

2. Norway

2.1 Overview of indicators

Figure 2.1 Population projections, 2010–2020

Population (million)	2010	2015	2020
Urban	3.863	4.067	4.272
Rural	1.020	0.988	0.958
Total	4.883	5.055	5.230

Population growth rate (%)	2010–15	2015–20
Urban population growth rate	1.03	0.98
Rural population growth rate	-0.66	-0.61
Total population growth rate	0.69	0.68

Source: World Urbanization Prospects: The 2011 Revision, United Nations Department of Economic and Social Affairs Population Division, 2012

Figure 2.2 Economic indicators

Economic indicator (2012)	Real GDP	GDP at PPP
Total GDP (\$ billion)	499.83	278.13
GDP per capita (\$)	99,315	55,264

Source: World Economic Outlook Database, International Monetary Fund, October 2012

2.2 Water availability and demand

2.2.1 Water availability

Figure 2.3 Water resources in Norway

Water resource	Volume (km ³ /yr)	Year
Groundwater (renewable, actual)	96	2011
Surface water (renewable, actual)	376	2011
Total water resources (renewable, actual)*	382	2011

* This may not be the total of groundwater + surface water because of overlap between surface water and groundwater resources, and non-exploitable surface water, or irrigation water running back into rivers / aquifers to be “counted twice”.

Source: AQUASTAT, Food and Agricultural Organisation of the United Nations, 2012

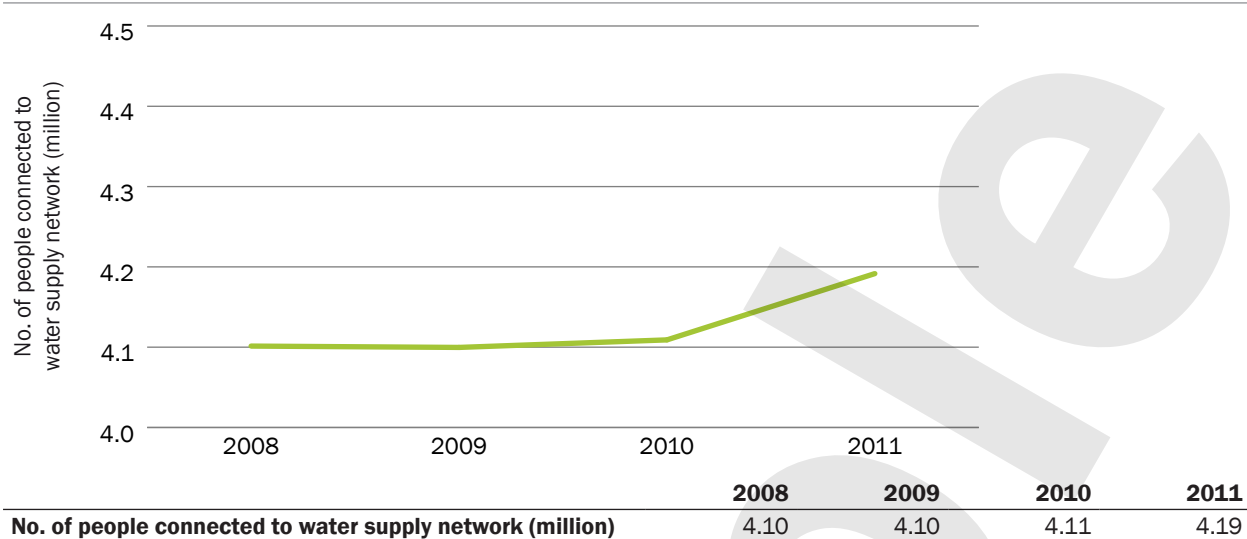
2.3 Municipal water and wastewater

Figure 2.4 Key performance indicators: water

Water supply indicators	Value	Year	Source
No. of people connected to water supply network	4.19 million people	2011	Statbank, Statistics Norway, 2012
Percentage of people connected to water supply network	84%	2011	KOSTRA, Statistics Norway, 2012
No. of water connections	Unavailable		
Municipal water supply capacity	740 million m ³ /yr	2011	Statbank, Statistics Norway, 2012
Length of water distribution network	43,869 km	2011	KOSTRA, Statistics Norway, 2012
Meter coverage	26%	2009	Statbank, Statistics Norway, 2012
Non-revenue water	32%	2011	Statbank, Statistics Norway, 2012
No. of WTPs	1,078	2011	KOSTRA, Statistics Norway, 2012
Design capacity of WTPs	Unavailable		
Operational capacity of WTPs	Unavailable		

