



NORWEGIAN MINISTRY OF
CLIMATE AND ENVIRONMENT



Norway – issues relevant for the second biennial report

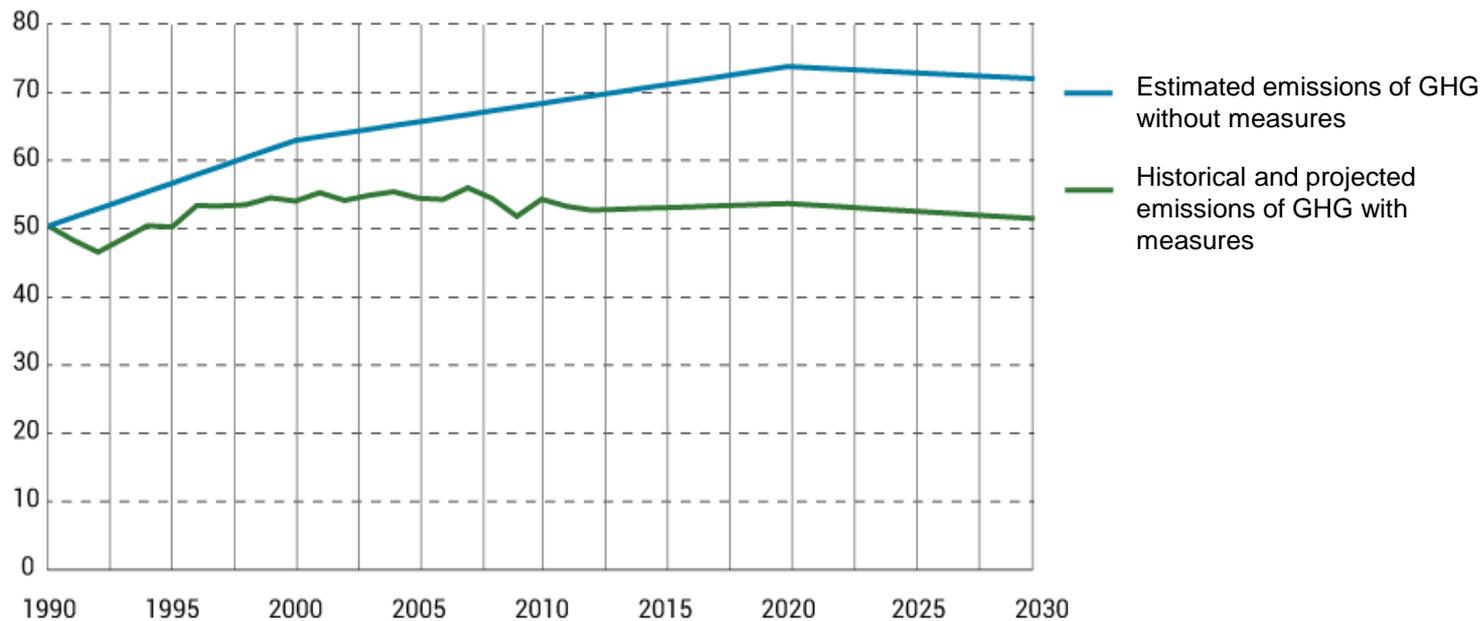
Latvian – Norwegian EEA seminar

Oslo, November 2015



Projected effects of policies and measures

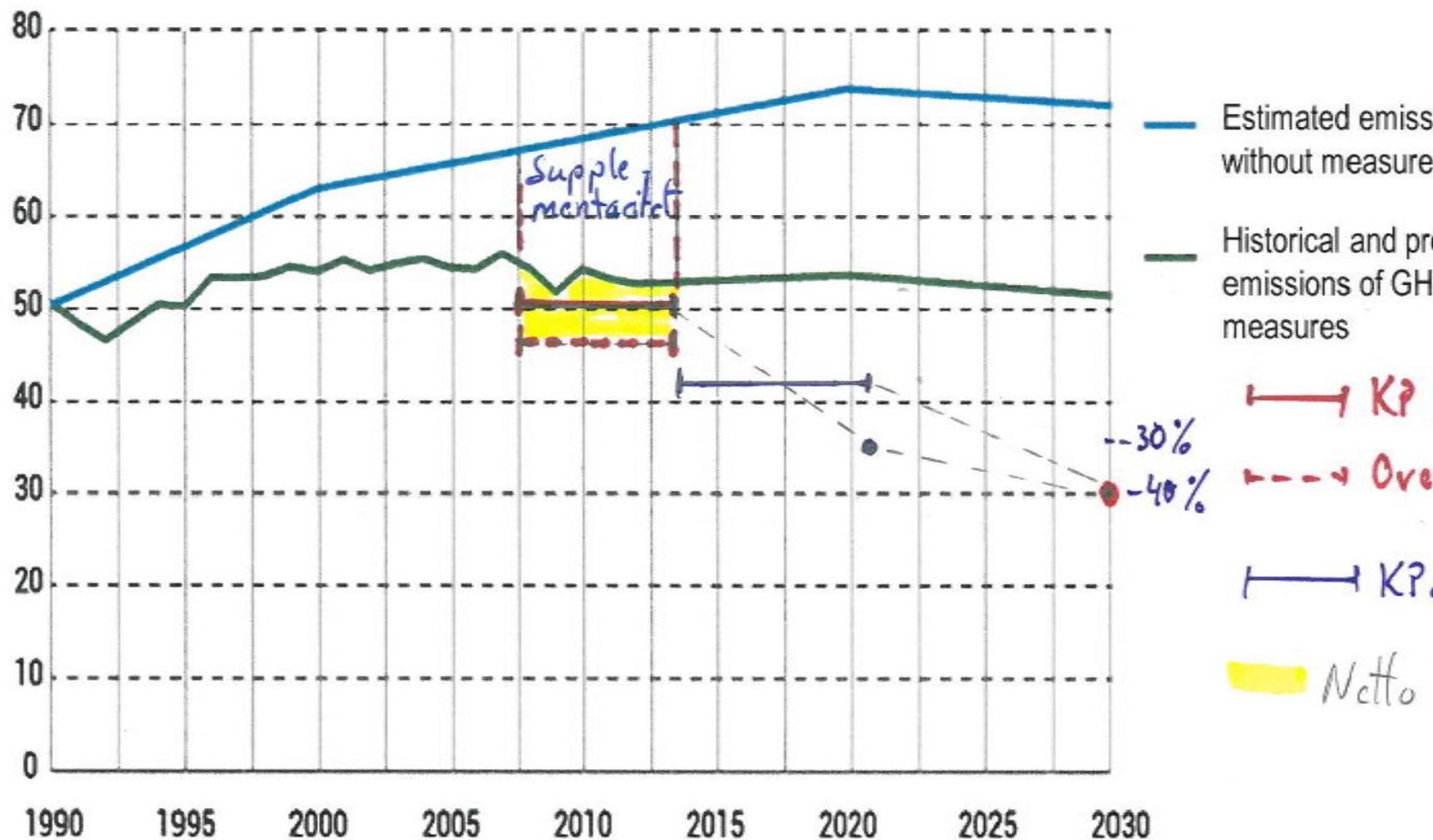
5.3 EMISSIONS WITH AND WITHOUT REMOVALS, MILLION TONNES CO₂ EQUIVALENTS



SOURCE: Statistics Norway/Norwegian Environment Agency/Ministry of Finance, 2015

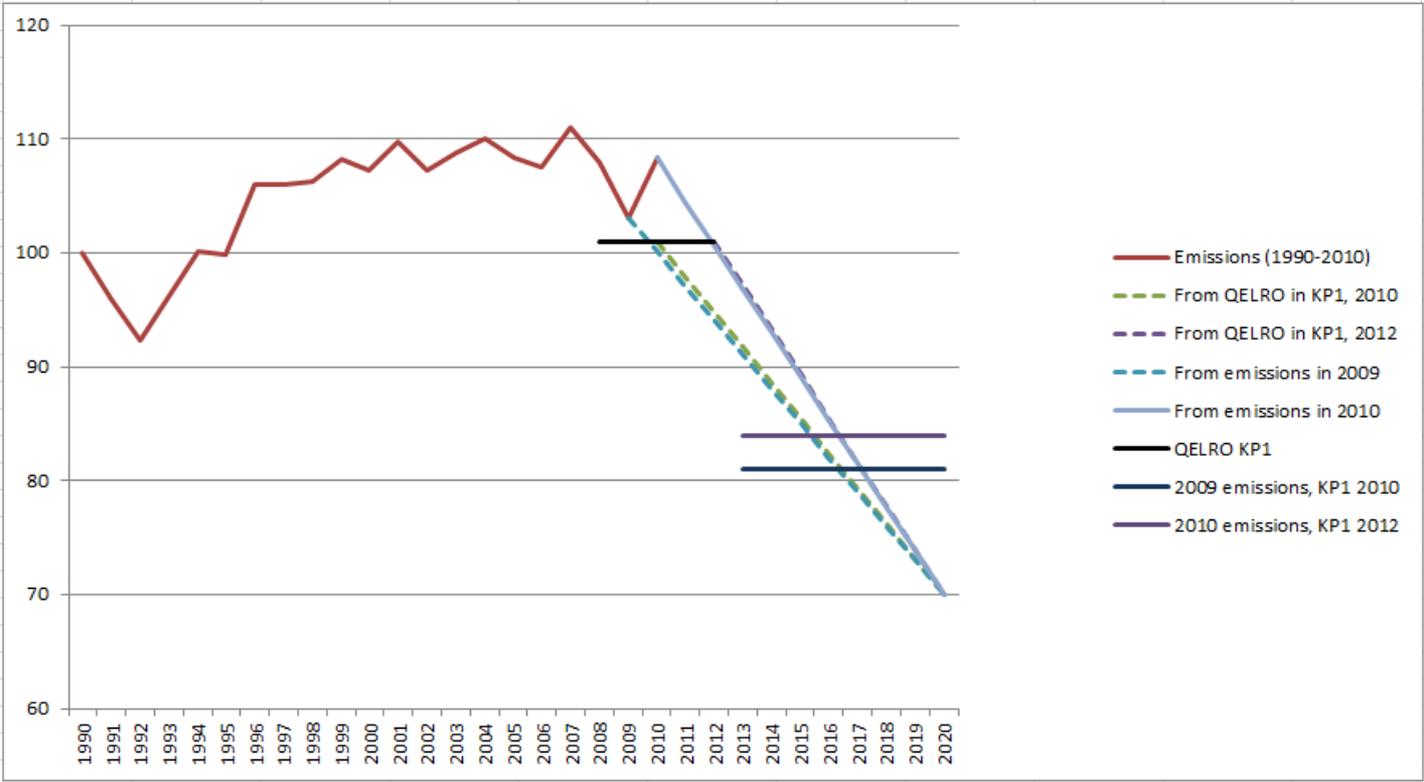
Norwegian emission targets

- Reduce global greenhouse gas emissions equal to 30 % of Norway's 1990 emissions by 2020
- 30 % target operationalised through commitment under the second commitment period of the Kyoto Protocol (2013-2020): Annual emission budget 84 % of 1990 emissions
- Moving to 40 per cent reduction in 2020 if contributing to global, comprehensive agreement where major emitting Parties agree on emissions reductions in line with two degree target.
- Carbon neutrality 2050, or 2030 if part of ambitious climate agreement
- Long term objective to become low emission society by 2050
- INDC: 40 % in 2030, pursues joint fulfilment with EU



SOURCE: Statistics Norway/Norwegian Environment Agency/Ministry of Finance, 2015

Norway's commitment under the second Kyoto period (2013-2020)



