

The EU Partnership Instrument

Boosting international cooperation on

Black Carbon in the Arctic

The Arctic region is extremely sensitive to pollution from human activities, and what happens in the Arctic will in turn have impacts on the rest of the planet's health. There is now compelling evidence of rapid climate change in the Arctic, in particular rapid sea ice melting with significant losses of the polar ice cap, largely due to increases of greenhouse gases and short-lived climate pollutants in the atmosphere, like black carbon.

This project is funded by the European Union (under the "Partnership Instrument") and is a key contribution to international efforts to limit emissions of black carbon.

Its overall objective is to contribute to the development of collective responses to reduce black carbon emissions in the Arctic and to the reinforcement of international cooperation to protect the Arctic environment. The focus of the action will be on gas and oil flaring and domestic heating – economic sectors that contribute to major emissions and where mitigation is needed. The Secretariat of the Arctic Monitoring and Assessment Programme (AMAP) has been identified as a suitable implementing organisation with which the EU could negotiate a grant agreement. The action will involve many countries and stakeholders.

Black Carbon – a Short-Lived Climate Pollutant with damaging effects on climate and on human health

Black Carbon (BC) is a fraction of air pollution by particulate matter (PM) that absorbs light strongly and thus renders PM dark or black. Black Carbon is also known under other names like elemental carbon, organic carbon, soot, black smoke and smudge. The main sources of black carbon are from combustion of fossil fuels, (the burning of coal, oil and gas) and biomass for transport, energy production and domestic heating.

BC strongly influences the Earth's energy balance and its climate, both when it is suspended in air and when adsorbed to surface, such as on snow and ice.

There are also severe health implications of airborne exposure to BC, in particular on populations living in the vicinity of major pollution sources.

The Arctic region is affected by numerous sources of black carbon both within and beyond its boundaries. Reducing emissions will have direct benefits in the Arctic but also in the EU, by reducing local impacts on climate, such as black carbon fallout on glaciers within the EU and improving local air quality.

Several international organisations are currently addressing the issue of black carbon, such as the Arctic Council and the Arctic Monitoring and Assessment Programme; the Climate and Clean Air Coalition with close links to the UN Framework Convention on Climate Change and the 2015 Paris Agreement; the Convention on Long-Range Transboundary Air Pollution and the World Health Organisation; the World Meteorological Organisation; and the World Bank. Also, national administrations have pursued work to take action on black carbon emissions, in particular in Northern Europe (e.g. Denmark, Finland and Sweden) and North America (US and Canada). Despite

the activities of the various international organisations, stronger policy action on black carbon is required, particularly on the most important pollution sources.

EU Action on Black Carbon in the Arctic

The EU action under the Partnership Instrument is complementary to ongoing activities and it has the overall objective to contribute to the development of collective responses to reduce black carbon emissions in the Arctic and to the reinforcement of international cooperation to protect the Arctic environment. Specifically it has the objectives:

- To initiate a process of setting clear commitments and/or targets on major BC sources with the potential to affect the Arctic, in particular on gas flaring and domestic heating sources mainly outside the EU and with consideration of maritime shipping; and
- To move forward a process leading to enhanced international cooperation on black carbon policy in the Arctic region.

The project will deliver:

- An improved knowledge base on BC emissions, through a mapping of national and international activities related to BC inventories and monitoring, an updated assessment of the BC emissions and concentrations in the Arctic with specific attention to the uncertainties related to gas flaring and domestic heating and with consideration of maritime shipping, an assessment of the environmental/climate impacts of the current and future levels of black carbon in the Arctic, an identification of major knowledge gaps in the current inventories, monitoring and impact assessments and proposed remedies to the identified gaps and problems.
- Increased awareness and shared knowledge, through targeted information to key stakeholder groups and at international conferences aiming at raising awareness and sharing knowledge related to black carbon and its impacts in the Arctic;
- Analytical and technical advice documents, related to demonstration and feasibility projects and specific abatement measures, such as the use of Best Available Techniques (BAT), scenario analysis on the effectiveness of current policy and the application of BAT and maximum feasible reduction potential in the concerned sectors, as well as an analysis gauging the willingness of key stakeholders to commit to quantitative targets and means of implementation.
- A roadmap for international cooperation on black carbon, through an analysis of options for enhanced international cooperation and engagement, pointing at win-win and trade-off policies and measures and an outline of an indicative roadmap for international commitments.

The project will engage with all relevant stakeholders and in particular with countries in the Arctic. Since the project will be closely linked to ongoing activities within the Arctic Council and the AMAP, the Commission will seek to negotiate a grant agreement with the AMAP secretariat.