



CLIMATE AND CLEAN AIR COALITION ANNUAL REPORT

September 2013 - August 2014

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This report provides an overview of status and progress of the Coalition, covering the period September 2013 - August 2014. It was prepared by the CCAC Secretariat based on information from the Lead Partners of the 11 CCAC Initiatives, project documents and progress reports provided by initiative implementers; and complemented by information provided by Partners through the Partners in Action documentation. It responds to the requirements set out in Paragraph 24 of the Coalition's Initiative and Funding Process document (WG/MAY2013/1).

All documents referenced in this report are available from the CCAC Secretariat or on the Partner Area of the CCAC website.

Quotes from the CCAC co-chairs

"Old ways didn't work. We need new ways of growing, ways that are multidimensional. The CCAC can help with that. Things are happening at both the political level and the initiative level—push from the top and concrete work on the ground."

Annika Marcovic, Sweden

"No one is fighting anyone else here. So those that come with their defenses up relax. We break into groups, we discuss initiatives, and we are here to learn from each other. People stand up for each other. We have a human face, not a tailor-made script. Nigeria has benefited immensely from the Coalition. We have been able to get the skills to help ourselves."

Bahijjahtu Abubakar, Nigeria

Highlights	04
The CCAC	10
The Science behind the Action	14
Action through Initiatives	16
■ 01 Addressing SLCPs from Agriculture and Enhancing Food Security and Livelihoods	17
■ 02 Mitigating Black Carbon and other pollutants from Brick Production	19
■ 03 Reducing SLCPs from Household Cooking and Domestic Heating	21
■ 04 Reducing Black Carbon Emissions from Heavy-Duty Diesel Vehicles and Engines	23
■ 05 Promoting HFC Alternative Technologies and Standards	25
■ 06 Accelerating Methane and Black Carbon Reductions from Oil and Natural Gas Production	27
■ 07 Mitigating SLCPs from Municipal Solid Waste	28
■ 08 Financing Mitigation of SLCPs	30
■ 09 Providing regional granularity of SLCP assessments, to strengthen the scientific basis for national action	31
■ 10 Supporting National Planning for Action on SLCPs; Institutional Strengthening	32
■ 11 Urban Health	34
Synergies between Initiatives	36
Partners in Action	37
CCAC Goals and Milestones 2014-2015	38
CCAC in Figures	40
CCAC Governance Structure	42
Annex: List of Partners	43

HIGHLIGHTS

The CCAC has taken great strides in 2014, welcoming many new partners and making great progress on each of its four objectives:

1. Raising awareness of SLCP impact and mitigation strategies;
2. Enhancing and developing new national and regional actions, including identifying and overcoming barriers, enhancing capacity and mobilizing support;
3. Promoting best practices and showcasing successful efforts;
4. Improving scientific understanding of SLCP impacts and mitigation strategies

What are Short-Lived Climate Pollutants?



All of the CCAC State Partners are increasing their actions to reduce SLCPs domestically.

Twenty-five country partners informed the Secretariat of specific actions taken on the national level to reduce SLCPs, and 14 countries have requested support from CCAC for capacity building at home in order to do more. Key national efforts reported on include the following:

- **CANADA** is implementing a new Air Quality Management System that will reduce air pollutants like black carbon from industrial and non-industrial sources; has adopted stringent air pollutant and greenhouse gas emission regulations for a broad range of on- and off-road vehicles and engines; has put in place initiatives for the mitigation of black carbon and other air pollutants from residential wood combustion; and has banned the construction of traditional coal-fired electricity generation units.
- **MEXICO** included addressing SLCPs in its national Special Program on Climate Change 2014-2018, which is implemented by 14 ministries from different sectors. It highlights the use of technologies and fuels that reduce black carbon and improve air quality and public health; emission reductions in waste water treatment plants, landfills and in the oil and gas and agriculture sectors; controlling refrigerant emissions with high GWP; developing regulatory and promotion instruments to regulate SLCP emissions; promoting the development of Nationally Appropriate Mitigation Action (NAMAs) for reducing SLCPs.
- **MOROCCO** devised a number of policies and laws to improve air quality, notably through an effort to replace old vehicles and regulate vehicle imports.
- **BANGLADESH** passed an act namely The Brick Manufacturing and Kiln Establishment (Control) Act 2013 under which the kiln owners have to convert their kilns to clean, modern technologies for brick production by July 2014.
- **NIGERIA'S** Petroleum Industry Bill passed its second reading in government, paving the way for a gas flaring prohibition and penalty act that will impose penalties for non-compliance twice that of the international market rate.
- **NORWAY'S** Air Pollution Act included regulations on waste treatment, including a prohibition against depositing biodegradable waste and requirements to extract landfill gas. Specific emission limits were set for permits for onshore oil and gas terminals and refineries, as well as offshore installations built after 2005. Norway has also started a process to regulate emissions from older installations.
- **PERU** developed a new national strategy for cleaner fuels and vehicles, with maximum permissible limits for vehicle emissions and plans for modernizing two petroleum refineries to produce cleaner fuels.
- **THE RUSSIAN FEDERATION** is rapidly advancing on green shipping.
- In the **UNITED STATES** the U.S. Environmental Protection Agency is proposing updated standards for landfills. High-GWP HFCs have been banned under the Significant New Alternatives Policy, and the government is advancing on avoiding high-GWP HFCs in public procurement whenever possible. A Biogas Roadmap outlining voluntary strategies to accelerate the adoption of methane digesters has been developed with the dairy industry. For coal mines, the U.S. Interior Department's Bureau of Land Management has released an Advanced Notice of Proposed Rulemaking to gather input for a program on the capture, sale or disposal of mine methane on lands leased by the Federal Government.
- **BANGLADESH, CHILE, COLOMBIA, COTE D'IVOIRE, ETHIOPIA, GHANA, JORDAN, LIBERIA, MALDIVES, MEXICO, MOROCCO, NIGERIA, PERU, and TOGO** with the help of the CCAC are setting up dedicated SLCP teams or units that will work across ministries in governments to coordinate and enhance mitigation actions.
- **NON-STATE PARTNERS** have been actively supporting action, through technical inputs, capacity building and technical assistance, networking, and supporting scientific research on SLCPs. Their inputs have been critical in strengthening the overall work of the Coalition.

All of the CCAC State Partners are increasing their actions to reduce SLCPs domestically.

In addition to action in partner countries, the CCAC is becoming widely recognized for its ability to raise awareness about and catalyse action on short-lived climate pollutants in other key international fora. Over the past two and a half years CCAC partners have mobilized support for actions on these pollutants within the Global Environment Facility, the United Nations Environment Assembly, the World Health Assembly, the Arctic Council, the Montreal Protocol, the UNFCCC, and now the United Nations Secretary-General's Climate Summit.

Specific results of Coalition partners' efforts include:

- The guidelines for the sixth replenishment period of the **GLOBAL ENVIRONMENT FACILITY** now specifically permit projects that address many of the short-lived climate forcers.
- The 66th **WORLD HEALTH ASSEMBLY** recognized the important linkage between climate, air pollution mitigation and health benefits, with a focus on short-lived climate pollutants.
- At the first **UNITED NATIONS ENVIRONMENT ASSEMBLY** a resolution on 'Strengthening the role of UNEP in promoting air quality' (UNEP/EA.1/L5) was approved. It recognizes the importance of the work of the CCAC in improving air quality and achieving multiple benefits.
- Under the **MONTREAL PROTOCOL** more than 100 countries support the need to address the reduction of high-GWP HFCs, and the CCAC is currently conducting case studies to showcase HFCs alternatives.
- Under the **UNFCCC**, non-CO₂ gases have been selected as one of the areas under workstream 2, and the CCAC will participate in an SLCP technical workshop in Bonn, in October 2014.
- In support of the **ARCTIC COUNCIL** the Nordic Environment Finance Corporation helps to mobilize and channel financing for Arctic Council Projects with a priority for pollution prevention, abatement and elimination.
- The CCAC played a crucial role in mobilizing support for the **PILOT AUCTION FACILITY FOR METHANE AND CLIMATE CHANGE MITIGATION (PAF)**, designed by the World Bank Group, with a target capitalization of \$100 million for methane reduction projects.
- At the **SG CLIMATE SUMMIT** short-lived climate pollutants and clean air is one of the priority areas, and our coordinated effort has succeeded in CCAC partners proposing specific commitments in Green Freight, HFCs, Municipal Solid Waste and Oil and Gas, Agriculture and to engage the private sector in the process.



Catalysing Global Action through 11 CCAC initiatives.

The CCAC takes action through Initiatives. Initiatives are partner-led and provide strategic guidance for SLCP action in a specific sector or area, responding to priority areas identified by the Partners and based on the 16 key measures that were identified in the UNEP Synthesis Report of 2011 as most impactful and cost-effective.

Highlights of results achieved are:

- The **AGRICULTURE INITIATIVE** developed a manure management framework, with a set of pre-defined questionnaires for coherent information collection worldwide. A Global Open Burning Mapping was developed, using region-specific methodologies and showing monthly regional and national burning. 01
- The **BRICKS INITIATIVE** has been operationalising the Policy and Advocacy Networks for South Asia and the Latin American and the Caribbean region. Training manuals for both regions, including a report on effective policies, brick kiln design, SLCP emission measurement were developed. A set of posters, factsheets, and other communication materials were produced. Reports on brick production and public policies in 5 countries - Brazil, Chile, Colombia, Mexico, and Nigeria - are being finalised. 02
- Under the **COOKSTOVES AND HEATSTOVES INITIATIVE**, a special tranche of pre-investment grant funding in support of SLCP reduction action were developed under the Spark Fund of the Global Alliance on Clean Cookstoves. Two grantees in Tanzania and Nigeria are receiving financial support for technology and product upgrades and scale up. 03
- Under the **HEAVY-DUTY DIESEL VEHICLE AND ENGINES INITIATIVE**, regional and national regulatory processes were supported to develop stringent fuel quality and vehicle emission standards. Countries supported include: Burundi, China, Kenya, Mexico, Peru, Rwanda, Tanzania, and Uganda. A White Paper on Best Practices in Reducing Emissions through Vehicle Replacement Programmes was developed, to help countries implement vehicle scrappage schemes. 04
- The **HFC INITIATIVE** completed national level inventories in Chile, Colombia and Indonesia. Inventories for Bangladesh, Ghana and Nigeria are nearing completion. Five Case Studies demonstrating technology feasible, cost savings and efficiency gains in the commercial refrigeration sector were produced. 10,000 hours of training, benefitting over 900 participants were conducted. A feasibility study for District cooling in Male / Maldives is underway. A knowledge platform is under construction, and interactive village to provide information on HFC consumption and alternatives is online. 05
- The **OIL AND GAS INITIATIVE** garnered high level support and private sector buy in to create an Oil and Gas Methane Partnership. 06
- The **WASTE INITIATIVE** completed city baseline assessments of the waste situation in 19 cities around the world, completed pre-feasibility studies in 7 cities, and set up a city exchange programme to facilitate peer-to-peer learning. A toolkit, helping cities and national governments to quantify SLCP emissions from the waste sector is being finalised. 07
- The **FINANCE INITIATIVE** has started the work of the Black Carbon Finance Study Group. 08
- The **REGIONAL ASSESSMENT INITIATIVE** is making good progress on the Regional Assessment for the Latin American and Caribbean region. 09
- The **SNAP INITIATIVE** produced national plans in four countries – Bangladesh, Colombia, Ghana and Mexico. The SNAP toolkit was further refined, incorporating lessons learned from Phase I of SNAP. An Institutional Strengthening Module has been developed, and is being rolled out in 14 countries: Bangladesh, Chile, Colombia, Cote d'Ivoire, Ethiopia, Ghana, Jordan, Liberia, Maldives, Mexico, Morocco, Nigeria, Peru and Togo. 10
- **URBAN HEALTH INITIATIVE** 11

THE CCAC



THE CCAC

The Climate and Clean Air Coalition brings together nations, institutions, organisations and companies to reduce short-lived climate pollutants with the aim to address near-term climate change and air pollution, and to improve public health, food security, and energy efficiency.

The main short-lived climate pollutants are black carbon, methane and tropospheric ozone, which are also dangerous air pollutants detrimental to human health, agriculture and ecosystems. Many hydrofluorocarbons (HFCs) are also short-lived climate pollutants and powerful greenhouse gases. The short atmospheric lifetime of SLCPs means that their concentrations can be reduced in a matter of weeks to years after emissions are cut.

VISION:

Low emissions development in all countries achieving near-term climate benefits, harnessing improved air quality, public health, food security, energy access and efficiency through significant reductions of Black Carbon, Methane, and high GWP HFCs .

MISSION:

Support and inspire rapid and scaled up collective and individual actions by CCAC partners in key sectors, by:

- Raising awareness of SLCP impacts and mitigation strategies;
- Enhancing and developing new national and regional actions, including by identifying and overcoming barriers, enhancing capacity and mobilising support;
- Promoting best practices and showcasing successful efforts;
- Improving scientific understanding of SLCP impacts and mitigation strategies.