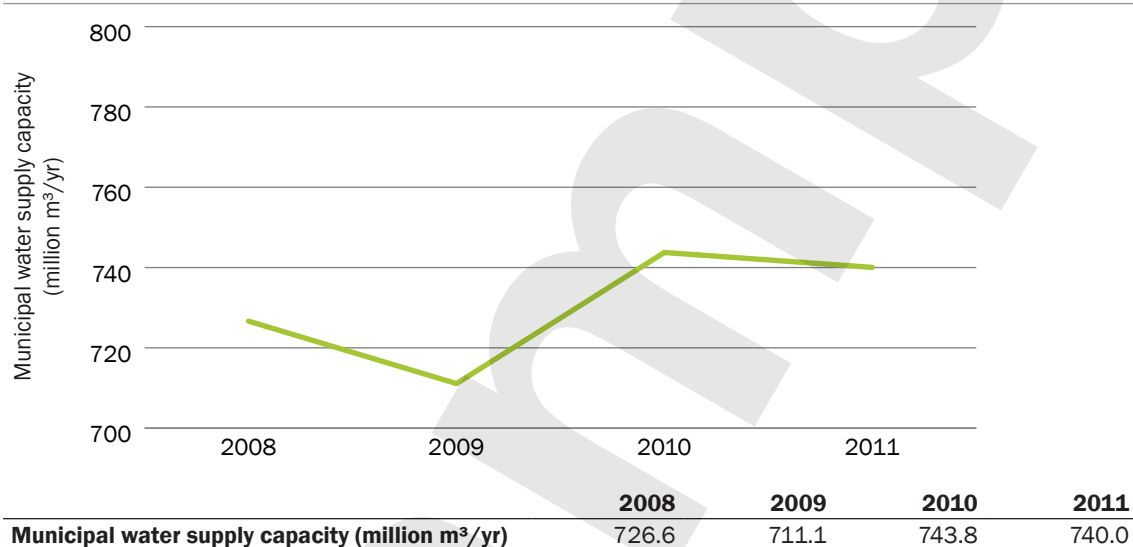
Sources: Given in table

Figure 2.5 No. of people connected to water supply network in Norway



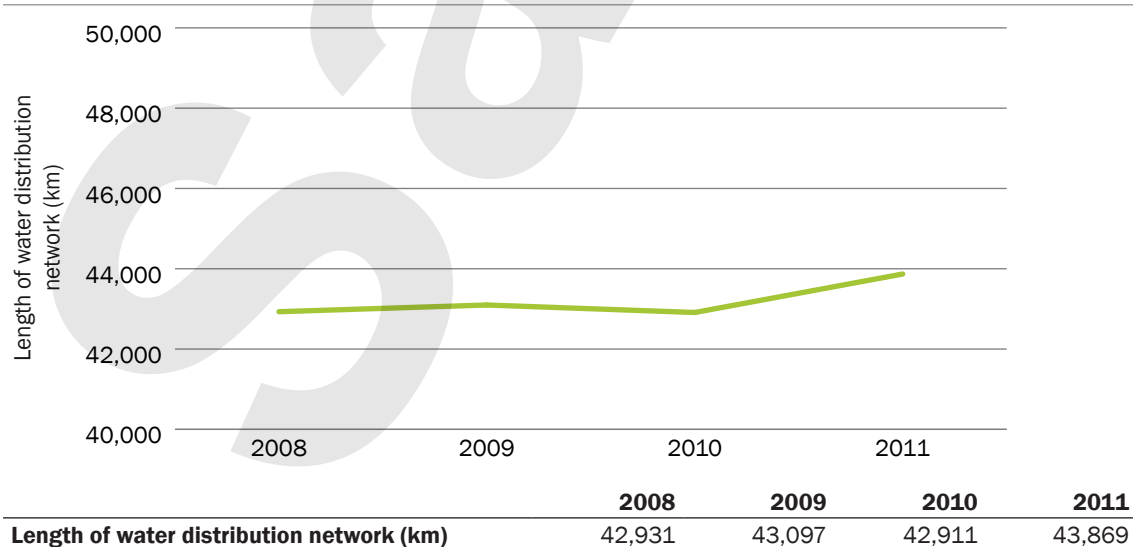
Source: Statbank, Statistics Norway, 2012