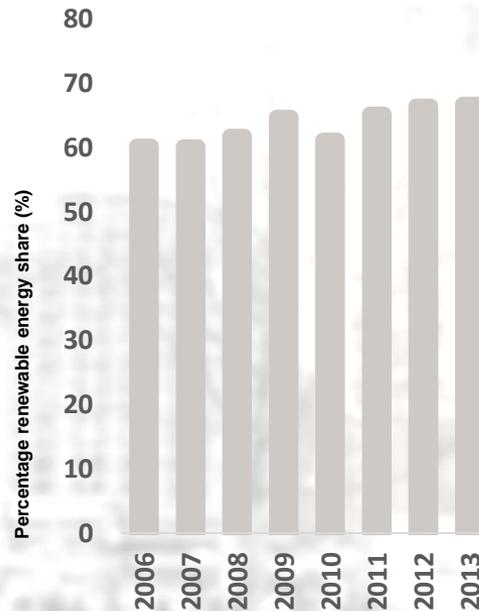
National trends

Change from 1990



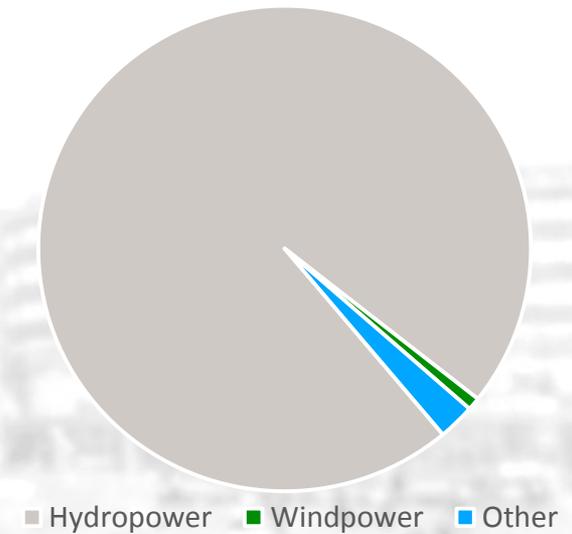
Norwegian renewable share

Percentage share 2006- 2013



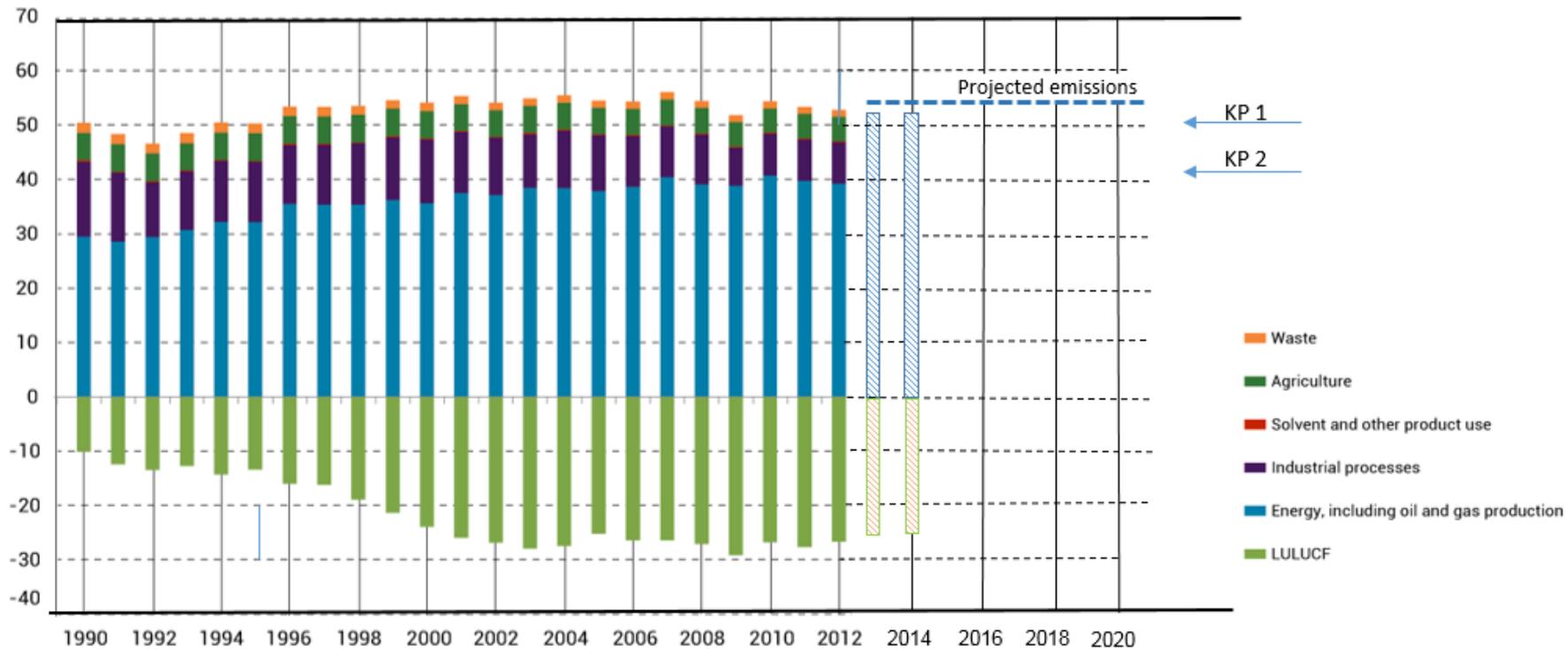
Electricity generation

Average share 2006- 2013



Total emissions and projections

1990 - 2020