Action is catalysed through 11 Initiatives:

Sectors covered through Initiatives	SLCP emissions addressed
01 Agriculture	Methane from livestock manure management and enteric fermentation, and rice paddies; Black carbon from open burning
02 Brick production	Black Carbon and other pollutants
03 Cookstoves and heatstoves	Black Carbon and other pollutants
04 Diesel	Black Carbon
05 HFC	HFCs
06 Oil and Gas	Methane and Black Carbon
07 Waste	Methane from landfills, Black Carbon from burning of waste, other pollutants
08 Finance	Supporting the sectoral initiatives
09 Regional Assessments	Supporting the sectoral initiatives
10 SNAP	Supporting the sectoral initiatives
11 Urban Health	Supporting the sectoral initiatives



The particular strengths of the CCAC are threefold:

- **A COALITION OF THE WORKING.** The CCAC is a global voluntary partnership that brings together a wide range of stakeholders to take concrete and substantial action to reduce SLCPs collectively and individually. Leadership and implementation is collaborative; decisions are made by consensus. The emphasis is on voluntary commitments and on action.
- **STRONGLY ROOTED IN SCIENCE.** CCAC is a model for taking action based on solid science. The CCAC Scientific Advisory Panel, with its eminent members, ensures that latest findings are brought to the attention of partners and inform actions. The 16 measures identified in the UNEP Synthesis Report as the most impactful did inform the selection of the CCAC initiatives.
- **MULTIPLE BENEFITS.** The CCAC is working to harness the multiple benefits from SLCP reductions: near-term climate change, air quality, health, food security and energy access and efficiency. This makes SLCP actions a strong pillar not only for climate change mitigation action but also for the wider post-2015 development agenda.

CCAC has successfully raised awareness of the importance of reducing black carbon, methane and hydrofluorocarbon emissions. During mid-2013 to mid-2014, the CCAC:

- organised and participated in many events at the global, regional, sectoral and national levels, to raise awareness with government officials and practitioners. Highlights are:
 - UNFCCC COP-19 in Warsaw, with two well attended side events that showcased progress and implications of action taken by CCAC partners in reducing short-lived climate pollutants;
 - Sustainable Energy for All Summit in June 2014 in New York, where the CCAC highlighted the benefits of SLCP action for health and energy access and efficiency;
 - United Nations Environment Assembly (UNEA), where the CCAC and UNEP organised two media briefings with more than 25 journalists from across the world, and a side event with government and civil society representatives highlighting successful experiences in SLCP action;
 - World Health Assembly, where CCAC and WHO organised a side event on clean air and related health benefits from SLCP action;
 - Abu Dhabi Ascent in preparation of the SG's Climate Summit, forging commitments under the SLCP Platform;
 - GLOBE 2014, reaching out to legislators and the private sector;
 - BSG Forum in Paris, linking with the private sector;
 - World Urban Forum, where the Waste Initiative led a networking event with city representatives;
 - Regional meetings in the Latin American and the Caribbean and the Asia Pacific regions on Regional Assessments and National Action Planning respectively;
- set up the Communications Group and developed a Communications Strategy and work plan, the Time to Act publication, a series of posters, short films and interviews, and a photo essay on actions in the area of waste, with which the CCAC took part in photo exhibitions at Brussels Gare du Midi, UNEP HQ in Nairobi/Kenya during UNEA and in an Art Gallery in New York / United States;
- improved the content of the website and laid the foundation for an effective Knowledge Platform for SLCP emission reduction in relevant sectors. This has generated increased traffic from new users by 20% and increased average time of page views by more than 33%, compared to the same period last year;
- activated social media through campaigns for UNEA and World Environment Day. Twitter followers increased threefold since January, reaching more than 1100 up to date. A Facebook account was launched in July, drawing almost 370 likes in less than two months and achieving total reach of 150,000.
- approved and started the development of its global awareness campaign on air quality and health benefits accrued by reducing SLCPs, with WHO.



The importance of the work of the CCAC to address SLCPs and in order to improve air quality and achieve multiple benefits has been recognised in the Decision UNEP/EA.1/L5 ‘Strengthening the role of the United Nations Environment Programme in promoting air quality’, approved at the first United Nations Environment Assembly.

The Global Environment Facility in its programming priorities for the 6th replenishment funding period 2014-2018 provides several windows for the reduction of short-lived climate forcers.

The CCAC has been successful in leveraging political will, including on the highest levels, to enhance existing and develop new national and regional actions to reduce SLCPs and set frameworks that enable action by the private sector.

- The CCAC membership has been steadily rising, to currently 95 Partners, including 42 State and REIO Partners, 13 IGOs and 40 NGOs, who have endorsed the Framework for the Coalition and agreed to take meaningful action to reduce SLCPs. But also the group of actors has grown immensely to 45, including cities and private sector entities.
- In the Oslo Communiqué on Enhancing Our Own Actions, Ministers and heads of organisations declared “In joining the Coalition, we have endorsed meaningful action to address SLCPs. We, the ministers, heads of organizations and other high level representatives, will continue to ramp up our individual and collective efforts and identify opportunities for further SLCP reductions. We will work on scaled up action over the coming year, including in line with any National Action Planning processes for reducing SLCPs.”
- Impressive action has been taken on the national level. Partners in Action documentation is an effort by the CCAC to capture them. For example, the United States developed a national strategy for reducing methane and introduced an SLCP bill; Cote d’Ivoire established a national task force on SLCPs; Nigeria established an SLCP agency, Mexico has made SLCP reductions a focal area of their climate change policy.
- 14 country partners - Bangladesh, Chile, Colombia, Cote d’Ivoire, Ethiopia, Ghana, Jordan, Liberia, Maldives, Mexico, Morocco, Nigeria, Peru, and Togo - are now engaging in new activities to strengthen their institutional capacity to address SLCP in their countries, bringing experts and setting up new dedicated teams and units who will work across ministries in governments.
- The CCAC has been the birthplace and federator of five joint statements put forward to the UN Secretary General’s Climate Summit, a wide range of partners announcing:
 - the launch of the “CCAC Oil and Gas Methane Partnership”;
 - their commitment to participate in the development and implementation of a Global Green Freight Action Plan;
 - their support of an amendment to phase down the production and consumption of hydrofluorocarbons (HFC) under the Montreal Protocol;
 - their support of significant scaling up of city-led actions to make meaningful reductions of SLCPs from municipal solid waste, with the aim of reaching 1,000 cities by 2020 actions; and
 - laying the groundwork for large-scale deployment of black carbon and methane mitigation technologies and practices in the agriculture sector by 2020 to meet climate change, climate-smart agriculture, sustainable development, food security, and livelihoods objectives.



CCAC Partners collectively have developed a range of tools, some related to a specific sector and some applicable on the level of the national economy, which support decision-makers in identifying and implementing measures.

Examples are:



- The SNAP Initiative developed an Emission Scenario and Benefit Assessment Toolkit which enables countries to characterize national emissions and the potential benefits of different mitigation strategies. This tool has already been used by Bangladesh, Mexico, Ghana and Colombia and has supported the definition of their national priorities in addressing the SLCP challenge. These countries are now working to embed their SLCP priorities within existing national planning tools and frameworks.
- A series of Case Studies was developed under the HFC Initiative, highlighting climate-friendly alternatives to HFCs in supermarket refrigeration that can inspire replication.
- Under the Diesel Initiative Best Practices in Reducing Emissions through Vehicle Replacement Programmes were developed, providing guidance for designing and implementing robust, effective scrappage programmes.
- Cities in the MSWI are using a data collection tool developed by the initiative to characterize waste systems and streams, and inform policy decisions. The MSWI is currently developing an emission quantification tool, which estimates baseline emissions from waste management to be compared with projected and real-time emissions, and a Decision-Making Tool for Municipal Solid Waste Management, which will build capacity on two MSW technologies that reduce methane emissions: composting and landfill-gas collection systems.

The CCAC laid the **foundation for targeted and measurable action** by developing:

- **Inventories:** Under the HFC Initiative, a series of inventories were developed in Chile, Colombia and Indonesia, and the ones for Bangladesh, Ghana, and Nigeria are close to final. These inventories capture the current and projected use of high GWP HFCs, as well as highlight opportunities to avoid growth in high GWP HFCs through policies and measures across key sectors.
- **Assessments:** City waste assessments have been completed under the Municipal Solid Waste Initiative, providing a baseline assessment of the waste situation, which facilitates the identification of appropriate policy actions. An Assessment of SLCP sources and opportunities for reduction in the Latin American and Caribbean region is under way, building on the global UNEP/WMO assessment by integrating regional knowledge. This is strengthening the basis for national action as well as regional cooperation in SLCP reduction.

The CCAC is on track to **achieving scale**, with a range of funding proposals approved at the Working Group meeting in April 2014 that:

Provide direct capacity building and institutional strengthening support. Under the SNAP Initiative, 14 countries will receive funds to enhance their ability to further promote coordination and the scaling-up of activities to reduce SLCPs at the national level. Six countries will also receive targeted assistance through highly specialised consultants, to support the integration of SLCPs into existing national planning processes, engage key national stakeholders, identify priorities and enhance capacity for coordination, implementation and monitoring of progress. This is inspired by the implementation model under the Montreal Protocol, where national Ozone Officers have been key to success.

Demonstrate Technologies. Under the Clean Cooking and Domestic Heating Initiative, a special tranche to support projects that reduce emissions of black carbon was developed under the Global Alliance for Clean Cookstoves Spark Fund was developed, and two projects that promote alternative cooking fuels are being supported: one in Nigeria focusing on ethanol gel production, and one in Tanzania on biogas production. Under the HFC Initiative, two projects in Chile and Jordan will demonstrate commercial refrigeration technologies with low GWP HFCs, and one in India will test the viability of low GWP HFC alternatives for air conditioning in vehicles in high ambient temperature conditions. Under the Oil and Gas initiative, technology demonstrations will showcase how to recover hydro-

carbon liquids to reduce black carbon emissions. Under the Heavy Duty Diesel Initiative, low sulphur fuels and diesel particulate technology are piloted at the city level in Latin America and in ports worldwide for lower black carbon emissions.

Mobilising [co-]funding. Through SNAP, support is provided to country partners to develop GEF projects to tap the specific SLCP windows under GEF-6. Cities under the MSWI are collaborating with GEF accredited agencies to take advantage of opportunities for GEF co-financing. The World Bank has developed a special portfolio where SLCP relevant activities are being turned into SCLP reducing activities. The World Bank Methane Pilot Auction Facility, will allow testing of this innovative funding mechanism, initially focused on methane emission reductions. The Black Carbon Finance Study Group is preparing the ground for finance options to reduce black carbon emissions. In a high-level consultation on SLCP action in Southeast and Northeast Asia, the call has been made for a special consideration of SLCP action in the Asian Development Bank's operations. The German International Climate Initiative has provided some 35 million EUR since 2008 for projects that support SLCP reductions. U.S. EPA has extensively supported matching activities to the MSWI and the HFC initiatives.

Implementation challenges

Speeding up implementation. The process for Initiative and Funding Requests has been improved and new Initiative and Funding Request templates were approved at the CCAC Working Group meeting in July 2014 with the aim of significantly reducing the time between the approval of a funding request in the Working Group and disbursement of funds.

Enhancing own action and policy coherence. Integration of SLCP action in national planning processes requires cooperation across ministries and amongst different stakeholder groups. Setting up appropriate communication channels and building trust take time, but do lead to more solid and coherent action. Some Partner countries, such as Norway, have undertaken their own national assessments of SLCPs as cross-ministerial exercises, and are ready to share their experience. Other country partners, such as Nigeria and Cote d'Ivoire, have started to set up national coordination mechanisms which mirror the CCAC initiatives at national level – a pathway that may further inspire national action, in line with commitments made in the Oslo Communiqué on Enhancing Our Own Actions.

Outlook

Demonstrating impacts. With much of the preparatory work carried out, from baselines and inventories to specific toolkits, and concrete capacity building and technology demonstration projects under way, the CCAC will be able to better quantify achievements of SLCP action. The CCAC is developing criteria and indicators that allow demonstration of impacts. General principles for this work were discussed at a Partners Meeting held back to back with the CCAC Working Group meeting in July 2014: Initiatives should strive to quantify impacts where possible, but also quantitative information is very valuable and should be captured. Emphasis should be put on capturing the full range of benefits from SLCP measures. Further thought needs to be given to dealing with uncertainties, establishing causality between action and impacts, and filling data gaps. Particularly when communicating on health impacts and benefits, we need to go beyond capturing mortality, and reflect health and development gains in a broader way, including livelihoods and food security aspects.