Figure 2.6 Municipal water supply capacity in Norway



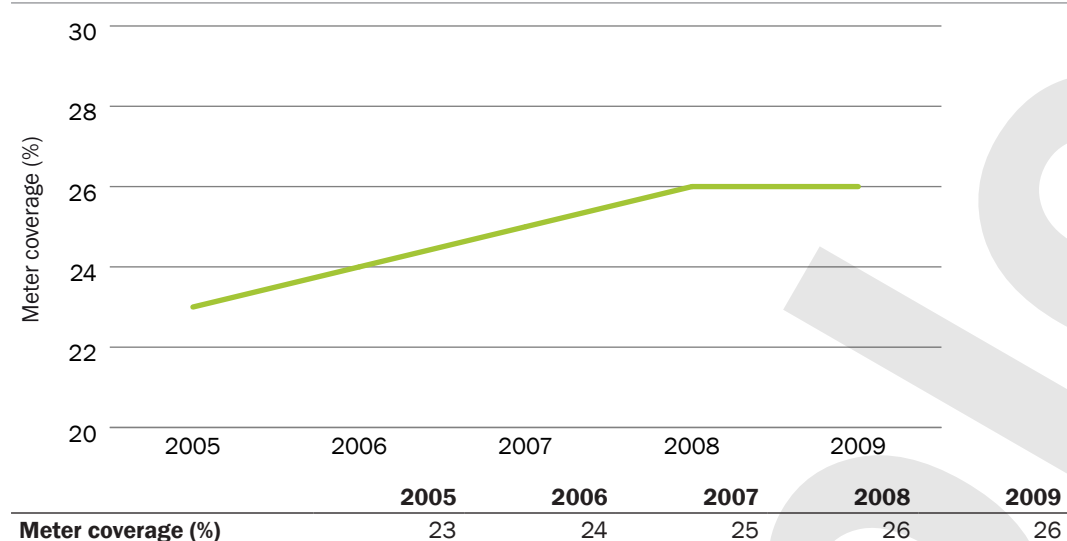
Source: Statbank, Statistics Norway, 2012

