

How to regulate and control black carbon emissions from shipping

Black carbon (BC) is a short-lived **climate pollutant** produced by the incomplete **burning of fossil fuels**.

Contributes to **warming** while in the atmosphere

Accelerates **melting** and habitat loss if deposited onto snow & ice

Melting snow and ice leaves **darker areas** of land and water which absorb further heat from the sun

Negative impact on **human health**

Impact over **3000x** CO₂ (GWP20)

Around **1/5** of shipping's CO₂e emissions

Reflective capacity of polar ice caps is **reduced**

Disproportionate impact in the Arctic and on climate vulnerable Indigenous communities

A pathway for regulating BC emissions from ships

MEASURES


■ short-term ■ mid-term ■ long-term

HOW TO IMPLEMENT MEASURES

 New regulation via amendment of MARPOL Annex VI

 Revision of IMO GHG Strategy to include CO₂e

 Amendment of Regulation 14 of MARPOL Annex VI

 Development of an international fuel standard for MARPOL Annex VI

The International Maritime Organization and Member States need to:



 Mandatory switch to distillate (by ships in / near the Arctic) 

 Designate sulphur emission control areas (ECAs) 

 Include BC in IMO measures to reduce GHGs 

 Develop an international standard on aromatic content of fuel 

 Develop Arctic and black carbon (or distillate-only) ECAs 

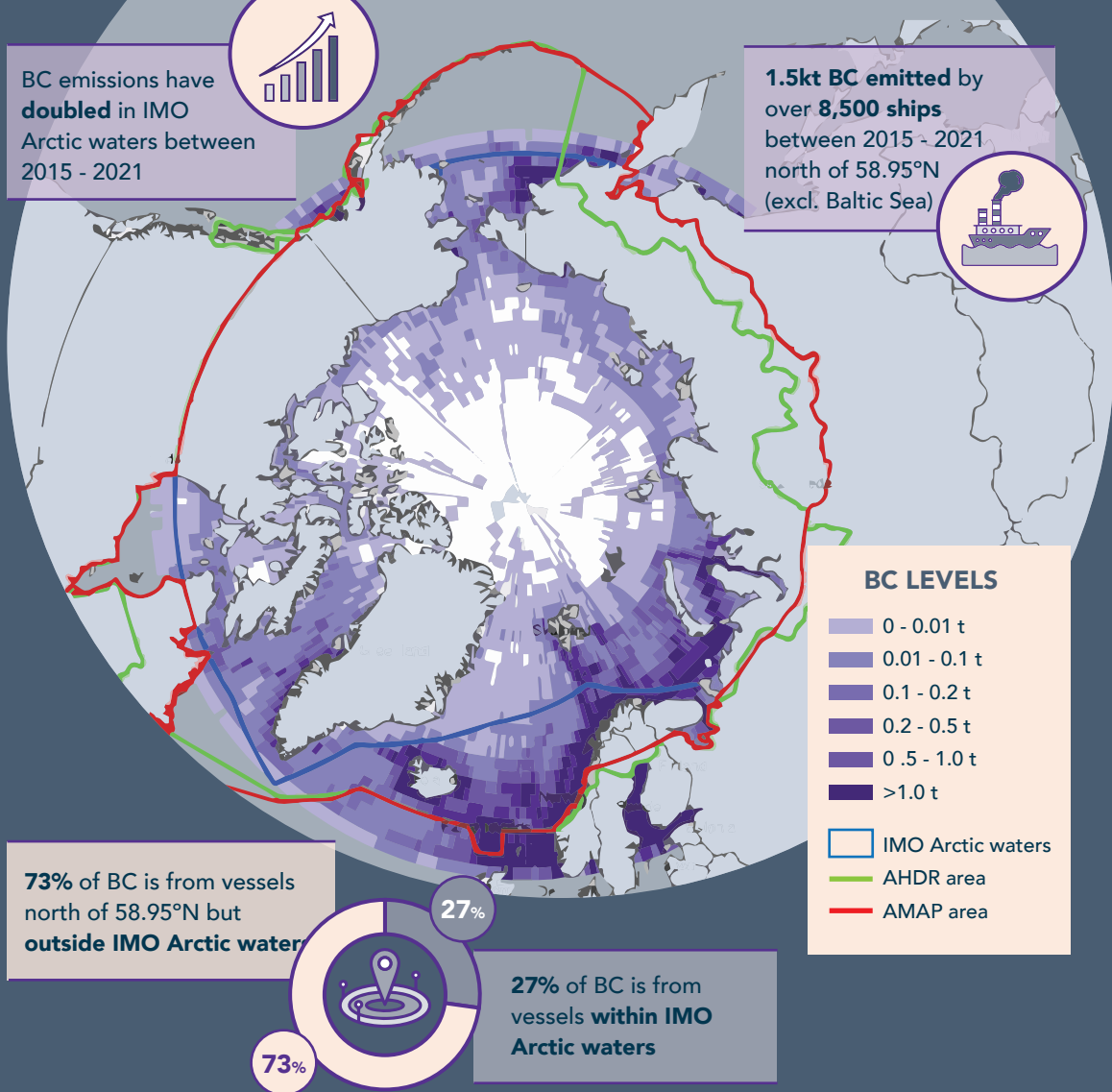
 Require the use of diesel particulate filters for ships in/near the Arctic 

 Develop BC engine certification 

Geographic scope of measures to reduce the impact on the Arctic

Measures must have a sufficiently **wide geographic scope** to:

- 1 reduce the impact of all shipping BC on the Arctic
- 2 address shipping BC emissions in and near the Arctic (incl. airborne transportation of BC to the Arctic)



Graphic adapted from ICCT map of black carbon emissions (2021)

Next steps - IMO Member States must...

1

Agree to **immediate action to regulate emissions of black carbon from ships** which impact the Arctic.

2

Develop **compulsory measures to reduce black carbon emissions from ships**, including:

- a new black carbon (switch to distillate) regulation in MARPOL Annex VI
- designation of new Arctic BC emission control areas
- an aromatic fuel standard
- use of technology to reduce black carbon emissions

3

Agree to the **integration of black carbon in GHG measures** designed to reduce climate impacting emissions.

4

Support **regional and domestic action** to rapidly lower black carbon emissions from ships.

