Water Research.

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/Water-pollution/

Water pollution

Trend in treatment capacity at waste water treatment plants



Discharges of phosphorus and nitrogen from waste water treatment plants

	2000	2005	2008	2009
Phosphorus				
Total (tonnes)	825	735	801	796
Discharges per inhabitant connected (kg)	0.2	0.2	0.2	0.2
Treatment efficiency (per cent)	66.8	70.1	70.1	70.6
Nitrogen				
Total (tonnes)	13 191	11 879	12 701	13 394
Discharges per inhabitant connected (kg)	3.7	3.2	3.2	3.3
Treatment efficiency (per cent)	27.7	31.1	32.7	32.8

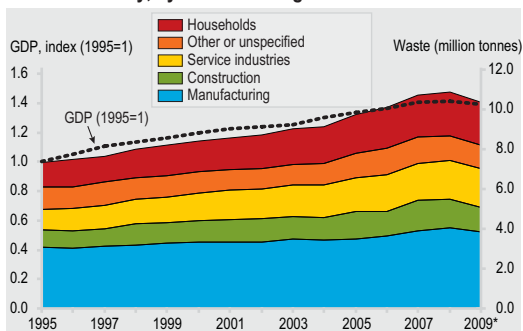
Source: Statistics Norway.

More information at www.ssb.no

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

Waste

Waste in Norway, by source. Change in GDP



Source: Statistics Norway.

Waste in Norway, by material. 1 000 tonnes

	1995	2000	2005	2009* ¹
Total	7 342	8 408	9 747	10 400
Paper, cardboard and pasteboard	887	1 081	1 177	1 200
Wood waste	1 328	1 311	1 481	1 600
Biodegradable waste	1 070	1 270	1 490	1 700
Plastic	327	380	437	510
Metals	919	936	1 054	1 100
Hazardous waste	632	672	966	1 100
Other materials	2 179	2 758	3 142	3 200

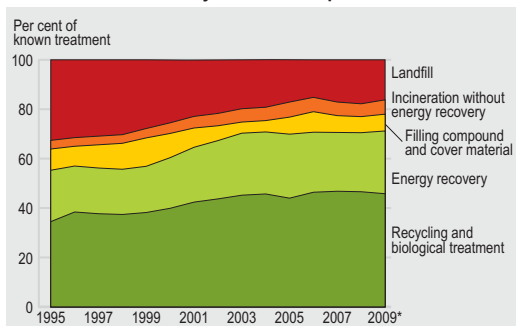
¹ The total sum differs from the sum of the categories due to rounding off of figures.

Source: Statistics Norway.

More information at www.ssb.no

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 2009 and change since 1990

	Percentage of total Norwegian emissions	Percentage change from 1990
Incineration plants		
Sulphur dioxide	0.7	-68
Nitrogen oxides	0.4	-19
Carbon dioxide ¹	0.8	330
Lead	0.4	-99
Cadmium	0.8	-96
Mercury	16.6	-49
Arsenic	0.2	-98
Chromium	0.1	-99
Copper	0.1	-95
Total PAH	1.4	-25
Dioxins	1.2	-99
Landfills		
Methane (greenhouse gas) ¹	2.1	-37

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

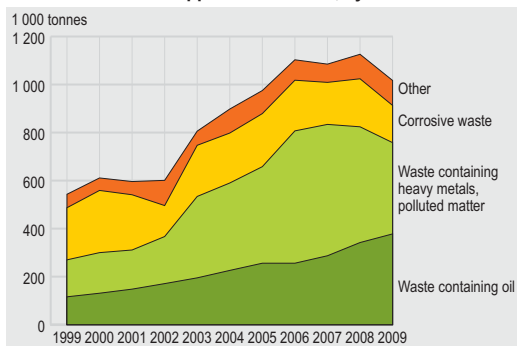
Source: Statistics Norway and Norwegian Climate and Pollution Agency.

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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/luft/

Waste

Hazardous waste for approved treatment, by material¹



¹ Based on register data from 1999 to 2002, and on survey of treatment facilities from 2003 to 2009.

Source: Statistics Norway.

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

Treatment	2003	2009
Generated in Norway, total	808	1 017
Material recycling	65	114
Energy recovery	105	132
Final disposal	636	855
Stock changes ²	..	-85
Imported	255	268
Exported	77	154

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

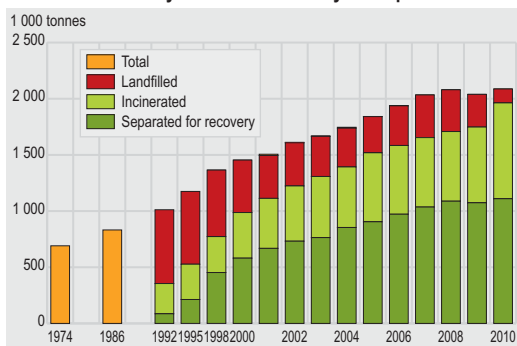
² Stock changes 2003 included in final disposal.

Source: Statistics Norway.

More information at www.ssb.no

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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 10 largest municipalities. 2010

Municipalities by decreasing population	Household waste per capita. kg	Separated for recovery. Per cent
Oslo	379	45
Bergen	361	43
Trondheim	387	46
Stavanger	391	64
Bærum	420	54
Kristiansand	501	60
Fredrikstad	519	49
Tromsø	314	40
Sandnes	392	64
Drammen	525	60

Source: Statistics Norway.