Figure 2.7 Length of water distribution network in Norway



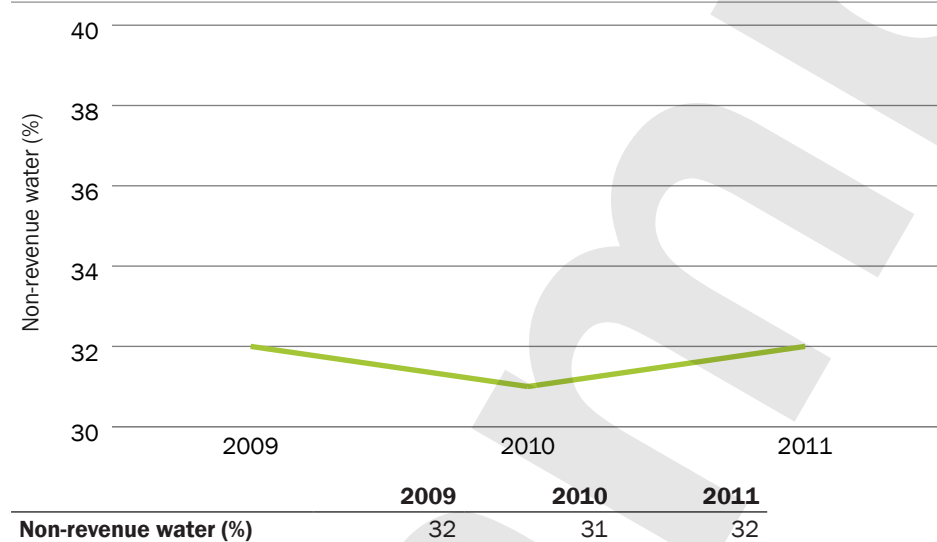
Source: KOSTRA, Statistics Norway, 2012

Figure 2.8 Meter coverage in Norway



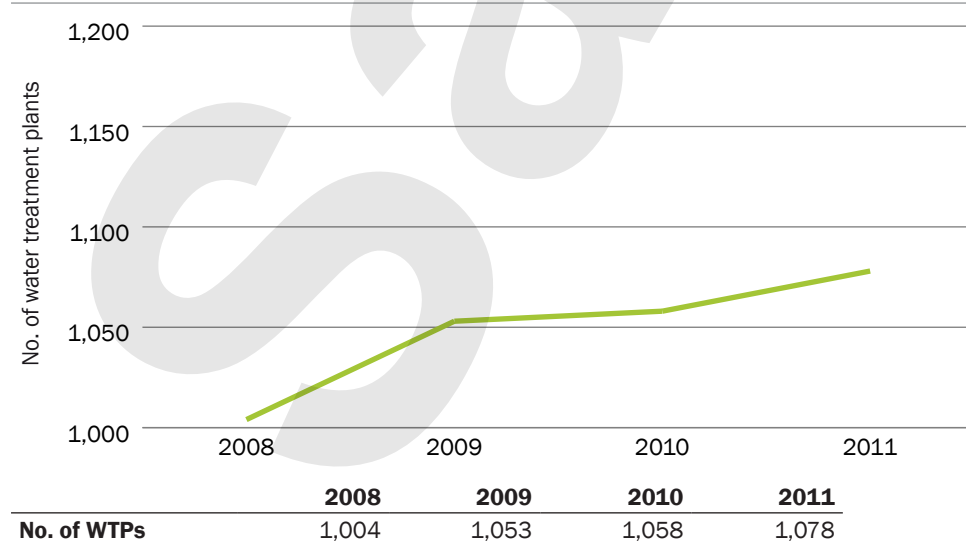
Source: Statbank, Statistics Norway, 2012