Emissions and uptake selected issues

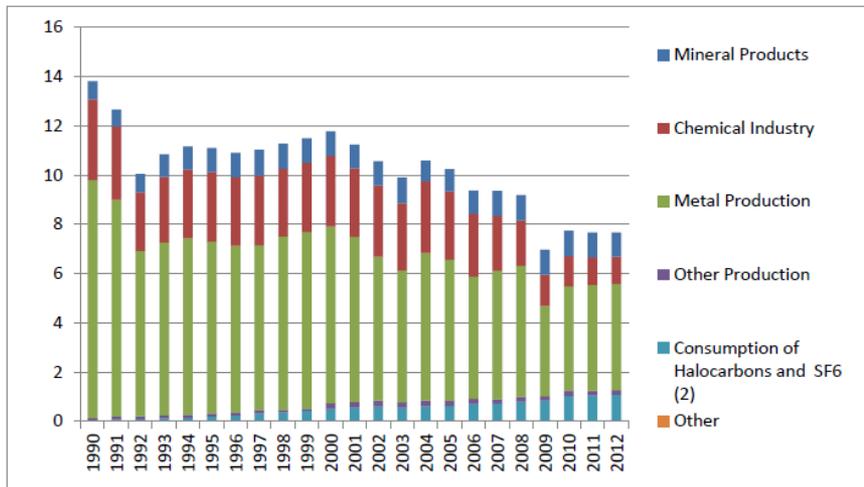
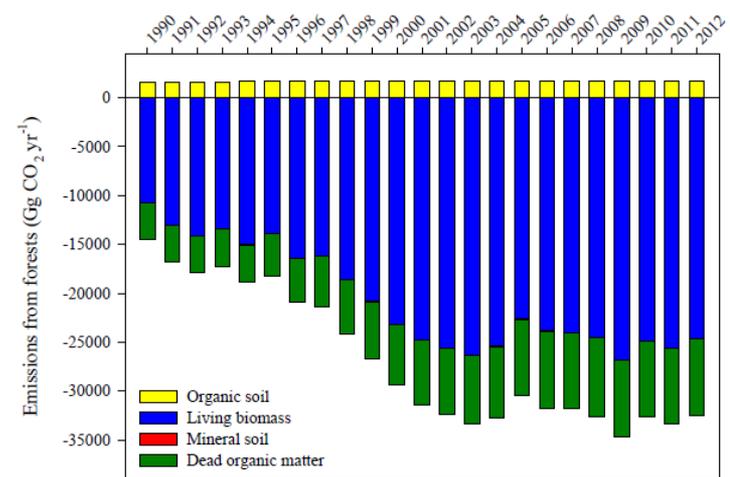
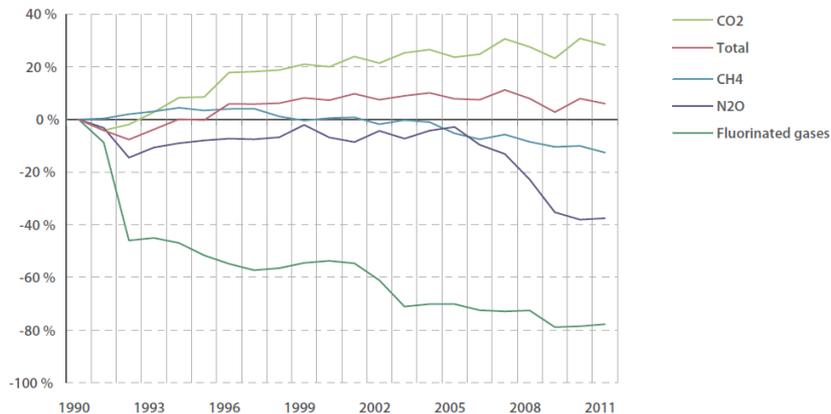


Figure 2.19. Total greenhouse gas emissions (Mtonnes CO₂-eq.) in the industrial source categories in Norway during the period 1990-2012. Source: Statistics Norway/Norwegian Environment Agency