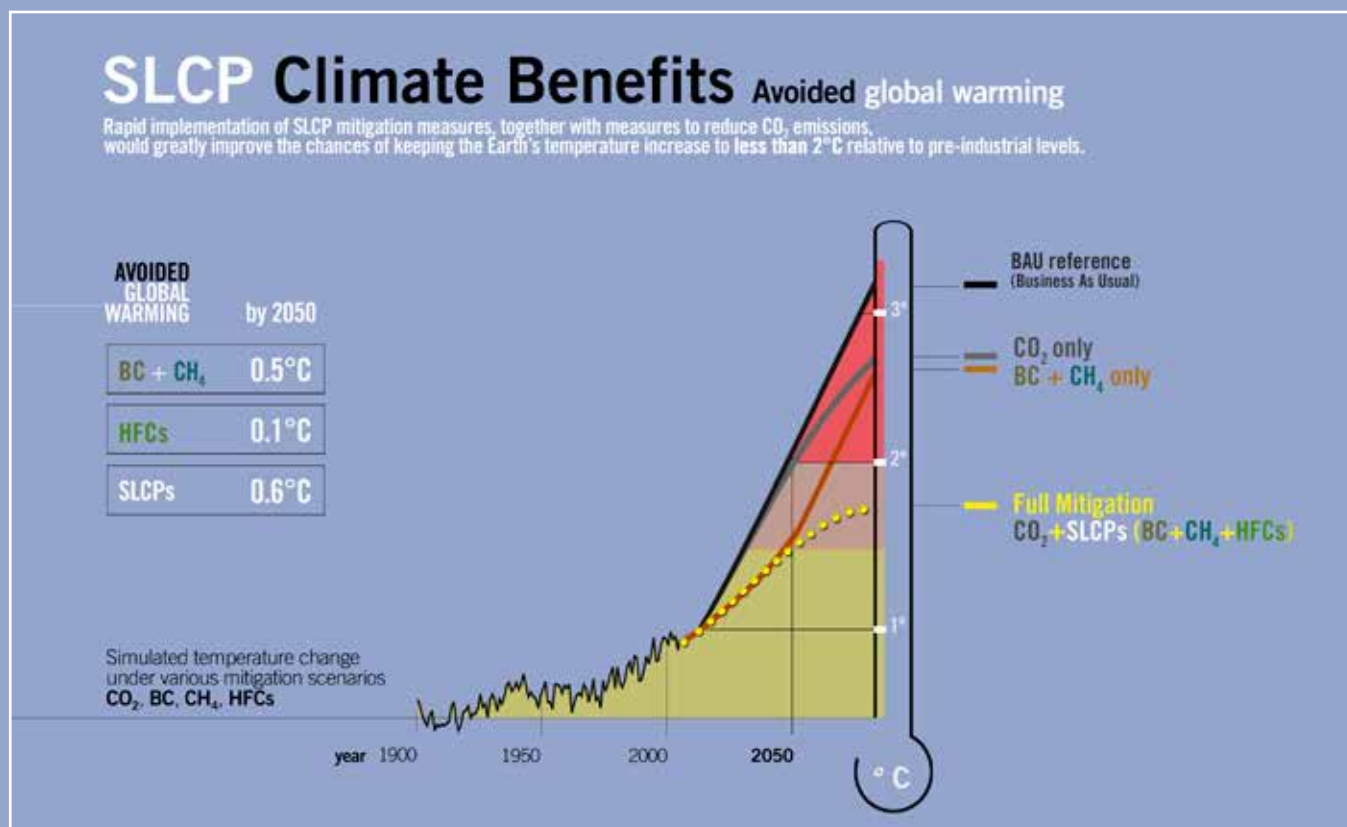
Strategic review of action areas. The number of initiatives under the CCAC has grown, reacting to latest scientific findings and identified gaps. The CCAC SAP is about to issue a science brief on impacts from Kerosene use for lighting and other household use, and trigger consideration for a potential new initiative. Also the number of workstreams under existing initiatives has increased, to address gaps identified. An example is the proposed workstream on enteric fermentation under the Agriculture Initiative. Two and a half years of existence is a good timeframe to take stock and identify in a systematic manner whether new workstreams or initiatives are needed. It is also an opportunity to assess the attribution of funds to the different initiatives and types of activities under the initiatives. The new Initiative and Funding Proposal Process encourages initiatives to undertake a multi-year planning, which will allow better identification of upcoming funding needs, and matching resource mobilisation with needs. The midterm-review of the Coalition planned for by early 2015 will help to shape the future direction.



THE SCIENCE BEHIND THE ACTION

Recent scientific evidence indicates even greater benefits from reductions in emissions of SLCPs than originally expected, not least due to increased estimates of black carbon's impact on the climate, and methane leakage rates. Some studies estimate that full implementation of the 16 Black Carbon and Methane control measures by 2030 could prevent up to 0.5C of global warming by 2050, and replacing high-GWP HFCs with low-GWP alternatives could avoid an additional 0.1C. Studies have shown that reducing SLCPs in the Arctic and mountain glacier regions can significantly slow the pace of warming and melting of ice and snow. It has been estimated that immediate implementation of SLCP control measures could reduce the rate of sea level rise by about 20% in the first half of the century, as compared to a reference scenario. Indoor and outdoor air pollution, a large proportion of which can be reduced by measures focussing on black carbon, has been estimated by the Global Burden of Disease report to cause about 7 million premature deaths each year, with a disproportionate impact on women and children. Current estimates show the potential to avoid crop productivity losses on the order of 50 million tonnes each year, considering only four major staple crops: wheat, soybean, rice and maize.

A regional Assessment for the Latin American and Caribbean region is underway, and one for the Asian region is being planned, to provide more detailed information on regional sources and benefits. The following graphics 1, 2, 3 do provide an indication of regional differences.



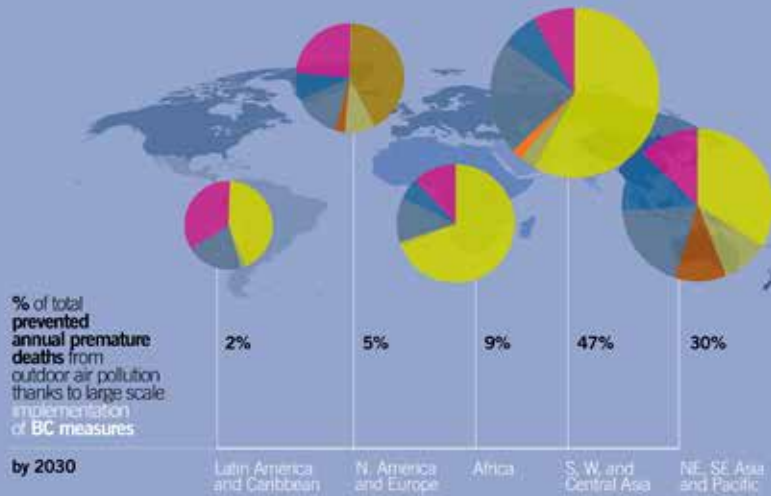
Benefits for Public Health

Rapid SLCP mitigation can provide important benefits for public health, saving millions of lives every year.

HEALTH BENEFITS FROM GLOBAL IMPLEMENTATION OF SLCP MEASURES

2,400,000
(0.7-4.6 MILLION)
DEATHS AVOIDED ANNUALLY FROM REDUCED PM2.5 OUTDOOR AIR POLLUTION BY 2030

+ ADDITIONAL HEALTH BENEFITS FROM REDUCED PM2.5 INDOOR AND O₃ AIR POLLUTION



Effects on Agriculture

SLCPs, a threat to agricultural productivity

SLCPs, especially tropospheric O₃, detrimentally impact ecosystems including crop yields, and are affecting food security.

CROP LOSSES DUE TO OZONE POLLUTION
WHEAT+RICE+MAIZE+SOYBEAN

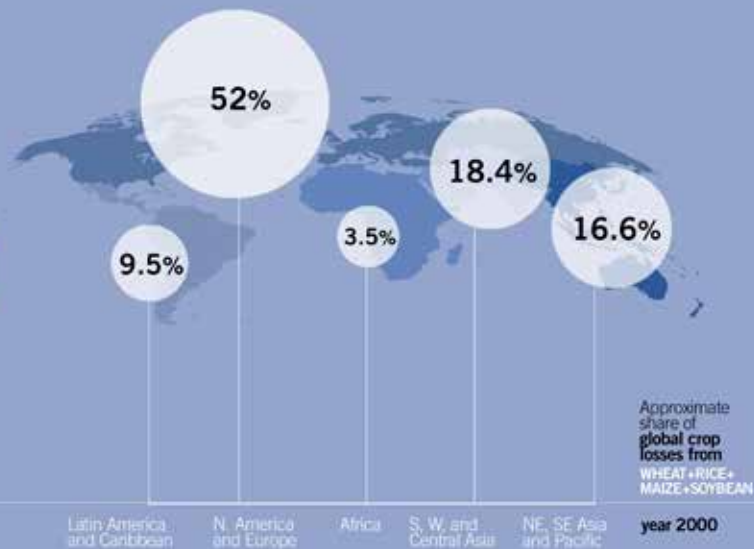
110,000,000 📉

SLCP EFFECTS ON PLANTS DUE TO:

- O₃
- BC AND CO-POLLUTANTS

- Impeded photosynthesis
- Reduced ability to sequester carbon
- Plant cell damage
- Reduced crop production
- Reduced quality and nutritive value of food and feed

- Increased leaf temperature (uncertain effect)
- Reduced sunlight reaching plants affecting photosynthesis (uncertain effect)



ACTION THROUGH INITIATIVES

The CCAC takes action through Initiatives. Initiatives are partner-led and provide strategic guidance for SLCP action in a specific sector or area, responding to priority areas identified by the Partners and based on the 16 key measures that were identified in the UNEP Synthesis Report of 2011 as most impactful and cost-effective. They inspire and support collective and individual SLCP action to generate and capture SLCP mitigation initiatives in developed and developing country Partners. Their ultimate success depends directly on high-level political leadership, capacity and financial engagement of partners, and the ability to mobilise the private sector and finance above and beyond the funds provided through the CCAC Trust Fund.

At present, 11 initiatives have been established, some focusing on a specific sector or issue, while others are more cross-cutting in nature. They pursue an agreed objective, and spell out the main workstreams through which to bring about transformative change and scale up action. The following presents the objective, the why, the what and results as well as partners and actors for each initiative.

THOUGHTS FOR FOOD: THE AGRICULTURE INITIATIVE

Addressing SLCPs from Agriculture and Enhancing Food Security and Livelihoods

Objective. Share and implement best practices for minimising emissions of short-lived climate pollutants from agriculture in a manner that is consistent with broader climate change objectives and that also enhances food security and livelihoods.

Why. The agriculture and forestry sectors are responsible for about 50% of methane emissions and over 35% of black carbon emissions. A growing global population and changing diets will drive up these figures if no action is taken. In addition, SLCPs impact agricultural production, as black carbon can significantly alter regional rainfall patterns, and black carbon and tropospheric ozone reduce plant productivity. In the 2011 UNEP Synthesis Report, control of methane emissions from livestock and intermittent aeration of continuously flooded rice paddies were identified as key methane abatement measures; and a ban on open burning of agricultural waste as a key black carbon abatement measure. For black carbon emissions, the science on the climate impacts from biomass burning is most robust and unequivocal in regions covered by snow and ice, such as the Arctic, the Himalayas, and the Andes.

What. The Agriculture Initiative has three broad workstreams: (1) Livestock and manure management; (2) open agricultural burning; (3) paddy rice cultivation; and a fourth is under development - enteric fermentation. These are complemented by outreach and communication. The Agriculture Initiative is working with key networks of actors with the capacity to disseminate best management practices and ensure their implementation over time on the ground, including national and sub-national organizations, farmer organizations and extension services, and is planning to engage with the private sector.

Actions and Results. One of the more recently established initiatives, the Agriculture Initiative has gotten much traction from CCAC partners and leading stakeholders in the field of agriculture. Additional partners have joined (there are now nine lead partners), and the Livestock & Manure Management and Open Agricultural Burning workstreams are carrying out stock taking and assessment work. The workstream related to paddy rice production. The paddy rice and livestock workstreams are building on well-functioning global partnerships, including the UNEP/FAO Sustainable Rice Platform, the Global Agenda for Sustainable Livestock, and the Global Research Alliance for Agricultural Greenhouse Gases. Results to date include:

- Held a Livestock and Manure Management kick-off meeting in January 2014 in Rome, which brought together over 40 participants from lead and implementing partners, countries and other interested parties, who developed the goals and objectives for phases I and II.
- Developed a detailed phase I work plan, a manure management framework, with a set of predefined questionnaires for coherent information collection worldwide, and a dedicated website. Regional Centers selected for the implementation have started data collection of case studies for identifying promising opportunities for policy change that will be supported in phase II.
- Developed a Global Open Burning Mapping, using region-specific methodologies, and showing monthly regional and national burning. Groundtruthing with experts and governments in two target regions, the Andes and the Himalayas, has been completed.
- Prepared a global planning workshop and launch event on reducing methane emissions from rice paddies, to be held in late October 2014 in Bangkok, Thailand, back to back with the International Rice Congress and Sustainable Rice Platform meetings.

Challenges ahead: The present activities of the Agriculture Initiative will need to be replicated at scale. Sustainability and upscaling requires significant on-ground experience and implementation capacity. Given the large number of potential actors that need to be mobilised, it is critical to work through extension services, networks, and ongoing initiatives on the ground to ensure information gets to those who need to act. To make the case for action, those pathways need to be emphasised that ensure that the individual farmer will benefit. Next steps will comprise the formulation of a clear target, as well as a further assessment of hotspots in emissions, to identify potential workstreams for the future.