Figure 2.9 Non-revenue water in Norway



Source: Statbank, Statistics Norway, 2012

Figure 2.10 No. of WTPs in Norway



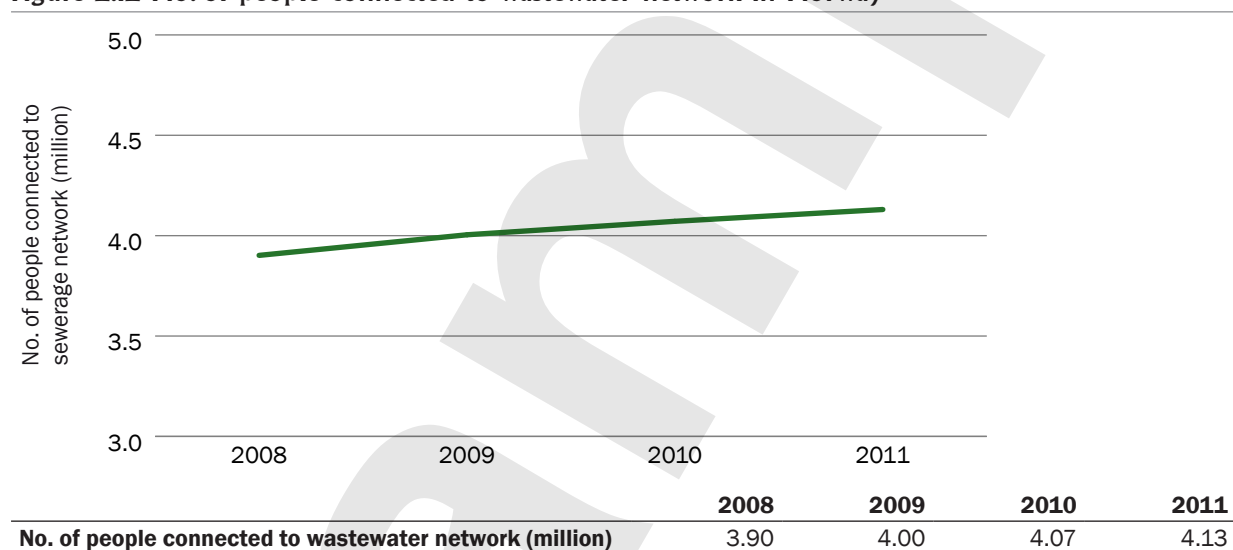
Source: KOSTRA, Statistics Norway, 2012

Figure 2.11 Key performance indicators: wastewater

Wastewater indicators	Value	Year	Source
No. of people connected to wastewater network	4.13 million	2011	Statbank, Statistics Norway, 2012
No. of wastewater connections	3.55 million	2010	Municipal wastewater, resource input, discharge, treatment and sludge disposal report, Statistics Norway, 2011
Percentage of people connected to wastewater network	84%	2011	Statbank, Statistics Norway, 2012
Volume of wastewater produced	930.5 million m ³ /yr	2010	Municipal wastewater, resource input, discharge, treatment and sludge disposal report, Statistics Norway, 2011
Wastewater collected	95%	2010	Municipal wastewater, resource input, discharge, treatment and sludge disposal report, Statistics Norway, 2011
Wastewater treated to secondary level	Unavailable		
Wastewater treated to tertiary level	Unavailable		
Length of wastewater collection network	35,714 km	2011	KOSTRA, Statistics Norway, 2012
No. of WWTPs	2,735	2010	Statbank, Statistics Norway, 2012
Design capacity of WWTPs	2.55 million m ³ /d	2010	Statbank, Statistics Norway, 2012
Operational capacity of WWTPs	Unavailable		

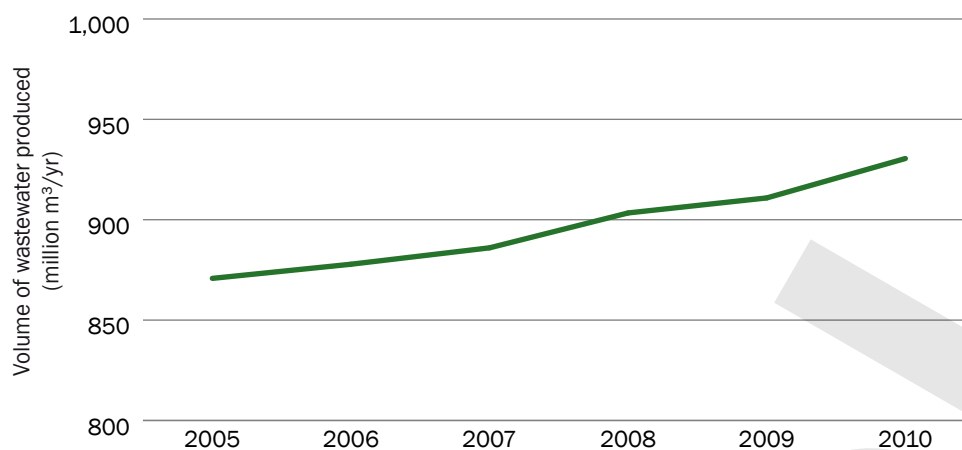
Sources: Given in table

Figure 2.12 No. of people connected to wastewater network in Norway



Source: Statbank, Statistics Norway, 2012

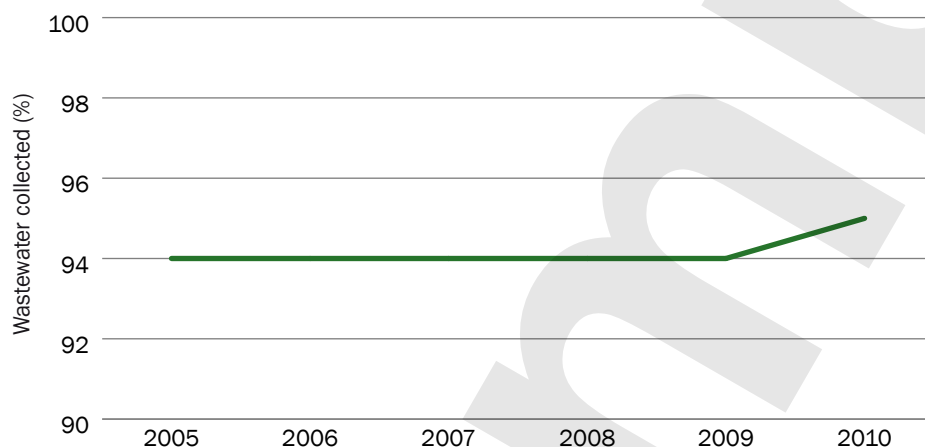
Figure 2.13 Volume of wastewater produced in Norway