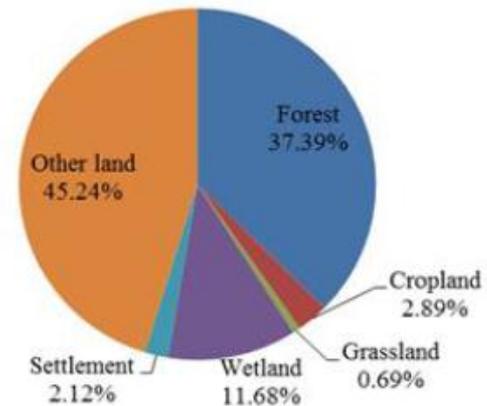


2012

3.3 CHANGES IN EMISSIONS OF GREENHOUSE GASES BY GAS IN NORWAY 1990-2011



SOURCE: Statistics Norway/Norwegian Environment Agency, 2014



Reaching 30% in 2020 by closing 90 Mt gap in KP 2

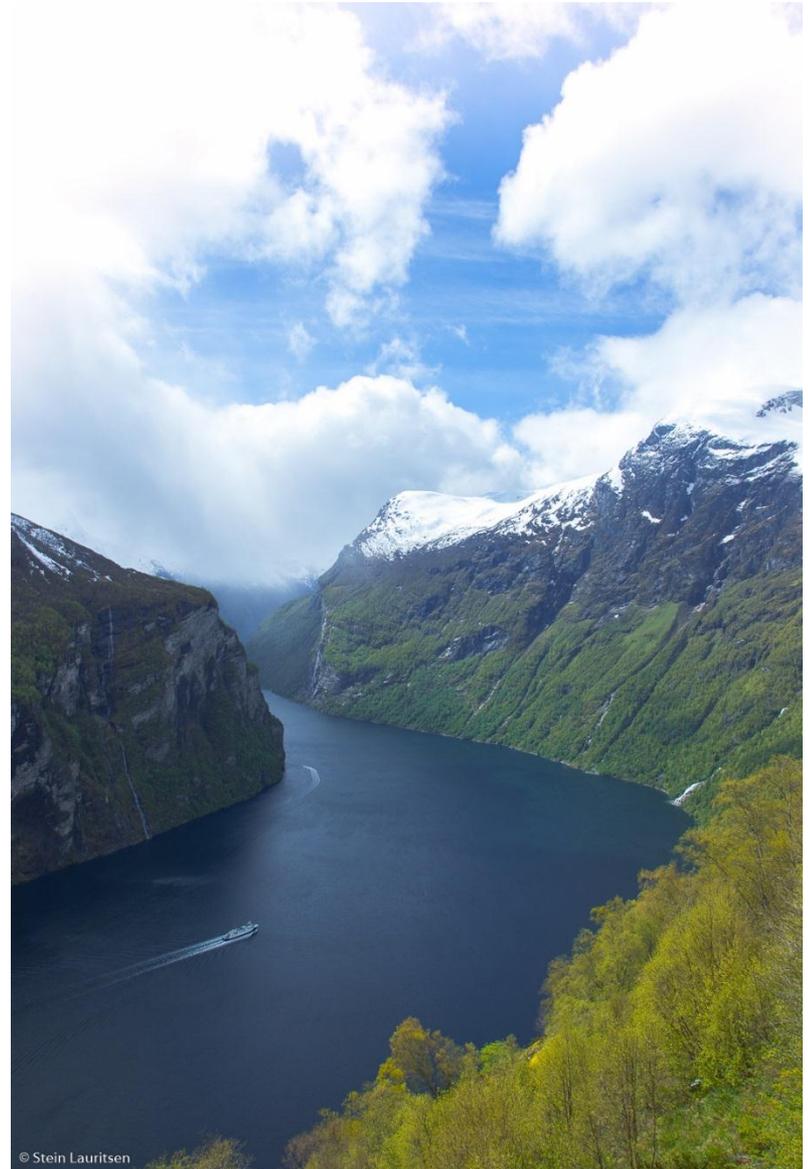
- Domestic measures
- Acquisition of AAUs and CERs/ERUs through ETS (as in KP 1)
- Purchase program 60 Mt, expected delivery of concluded contracts
 - 33 Mt from vulnerable projects
 - 4-5 Mt from new projects
 - To be contracted 22-23
 - Expanded if need be
- LULUCF KP rules: no significant contribution expected

Responsibilities, including drafting NC/BR

- Ministry of climate and environment coordinates
 - PAMs: Ministries of Environment, Finance, Energy, Transport, Agriculture, Environment Agency
 - Finance: Foreign Affairs, Environment
 - Inventories: Environment Agency, support from Statistics Norway and NIBIO
 - Projections, effects: Min of Finance with Environment Agency

Norwegian climate policy

- Founded on
 - The UN Convention on Climate Change
 - The Kyoto Protocol
 - IPCC reports
- Comprehensive set of policies and measures
- Emission reductions in developing countries and emerging economies
- Principles:
 - Polluter pays principle
 - Effectiveness
 - Cross-sectoral economic instruments
 - Cost effectiveness



Policies and measures: Overall policy context

- The Storting sets the overall national climate policy
- The government implements and administers the most important policies and measures
- The Ministry of Climate and Environment have the cross-sectoral responsibility
- Other Ministries are responsible for their sectors
- Local government responsible for policies at local level
- Private sector consultations