01



Location of activities:

- 1 Global and regional (Asia, Africa, Latin America)
- 2 Andes and Eastern Himalayas
- 3 Colombia, Bangladesh, Vietnam

Allocation of funds: total of 3,270,000 USD

2,193,000 USD for (1); 300,000 USD for (2); 777,000 USD for (3)

Lead Partners: Bangladesh, Canada, the European Commission, Ghana, Japan, Nigeria, the United States, the U.N. Food and Agriculture Organisation, and the World Bank

Partners: CATIE, the Climate Change, Agriculture and Food Security Research Program (CCAFS) and other groups under the Consultative Group on International Agricultural Research (CGIAR), International Center for Tropical Agriculture (CIAT), Environmental Defense Fund (EDF), Global Research Alliance on Agricultural Greenhouse Gases (GRA), Global Methane Initiative, International Climate Cryosphere Initiative (ICCI), International Livestock Research Institute (ILRI), ICIMOD, International Rice Research Institute (IRRI), Livestock & Poultry Environmental Learning Center (LPELC), Michigan Technological University, University of Vermont, Molina Center, Stockholm Environment Institute (SEI), UNEP (through the Sustainable Rice Platform), Wageningen University, and the World Bank.

Initiative Partners: ICCI, SEI, Colombia, ICIMOD, Cote D'Ivoire

Initiative Actors: Vietnam, Wageningen University (Netherlands), Grasslands Research Centre (New Zealand), Centro Agronómico Tropical de Investigación y Enseñanza (CATIE), International Livestock Research Institute (ILRI), Global Methane Initiative (GMI), Global Research Alliance for Agricultural Greenhouse Gases (GRA), Consultative Group on International Agricultural Research (CGIAR)



BRICK BY BRICK: THE BRICKS INITIATIVE

Mitigating Black Carbon and other pollutants from Brick Production

Objective. Achieve a substantial reduction in SLCPs and other pollutant emissions from brick production, by converting or replacing brick kilns with lower-emitting technologies and practices, in a way that combines climate, clean air, work condition and health objectives with the goal to produce higher quality bricks.

Why. Brick production is an important source of black carbon and other pollutants. Bricks are one of the primary construction materials in many developing countries, and rapid urbanisation and population growth is increasing the demand for bricks. Brick-making enterprises are dispersed, with large clusters of kilns visible in rural and peri-urban areas, typically on leased and agricultural land that is often facing competition with human settlement due to urban sprawl. Very primitive brick kiln techniques and technologies continue to be widely used. Yet, cleaner brick production alternatives exist, including mechanised and highly efficient technologies. The 2011 UNEP Synthesis Report, for example, highlighted the high potential of replacing traditional brick kilns with vertical shaft brick kilns. Today, the primary fuels used to fire the bricks are coal, wood, local biomass and any available low-cost fuel or scavenged fuel (bunker fuel, waste oil, used tires, sawdust, plastics, battery cases, dung, etc.). Limited access to electricity makes the modernization and mechanization of the bricks sector even more challenging.

What. The Brick Initiative is characterised by a set of activities: (1) establishment of global expert groups and networks to consolidate the state of knowledge on science, technology and policy; (2) training to build capacity of key actors on technology adoption; (3) support of governments to develop and implement comprehensive policies to transform the brick sector, and (4) information development and dissemination; and (5) development of protocols and tools for conducting climate-relevant measurement that are lacking for the brick-making sector.

Actions and Results. This initiative is becoming a one stop shop for good practices in brick making. It is the only global platform focussing on brick production:

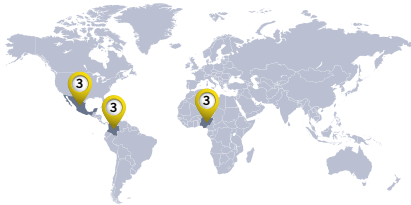
- Operationalising the Policy and Advocacy Network (PAN) at a global level as well as at a regional level through the two networks in i) South Asia and ii) Latin America and the Caribbean. Held a workshop to develop a Standardized Protocol for Climate-Relevant Emissions and Efficiency Measurements for Brick Kilns was held in Varanasi, India. The first meeting of the PAN Latin America will be held in Cusco/Peru in October 2014.
- Designing a web-based Knowledge Platform, which will serve as a clearinghouse for collecting and disseminating research, findings, protocols, lessons learned from best practices, resources and tools, and for outreach and communication.
- Finalising training manuals for Asia and Latin America, including a report on effective policies, brick kiln design, SLCP emissions measurements, and a collection of existing training materials.
- Developed a series of 22 posters and 11 information diagrams to increase awareness regarding the environmental and health impacts of brick production.
- Developed 8 factsheets about brick kilns in Asia and Latin America in cooperation with Greentech Knowledge Solutions India and under the Swiss Agency for Development and Cooperation (SDC) project.
- Planning of a first training session in Peru and Brazil during 2014 and five other training sessions in Chile, Colombia, Mexico and Peru in 2015 under the Technology Training Nodes activity in Latin America.
- Finalising reports on brick production and public policies in Brazil, Chile, Colombia, Mexico and Nigeria developed under Phase I of the Bricks Initiative.
- Developing a business case in Mexico, Assessment Tools and inventories in Colombia and the demonstration of a market-based pilot project in Mexico.

“Bangladesh wants to lead the way in modernizing the brick industry, and we are taking our first major steps in this direction. The Government of Bangladesh has given its brick kiln owners an ultimatum: Convert to clean, modern technologies for brick production by July 2014 or face stringent legal actions.”

Sultan Ahmed, Bangladesh



Challenges ahead: The brick-making sector is characterized by low energy efficiency, poverty and producers operating in an informal sector, who are barely covered in social, economic or environmental public policies. These factors are powerful factors in suppressing change. What is needed are strategies to engage small producers and to formalize the sector through public policies. Special attention also needs to be given to demonstrating health and livelihood impacts to transform the sector. Technology upgrades will go hand in hand with increased access to modern energy sources. In the sense of a holistic mitigation strategy, considerations will go beyond improving the bricks production processes towards considering building materials more broadly (e.g. use of hollow bricks etc.).



Location of activities:

- 1 Global networks. Regional Latin America and the Caribbean (Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Peru) and South Asia (Bangladesh, China, India, Nepal, Pakistan, Sri Lanka, Vietnam).
- 2 Global
- 3 National - Colombia, Mexico, Nigeria

Allocation of funds: 1,600,000 USD, with a proposed Amendment to the current Funding of \$262,000 (to be approved by the Working Group in September 2014)

Lead Partners. Colombia, Mexico, Switzerland, Center for Human Rights and Environment (CEDHA), the Institute for Advanced Sustainability Studies (IASS), the Institute for Governance and Sustainable Development (IGSD)

Initiative Partners: Bangladesh, Canada, Chile

Initiative Actors: Carbon and Clean Energy Solutions (CCES), Centro de Innovación Aplicada en Tecnologías Competitivas (CIATEC), China (Ministry of Agriculture), Climate and Health Research Network, Corporación Ambiental Empresarial (CAEM), Greentech Knowledge Solutions (GKSPL), MinErgy Nepal, Morocco, MSD Consult, Stratus Consulting, and Vietnam



THE HEAT IS ON: THE CLEAN COOKING AND DOMESTIC HEATING INITIATIVE

Reducing SLCPs from Household Cooking and Domestic Heating

Objective. Reduce emissions of black carbon and other SLCPs, and their associated contribution to both indoor and outdoor air pollution, from the use of solid fuels in inefficient cook and heatstoves, and provide cost-effective environmental, gender, health and livelihood benefits.

Why. Household cooking and heating with solid fuels account for about 20 percent of global black carbon emissions, and are responsible for roughly 4 million premature deaths annually. In addition, the emissions of Black Carbon speed up warming, because of its effects on the cryosphere. When Black Carbon deposits on the surface of ice and snow it lowers albedo and accelerates melting. Particulate emissions from inefficient cookstoves and heatstoves also directly disrupt meteorological processes that millions of people depend on for their available drinking water and crop irrigation.

What. The Initiative has three main workstreams: (1) Development of a special tranche of pre-investment grant funding under the Spark Fund of the Global Alliance for Clean Cookstoves, for projects that reduce emissions of both carbon dioxide and SLCPs, and that scale the adoption of clean cooking and heating solutions; (2) Development of standards and testing protocols to provide criteria for evaluating emission reductions of black carbon, methane and other co-pollutants from the adoption of clean and efficient cook and heatstoves, and fuels, and promote the design of those cook and heatstoves that specifically reduce black carbon and other SLCP emissions; (3) Creation of high-level advocacy and global education activities to raise awareness amongst thought-leaders and policy-makers regarding the contribution to climate change and poor air quality from the use of solid fuels in traditional cookstoves, heatstoves and open fires.

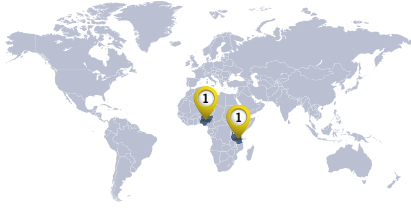
Actions and Results.

- Developed a special tranche of pre-investment grant funding under the GACC Spark Fund for projects that reduce Black Carbon and other SLCPs and CO₂, and that scale the adoption of clean cooking and heating solutions. Two grantees were selected, a bio digester design and manufacturing company in Tanzania receiving funds to conduct R&D on product improvements, improvement of production efficiency and distribution processes, and an ethanol-gel producer in Nigeria receiving funds to build new processing entities to prove operations in Nigeria at larger scale, and improve tracking, and training programmes.
- Working with the ISO Technical Committee for Clean Cooking to formalise standards for the clean cooking sector that include SLCP emissions performance criteria; laboratory emissions of Black Carbon and other SLCPs are included. A request for proposal was launched to support the Capacity Building for testing Black Carbon and SLCPs from various cook stove and heat stove models at Regional Testing and Knowledge Centers.
- Preparing a comprehensive, peer-reviewed White Paper for Policy-makers and thought leaders to increase their understanding of the role of clean cook and heatstoves towards SLCP reduction; and producing articles in major publications, radio messages, website and social media, and flyers to reach out to the greater public.

Challenges ahead: Much of the initiative's work was so far centered on cooking. The issue of heatstoves has so far received too little attention. This is an issue for developing countries facing cold periods, where cooking and heating solutions need to be addressed in an integrated manner, and increasingly also in developed countries in the Northern hemisphere, where wood and pellet use is increasing at a fast pace. Some emphasis has been given to fuels and alternative cooking fuels already, but the issue of charcoal production, often produced in an inefficient manner and through the informal sector, has been highlighted by a number of countries as a critical area, to be considered for future action. The initiative will be working closely with the CCAC Finance Initiative to promote end user finance options and on new finance mechanisms to incentivise investments in projects that reduce SLCP emissions; and the Black Carbon Finance Study Group on the study of cost and benefits. The initiative will also work with the Waste Initiative to tap energy generated from landfill methane.



03



Location of activities:

1 Nigeria and Tanzania for Spark Fund projects

2 and 3 Global, with regional or national adaptation.

Activities will be undertaken in Africa, Asia and Latin America; Bangladesh, Colombia, Ghana, Mexico, Mongolia and Nigeria, and China, Guatemala, India, Kenya and Uganda

Allocation of funds: 1.4 Million USD

Lead Partners. Nigeria, Global Alliance for Clean Cookstoves, TERRE

Initiative Partners: Bangladesh, Benin, Canada, Colombia, Cote d'Ivoire, Ghana, Kenya, Liberia, Mexico, Center for Human Rights and Environment, ICCI, IGSD, and the Molina Center.



DRIVING CHANGE: THE HEAVY-DUTY DIESEL VEHICLE AND ENGINES INITIATIVE

Reducing Black Carbon Emissions from Heavy-Duty Diesel Vehicles and Engines

Objective. Catalyse major reductions in black carbon through the adoption of clean fuel and vehicle regulations and supporting policies worldwide. HDDI efforts focus on diesel engines in all economic sectors.

Why. An estimated 19 percent of global black carbon emissions come from the transportation sector, and diesel engines, primarily on-road heavy-duty vehicles and international marine vessels, were responsible for nearly 99 percent of black carbon from the transport sector. Eliminating barriers to adoption of clean vehicle and fuel standards globally could reduce 2.7 million metric tons of fine particles and 1.9 million metric tons of black carbon emissions, from heavy duty diesel vehicles globally, reducing up to 1.4 million cases of premature deaths. The HDDI work plan targeting international and in-land marine vessels, ports in CCAC member nations, and heavy-duty vehicles in Western and Southern Africa has the potential to reduce up to 655 thousand metric tons of fine particles and 223 thousand metric tons of black carbon emissions from. The expected emission reductions through 2030 could prevent at least 88,000 premature deaths cases globally. Potential black carbon savings are equivalent to 699 megatonnes CO₂-equivalent with a 20-year global warming potential.

