



INDUSTRY

Climate and Clean Air Coalition to Reduce Short
Lived Climate Pollutants

Action Statements and Action Plans

Provisional copy



CLIMATE SUMMIT 2014

UN HEADQUARTERS · NEW YORK
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Action Statement

Commitments to reduce short-lived climate pollutants, and their impacts

On the occasion of the UN Secretary-General's Climate Summit, countries, cities, non-state organisations and private sector entities commit to scale up actions to mitigate short-lived climate pollutants (SLCPs): methane, tropospheric ozone, black carbon and many hydrofluorocarbons (HFCs). Reducing SLCPs can provide significant benefits for air quality, climate, health, crops and ecosystems, which in turn provides benefits for sustainable development.

The SLCP action area comprises four joint statements with action plans announcing the launches of:

- The Oil & Gas Methane Partnership (methane)
- A Global Green Freight Action Plan (black carbon)
- Phasing Down Climate Potent Hydrofluorocarbons (HFCs)
- Reducing SLCP Emissions in Cities from Municipal Solid Waste (methane and black carbon)

These announcements build on the work of the Climate and Clean Air Coalition to Reduce Short Lived Climate Pollutants (CCAC), a young, unique voluntary framework with currently more than 90 active partners from states and non-state organisations. It is the first high-level effort to treat SLCPs as a global and collective challenge.

Supporters from within and outside the Coalition partnership have confirmed their support, and invite others to indicate theirs for any of the joint statements, and to take part in the follow-up actions. The Coalition will ensure follow-up to the announcements for the SLCP action area. Contact the Coalition's Secretariat to get the latest information and to indicate support, at email: ccac_secretariat@unep.org

Compelling scientific evidence indicates the importance of fast action to reduce SLCPs

Worldwide implementation of key black carbon and methane measures by 2030 has the potential to avoid over 2.5 million annual premature deaths from outdoor air pollution and many more from reduced indoor pollution, and avoid around 50 million tons in annual crop losses globally by 2050.ⁱ

Reducing methane and black carbon emissions can also help slow global warming by up to 0.5°C between 2010 and 2050, thus contributing to staying within the 2°C target in the near term, if complemented by deep and persistent CO₂ reductions. Introducing alternatives to HFCs can help avoid the substantial build-up in the atmosphere of these substances with important global warming impacts.

Oil & Gas Methane Partnership

Action Statement

List of Supporters

Nation-States: [Bangladesh], Benin, Canada, Colombia, [Denmark], France, [Italy], Mexico, Mongolia, Nigeria, Norway, Peru, the Russian Federation, Sweden, Togo, the United Kingdom, and the United States

California Air Resources Board

IGOs, NGOs and CSOs: Centre for Clean Air Policy, CEID Colombia, Clean Air Task Force, the Environmental Defense Fund, Institute for Global Environmental Strategies, Institute for Governance and Sustainable Development, International Solid Waste Association, Molina Center for Strategic Studies in Energy and the Environment, Natural Resources Defense Council, Swiss Foundation for Technical Cooperation, the United Nations Environment Programme, the World Bank, and the World Meteorological Organization - collectively CCAC Partners.

Private Sector: BG Group, ENI, Pemex, PTT, Southwestern Energy, Statoil – collectively Company Partners.

On the occasion of the UN Secretary-General's Climate Summit, we, the supporters of this Joint Statement, announce the launch of the "CCAC Oil and Gas Methane Partnership."

The International Energy Agency identified minimizing methane emissions from upstream oil and gas production as one of the top four key global mitigation opportunities to reduce energy sector greenhouse gas emissions by 2020.ⁱⁱ The oil and gas industry is the largest man-made emitter of methane after agriculture. Gram for gram, methane is ~86 times more potent than CO₂ over a 20-year horizon. Methane's significant contribution to near-term climate change, combined with widespread availability of cost-effective control technologies and the sophisticated management capacity of the oil and gas sector, create a unique opportunity to substantially reduce emissions of this potent greenhouse gas. In this new Partnership, developed through a year-long consultation process with industry, CCAC Partners and Company Partners will work collaboratively to credibly and cost-effectively reduce methane emissions, spearheading best practices and leading in methane emission management across the industry.

Partner Companies commit to the following: The CCAC Oil and Gas Methane Partnership provides Partner Companies a systematic, cost-effective approach for reducing their methane emissions, and for credibly demonstrating the impacts of their actions. For its participating operations, a company joining the Partnership voluntarily commits to:

- Conduct systematic surveys to identify sources in nine core categoriesⁱⁱⁱ that account for the bulk of upstream methane emissions;



- Evaluate methane emission control opportunities and implement methane reduction projects that are identified as feasible and cost-effective;
- Accelerate learning by sharing new approaches and practices; and
- Report progress on surveys and project implementation in a transparent, credible manner.