European policy framework

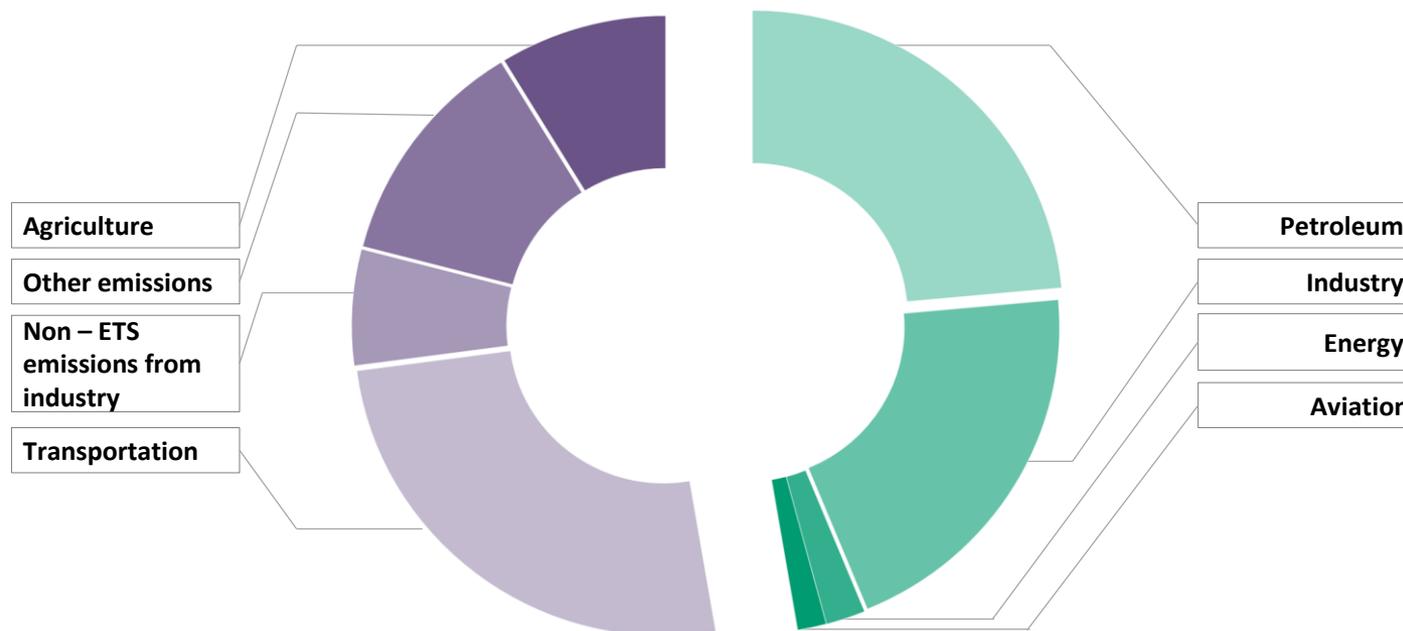
- European Economic Area (EEA): EU + EEA EFTA states (Norway, Iceland and Liechtenstein)
 - EEA EFTA states participate in the Internal Market with the EU
 - Implementation of EEA relevant EU legislation, including legislation relevant for GHG emissions
 - European Emission Trading Scheme covers around 50 % of Norway's emissions – entails transfers and acquisition of AAUs, CERs and ERUs