What. The HDDI has four broad workstreams, (1) supporting regions and countries in the development of vehicle emission and fuel quality standards, along with promoting emission control technologies, and the development of national roadmaps for cleaner fuels and vehicles; (2) establishing and implementing a Global Green Freight Action Plan, to improve the energy efficiency and environmental performance of goods movement; (3) developing and implementing a Global Sulphur Strategy, to introduce low sulphur fuels globally by highlighting best practices in policy implementation, technology adoption and financing opportunities; and (4) developing and implementing a Global Strategy for Emission Reductions from Ports and Maritime Vessels that will support governments to develop strategies for PM/BC emission reductions from ships, harbour equipment, trucks, locomotives etc. operating at ports.

Actions and Results.

- Successfully supported regional and national regulatory processes to develop stringent fuel quality and vehicle tailpipe emission standards.
 - Carried out analysis of costs and benefits from the introduction of ultra-low sulphur fuels and filter forcing emissions standards in China. Several consultative meetings with key policy-makers and experts were held. China VI standards for light and heavy duty vehicles are now under development by the Ministry of Environmental Protection.
 - Developed a working paper providing technical support on heavy-duty vehicle emissions standards in Mexico. Consultations are under way between SEMARNAT and representatives of all heavy-duty vehicle manufacturers on a proposed revision of the heavy-duty vehicle emissions standards.
 - Produced a white paper on Best Practices in Reducing Emissions through Vehicle Replacement Programmes, to guide national and local authorities in the design and implementation of robust vehicle scrappage schemes.
 - Supporting Burundi, Kenya, Rwanda, Tanzania and Uganda to adopt and implement low sulphur fuel standards at the national level, in line with the East African Community harmonised standards.
 - Supporting Uruguay and Peru to develop national policies for buses with low sulphur diesel fuels and city pilot projects utilising diesel particulate filters.
 - Contributed to the adoption of a Regional Plan of Action on Atmospheric Pollution by the XIX Meeting of the Forum of Ministers of Environment of LAC.
- Undertook a series of preparatory steps to develop, adopt, and implement a Global Green Freight Action Plan:
 - Organised stakeholder outreach and consultations, including through webinars, and side events and interventions at major meetings in the area of transport, such as the Green Freight Asia meeting and the International Transport Forum.

“The CCAC’s Heavy-Duty Diesel Initiative has been actively working with countries to help them develop cleaner fuels and stronger emissions standards. The response has been overwhelming. Transportation, after all, is on everyone’s main street.”

Jim Blubaugh, USA



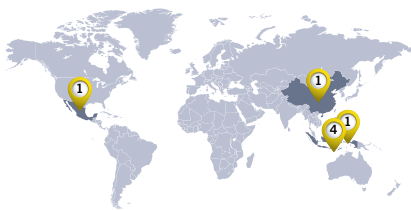
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- Mobilised high-level support through the joint statement submitted to the SG's Climate Summit.
- Finalising a technical background paper.
- Translating the SmartWay workbook into 3 additional languages.
- Starting in-country work in Mexico (upgrading existing national green freight program), Bangladesh and Vietnam (assessment of green freight opportunities).

- Undertook market and refinery investment baseline surveys towards the development of a Global Sulphur Strategy, modelled refinery-by-refinery low sulphur fuel capabilities and investment potential, and assessed fuel flows (crude and refined) in Latin America, Africa, Asia-Pacific, Eastern Europe and the Middle East, to identify levers for changing fuel standards and technology adoption.
- Produced illustrative case studies for implementation in Egypt, Peru and Vietnam.
- Drafted a report on 'International Best Practices Sustainable and Clean Port Program', which highlights the importance of air quality improvements.
- Carried out an air emissions inventory for land and marine side emissions at one of the Terminals of Port Tanjung Priok / Indonesia, working closely with the Port Authority.
- Expansion of the work in Indonesia to ports in Latin America, Asia, the Middle East and Africa.

Challenges ahead. Develop the Global Sulphur Strategy, aiming for global implementation and expansion of CCAC activities in developing markets. Work closely with the new CCAC Urban Health Initiative to address vehicle emissions in cities. Collaboration with the private sector will be strengthened, recognising that diesel vehicles are crucial to almost every industry. This also provides opportunities for interactions with other CCAC initiatives, for example the waste initiative, as waste collection and transportation is a key element of waste management. Some countries have flagged that diesel engines for stationary use are a major source of air pollution in developing countries, where they are often used as back-up in case of electricity supply failures or lack of access to the grid. This issue deserves further attention.

Location of activities:



- 1 Regions: East, Western and Southern Africa, Latin America; Countries: China, Mexico, and Indonesia.
- 2 Global;
- 3 Global; and
- 4 Global, and on the national level: Indonesia.

Allocation of funds: 1,820,000 USD

Lead Partners: Canada, US, The International Council on Clean Transportation (ICCT), UNEP

Initiative Partners: Colombia, Chile, Peru, Bangladesh, Mexico, Sweden, Natural Resources Defense Council, Clean Air Asia, Ethiopia

Initiative Actors: Indonesia, City of Jakarta, Vietnam, China, Burundi, Kenya, Rwanda, Tanzania, Uganda, the Association for South East Asia Nations (ASEAN), Molina Center Chile, Shell Foundation, Climate Works Foundation, Smart Freight Centre.



BE COOL: THE HFC INITIATIVE

Promoting HFC Alternative Technologies and Standards

Objective. Reduce the projected growth in the use and emissions of high-GWP HFCs by promoting and supporting the development and deployment of climate-friendly, energy efficient alternatives and technologies, minimizing HFC leaks through responsible management, and encouraging recovery and recycling, reclamation, and eventual destruction of high-GWP HFCs.

Why. HFCs are potent greenhouse gases that are substitutes for ozone-depleting substances being phased out under the Montreal Protocol, and their use is growing rapidly, increasing by as much as 10-15% per year. By 2050, if no measures are taken, HFCs radiative forcing is projected to increase by up to 0.4 W m⁻² relative to 2000 (UNEP 2011). It is critical to turn this trajectory around and enable low GWP alternatives and energy efficient technologies to reach and compete in the market. A key area for action to phase down high-GWP HFCs is the refrigeration and air conditioning sector, where technology changes can go hand in hand with important energy efficiency gains.

What. The HFC Initiative has three main workstreams: (1) Promote HFC alternative technology and standards – case studies on HFC alternative technologies, and capacity-building/technology conferences; (2) Conduct HFC inventories in developing countries; (3) Implement technology demonstration projects and feasibility studies to establish potential for and validate emerging high GWP HFC alternative technologies.

Actions and Results. The initiative has been successful in collecting and disseminating information on present and projected use of high GWP HFCs, and strategies for developing, deploying and promoting climate friendly alternative technologies

- Completing the first set of six national-level inventories of HFC with Chile, Colombia, and Indonesia completed and Bangladesh, Ghana, and Nigeria soon to follow. The inventories record current HFC use and projected future use of HFCs as well as opportunities to avoid growth in high GWP HFCs through policies and other measures. Inventories have been found to offer a better understanding of national circumstances, strengthen communication between stakeholders, and enable data-driven decision making.
- In early stages of conducting a second set of inventories in Bahamas, Cambodia, Jordan, Kyrgyzstan, Maldives and Mongolia, South Africa and Vietnam. Work is underway to ensure consistency and formatting and presentation of data in inventories to improve accessibility of the information contained.
- Developed a series of five case studies on low GWP HFC alternatives in commercial refrigeration. Case Studies demonstrated technology feasibility, cost savings and energy efficiency gains.
- Organized or co-organized three workshops and conferences to disseminate information and build capacity on alternative technologies to high GWP HFCs in Bangkok and Montreal, bringing together hundreds of policy-makers, national ozone officers, as well as industry, NGO and IGO representatives, amounting to more than 10,000 hours of training on HFC policy measures and climate friendly technologies, benefitting over 900 participants.
- Developing a Knowledge Platform for the CCAC website. HFC-Ville is an online, interactive village to provide information on HFC consumption and alternatives, and expand knowledge and understanding of HFC uses and alternative uses.

The initiative has successfully leveraged political will, both in the context of the Montreal Protocol and the UN SG's Climate Summit.

The initiative is supporting the uptake of low GWP technologies.

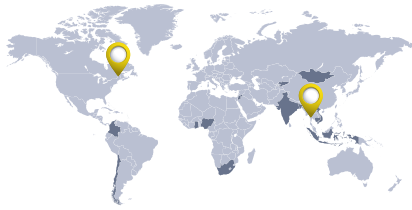
- Carrying out a Feasibility Study for District Cooling on the island of Male, Maldives, to avoid the need for HCFCs and HFCs in stationary air conditioning. The study has been recently initiated, and will provide information on cost and financing options available for implementing climate-friendly district cooling technology on the island, and serve as a source of information for other similarly situated high population density areas.
- Conducting three demonstration projects to validate alternative technologies to high GWP HFCs with



energy-efficiency gains, two in the commercial refrigeration sector, to be implemented in Chile and Jordan, and one in motor vehicle air conditioning, to be implemented in India.

The initiative has been successful in leveraging funds outside the CCAC Trust Fund, and in inspiring actors to take action on their own. For example, Mexico developed its inventory with support of the GIZ. The United States and Australia will fund additional inventories bilaterally.

Challenges ahead: The private sector has a critical role, and the initiative will strive to strengthen the engagement of the private sector, particularly in implementing and promoting new HFC alternative technologies, reducing emissions of HFCs in the servicing and equipment, and facilitating the revision of international standards to allow for more climate-friendly alternatives to be deployed. Ensuring the wide adoption of new HFC alternative technologies at the global level requires that information be collected, packaged and effectively disseminated through a variety of means, including through promoting results of demonstration projects which require long implementation times.



Location of activities:

HFC inventories: Bangladesh, Chile, Colombia, Ghana, Indonesia, Nigeria, Bahamas, Cambodia, Kyrgyzstan, Maldives, Mongolia, Jordan, South Africa, Vietnam;

Demonstration projects and feasibility studies: Maldives, Jordan, Chile, India;

Capacity-building and technology workshops and conferences: Bangkok (Thailand), Montreal (Canada)

Allocation of funds: 2,934,590 USD

(phase 1: 473,000 + phase 2: 625,000 + Maldives project 118,800 + phase 3: 1,717,790)

Lead Partners: United States, Canada

Initiative Partners: Australia, Bangladesh, Chile, Colombia, Denmark, European Commission, Finland, France, Germany, Ghana, Ireland, Israel, Italy, Japan, Jordan, Maldives, Mexico, Netherlands, Nigeria, Norway, Poland, Sweden, Switzerland, United Kingdom, Climate Works, EDF, EIA, ICCP, IGSD, IASS, ICCT, UNDP, UNEP, UNIDO, World Bank

Initiative Actors: Alliance for Responsible Atmospheric Policy, CLASP, DuPont, Honeywell, Ingersoll Rand, Refrigerants Australia, Shecco



INTO THE PIPELINE, NOT THE AIR: THE OIL AND GAS INITIATIVE

Accelerating Methane and Black Carbon Reductions from Oil and Natural Gas Production

Objective. Work with a group of countries and companies to collaboratively design mechanisms and voluntary commitments to achieve substantial emission reductions from natural gas venting, leakage and flaring.

Why. Estimates show that more than 8 percent of worldwide natural gas production is lost annually to venting, leakage and flaring. It is the second largest source of global anthropogenic methane emissions, roughly 20 percent, and a substantial source of black carbon.

What. Setting up an Oil and Gas Methane Partnership with high-level engagement by companies to survey emission sources, undertake control measures and report on emissions. Technology demonstration to recover hydrocarbon liquid (Black Carbon Component).

Actions and Results.

- Garnered high level support for a joint statement to set up the Oil and Gas Methane Partnership, submitted to the SG Climate Summit. Partners are being recruited. Two companies have now signed MOU: Southwestern Energy (US) and PEMEX (Mexico). Others have reported that they are ready to sign. Conducted an in-person outreach meeting with the following 110 companies: Southwestern Energy, PEMEX, GB Group, Statoil, GDF Suez, Maersk Oil, ENI, Repsol, BP, and Shell.
- Produced a set of communication materials, including a one page description of the OGMP; revised webpages; a revised Framework and Q&A document
- Prepared 10 Technical Guidance documents.

Challenges ahead: The workstreams on methane and Black Carbon were developed separately, but should be brought together to harness full benefits. It is recognised that action on methane is best addressed top down whereas action on Black Carbon is usually done in a bottom up approach. It will be critical to engage with the private sector, and scale up the list of actors; the Initiative can serve as an Advisory Board to the Oil and Gas Industry to take action. Engaging with countries that have recently made oil and gas field recoveries presents an important opportunity.

