

The Norwegian Commission on Low Emissions

A short presentation

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Members



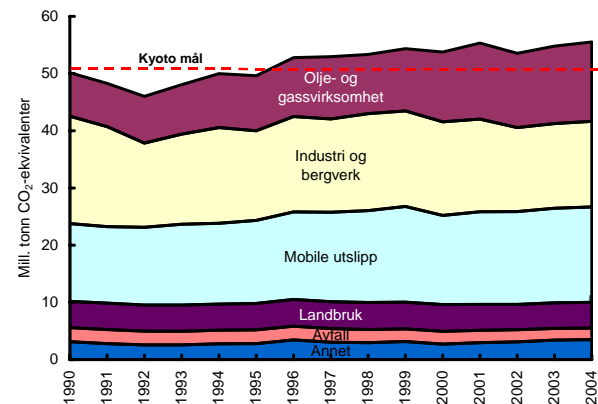
- Professor *Jørgen Randers*, Oslo (Chair)
- Director General *Eli Arnstad*, Stjørdal
- Professor *Ola Flåten*, Tromsø
- Director *Alvhild Hedstein*, Oslo
- Director *Hanne Lekva*, Stavanger
- Director *Lasse Nord*, Porsgrunn
- Director general *Sverre Aam*, Trondheim.

Mandate and timeline

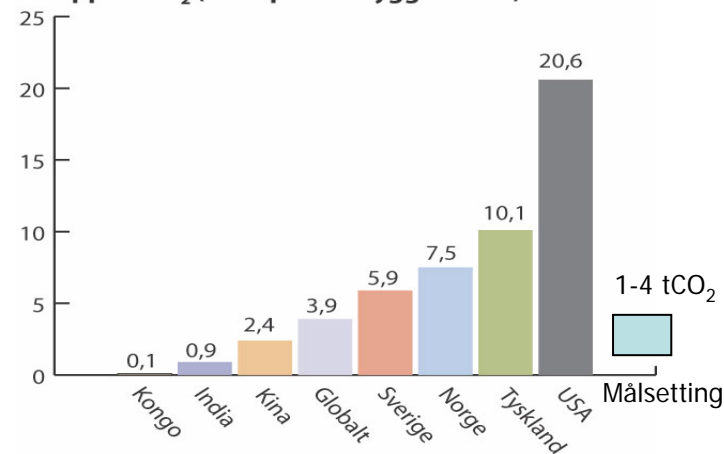
- Mandate:
 - The Commission is to present an overview of how Norway can reduce its greenhouse gas emissions by 50–80% before 2050
- Report:
 - NOU (green paper) is to be submitted by October 2006

Norwegian emissions

- About 0.2% of global emissions
- Mainly CO₂ (80%)
- Large sources today:
 - Transport, approx. 30%
 - Mining and manufacturing, 27%
 - Petroleum activities, 25%
 - Among the remaining 20%, agriculture and waste are relatively large sources



Utslipp av CO₂ (tonn per innbygger 2000)

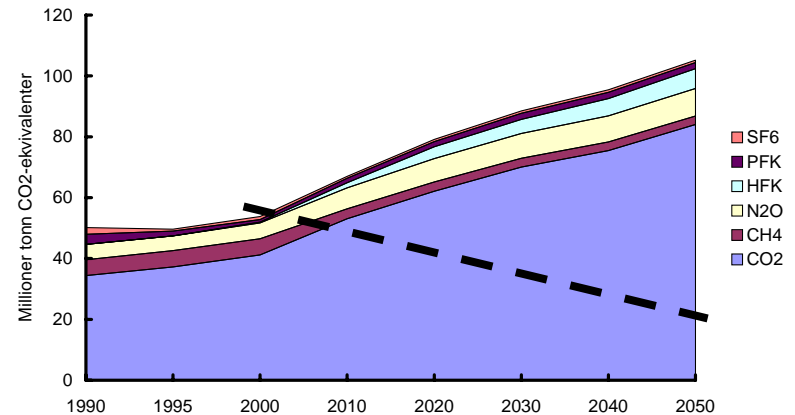


Kilde: IEA (Det internasjonale energibyrået)

