



National, Regional and International Policy Options to Reduce BC Emissions

Stefan Åström, IVL
Mikael Hildén, SYKE
Brad Matthews EAA





This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

Key messages

- Policy options vary considerably depending on source sectors and the focus of the action (national, regional, international)
- By mapping the policy landscape it is possible to identify and prioritise mitigation actions now and in the future
- Better coordination and mutual learning between and across levels and bodies of governance can accelerate emission reductions



This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

The diversity of black carbon sources requires many different types of actions

- Some emissions are local and diffuse and dependent of the actions and resources of individuals: domestic heating, open burning on agricultural land and personal transport
- Some emissions are large point sources: flaring at oil and gas installations, shipping
- There is a need to better understand and document emissions
- The actions need to be tracked and evaluated



This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

EU-funded Action on BC in the Arctic

Three Work components 2018-2021:

- Improved Knowledge Base
- Increased Awareness and Shared Knowledge
- **Technical Advice Documents and Scenario Analysis**

EUA-BCA reports and outcomes have covered many aspects of black carbon emission control



This project is funded by the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020



+ Scenario calculations, datasets, and several outreach activities

All reports available at the website: eua-bca.amap.no

Some translated to Russian



This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

The EUA-BCA work component 3:

Technical Advice Documents and Scenario Analysis

Main Objective of the Action: contribute to the development of collective responses to reduce black carbon emissions in the Arctic and enhanced international cooperation to protect the Arctic environment

Mapping and recommending specific policy options:

- a number of key national, regional and global initiatives in sectors that are relevant for the reduction of emissions have been explored
- a set of policy actions, specific for each area, have been identified as possible ways forward

The focus has been on well known sources of emissions and ways to strengthen monitoring and evaluation of relevant policy actions



This project is funded by the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

Emissions



DOMESTIC HEATING



GAS FLARING



MARITIME SHIPPING



DIESEL ENGINES



OPEN BURNING

Monitoring

BC Emissions

BC in the Arctic



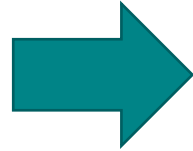
This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

Actions range from the household level to the societal system level



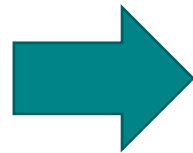
DOMESTIC HEATING



- “Burn right” educations
- Scrapping incentives
- Economic incentives coupled with information.
- Emission reductions through regional, national and local actions
- Modernization of small/medium-sized district heating boilers
- Energy efficiency improvement
- Regulate second-hand market for equipment not meeting standards
- Strengthen EU Ecodesign requirements (incl. saunas)



MARITIME SHIPPING



- Emission reductions through the IMO
- Emission reductions through regional, national and local actions

A key issue: the identification of the diversity of opportunities for fruitful co-operative action



This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

One size does not fit all, but there are generic actions across areas:

- Harmonization of regulation and criteria: stimulation of innovation
- Sharing and joint development of information systems: data exchange and interoperability
- Exchange of good practice and material for awareness raising and development of skills, including emergency response
- RDI for low emission technologies and practices



This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

There are many ongoing activities that head in the right direction

- Joint action across the Arctic Council working groups sets good examples and opens new 'windows of opportunities'
- Joint policy development at an international level offers opportunities for progress: EU – UNECE Air Convention – IMO – World Bank...
- Even when the policy actions are predominantly national, much can be gained through international exchange of ideas and experiences



This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

Harmonized and joint monitoring is important for evaluation and learning

- How much BC is emitted where? – correct focus of actions to reduce emissions: finding joint cost effective solutions
→ **Enhanced sharing of BC emissions estimates**
- What and how much BC reaches the Arctic? “Full implementation of currently available technologies could reduce global anthropogenic BC emissions by 70% from 2010 levels by 2030”
→ **How will this be reflected in the Arctic? - tracking the global effectiveness of the actions taken**

The actions to reduce emissions need to be specific and driven by actors who take ownership of them