	2005	2006	2007	2008	2009	2010
Volume of wastewater produced (million m³/yr)	870.8	877.8	886.0	903.4	910.9	930.5

Source: Municipal wastewater, resource input, discharge, treatment and sludge disposal report, Statistics Norway, 2011

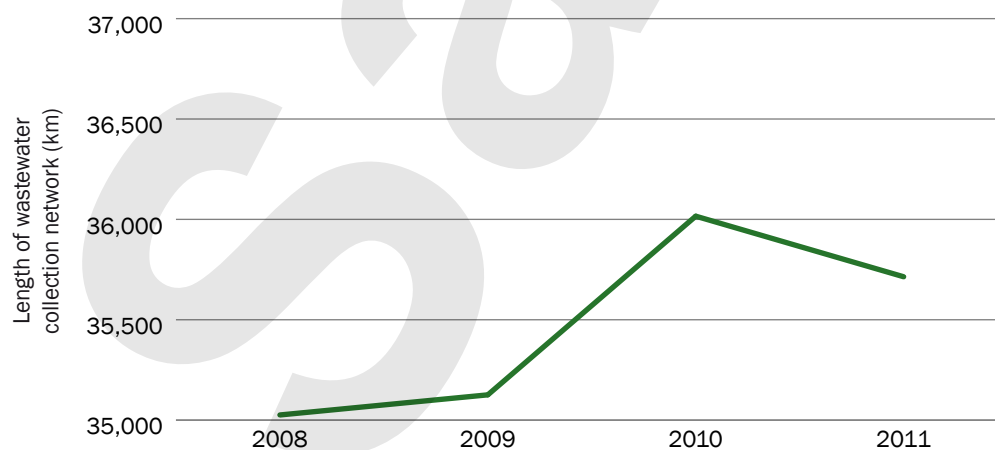
Figure 2.14 Wastewater collected in Norway



	2005	2006	2007	2008	2009	2010
Wastewater collected (%)	94	94	94	94	94	95

Source: Municipal wastewater, resource input, discharge, treatment and sludge disposal report, Statistics Norway, 2011

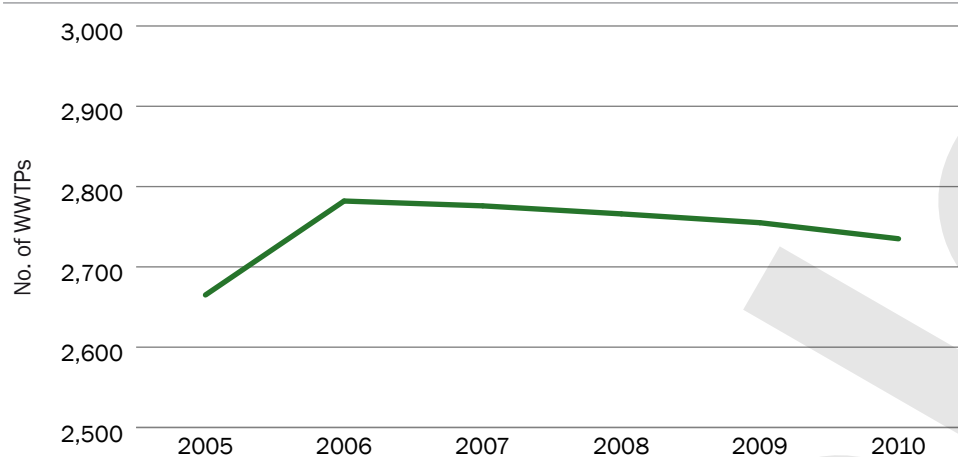
Figure 2.15 Length of wastewater collection network in Norway



	2008	2009	2010	2011
Length of wastewater collection network (km)	35,026	35,126	36,016	35,714