Location of activities: Global

Allocation of funds: 2,150,000 USD

Lead Partners: Nigeria, United States

Initiative Partners: Australia, Canada, Denmark, European Commission, France, Italy, Norway, Sweden, UK, UNEP, WB, Environmental Defense Fund

Initiative Actors: Oil and Gas companies



WASTE TO VALUE: THE WASTE INITIATIVE

Mitigating SLCPs from Municipal Solid Waste

Objective. Reduce emissions of SLCPs across the municipal solid waste sector by providing a comprehensive package of resources, technical capacity building, and a global network of cities to facilitate the design and implementation of locally appropriate actions. Support cities to scale up and help replicate individual city action within countries and across borders, such as extending collection coverage, improving waste transport, source separation, extracting materials from waste, composting or digesting biodegradable waste, establishing sanitary landfills, and capturing and utilizing landfill gas.

Why. Globally, landfills are the third largest source of anthropogenic methane emissions, accounting for approximately 11 per cent of estimated global methane emissions, or nearly 800 MtCO₂e. The municipal solid waste sector is also a significant source of black carbon through open burning of uncollected or unsoundly disposed waste and transport of waste by outdated and polluting vehicles. Uncontrolled leachate contaminates ground water and increases incidence of vector-borne diseases. Waste is therefore not only an important climate and air quality challenge, but one that affects every aspect of life for millions of people around the world. In light of population growth and urbanisation as well as changing consumption patterns, the World Bank projects that municipal solid waste streams will nearly double worldwide by 2025. For many cities, waste consumes a disproportionate and unsustainable share of municipal budgets, leaving many communities without basic collection and disposal services. Cities often rely on informal waste pickers, typically from impoverished and marginalized groups working in hazardous conditions. Reducing SLCPs through well managed waste systems, provides significant benefits for local and national health, environment, livelihoods and economic development.

What. The Waste Initiative has three main workstreams: (1) Direct city support to collect and analyse waste data, identify appropriate waste management practices, and conduct studies to advance those practices towards implementation; (2) Development of tools to enable informed policy decisions, and to measure and monitor emission reductions. (3) Sharing of best practices through a global city network, peer-to-peer learning opportunities and city mentoring, workshops, webinars and an interactive Knowledge Platform.

Actions and Results. The Waste Initiative has seen a period of tremendous growth, both in terms of scale of its ambition and its impacts. Over 20 participating cities are sharing expertise and support one another within the city network. A City Participation Strategy was developed by the Lead Partners, which provides a strategic and comprehensive approach to selecting and involving participating cities, as well as a framework for cities, national governments and non-state partners and actors to increase collaboration to scale up impact.

- Completed city baseline assessments of the waste situation in 19 cities, for Abidjan, Cote d'Ivoire; Accra, Ghana*; Addis Ababa, Ethiopia*; Amman, Jordan*; Barranquilla, Cali, Colombia; Colombia; Battambang, Cambodia; Cebu, Philippines; Concepcion, Chile; Dhaka, Bangladesh*; Ho Chi Minh City, Vietnam; Jakarta, Indonesia*; Lima, Peru*; Penang, Malaysia; Phitsanulok, Thailand; Queretaro, Mexico; Rio de Janeiro, Brazil*; Surabaya, Indonesia; Viña del Mar, Chile. These city waste assessments provide necessary data to identify opportunities for SLCP-reducing action, as well as barriers and needs for support. Usually, work on the city level is carried out in collaboration with the national government, to prepare the ground for roll out in other cities in the country.

- Completed pre-feasibility studies in Accra, Ghana*; Cali, Colombia; Dhaka, Bangladesh; Ho Chi Minh City, Vietnam*; Penang, Malaysia; Rio de Janeiro, Brazil*; and Vina del Mar, Chile. Concepcion, Chile is starting a pre-feasibility study.

- Developing six composting case studies (Bangladesh, Brazil, Ghana, India, Sri Lanka, and Uganda). These case studies will provide the basis for the development of an e-learning module on composting.

- Completing a review of various business models for landfill gas projects and in-depth analysis of select case studies that will be included in an e-learning module on landfill gas.

- Implementing a city exchange program to facilitate peer-to-peer sharing of best practices, tailoring advanced waste practices to local contexts, and collaborating with national governments to achieve SLCP reductions at scale. City mentoring has proven to be an effective model to engage key stake-



holders in the waste sector and rally political buy-in. The city exchange between Vina del Mar and Stockholm, supported through a formal partnership between their national counterparts in the governments of Chile and Sweden, is just one example of a highly effective mentorship catalysed by the initiative. Sweden has continued by partnering with other cities and national governments to enhance their waste practices. The government of Chile has helped replicate the work of Vina del Mar in other Chilean cities.

- Developing a toolkit for MSW practitioners. This toolkit includes an emissions quantification calculator which will allow cities and national governments to measure and monitor progress in reducing SLCPs through their actions in the waste sector, using a common methodology.
- Testing of results based financing (RBF) for waste management projects in Penang, Malaysia and – through a World Bank /US EPA cooperation - in Addis Ababa, Ethiopia.
- Continued to facilitate sharing of best practices through an active web-based knowledge platform, which allows for easy access to a range of valuable resources. Since its launch in October 2013 it has attracted over 3,000 visitors, and 17 experts are so far included in the roster of experts.
- Held three workshops to enhance the inter-city and inter-country networking and capacity building: on the margins of the ISWA World Congress 2013 in Vienna, Austria, the 3R Forum in February 2014 in Surabaya, Indonesia, the World Urban Forum in Colombia. A fourth workshop is organised on the margins of the ISWA Congress 2014 in September in Sao Paulo, Brazil.
- Organised webinars featuring a two-session course on organic waste management and implementation strategies, which were streamed in English and Spanish.
- Developed outreach materials to support streamlining and simplifying information presented to cities.
- Developed a joint statement submitted to UN SG's Climate Summit.

Challenges ahead: The potential for scale up and additional partners and actors under this initiative is large. The City Participation Strategy is an important step to address that, but key will be further development and dissemination of tools for measuring and planning, city mentoring, and strengthening the links between the city and national levels. The aspirational goals - 150 cities fully working by 2020 and around 1000 cities collaborating or using the methodologies - indicated in the UN Secretary General's Climate Summit statement will trigger scale up. Facilitating replication of the city level work with limited resources is challenging, but attainable with the support of national governments. As the initiative further matures, measuring impacts will also be increasingly important. Developing the right set of tools, and ensuring cities are able to ultimately carry out this monitoring will be important for ensuring the sustainability of monitoring these reductions. Organisation of waste collection through the informal waste collection is an impediment to improved waste management. Waste management strategies need to also consider avoiding food waste to address the issue in a comprehensive manner. The Waste Initiative has significant potential to interact with other CCAC initiatives, for example waste collection and transport – with the diesel initiative, waste to energy as a means of providing improved access to energy – with the cook stove and heat stove initiative as well as the agriculture initiative.

Location of activities: Abidjan (Cote d'Ivoire), Accra (Ghana), Addis Ababa (Ethiopia), Amman (Jordan), Barranquilla (Colombia), Battambang (Cambodia), Cali (Colombia), Cebu (Philippines), Concepcion (Chile), Dar es Salaam (Tanzania), Dhaka (Bangladesh), Ho Chi Minh City (Vietnam), Jakarta (Indonesia), Lagos (Nigeria), Lima (Peru), Penang (Malaysia), Phitsanulok (Thailand), Queretaro (Mexico), Rio de Janeiro (Brazil), Surabaya (Indonesia), Vina del Mar (Chile).

Allocation of funds: 2,383,000 USD (Phases I, II, III)

Lead Partners: Canada, Japan, Mexico, United States, C40 Cities Climate Leadership Group, International Solid Waste Association (ISWA), United Nations Environment Programme (UNEP), World Bank.

Initiative Partners: Bangladesh, Chile, Colombia, Cote d'Ivoire, Ethiopia, Germany, Ghana, Jordan, Liberia, Nigeria, Peru, Sweden, and International Council for Local Environmental Initiatives (ICLEI), Institute for Global Environmental Strategies (IGES), Center for Clean Air Policy (CCAP), United Nations Centre for Regional Development (UNCRD), TERRE Policy Centre

Initiative Actors: The cities as above, San Diego (USA), San Francisco (USA), Stockholm (Sweden), and Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais (ABRELPE), European Investment Bank, Gevalor, Global Environment Center Foundation (GEC), Japan Environment Sanitation Centre, Stratus Consulting



**Activities in these cities were supported through the in-kind contribution of the US EPA.*



PUT THE MONEY WHERE THE ACTION IS: THE FINANCE INITIATIVE

Financing Mitigation of SLCPs

Objective. Bolster financial flows towards SLCP mitigation by leveraging expertise, building knowledge and capacity, and engaging stakeholders for all sectors addressed by other CCAC initiatives.

Why. One of the obstacles to the acceleration and up-scaling of SLCP mitigation is the lack of financing. While financing is a challenge for all types of SLCP mitigation efforts, these challenges differ across types of SLCPs, source activities and countries. In some cases, project economics are 'not right' and the SLCP abatement projects cannot secure private financing because they generate too little or no cash returns. Some have no associated direct revenue in the absence of carbon-related finance (e.g., avoiding HFC emissions from industrial processes), while many others have revenue that is usually insufficient to cover project costs and risks or have pay-back periods that investors perceive to be too long (e.g., methane capture and power generation from landfills or coal mines). Similarly, many SLCP projects may generate substantial benefits to public health or the environment that are not factored into project economics. In some cases there is a high perceived or perceived risk to the investor. And overall, the fragmentation of financing is adding to the hurdles for SLCP mitigation finance. Importantly, financial barriers do not exist independent of behavioural, technological, and other barriers. The Finance initiative will work with all sectoral initiatives on sector specific financing needs, and with the SNAP, as the right policy frameworks are critical for harnessing financing.

What. (1) supporting the design and implementation of tailored finance strategies for CCAC sector initiatives, with a particular focus on mobilizing private finance; (2) developing collaborative tools for knowledge and innovation; (3) building the Coalition's knowledge and capacity on finance; (4) outreach for high-impact partnerships.

Actions and Results. The initiative is just becoming operational, expected results comprise.

- Developing pilot finance strategies for CCAC sector initiatives.
- Developing a roster of experts.
- Developing a detailed concept note and full implementation plan for the SLCP Financing Innovation Facility that is determined by the needs and potentials identified in the pilot finance strategies of the CCAC Sector Initiatives.
- Convening the Black Carbon Finance Study Group, which is preparing a report for early 2015. The first expert meeting took place in July 2014, back to back with the Working Group meeting.

Challenges ahead: The success of the initiative first phase will depend on broad engagement from partners across initiatives.

Location of activities: Global.

Allocation of funds: 420,000 USD

Lead Partners: UNEP, World Bank.

Initiative Partners: Canada, Norway, Sweden, UK, United States, IGSD



MEASURE FOR MEASURES: THE REGIONAL ASSESSMENT INITIATIVE

Providing regional granularity of SLCP assessments, to strengthen the scientific basis for national action

Objective. Provide a more scientifically robust and policy-relevant foundation for action on SLCPs.

Why. There is a need to ensure that action on SLCPs is underpinned by robust and up-to-date assessment of relevant science. Existing science will be reviewed to extract and present information in a manner that makes it useful to policy-makers, to prioritise measures and policies. The assessments will improve data and knowledge for decision making, raise awareness in the countries in the respective regions, improve regional networks and unite the front for action. The regional assessments will also support other CCAC initiatives, including national planning.

What. Developing integrated assessments of SLCPs for key regions that will support and provide a framework for national action, underpin regional cooperation on SLCP mitigation, and provide a regional focus for engagement with policy makers, scientists, technical experts and other key stakeholders. Will provide improved data and knowledge about issues, benefits of action and implementation of relevant measures, for use in decision-making. In a first phase, the focus is on the LAC region. Modelling at the LAC regional scale using global approaches tailored to the region, incorporating expertise from the region. Gaps in knowledge and data will be highlighted. Case studies of successful mitigation solutions at the national and regional level, including analysis of their potential for scale up. Discussions underway to support a RA in AP.

Actions and Results.

■ First regional assessment for the Latin American and the Caribbean region is underway. An inception meeting and a First Author Meeting were held in Los Cabos, Mexico and Panama, Panama respectively. The annotated outline for the assessment was finalised. Agreement was reached on assessment components and subsidiary processes, as well as the division of labour between partners to support the assessment development.

Challenges ahead: Roll out to other regions. Overcoming data gaps.

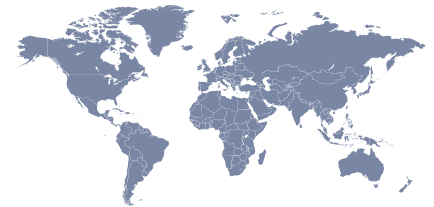
Location of activities: LAC, eventually global

Allocation of funds: 500,000 USD over 2 years

Lead Partners: Mexico, ICIMOD, UNEP, IUAPPA, SEI

Initiative Partners: European Commission, Colombia, Chile, Peru, IASS

Initiative Actors: NASA-GISS, USP



POLICY COHERENCE FOR SCALE UP AND EFFECTIVENESS: THE SNAP INITIATIVE

Supporting National Planning for Action on SLCPs; Institutional Strengthening

"I am convinced that with an organized approach and a smart communications plan, any country can attack their short-lived climate pollutant challenges and make progress. We need on-the-ground actors to implement measures, and communities are key. Everything we do is for the population, and they can help facilitate the implementation process for these initiatives. We are excited about the potential for Cote d'Ivoire, and the progress we have made. We see our approach as a good model for other countries in Africa."