Distribution of emissions

Non - ETS

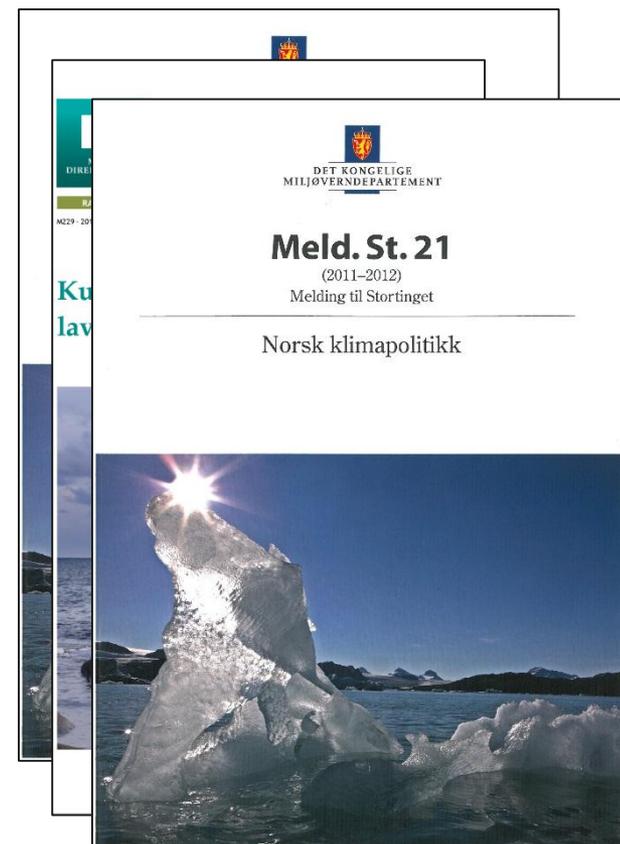
ETS



Recent domestic policy framework

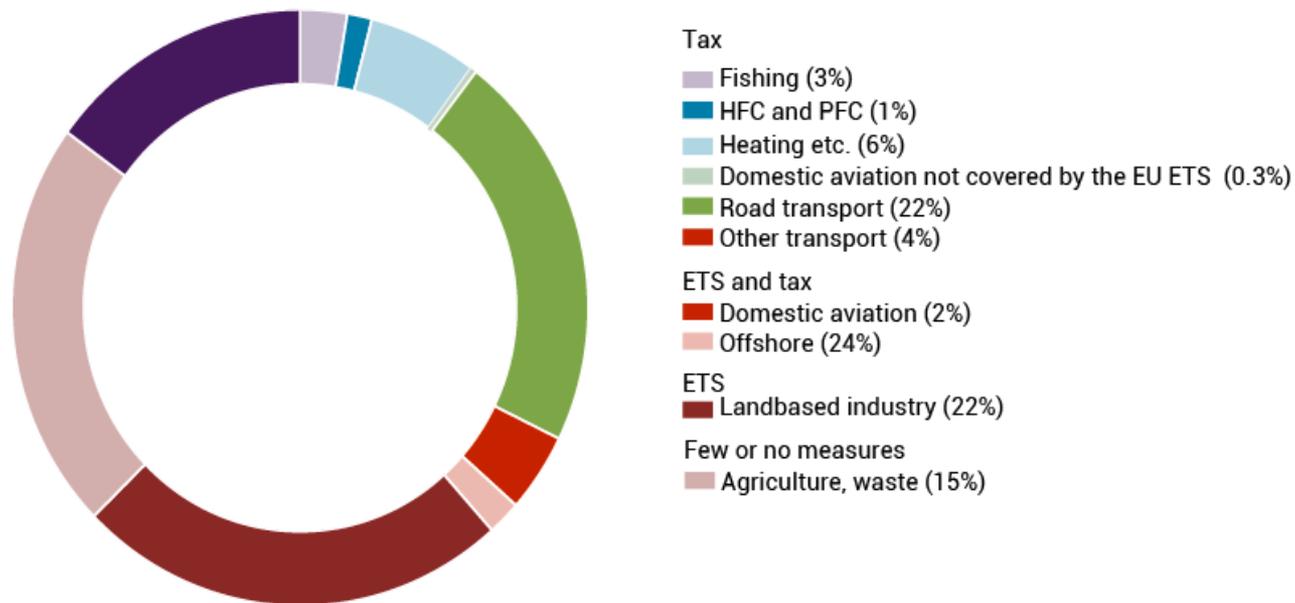
- **2007** White Paper "Norwegian Climate Policy"
- **2008** Broad political climate agreement between the government parties and opposition parties
- **2011** New White Paper "Norwegian Climate Policy"
- **2012** Broad political climate agreement between government parties and opposition parties
- **2013** Solberg Government Platform

In parallel, various technical assessments of possibilities to reduce emissions and enhance sinks, including "Climate Cure 2020" from 2010



Economic measures by sector

4.1 ECONOMIC MEASURES BY SECTOR



SOURCE: Statistics Norway/Norwegian Environment Agency/Ministry of Finance, 2015

Other policies and measures:

- The Pollution Control Act
- EU directives on waste
- Tax and reimbursement scheme of HFC
- Agreements and voluntary measures
- The environmental technology scheme
- Tax and reimbursement scheme of HFC
- Agreements and voluntary measures

Emissions trading

- Established 2005 – 11% of emissions
- From 2008 part of EU ETS – 40% of emissions
- Opt in of nitrous oxide emissions from the production of nitric acid
- 2012 – aviation included
- 2013 – 50% of emissions (new sectors and gases)
- Norwegian cap part of the EU wide cap

ETS – legal basis

- legal basis for emissions trading: the Greenhouse Gas Emissions Trading Act
- adopted on 1 January 2005
- amended several times
- Permits under Pollution Control Act

Energy related PAMs

- Taxes, ETS
- Financial support (Enova, Gassnova, Bank)
 - Efficiency
 - Renewables
 - New technologies
- Green certificates - renewables
- Legislative, ia. building codes, ban on fossil fuels for heating
- Information

Carbon capture and storage - existing

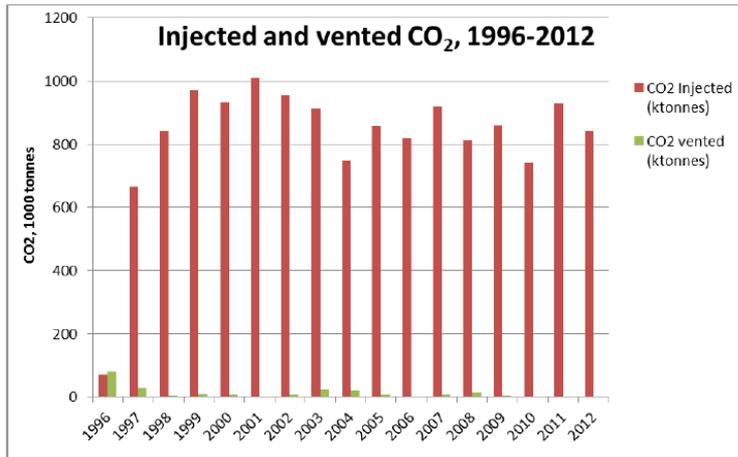


Figure 3.10. Injected and vented CO₂ at Sleipner Vest. Source: Norwegian Environment Agency