Source: KOSTRA, Statistics Norway, 2012

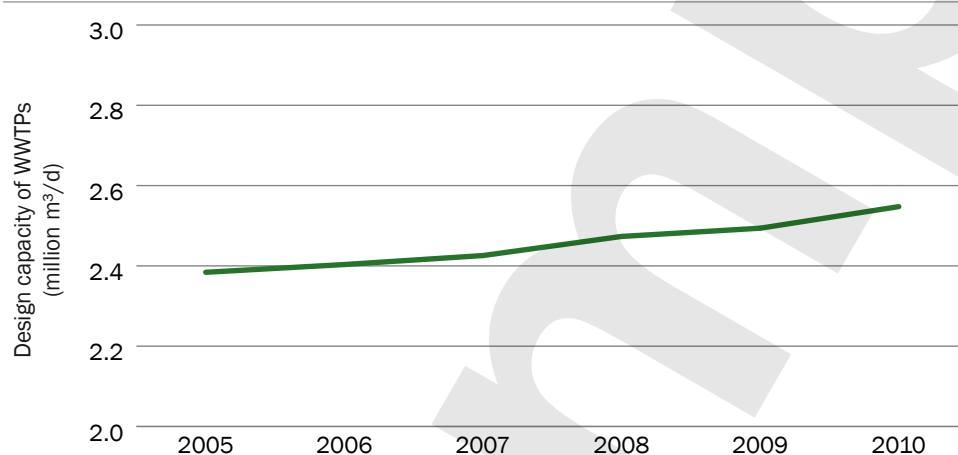
Figure 2.16 No. of WWTPs in Norway



	2005	2006	2007	2008	2009	2010
No. of WWTPs	2,665	2,782	2,776	2,766	2,755	2,735

Source: Statbank, Statistics Norway, 2012

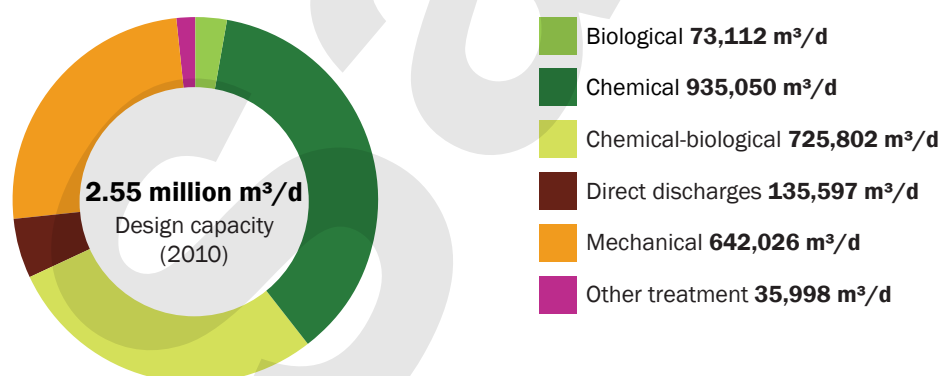
Figure 2.17 Design capacity of WWTPs in Norway



	2005	2006	2007	2008	2009	2010
Design capacity of WWTPs (million m³/d)	2.38	2.40	2.43	2.47	2.49	2.55