Action Plan

CCAC Support: The CCAC will support Partner Companies by providing technical assistance, encouraging development of policies and practices that minimize oil and gas methane emissions within CCAC country borders and beyond, and providing an independent Partnership Administrator. The Administrator will collect reported information to track the Partnership's progress and produce an annual summary. In January 2014, three international investor groups representing over \$20 trillion in assets issued a joint statement calling on companies to join the Partnership.

Next Steps: The CCAC and founding Partner Companies invite other companies to join the Partnership on an on-going basis by contacting the CCAC Oil & Gas Methane Partnership Administrator at ccac_secretariat@unep.org



Global Green Freight Action Plan

Action Statement

List of Supporters

Nation-States:

[Bangladesh], Benin, Canada, Central African Republic, [Chile], Cote d'Ivoire, [Denmark], [Ethiopia], [European Commission], France, [Germany], Ireland, [Japan], Liberia, Mexico, Morocco, the Netherlands, Nigeria, Norway, Peru, Poland, the Russian Federation, Sweden, Switzerland, Togo and the United States

California Air Resources Board

IGOs, NGOs and CSOs:

Centre for Clean Air Policy, CEID Colombia, Centro de Derechos Humanos y Ambiente, Centro Mario Molina Chile, CIMA - Centro de Investigación en Mecatrónica Automotriz of Tecnológico de Monterrey, Clean Air Asia, Inc., [Clean Cargo Working Group], ECO Stars Fleet Recognition Scheme, FIA Foundation, Green Freight Europe, Institute for Governance and Sustainable Development, the International Council on Clean Transportation, Institute for Global Environmental Strategies, International Solid Waste Association, Lean and Green, Molina Center for Strategic Studies in Energy and the Environment, Natural Resources Defense Council, Partnership on Sustainable, Low Carbon Transport, Smart Freight Centre, Swiss Foundation for Technical Cooperation, the United Nations Environment Programme, the World Bank, and the World Meteorological Organization

Private Sector: Deutsche Post DHL, Hewlett Packard and IKEA

On the occasion of the UN Secretary-General's Climate Summit, we, the supporters of this Joint Statement, announce our commitment to participate in the development and implementation of a Global Green Freight Action Plan, to be launched by December 2014.

The transportation sector contributes roughly 22 percent of global CO₂ emissions^v and about 19 percent of emissions of black carbon:^v a powerful climate forcer with significant adverse health impacts. Heavy-duty vehicles such as those used for freight transportation have a marked impact on climate and air quality, and vehicle activity is projected to grow significantly in the coming decades, particularly in emerging economies. Emissions of fine particulate matter (PM_{2.5}), which includes black carbon and other particles from heavy duty vehicles, contributes to elevated ambient concentrations of PM_{2.5} responsible for millions of premature deaths each^{vi} year and many more instances of cardiovascular and respiratory disease. Green freight programs can accelerate the adoption of advanced technologies and strategies that save fuel, reduce costs for business, and lead to significant reductions of CO₂, black carbon, particulate matter and other air pollutant emissions across the entire transport sector.



Therefore, through the Global Green Freight Action Plan, we pledge to raise the awareness and to work towards (1) aligning and enhancing existing green freight efforts through knowledge sharing,

peer-to-peer partnerships, and government-industry exchanges that will build a bridge between policy makers, business leaders and civil society at the global level; (2) identifying ways to incorporate black carbon, particulate matter and other air pollutant emission reduction calculations in green freight programs; and, (3) expanding or improving green freight programs in interested countries.

Any parties interested in joining this announcement following the Summit can contact the CCAC Secretariat, hosted by the United Nations Environment Programme in Paris, at e-mail ccac_secretariat@unep.org

Action Plan

This announcement builds on and scales up the effort launched by the CCAC in November 2013 to develop and implement an Action Plan by December 2014. The CCAC has already provided funding to start the activities and its partnership gave high-level political support through a Green Freight Call to Action in November 2013.

The Problem: The transportation sector contributes roughly 22 percent of global CO₂ emissions^{vii} and about 19 percent of emissions of black carbon.^{viii} Black carbon is a powerful climate forcer with significant adverse health impacts. Heavy-duty vehicles such as those used for freight transportation have a disproportionate impact on climate and air quality. If left unchecked, heavy-duty vehicles are expected to become the largest emitter of CO₂ from all transportation modes by 2035, due to projections for significant growth in freight trade in coming decades, particularly in emerging economies.