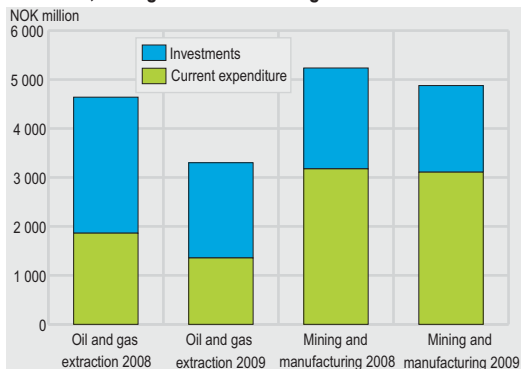
More information at www.ssb.no

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

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

Environmental protection expenditure

Environmental protection expenditure in oil and gas extraction, mining and manufacturing. 2008 and 2009



Source: Statistics Norway.

Environmental protection expenditure in manufacturing, mining and quarrying, by environmental domain. 2009

	NOK million	Per cent
Total	8 177	100
Solid waste	2 560	31.3
Waste water	1 537	18.8
Soil, surface water, groundwater, ocean and ocean floor	1 418	17.3
Other emissions to air	1 135	13.9
Greenhouse gases	1 061	13.0
Other	466	5.7

Source: Statistics Norway.

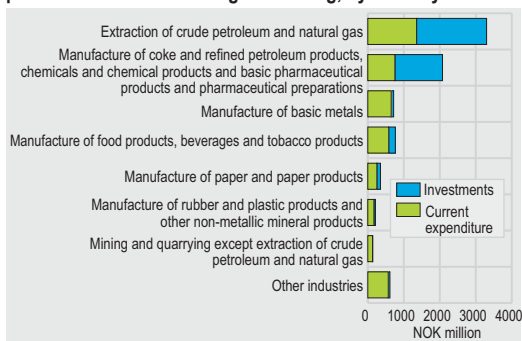
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StatBank Norway <http://www.ssb.no/en/table/miljokostind/>

Environmental protection expenditure

Investments and current expenditure for environmental protection in manufacturing and mining, by industry. 2009



Source: Statistics Norway.

Greenhouse gas emissions and allowances allocated free of charge. Total for the period 2008-2010. Million tonnes CO₂ equivalents

Industry	Emissions	Free allowances
Regulated sector	57.9	23.5
Industries with no free allowances	35.3	0.0
Industries eligible to free allowances	22.6	23.5
Mining and quarrying - eligible to free allowances	4.1	4.0
Manufacturing industries eligible to free allowances	16.0	18.2
Manufacture of food products, beverages and tobacco products	0.3	0.3
Manufacture of paper and paper products	1.2	1.4
Manufacture of petroleum products, chemicals and basic metals	14.5	16.4
Energy and waste industries eligible to free allowances	2.5	1.3

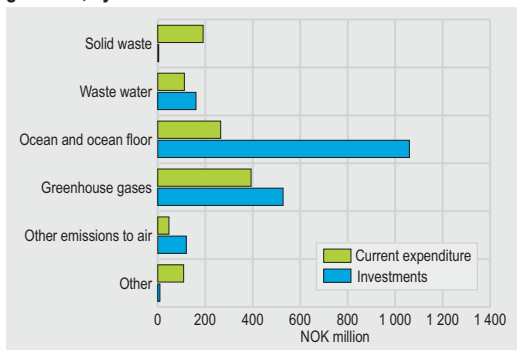
Source: Statistics Norway.

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Environmental protection expenditure

Environmental expenditure at Norwegian offshore oil and gasfields, by environmental domain. 2009



Source: Statistics Norway.

Environmental expenditure in Norwegian oil and gas extraction by environmental domain. 2009. NOK million

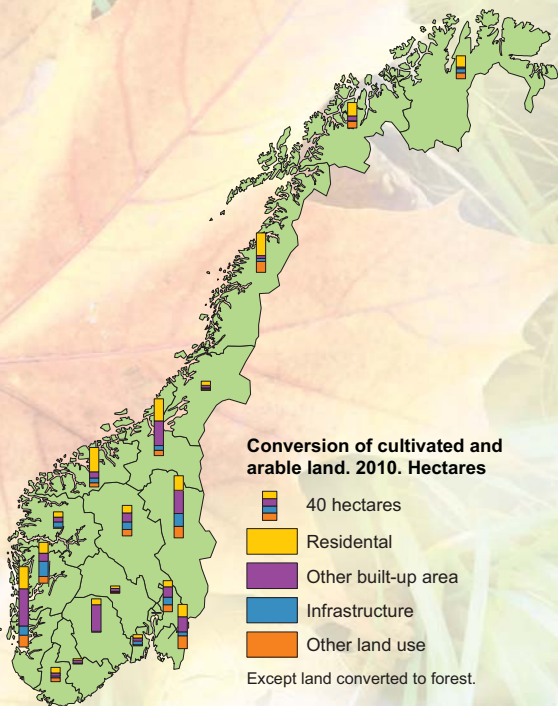
	Current environmental expenditure	Environmental investments	Total environmental expenditure
Total	1 356	1 945	3 300
Solid waste	271	90	361
Waste water	145	165	310
Soil, surface water, groundwater, ocean and ocean floor	269	1 099	1 368
Greenhouse gases	485	529	1 014
Other emissions to air	62	12	74
Other	123	50	173

Source: Statistics Norway.

More information at www.ssb.no

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http://www.ssb.no/miljokostind_en/
<http://www.ssb.no/en/table/miljokostind/>



Source: Statistics Norway.

Map data: Norwegian Mapping Authority.

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