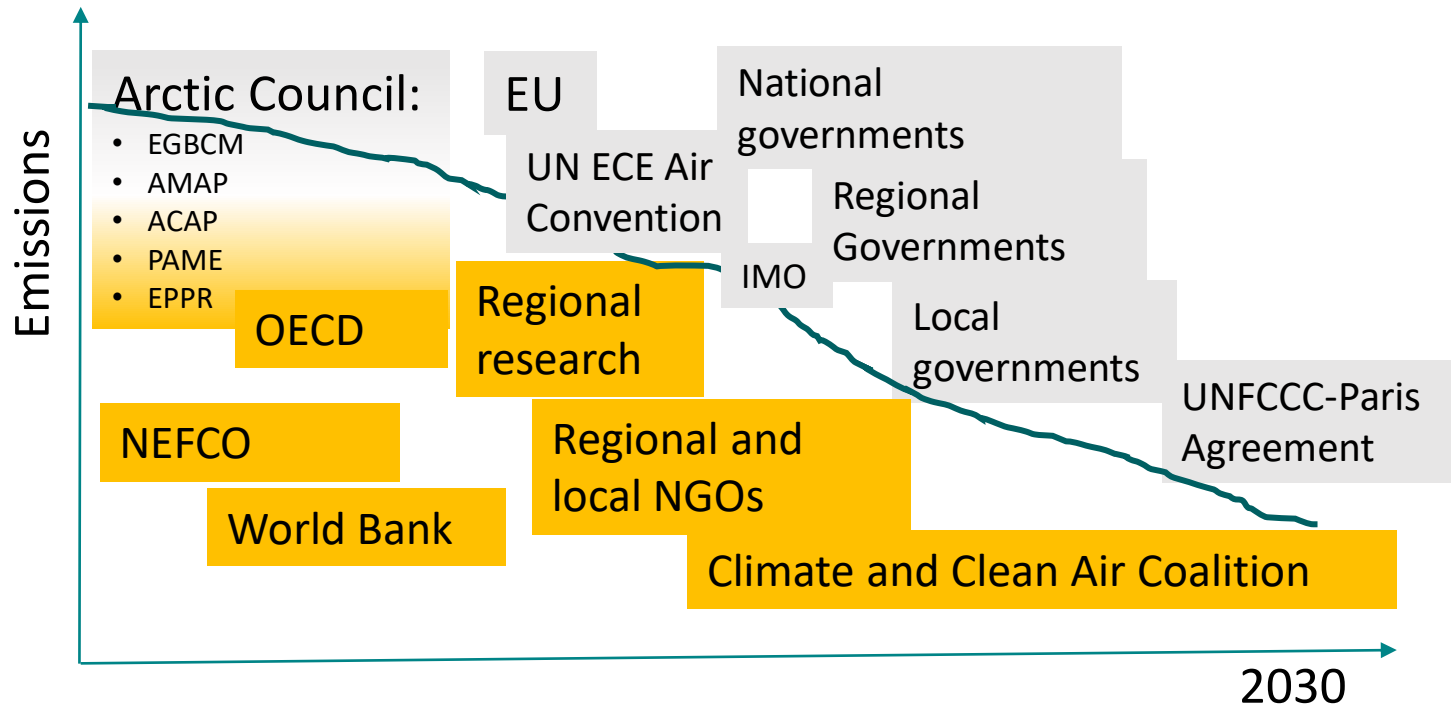
This project is funded by the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

Gradual, but ambitious emission reductions can be achieved through collaboration in different fora leading to:

- parallel and joint implementation of policies;
- allocation of funding for specific regional pilot and demonstration activities, and their replication and upscaling;
- strengthening of regional and local monitoring.

Regular evaluation and revision of actions!





This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

Questions for discussion

- How could the co-ordination of the activities of existing bodies and organisations be aligned even better than today to reduce emissions?
- Is there a need for additional fora for co-operation and joint action?



This project is funded by
the European Union

The Action is implemented through the EU Partnership Instrument providing 1.5 million EUR of funding for Action implementation during 2018-2020

Thank you

All reports are (or will soon be) available at:
<https://eua-bca.amap.no/>

mikael.hilden@syke.fi

Finnish Environment Institute (SYKE)

bradley.matthews@umweltbundesamt.at

Environment Agency Austria (EAA):

stefan.astrom@ivl.se

IVL Swedish Environmental Research Institute Ltd.