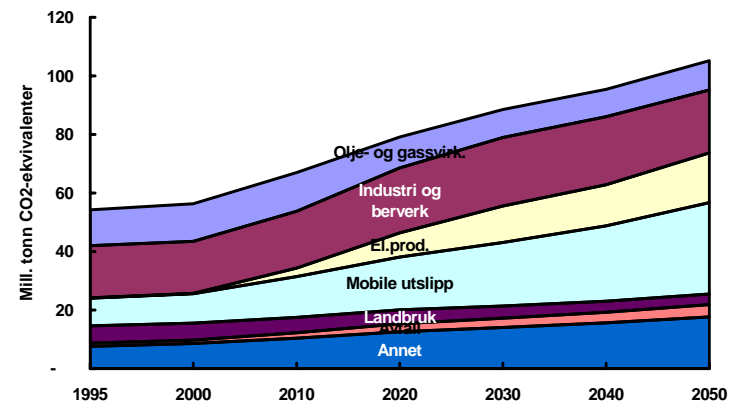
What is the possible growth of Norwegian GHG emissions?

- Roughly 100% over 50 years
- Due to the introduction of gas-fired power production
- Increased transport emissions (mainly private cars)
- What is the aim for 2050?
 - 10-20 mill. tonnes CO₂ eqv.

h1
Modellframskrivning



Modellframskrivning



h1 Plansjen er litt uklar. Foreslår at det over de to første "bullettpkt." står store kilder framover. (DA bør vel også kraftkrevende industri inkluderes????)

Det siste strekpkt dreier seg om mål i f.t. BAU. HADde det vært OK å inkludere hvor stor prosentvis reduksjon som kreves i 2050 for å oppnå målet?

Så til slutt synes jeg det ble for mye info på en plansje. Kan denne med fordel være to plansjer? Første plansje med viktige kilder framover. Andre plansje med mål i f.t. BAU.

hegewe; 08.08.2005

Why should Norway reduce its emissions?

- To avoid costly impacts of climate change
- To fulfil international obligations
- To support other countries advocating a “fair share” deal in climate negotiations (compliance and convergence)
- To allow Norway to take a lead role in the international negotiations

Is Norway alone in contemplating a 2/3 cut in emissions as a national aim in 2050?

- A 2/3 cut in emissions represents the reduction Norway should make if the burden of reducing emissions to meet the goal of limiting future global temperature increase to 2 oC is divided on a per capita basis.
- Other countries, *e.g.* Great Britain, Germany, France and Sweden, are considering or have decided on a similar target.

How much help can we expect from abroad?

- Three global scenarios
 - A strong global climate consciousness
 - Global emission targets
 - Strong technological development
 - Half-hearted regional climate policies (EU) h2
 - Regional emission targets
 - Some technological development
 - Delayed international climate response
 - No target before 2050
 - Weak technological development

h2

av betydelig omfang

hegewe; 08.08.2005

How can Norway reduce its emissions?

- Easy in principle:
 - Reduce emission intensity
 - Improve performance (better mileage)
 - Improve technology (hybrid cars, carbon capture and storage)
 - Reduce activity levels
 - Reduce export (Shut down power intensive industry)
 - Reduce consumption (drive less)
 - In addition: Contribute to reduced emissions abroad
 - Use the flexibility mechanisms
 - Contribute to the establishment of international treaties

Actions to reduce emissions

- The Committee will elaborate on:
 - technologies, costs, timing, and possible compensating or counteracting emissions abroad for a range of technological and behavioural measures
- A strategy for Norway will be a robust subset of the measures

