Heavy-Duty Diesel Initiative

Lead Partners: United States, Canada, United Nations Environment Program, International Council on Clean Transportation

http://www.unep.org/ccac
Background

- At the 68th GRPE the expert from Sweden reported about the diesel initiative under Climate and Clean Air Coalition.

- From the report from the 68th GRPE meeting concludes that “... GRPE also welcomed the proposal of the expert from Sweden to present the activities of the Climate and Clean Air Coalition (CCAC), ... in the next GRPE session”

- This presentation is prepared by UNEP and presented by Sweden as a CCAC Partner and Co-Chair of the CCAC Working Group.
The Climate and Clean Air Coalition to Reduce Short-Lived Climate Pollutants (CCAC) is the first global effort to treat short-lived climate pollutants.

- Founded in 2011 by Todd Stern, U.S. Climate Envoy; Achim Steiner, UNEP; Mexican Environment Minister Juan Rafael Elvira; Canadian Environment Minister Peter Kent; U.S. Secretary of State Hillary Clinton; U.S. EPA Administrator Lisa Jackson; Bangladesh Environment Minister Hasan Mahmud; Swedish Environment Minister Lena Ek; Ghanian Ambassador to the USA, Daniel Ohene Agyekum (Photo courtesy U.S. State Dept. 2011)
- The Coalition's initial focus: methane, black carbon, and HFCs

- Action on short-lived climate pollutants must **complement, not replace**, global action to reduce CO2

- Black carbon, methane HFCs are responsible for a substantial fraction of current global warming, large impacts in urban areas, the Arctic, and have harmful health and environmental impacts

- The Coalition's objectives are to address short-lived climate pollutants by:
  
  - Raising awareness on impacts and mitigation strategies
  
  - Enhancing and developing new national and regional actions and mobilizing support
  
  - Promoting best practices
  
  - Improving scientific understanding of short-lived climate pollutant impacts and mitigation strategies
39 state + 53 non-state partners, 10 initiatives

- Reducing Black Carbon Emissions from Heavy Duty Diesel Vehicles and Engines
- Mitigating Black Carbon and Other Pollutants From Brick Production
- Mitigating SLCPs from the Municipal Solid Waste Sector
- Promoting HFC Alternative Technology and Standards
- Accelerating Methane and Black Carbon Reductions from Oil and Natural Gas Production
- Addressing SLCPs from Agriculture
- Reducing SLCPs from Household Cooking and Domestic Heating
- Financing of SLCP mitigation
- Supporting National Planning for action on SLCPs (SNAP)
- Regional Assessments of SLCPs
Initiative: Reducing Black Carbon Emissions from Heavy Duty Diesel Vehicles and Engines

• Works to reduce the climate and health impacts of black carbon and particulate matter (PM) emissions in the transport sector

• An estimated 19% of global black carbon emissions from transportation sector

• Heavy duty diesels are a major source of fine PM emissions (PM 2.5 or less)

• These particles are responsible for 3.2 million early deaths worldwide per year

• On vehicles without a diesel particulate filter, BC accounts for 50-80 per cent of PM
Black Carbon at the nexus of air quality and climate change, co-benefits are significant.
By eliminating barriers to adoption of cleaner vehicle and fuel standards globally, potential for:

- reduction of 2.7 million metric tons of fine particles
- 1.9 metric tons of black carbon emissions from heavy-duty vehicles globally
- up to 1.4 million fewer cases of premature deaths

Potential black carbon savings equivalent to 6.1 gigatonnes CO2-equivalent with a 20-year global warming potential
Heavy-duty Diesel Initiative: Structure and Work

- **Co-leads:** US, Canada, ICCT and UNEP
- **Partners:** Mario Molina Center Chile, Smart Freight Center, Clean Air Asia, Natural Resources Defense Council
- **Objective:** To virtually eliminate fine particles and black carbon emissions from new and existing heavy duty diesel vehicles and engines (including marine vessels) by:
  - Steadily reducing sulfur in diesel fuel…
  - Establishing more stringent emission standards with interested nations and parties…
  - Cleaning up existing fleets…
  - Cleaning up ports and marine transport
  - And developing a global Green Freight initiative
Current HDD activities funded by CCAC:

- **National and Regional Programs**: East, West, Southern Africa; Asia; Latin America; Indonesia; Mexico; China; Arctic

- **Global Strategies**: Low Sulfur Fuel and Green Freight

- **Marine Vessel and Ports Project**:
  - Jakarta, Indonesia
  - Chittagong, Bangladesh
  - Aqaba, Jordan
  - Valparaiso, Chile
  - Tema, Ghana

- **CCAC financial support to date**: $3.5 million + co-funding from co-leads
- Regional and country level
  - LAC
    - Chile, Peru, Mexico
    - Regional action plan
  - Africa
    - East Africa
    - Regional action plan
  - Asia
    - Indonesia, China, Vietnam, Bangladesh
    - ASEAN sub-regional action plan
- Global
  - Green Freight
  - Green Ports
  - Global Financing and Markets Sulphur strategy
- **First results**: countries adopt clean diesel strategies and standards; global recognition of problem – health & climate; development of global programs
Regional and National Implementation Case Studies: East Africa, Latin America
Countries World-Wide are Introducing Low Sulfur Diesel

- Major improvements in all regions
- First developing countries with ULSD
- But much to be done and need to speed up

2005

2014
CCAC Clean Fuels and HDD Support East Africa

- June 2013: East African Community Decision for 50 ppm diesel and 150 ppm petrol
- September 2013: Kenya refinery is shut down
- December 2013 EAC harmonizes standards - effective January 2015
- East Africa first non-OECD sub-region to adopt low sulfur fuels
Clean Diesel Latin America, 2013 - 2015

- Development of HDD emission standards, Chile
- Black Carbon Inventory, Chile
- Clean Diesel Strategy, Peru
- Regional fuel quality and diesel standards harmonization through Latin America Environmental Ministers Forum
- Diesel filter demonstration, retrofits in Lima, Montevideo, Santiago de Chile
HDD Initiative Plans 2014 +

- Expand CCAC developing country membership in all regions, especially East Europe
- Complete low sulfur fuels transition: West Africa, Southern Africa
- Low sulfur adoption in Mexico City, Beijing
- Diesel retrofits programs in Latin America: Mexico City, Lima, Montevideo, Santiago de Chile
- Expand ports work in Asia, Africa, Latin America
THANK YOU!

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