Kouadio Desire N'Goran,
Cote d'Ivoire



Objective. Develop countries' capacity for effective national action planning as a foundation for rapid and large-scale implementation of SLCP mitigation.

Why. National policies and measures, frameworks and processes are key for scaling up SLCP actions. National Planning is a key tool to identify the most cost-effective and impactful actions in a given country context, to be supported by policies and measures. It allows to take into account different sectors, technologies, and impact categories including air quality and climate, health, food security, energy access and efficiency, employment and livelihoods more broadly. Only integration of SLCP considerations in existing planning processes will ensure greatest possible synergies and effectiveness of actions.

What. The Initiative focusses on three major workstreams: (1) supporting the development of national SLCP planning process; (2) enhancing tools and approaches to support key steps of the national planning process; (3) fostering linkages and collaboration between national SLCP planning with global and regional processes, initiatives, and approaches.

In July, the CCAC Working Group agreed to include an institutional strengthening element by providing funds to enhance the ability of government institutions of CCAC developing country state partners to further promote coordination and the scaling-up of activities to reduce SLCPs at the national level, and ensure sustainability of action beyond the duration of the support provided through SNAP. It will also increase the ability of partners to attend and participate more fully in the different activities and in decision-making of the CCAC and its different initiatives.

Actions and Results.

- Continued development of plans in the pilot countries. National plans were produced in the four Phase I countries, Mexico, Bangladesh, Ghana and Colombia. In Bangladesh, the national plan has been endorsed by the Government, and in Mexico it has been taken up in its climate policy.
- Further refined the SNAP Toolkit. In light of lessons learned under Phase I of SNAP implementation, emission scenarios were further developed, estimations of emission reductions and cost and benefits of SLCP mitigation action were improved, and the draft guidance on developing National Action Plans was expanded. The Prototype Benefits Calculator is being turned into a software programme, which will allow for easy use by countries.
- Successfully started integrating SLCP national planning processes into regional and global processes and institutions. For example, SNAP supported two Regional Intergovernmental Consultations on Near-Term Climate Protection and Clean Air Benefits in Asia, in Bangkok, which recognised the importance of SLCP action in the region, given the high impacts and potential gains in Asia and the Pacific, and highlighted key areas for action. The Extraordinary High Level Meeting of the Regional Forum on Environment and Health in Southeast and Northeast Asian countries recognised SLCP integration in its new work plan under 'air pollution'. SNAP also increased cooperation with the Low Emission Development Strategies (LEDS) Global Partnership, and participated in its third annual global workshop, in Addis Ababa this August.
- Developed an Institutional Strengthening Component, which is now being rolled out in 14 countries, under Phase II. Specific needs for support are being identified and contractual arrangements under way; support activities are expected to pick up in the fall.

Challenges ahead: SNAP is the backbone of the work under the CCAC, as it helps set the framework for scaled up action on the national level. It will be critical to further integrate SLCP into national sustainable development planning, to fully harness multiple benefits from SLCP action, and to continue to integrate national planning processes into regional and global processes and institutions. More countries may need support for institutional strengthening. As the Regional Assessments progress, they will further inform the national planning toolkits, by providing a more solid data basis. Similarly, as sector specific planning tools are developed, regular exchange between SNAP and the other initiatives is required, to ensure coherence.

10

Location of activities: SNAP Phase I countries: Bangladesh, Colombia, Ghana, and Mexico plus two additional countries under Phase II countries: Cote d'Ivoire and Nigeria.

Institutional strengthening countries are Bangladesh, Chile, Colombia, Cote d'Ivoire, Ethiopia, Ghana, Jordan, Liberia, Maldives, Mexico, Morocco, Nigeria, Peru, and Togo.

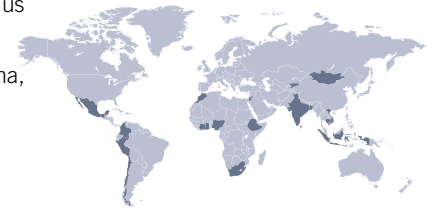
Allocation of funds: 4,614,625 USD

Phase I: 630,000; Phase II: 1,985,625; IS: 1,999,000 USD

Lead Partners: Mexico, Morocco, UNEP, IGSD, IUAPP, MCE2, SEI

Initiative Partners: Bangladesh, Canada, Chile, Colombia, Cote d'Ivoire, Ethiopia, Ghana, Japan, Jordan, Liberia, Maldives, Mexico, Morocco, Nigeria, Peru, Togo, and the US

Initiative Actors: /



10

AIR QUALITY IN THE CITY: THE URBAN HEALTH INITIATIVE

Complemented by a Global Awareness Raising Campaign on the Health Benefits of Reducing SLCPs

“Ten million Chileans are exposed to high concentrations of air pollution, and more than 1,400 suffer premature deaths because of it each year. Pollution means we are doing things the wrong way. Chile is determined to do things right. Chile is a strong supporter of the CCAC. We can learn from the experiences of many other countries, and we can present what we are doing to our peers.”

Sebastian Tolvett, Chile

Objective. The objective of the Urban Health initiative is to realize SLCP reductions – especially black carbon and methane as a precursor of tropospheric ozone – in cities through joint, complementary action by urban health and development sectors, and by reinforcing the important linkage between SLCP mitigation, air pollution mitigation and health benefits.

Why. Air Quality has been deteriorating in many cities, due to increasing particulate matter (PM), black carbon and other air pollutant concentrations, from fossil fuel combustion for increasing demand for transport, power production, industry, and building energy consumption. The urban population is now more than 50% of the world, with the highest urbanization rates in Asia and Africa. Large and rapidly growing cities in Africa, Asia, and Latin America have among the highest levels of urban air pollution in the world. In many parts of the world urban populations are also exposed to SLCP and co-emitted air pollutants from biomass burning for cooking and heating in the home, from street cooking and burning of solid waste and agriculture waste in surrounding areas. It is hence critical to identify and implement policy and technology solutions to protect city populations from SLCP and co-emitted air pollution exposures that are a major cause of death and disease, while at the same time producing other benefits for livelihoods, economy, and the climate. Cities are prime actors, as they often have responsibility over decisions about transport, land use planning, buildings regulation and waste management. The health care sector at city level could become a much stronger advocate for air-quality policies, contribute to collect and systematize data on impact and raise awareness among sectors and population, and within the medical community.

What. Equip the urban health and development sectors, city officials, and other key actors with information, tools for assessments, strengthened institutional and technical capacity, and frameworks for collaboration with other sectors, monitoring and evaluation. In the first phase a Scoping Study will be conducted to identify existing city initiatives and gaps, particularly cities’ needs, available resources, opportunities and mechanisms to respond effectively. Health statistics will be linked to data on SLCP emission sources and health impacts of SLCPs and co-emitted pollutants, describing trends and correlating with changes in SLCPs and co-emitted air pollution and with mitigation policy measures. A multi-sectoral fora of stakeholders will be convened to examine SLCP and air pollution mitigation priorities, leading to specific plans for cities to optimize health and climate co-benefits. Clinicians will be provided targeted training to enable them to take up the risks from SLCP emission sources and potential benefits from environmental/mitigation interventions.



Actions and Results: This initiative has just been approved

Challenges ahead: Promoting the integration of health and sectoral policies by working closely with the other CCAC initiatives, to identify and measure health impacts and harness health benefits from SLCP action.

Location of activities: Cities around the world, with a focus on Africa, Asia and Latin America and in cities where other activities of CCAC take place, beginning with five pilot cities.

Allocation of funds: A funding proposal was developed and is being submitted to the Working Group in September 2014.

Lead Partners: WHO, UNEP, WB, Norway, ICLEI, ICIMOD, United States

Initiative Partners: WMO, C40

Initiative Actors: Cities to be identified.



11

SYNERGIES AND PARTNERS



SYNERGIES BETWEEN INITIATIVES

Lead Partners and partners across initiatives explored in a workshop in July 2014 in Paris, France, the space for synergies between CCAC initiatives beyond those initiatives that are of a more cross-cutting nature. While these synergies will evolve organically, based on needs and opportunities, some opportunities were identified already during the meeting, including between:

- the diesel and waste initiatives, regarding collection and transport of waste;
- the diesel and HFC initiatives, regarding the cold chain in transporting food;
- the agriculture and cookstoves initiatives, regarding valorisation of waste as a source of energy.

The Secretariat will provide appropriate space in the agenda of the pre-meetings to the next Working Group meeting in February, to allow all interested initiative lead partners and partners to engage with the diesel initiative.

PARTNERS IN ACTION

The Coalition is indeed a Coalition of the Working! 25 partners, 16 state and 9 non-state partners, submitted information on national SLCP action, through the agreed template for documenting progress and impact (WG/JUL2013/23 rev1). This is a testimony to country partners having taken action on the national level, and non-state partners providing support in line with the mission of the CCAC, also beyond the work under the initiatives and with direct support through the Trust Fund.

While we will only be able to demonstrate trends over time, and based on more complete information being provided, a few key messages can be extracted already at this stage:

- Emissions inventories have been implemented widely, with the aim of improving the data situation. This confirms the critical role of inventories in helping to determine and prioritise actions.
- Many country partners have designed and implemented a wide range of standards, including vehicle and fuel, wood-burning appliances, cooling equipment, and landfills. They have proven to be effective means to spur technology improvements and dissemination.
- Air Quality Regulation, Climate related legislation, special non-CO2 programmes, and incorporation of SLCP considerations in Development Strategies were highlighted by many as relevant for SLCP action.
- Stakeholder engagement and particularly mobilising the private sector to take action is key.
- Several country partners have put into place public procurement policies which take into account SLCPs.
- In terms of sector policies, transport, waste and HFC/cooling sector came out on top of the list, reflecting critical importance in all countries, as well as high reduction potentials and immediate benefits for clean air and health, and energy savings / harnessing an energy source. Shipping was highlighted by some. Furthermore, coal mining and diesel generators were mentioned by several partners – two areas that were highlighted in the UNEP Synthesis Report, but have not yet been reflected in work-streams under CCAC initiatives.

Full submissions will be made available in an Annex available only in the electronic version of the Annual Report.

Progress on achieving the CCAC Goals and Milestones

At the CCAC Working Group meeting in April 2014, partners agreed on a set of 20 Goal and Milestones for 2014 – 2015. They were developed based on progress achieved to date and agreed priorities as captured in decisions and recommendations from High Level Assemblies and Working Group meetings during 2013, including related to the work of the Initiatives, the Communication Group, and the Health Task Force. The goals and milestones constitute the basis for the work plan of the Coalition and its Secretariat 2014 – 2015 and is divided in four Priority Areas: (A1) Advocacy and Outreach; (A2) Increasing Partners High-Level Commitment and Capacity; (A3) Finance; and (A4) Scaling up the Initiatives and demonstrating Impact. The table gives an indication of achievements to date against the goals set.

	GOALS	MILESTONES
Goal 1	The Coalition continues to bring on key new partners, especially major developing countries; other key players in the health, agriculture and development communities; MDBs; and private sector and investment community	Partnership has grown to 93 Partners. A Private Sector Engagement Strategy has been developed.
Goal 2	Increased ministerial engagement beyond environment ministries (health, agriculture, transport, etc.)	Side events were held at WHA, FAO COAG. Initiatives work increasingly with respective sectoral ministries.
Goal 3	Launched a wide-spread awareness campaign on the health impact of air-pollution and SLCPs, targeting health sector, polluting sectors and public in general	The Campaign was launched and a Communication Strategy and Work Plan developed.
Goal 4	A wide variety of Partners has represented the Coalition, presented achievements at high-level events or meetings to influence key relevant organization and workstreams outside the Coalition	The list of critical events at which partners presented work of the CCAC has grown; UNFCCC, WHA, World Urban Forum, ISWA congress, GLOBA, BSG, etc.
Goal 5	Increased visibility of the Coalition and its initiatives through international press and national press in CCAC Partner countries, as well as through CCAC specific media platforms	Journalist briefings were conducted.
Goal 6	Endorsed mission statement (vision and ambition) for the Coalition as well as aspirational goals	Was revised.
Goal 7	Increased visibility of SLCP existing research and scientific development and improved dissemination of scientific findings	The time to Act publication was prepared and disseminated widely.
Goal 8	All Partners increase action to tackle SLCPs domestically and internationally, with robust efforts to showcase noteworthy actions and leadership	Information collected through the Partners in Action documentation is testimony to increased domestic and international action.
Goal 9	Each Partner has dedicated staff time to the Coalition and is involved in at least 1-2 Coalition initiatives corresponding to the Partner's interests and strengths	Work in progress. The Institutional Strengthening will help increase capacity to be involved in several initiatives and the CCAC overall.
Goal 10	Sharing of best practices, information, and policy formulation amongst Partners has significantly increased, including by fully utilizing all modalities of Coalition value-added beyond the initiatives	Reporting back on national action during WG meetings and initiative meetings, but also in other fora is a reality. City mentoring is a specific example of sharing of experiences.
Goal 11	Ministerial support to the Coalition is strengthened and translated into national actions and international support	A testimony to this are the five joint statements that will be launched at the SG's Climate Summit.

