REDUCING
EMISSIONS FROM
PORTS
AND
MARINE
VESSELS

**CLIMATE &
CLEAN AIR
COALITION**
TO REDUCE SHORT-LIVED
CLIMATE POLLUTANTS

WHO WE ARE

The Climate and Clean Air Coalition (CCAC) reduces black carbon emissions from ports and maritime vessels through the Heavy-Duty Diesel Vehicles and Engines Initiative (HDDI). The CCAC HDDI brings together national and local governments, NGOs, and industry to reduce black carbon emissions from heavy-duty vehicles and engines, including ships and port equipment. Leading the charge to reduce black carbon from ports and maritime vessels is the International Council on Clean Transportation (ICCT) and the United Nations Environment Programme (UNEP).

WHAT WE OFFER

- Support ports in developing countries to calculate baseline air emissions inventories to understand the magnitude of air and climate pollutant emissions from port activities.
- Support port stakeholders to identify and develop strategies (Action Plans) for long term particulate matter and black carbon emissions reductions incorporating international best practices.
- Support ports in estimating the health impacts of port and ship emissions.
- Support cutting-edge research on maritime black carbon emissions.
- Analyze the effectiveness of technologies and strategies to reduce black carbon emissions.
- Develop an online global ports particulate matter and black carbon information hub to serve as a repository for advanced ports expertise in emissions reduction as well as air emissions inventories for ports in developing and transition countries. Until the hub is completed the UNEP Global Clean Ports website (http://www.unep.org/Transport/ports/) will provide ports-related updates.

WITHOUT ADDITIONAL CONTROLS, GLOBAL BLACK CARBON EMISSIONS FROM INTERNATIONAL SHIPPING WILL NEARLY TRIPLE FROM 2004 TO 2050.

WHY REDUCE BLACK CARBON EMISSIONS FROM PORTS AND MARITIME VESSELS?

Reducing air pollution from ports and maritime vessels benefits health, air quality, and helps address near-term warming. Ports and vessels are large sources of diesel particulate matter, including black carbon, which contributes to cardiopulmonary disease and premature death. Black carbon emissions are second only to carbon dioxide in their climate warming impact.

Emissions from these vessels can drift hundreds of kilometers and in-port emissions from vessels and dockside loading equipment directly impacts near-port communities. Unfortunately, port and maritime vessel emissions disproportionately impact the world's poorest populations by accelerating global warming and contributing to poor air quality – these impacts are especially severe in developing countries.

> The Port of Tanjung Priok air emissions inventory is very timely given that we are looking at mitigation strategies for emissions from port operations in Indonesia. Inventories such as these will help in assessing efficacy of such strategies as well as act as a base for development of an MRV framework.

Capt Erwin Rosmali, Secretary for the Directorate General for Sea Transportation in the Indonesian Ministry of Transport.

AMBITIONS

- Develop a multi-pronged strategy to reduce black carbon emissions from ports and maritime vessels.
- Implement effective, science-based technological and operational measures to control black carbon emissions from cargo-handling equipment, harbor vessels, and ocean-going vessels.
- Substantially reduce diesel black carbon emissions from ports and maritime vessels, especially in developing countries.

RESULTS SO FAR

- Baseline air emissions inventories have been produced at two ports in Indonesia and Chile.
- Workshops and technical meetings held with a wide array of port stakeholders to disseminate the air emissions inventory and to facilitate deliberations on strategies for reducing particulate matter and black carbon emissions from the Port of Tanjung Priok, Jakarta.
- A free, soon-to-be-released Global Online Port Emissions Calculator (GOPEC) to help ports in developing countries calculate emissions from port equipment, harbor craft, and ocean-going vessels.
- Two technical workshops on defining and measuring marine black carbon.
- Cutting-edge research on black carbon emissions from marine engines, both in the laboratory and on the ocean, to understand shipping's contribution to global black carbon emissions is underway.
- A rapid health impacts assessment tool to estimate premature mortality attributable to port activity emissions is being developed.
- A database to track the performance of black carbon control technologies and strategies is being developed.
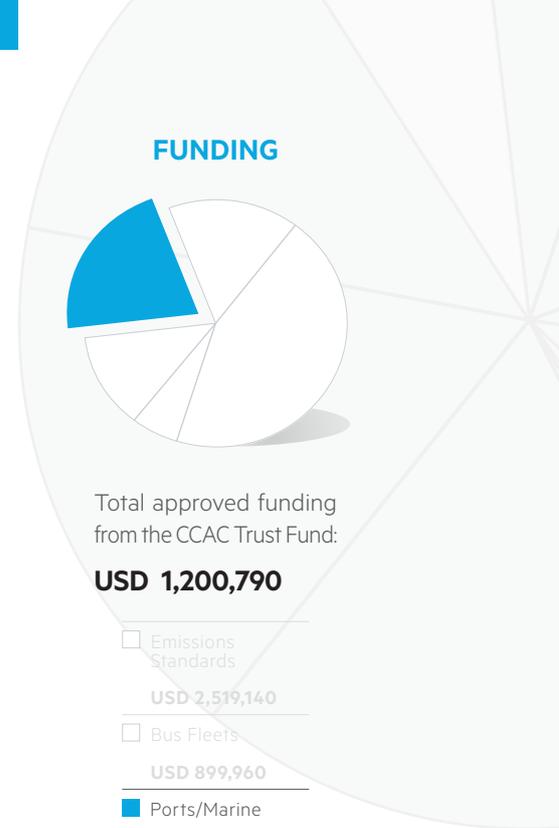
FUNDING

Total approved funding from the CCAC Trust Fund:

USD 1,200,790

☐ Emissions Standards
USD 2,519,140

☐ Bus Fleets
USD 899,960

☑ Ports/Marine
USD 1,200,790

☐ Green Freight
USD 704,350

☐ Global Sulphur Strategy
USD 325,000

PARTNERS, ACTORS AND LOCATIONS OF ACTIVITIES

Location of activities: Globally for maritime vessel emissions and Bangladesh, Chile, Ghana, Indonesia, and Jordan for port emissions.

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Lead Partners: ICCT and UNEP.

● **Project Partners:**
- The Center for Transportation and Logistics Studies (Pustral) at Gadjah Mada University, Indonesia
- Mario Molina Center, Chile
- Abidjan - Lagos Corridor Organisation (ALCO) – West Africa

ABOUT THE CCAC

The Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) is a voluntary global partnership of governments, intergovernmental organizations, business, scientific institutions and civil society committed to catalysing concrete, substantial action to reduce SLCPs (including methane, black carbon and many hydrofluorocarbons). The Coalition works through collaborative initiatives to raise awareness, mobilise resources, and lead transformative actions in key emitting sectors.

MORE INFORMATION

www.ccacoalition.org/en/initiatives/diesel

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