



# Integrated analysis of measures – Norway's road to a pathway approach

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# Motivation for the multiple benefit pathway approach

- Climate change and health.
- Robust policy.
- National and international agreements and goals.



Source: qimono, Pixabay CC0 Creative Commons

# Integrated analysis:

- Two-in-one solution:  
Climate and air pollution.
- Highlights «win-win» and «loss-win».
- Answers multiple questions.
- Helps prioritizing measures.
- Gives a better basis for decision-making.



Photo: iStockphoto

# Norway's road to a pathway approach

- Analysis of measures targeting SLCFs - GHG - both.
- Communication of results.
- Climate effect in the near- and long-term.
- Highlighting the need to increase the knowledge base.

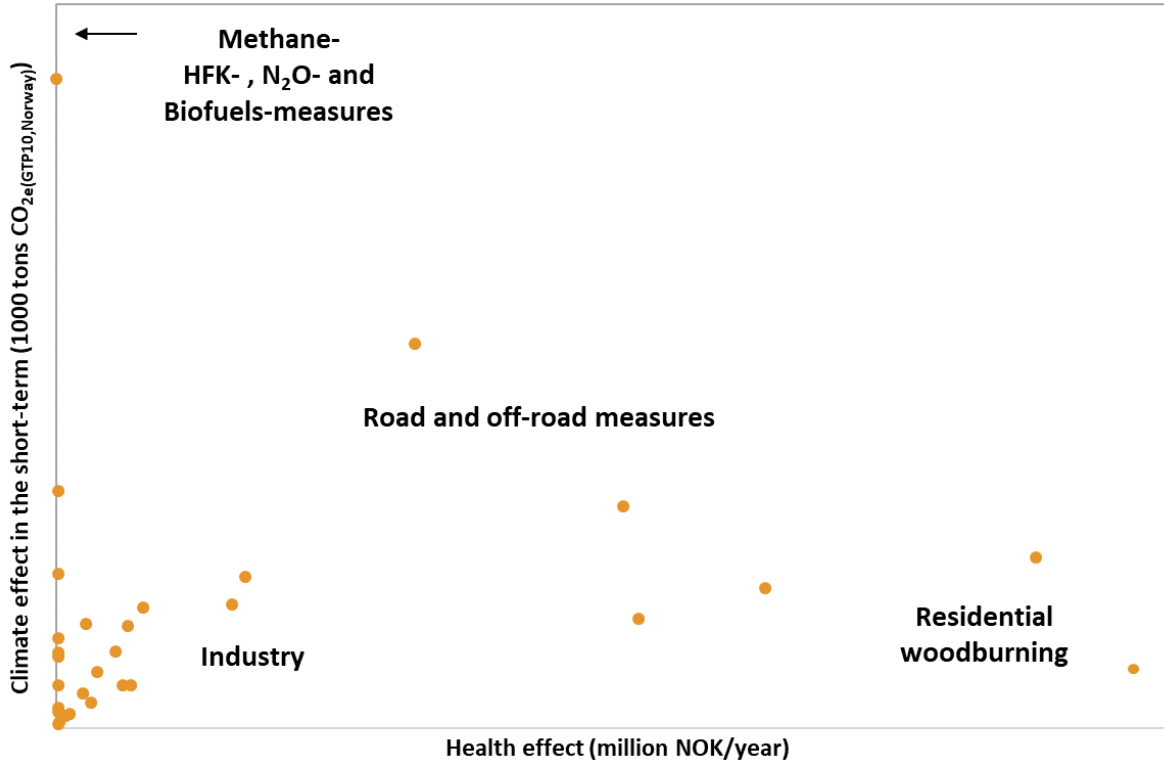


Photo: Håkon Storheim

# Some results of the analysis for Norway

- CO<sub>2</sub>-reductions are most important also in the near-term.
- Our BC emissions have higher climate effect per tonne than the global average.
- Targeted measures are necessary in order to substantially reduce BC.
- GHG-measures may give large health benefits, but not always.
- A switch to solid biofuels in cities may be detrimental to health.
- Health benefits of measures reduce the costs.

# Generic example of integrated results



# One size does not fit all

- Large differences in emission inventories and climate impact across regions.
- Development of national and regional multiple benefit pathways.
- Evaluate what pollutants and sectors that are most important to abate nationally and regionally.
- Develop a customized portfolio of measures.

# Clean air changes climate

- The Paris Agreement will also reduce cooling aerosols.
- Air pollution policy reduces aerosols.
- The resulting warming needs to be compensated.
- HOW we limit global warming and air pollution matters for temperature, precipitation, extreme weather and health.



Source: sciencemag.org, Bjørn Samset, CICERO



# Guidance and tools are available

- CCAC offers tools and methodology.
- Case studies.
- IPCC expert meeting on Short-Lived Climate Forcers.
- LRTAP guidebook.
- National approaches are welcome.



Source: CCAC

# Policy initiatives in Norway

- BC/OC included in the UNFCCC National communication.
- Pathway approach included in Talanoa-dialogue submission.



Photo: Vigdis Vestreng

# The pathway matters

- Smart to follow a pathway which benefits both the Paris long-term temperature targets and the SDGs.
- Countries have different needs, solutions, and measures.
- In which ways we limit global warming matters.
- Need to reduce «Non-CO<sub>2</sub>»-emissions in addition to deep CO<sub>2</sub>-cuts to attain a 1.5 goal.



Photo: Kim Abel, Naturarkivet.no

# 1.5 in room GENF at 5 pm

## EMERGING SCIENCE ON GLOBAL WARMING OF 1.5°C AT THE SCIENCE POLICY INTERFACE: *KEY SCIENTIFIC CONCEPTS EXPLAINED*

**FRIDAY 4 MAY, 17:00-19:30, AH LOWER CONFERENCE ROOM (TBC),  
WORLD CONFERENCE CENTRE, BONN, GERMANY**

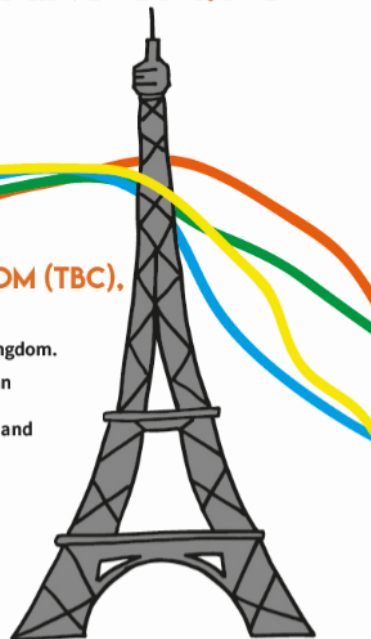
The event is jointly organised by the governments of Germany, Norway and the United Kingdom.

Please join researchers and experts from Germany, Norway and the United Kingdom for an informative and interactive session on the key scientific concepts and research relating to achieving the United Nation's global temperature goal to limit warming to well-below 2°C and pursuing efforts to limit it to 1.5°C.

Scientific concepts to be addressed will include:

- The Global Carbon budget;
- Scenarios and pathways;
- Methods to differentiate between the impacts of 1.5°C vs 2°C warmer worlds;
- Methods to assess options for action and co-benefits.

Posters, snacks, drinks & networking with the researchers at 19:30.





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