CCAC GOALS AND MILESTONES

	GOALS	MILESTONES
Goal 12	Non-State Partners' interactions and engagement are strengthened, with additional focus on reaching key private sector actors	NGOs and research institutes have been actively contributing to and reaching out on the CCAC narrative. Testimony are the contributions to the Partners in Action collected from 9 non-state partners. In several initiatives private sector representatives have become actors. Strategic cooperation with the Global Compact and BSG will further that.
Goal 13	Increased funding to the Coalition Trust Fund by end of 2014	The Trust Fund has increased to 52 million USD for the period 2012-2015
Goal 14	Increased co-funding to CCAC initiatives, that support the goals of the Coalition	In several initiatives the co-funding proportion is sizeable, and well documented. This needs to be mainstreamed into all initiatives.
Goal 15	SLCP considerations have been mainstreamed into the portfolio of MDBs; major existing global funding instruments, such as GCF, the GEF, health funds, foundations, and private sector; and bilateral development assistance	GEF-6 features dedicated SLCF windows.
Goal 16	Increased engagement of the investor community, more systematic considerations of financing dimensions in all sectoral initiatives, implementation of the Black Carbon Study Group	Work in Progress.
Goal 17	CCAC participation and branding in the design of the Pay for Performance Facility	CCAC is an observer in the Advisory Board of the (renamed) Methane Pilot Auction Facility, and hosted / participated in several outreach meetings and contributed to the shaping of the Facility.
Goal 18	Existing initiatives have demonstrated impact, including through progress toward achievement of emission reductions and/or other quantifiable long- and short-term goals (including on health and agriculture benefits)	All initiative have made good progress. In many cases, the groundwork for quantification, i.e. baselines and inventories have been established.
Goal 19	Improved efficiency of the initiative and funding process	Work in progress – all initiatives need to revise the criteria. The Urban Health Initiative has as one of its tasks to help identify metrics to measure health impacts.
Goal 20	Initiatives connect well to the full range of relevant stakeholders in Partner countries and are an effective vehicle for the engagement of new Partners and Actors in the CCAC	The regional workshops that have been held for several initiatives brought together key stakeholders and reached out to potential new partners.
Goal 21	New initiatives are identified, developed, and approved, including with active participation of partners who are not currently co-leading any initiatives	A new initiative on Urban Health has been approved. A new workstream on enteric fermentation under the Agriculture Initiative has been proposed. SAP is working on a scientific paper on Kerosene, preparing the ground for a Kerosene Initiative for which several partners have expressed interest already.
Goal 22	Local actions are scaled-up and replicated nationally and regionally	Work in progress. The Waste Initiative is most advanced in this, working with cities but also the national governments, to enable replication and nation-wide scale up.

CCAC IN FIGURES

95

PARTNERS

52

MILLION USD
TRUST FUND

11

INITIATIVES:

- Agriculture
- Brick kilns
- Cookstoves
- Diesel Vehicles
- HFCs
- Oil and gas
- Waste
- Regional assessments
- Supporting national planning for action on SLCPs
- Financing Mitigation of SLCPs
- Urban health

TRUST FUND OVERVIEW PERIOD:
2012-2017- STATUS OF CONTRIBUTIONS AND PLEDGES
AS OF 7 JULY 2014

CONTRIBUTIONS (WITH PSC)	USD
Canada	12,933,133
Denmark	1,817,223
European Commission	1,356,853
Germany	137,931
Japan	2,000,000
Netherlands	333,397
Norway	11,832,192
Sweden	4,371,592
United States	8,500,000
Subtotal contributions	43,282,321
PLEDGES (WITH PSC)	USD eq
Germany	255,428
Japan*	3,400,000
Netherlands	255,426
Sweden	440,000
Switzerland	2,240,001
United States	2,500,000
Denmark	1,817,223
Subtotal pledges	9,090,855
TOTAL CONTRIBUTIONS AND PLEDGES	52,373,175

*Japan's contribution is divided equally in 2014 and 2015 (\$1,700,000 per year)

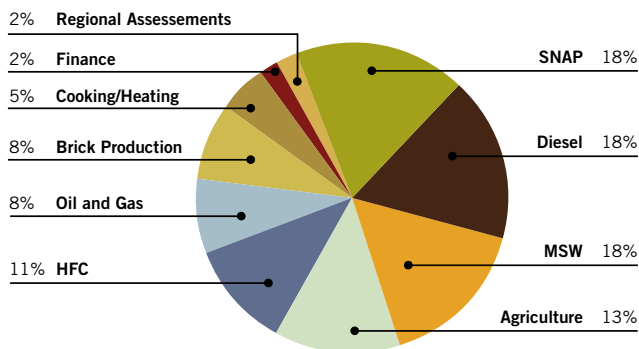
**Switzerland's contribution is 500K CHF annually in 2014, 2015, 2016, and 2017



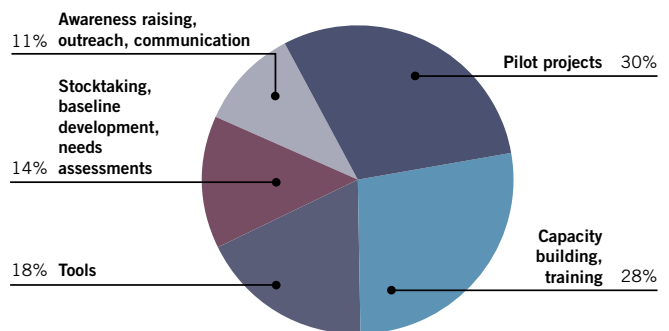
STATUS OF CONTRIBUTIONS (WITHOUT PSC)	ACTIVITIES	SECRETARIAT
Total received (2012-2013)	13,672,865	3,277,886
Total received (2014)***	18,553,136	4,269,947
Total pledged (2014)	4,051,586	955,499
Total pledged (2015)	1,792,327	513,021
Total pledged (2016, 2017)	829,630	198,230
Total spent/allocated (2012-2014)	25,822,215	1,931,790
Available 2014 (excludes pledges for 2014)	4,452,196	2,870,653
Projected available 2015-2017	5,843,914	4,412,141

***Entire second Canadian contribution received in 2013 allocated over time
 Funds to be spent in 2014 are calculated in the "Total received (2014)" line
 Funds to be spent in 2015 are calculated in the "Total pledged (2015)" line

ACTIVITIES SPENT/ALLOCATED (WITHOUT PSC)



CCAC BUDGET ALLOCATION BY TYPE OF ACTIVITY



GOVERNANCE STRUCTURE

The governance of the Coalition is structured as follows:

HIGH LEVEL ASSEMBLY (HLA): comprised of Ministers of State Partners and Heads of non-State Partners meeting at least once per year. The HLA provides strategic guidance and leadership.

Working Group (WG): comprised of all Coalition Partners meeting at least two times per year. The WG oversees all activities of the Coalition.

STEERING COMMITTEE (SC): comprised of the two Co-Chairs of the Working Group, four State Partners, one IGO representative, and one NGO representative elected for staggered two-year terms, meeting monthly. The Steering Committee provides oversight support and recommendations to the Working Group and High-Level Assembly.

SCIENTIFIC ADVISORY PANEL (SAP): 13 renowned scientists members (since 2013), including the UNEP Chief Scientist serving ex officio.

SECRETARIAT: hosted by UNEP in its Division of Technology, Industry and Economics in Paris, France.

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Page 10: Energy Efficiency at Bricks (Magnum Photos/ Stuart Franklin)

Page 11: Antarctic (GRID Arendal/Lawrence Hislop)

Page 11: Brick kilns in Colombia (CCAC)

Page 12: Traditional rice parboiler (UNF)

Page 12: Landfill gas (Magnum Photos/ Michael Christopher Brown)

Page 12: Woman with efficient cookstove (Magnum Photos/ Dominic Nahr)

Page 13: Group Picture (CCAC)

Page 18: Woman working a field in Nepal (GRID-Arendal/Lawrence Hislop)

Page 18: Rice paddy in Thailand (Shutterstock)

Page 19: Brick kiln (UNEP)

Page 20: MK2 brick kiln (UNEP)

Page 20: Brick kiln in Nepal (CCAC)

Page 20: Brick kilns (UNEP)

Page 20: Brick kiln worker (UNAMID/Olivier Chassot)

Page 21: Cookstoves, Ghana (AREED)

Page 21: Kettle on oven, China (Shutterstock)

Page 22: Cookstoves (Magnum Photos/Dominic Nahr)

Page 24: Street in Calcutta (Radiokafka)

Page 25: Air conditioners, Singapore (Shutterstock)

Page 26: Air conditioners, Singapore (Shutterstock)

Page 25: Akabei / Truck in Thailand

Page 26: Radiokafka / Street in India

Page 27: Landfill gas x2 (Magnum Photos/ Michael Christopher Brown)

Page 27: Gramacho landfill (UN Foundation)

Page 28: Fridge dump / © erness

Page 28: Waste picker in Cebu city (CCAC/Ylva Engqvist)

Page 28: COMLURB (Magnum Photos/ Michael Christopher Brown)

Page 29: Catador / Waste (Magnum Photos/ Michael Christopher Brown)

Page 30: Kathmandu, Nepal (GRID-Arendal/Lawrence Hislop)

Page 30: Gramacho landfill (Magnum Photos/ Michael Christopher Brown)

Page 32: Anton Ivanov

Page 33: Ivory Coast / Seeds

Page 33: Ivory Coast / Anton Ivanov

Page 34: Rio de Janeiro at night (Magnum Photos/ Michael Christopher Brown)

Page 34: Pollution in Saigon / istockphoto

Page 35: Alvin Ganesh / Shutterstock.com

Page 35: Rudra Narayan Mitra / Shutterstock.com

Page 36: COMLURB (Magnum Photos/ Michael Christopher Brown)

Annex: List of Partners

STATE PARTNERS:

Australia
 Bangladesh
 Benin
 Canada
 Central African Republic
 Chile
 Colombia
 Cote d'Ivoire
 Denmark
 Dominican Republic
 Ethiopia
 European Commission
 Finland
 France
 Germany
 Ghana
 Guinea, Republic of
 Ireland
 Israel
 Italy
 Japan
 Jordan
 Kenya
 Korea, Republic of
 Liberia
 Maldives, Republic of the
 Mali
 Mexico
 Mongolia
 Morocco, Kingdom of
 New Zealand
 Nigeria
 Norway
 Peru
 Poland
 Russian Federation
 Sweden
 Switzerland
 Togo
 United Kingdom
 United States

IGOS:

Nordic Environment
 Finance Corporation
 (NEFCO)
 Organisation for Economic
 Co-operation and
 Development (OECD)
 Regional Environmental Centre
 (REC)
 UN Development
 Programme (UNDP)
 UN Environment
 Programme (UNEP)
 UN Industrial
 Development Organization
 (UNIDO)
 World Bank
 World Health Organization
 (WHO)
 World Meteorological
 Organization (WMO)

NGOS:

Asian Institute of
 Technology (AIT)
 Bellona Foundation
 C40 Cities Climate Leadership
 Group (C40)
 Caucasus Environmental
 NGO Network (CENN)
 CDP
 CEID Colombia
 Center for Human Rights
 and Environment (CEDHA)
 Centre for Clean Air Policy
 (CCAP)
 Centre for Science and
 Environment (CSE)
 Centro Mario Molina Chile
 Clean Air Initiative for Asian
 Cities, Inc.
 Clean Air Institute
 Clean Air Task Force
 Climate Markets &
 Investment Association (CMIA)
 ClimateWorks Foundation
 Earthjustice
 Environmental Defense
 Fund (EDF)
 Environmental Investigation
 Agency (EIA)
 EvK2CNR Committee
 FIA Foundation
 Global Alliance for Clean
 Cookstoves
 GLOBE Foundation
 Guraghe Development
 Association (Ethiopia)
 Institute for Advanced
 Sustainability Studies (IASS)
 Institute for Energy and
 Environment (IEMA)
 Institute for Global
 Environmental Strategies
 (IGES)
 Institute for Governance and
 Sustainable Development
 (IGSD)
 International Climate Change
 Partnership (ICCP)
 International Council on
 Clean Transportation (ICCT)
 International Cryosphere
 Climate Initiative (ICCI)
 International Institute for
 Sustainable Development
 (IISD)
 International Network for
 Environmental Compliance
 and Enforcement (INECE)
 International Solid Waste
 Association (ISWA)
 International Union of Air
 Pollution, Prevention and
 Environmental Protection
 Associations (IUAPPA)
 Local Governments for
 Sustainability (ICLEI)
 Molina Center for Strategic
 Studies in Energy and the
 Environment
 Natural Resources Defense
 Council (NRDC)
 Stockholm Environment
 Institute (SEI)
 Swiss Foundation for
 Technical Cooperation
 (Swisscontact)
 TERRE Policy Centre



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