Source: Statbank, Statistics Norway, 2012

Figure 2.18 Design capacity of WWTPs in Norway by treatment type

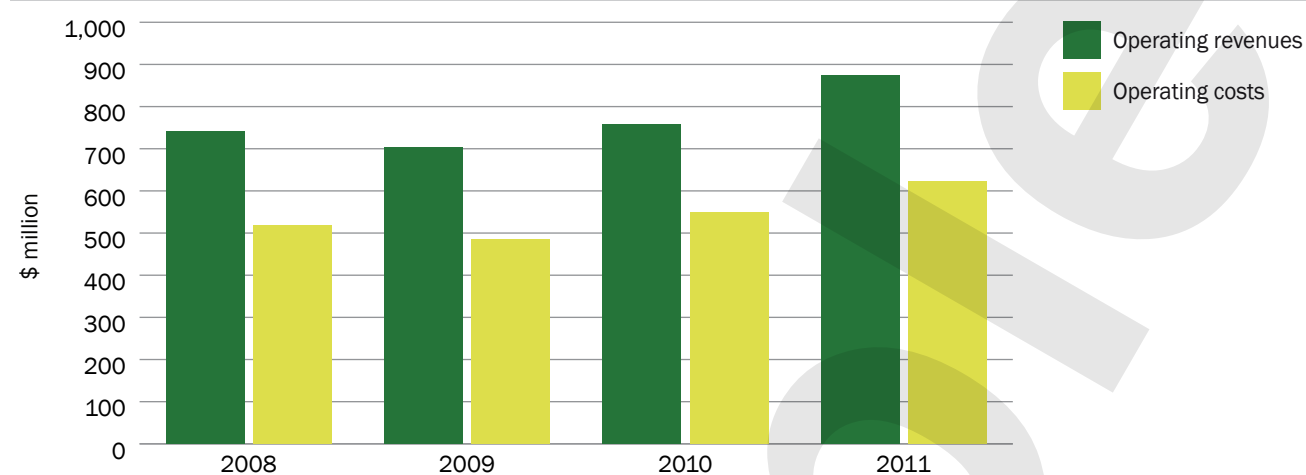


Source: Statbank, Statistics Norway, 2012

2.4 Finance

2.4.1 Operating revenues and costs

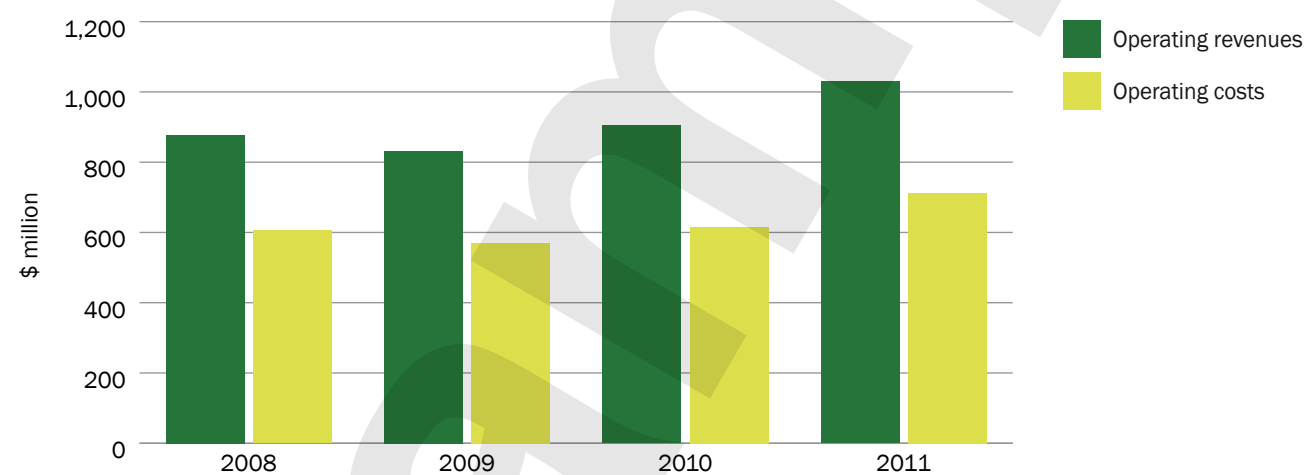
Figure 2.19 Water operating revenues and costs in Norway



Water (\$ million)	2008	2009	2010	2011
Operating revenues	740.5	704.2	757.5	873.0
Operating costs	518.1	483.9	549.3	622.2

Source: KOSTRA, Statistics Norway, 2012

Figure 2.20 Wastewater operating revenues and costs in Norway



Wastewater (\$ million)	2008	2009	2010	2011
Operating revenues	877.4	832.3	905.0	1,030.1
Operating costs	606.0	569.4	615.0	711.7

Source: KOSTRA, Statistics Norway, 2012

2.4.2 Capital expenditure

Figure 2.21 Water and wastewater capital expenditure in Norway



Capital expenditure (\$ million)	2008	2009	2010	2011
Water				
Wastewater				

Source: KOSTRA, Statistics Norway, 2012

2.5 Market forecast



Sample

Sample