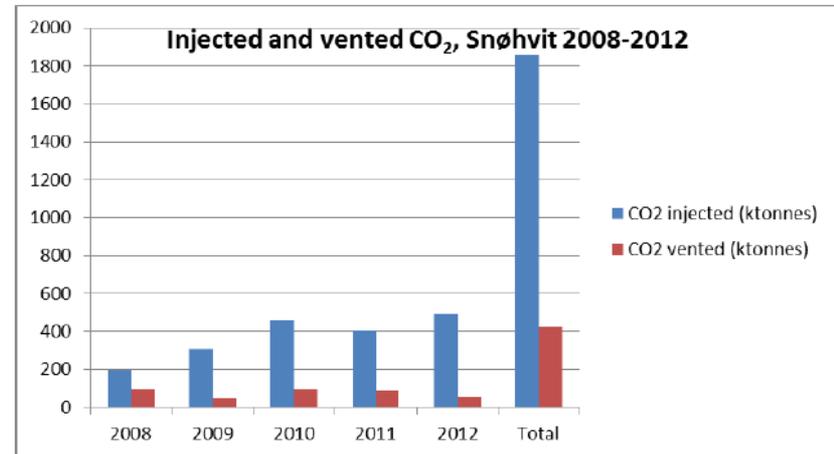


Figure 3.17. Injected and vented CO₂ at the Snøhvit field and Hammerfest LNG

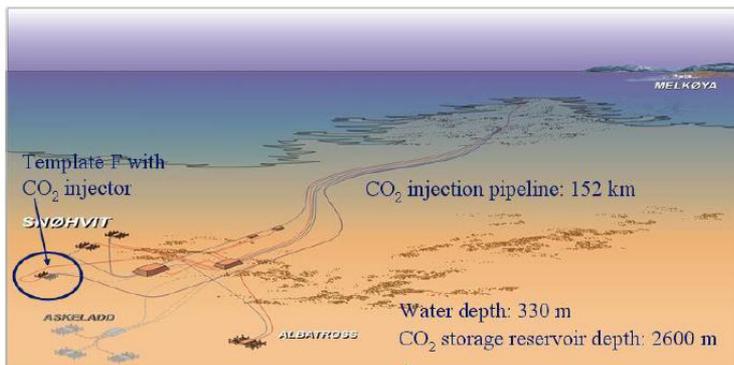


Figure 3.14. Snøhvit Field overview. Source: Statoil

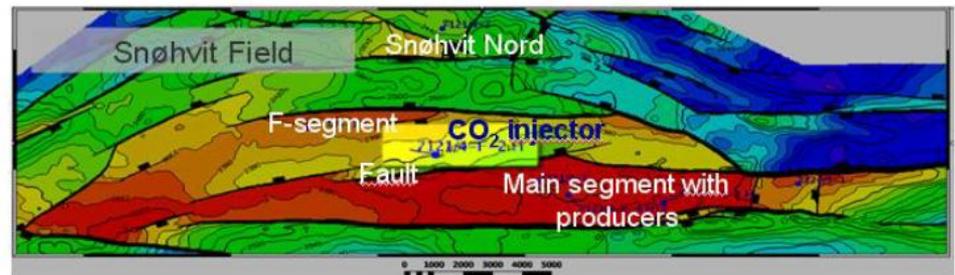


Figure 3.13. Location of the CO₂ well at the Snøhvit field. Source: Statoil

Transport

- Fuel taxes (CO₂, road use, VAT, exemption biofuels)
- Biofuels (sales volume 5.5%)
- Infrastructure
 - Public transport
 - Physical measures (bicycle promotion, electric in bus lanes etc)
 - Planning measures
- Vehicle taxes
 - Weight, performance, CO₂, Nox, VAT
 - Exemptions (electric, some for plugin)

Land sector – forest and agriculture

- General forest policy and practices
- Specific measures
 - Conservation
 - Planting programme new areas
 - Restoration of wetlands
 - Denser planting existing areas (under consideration)
 - Fertilisation (under consideration)
 - Improved plants
- General agricultural policy
- Specific measures
 - Biogas
 - Agricultural practices
 - Tillage
 - fertilisation

ETS Allocation

- 2005-2007 all allowances for free
- 2008-2012 free allocation 35 % of total emissions - no allocation to petroleum
- 2013-2020 – harmonized approach; gradually decreasing

ETS - Compliance and reporting requirements

- Operators must report to the Norwegian Environment Agency by 1 March each year
- From 2013, emissions reports must be verified by an accredited third party
- The Norwegian Environment Agency may impose coercive fines and even penal measures

ETS - Effect on national emissions

- Depends on Norwegian industry's abatement cost relative to the abatement cost in the industry located in other countries covered by the scheme, and relative to the carbon price.
- the scheme's effect at the national level is difficult to assess and quantify; but EU/EEA effect given
- estimates made by Statistics Norway; up to 0.3 million tonnes of CO₂ eq. per year.

Budget propositions for 2016

Climate and energy technology

- Increased funding to the climate and energy fund with 5 bill.
- Increased funding to the environ. technology scheme with 134,5 mill.

Carbon capture and storage

- 700 mill. to R&D and the evaluation of option for full-scale CCS in Norway.

Green shipping

- 40 mill. to the development of green technology and solution in shipping.
- Reduced electricity fee for shipping.

Forest and REDD +

- 61 mill. for increased carbon uptake in Norwegian forest and march.
- 2,6 bill. to the Norwegian Climate and forest initiative.



This year Norway launch the world's first 100 percent electrical car ferry. Powered by clean Norwegian electricity, the ferry now transports cars, freight and people across our longest and deepest fjord, Sognefjorden.

Thank you!



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