h3

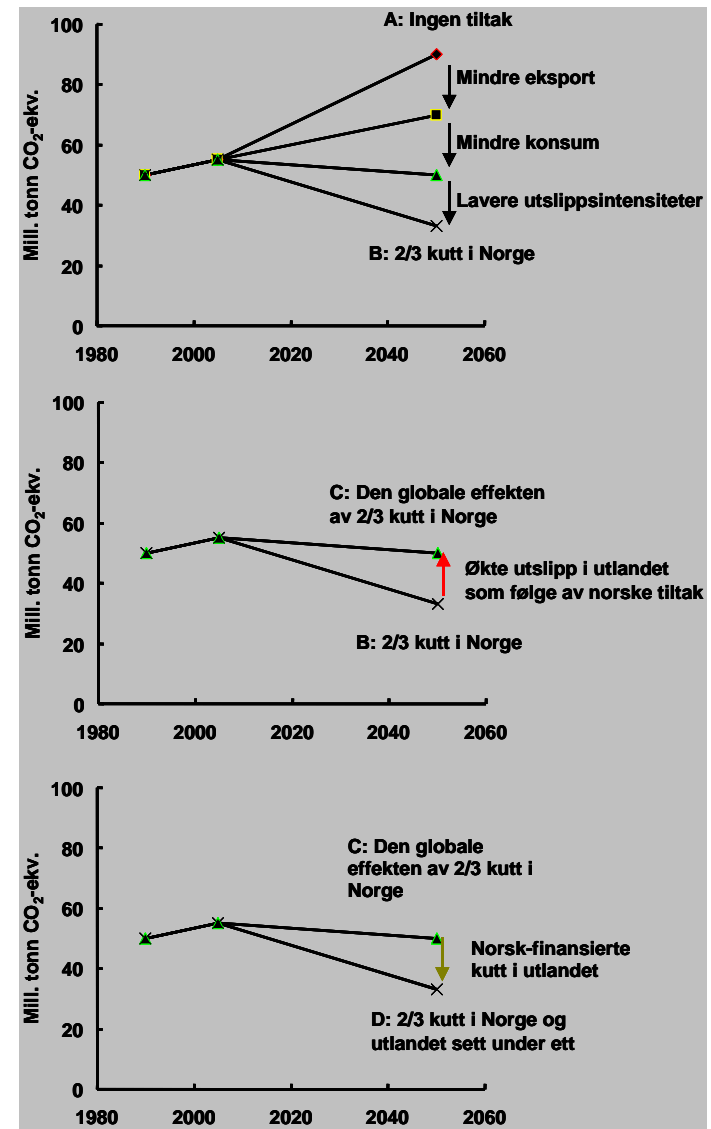
h3 Hadde det vært en ide og først snakket om kiler på denne plansjen og ikke på plansje 8?

(Dette vil bety at plansje 8 som den står nå vil utgå, og de to hovedpkt som behandles på denne vil inngå på andre plansjer)

hegewe; 08.08.2005

Wedges h4

- How do we take into account carbon leakages?
 - A number of wedges will reduce domestic emissions
 - Some will increase emissions abroad
 - Norway may initiate reductions abroad to compensate for these



h4

Her synes jeg det ble mye info på en plansje og at den ble uklar. Har du ikke flere budskap her?

1) Ønske om å illustrere kileprinsippet

2) At vi har et problem (avhengig av hva utenverden gjør) - utslippslekkasjer.

Synes disse to delene med fordel kan deles opp med en plansje på hver, eller flyttes til andre plansjer. Se kommentarer senere.

Så til figurene.

Er litt usikker på hva du vil med alle disse. Er det ikke nok med bare to figurer. En for å illustrere kileprinsippet, og en for å illustrere utslippslekkasje?

hegewe; 08.08.2005

Counter arguments

- Global emissions are not reduced by these policies
- The policies are very expensive
- The policies lack political support
- The effects are unreasonably small seen in a global context
- Nobody else is doing anything

h5

h5

Her kommer poenget med utslippslekkasje inn. Kanskje kan du lage en plansje som illustrerer utslippslekkasjer (jf komm. foran) i tililknytning til dette pkt.?

hegewe; 08.08.2005

What is the likely cost of emission reductions in Norway?

- In the big picture, the cost is insignificant; less than 1% of GDP
- The costs are first and foremost R&D-costs and cost associated with restructuring
- The costs are strongly dependent on what is happening abroad

Types of control policies

- Juridical (laws, concessions)
- Economic (taxes, subsidies, permits)
- Research and development
- “Voluntary” agreements
- Information, education, participation, etc.

h6

h7

h6 Har endret denne i.f.t. det jeg nå har satt inn i NOU'en.
hegewe; 08.08.2005

h7 Kutt? KOMmentere dette i forhold til plansje 6?
hegewe; 08.08.2005

Robust control policies

- The Commission wishes to propose
 - Norwegian control policies that will be useful regardless of what the rest of the world is going to do.
 - Control policies that have beneficial external effects like supporting technological development, business development, rural development, and that may have beneficial impacts on other environmental problems.
 - Control policies that reduce the *global* emissions!

- **Important to start now in order to reach the target in 2050**

h8

Hadde vært fint med noen eksempler her.

hegewe; 08.08.2005

Thank you for your attention!