The Solution: Green freight programs that accelerate the adoption of advanced technologies and strategies which save fuel and reduce costs for business can lead to significant reductions of CO₂, black carbon, particulate matter and other air pollutant emissions in the transport sector, and across all modes of freight transport (truck, rail, maritime and air) and at transshipment centres. These programs are particularly important for reducing emissions from older but durable “legacy” diesel engines which run for decades. Green freight programs can also support the introduction of lower sulphur fuel and advanced vehicle emissions and efficiency standards. Such programs are further complemented by initiatives to improve infrastructure and logistics management with the potential to encourage multi-modalism and reduce the fuel intensity of freight. These combined efforts will translate to create climate, air quality, health, and energy security benefits.

A range of green freight programs currently exist or are in various stages of development around the world. The harmonization or alignment of these national, regional and mode specific green freight programs will be critical for maximizing reductions at the global level, because multinational firms which drive the success of these programs will have consistent approaches, tools and methods that they can use to optimize freight efficiency throughout their global supply chain.

The Pledge: The overarching goal of the partners in the Green Freight Action Plan is to promote, enhance, and scale-up green freight programs as a highly effective means of reducing CO₂, black carbon, particulate matter and other air pollutant emissions from the transportation sector. In meeting this goal, we as partners in the development and implementation of the Action Plan, pledge to work towards:

- Aligning and enhancing existing green freight efforts, across modes through knowledge sharing, peer-to-peer partnerships, and government-industry exchanges that will build a bridge between policy makers, business leaders and civil society at the global level;
- Identifying ways to incorporate black carbon, particulate matter and other air pollutant emission reduction calculations in green freight programs; and,
- Expanding or improving green freight programs in interested countries.

This is a voluntary, multi-lateral, multi-stakeholder, global partnership that aims to make meaningful reductions of SLCPs and greenhouse gases by advancing, expanding and harmonizing global green freight programs and identifying options for developing programs in interested countries. In developing the Action Plan, we will strive to identify actions that government, private sector, finance and civil society partners can take to develop and improve green freight programs over the next several years to achieve quantifiable reductions in emissions of CO₂ black carbon, particulate matter and other air pollutants while raising awareness of how green freight programs can help to achieve greater energy security, improve public health, and provide economic benefits to all stakeholders.

Next steps after the Climate Summit: As part of these efforts, the CCAC green freight initiative leaders will support the development of a centralized, dynamic, web-based guide to integrate a range of resources provided by governments, firms, and other global green freight stakeholders to facilitate and accelerate the establishment and development of consistent national green freight programs.

In parallel, a consortium of partners spanning government, business, finance and civil society, will initially work with three countries – Bangladesh, Mexico and Vietnam – to reduce emissions from their freight operations. Specifically, with Bangladesh the CCAC will work to identify and engage public and private stakeholders to develop options for establishing a green freight program. With Vietnam, the CCAC will work alongside development organizations in the country to identify options for enhancing and accelerating the establishment of Vietnam’s nascent green freight program. With Mexico the CCAC will undertake a series of technical workshops to identify options to enhance Mexico’s existing green freight Transporte Limpio program.

The work on green freight also fits into the CCAC aim to reduce SLCPs more broadly. Specifically the CCAC initiative on reducing black carbon emissions from heavy-duty diesel vehicles and engines aims to achieve substantial reductions of fine particulate matter and black carbon emissions from heavy-duty diesel vehicles and engines, and the CCAC Global Green Freight Action Plan as a component of this initiative will benefit from continuous scaling up and high-level political support.

Any parties interested in joining this announcement can contact the CCAC Secretariat, hosted by the United Nations Environment Programme, at ccac_secretariat@unep.org



Phasing Down Climate Potent HFCs

Action Statement

List of Supporters:

Nation-States:

[Australia], Austria, [Bangladesh], Belgium, Benin, Canada, Central African Republic, [Chile], Colombia, Cote d'Ivoire, [Denmark], Dominican Republic, the European Commission, [Finland], France, Germany, [Ghana], Ireland, Israel, Liberia, the Maldives, Mexico, Mongolia, Morocco, the Netherlands, Nigeria, Norway, Peru, Poland, Switzerland, Togo, the United Kingdom, and the United States

California Air Resources Board

IGOs, NGOs and CSOs:

Alliance for Responsible Atmospheric Policy, Australian Refrigeration Association, CEID Colombia, the Centre for Clear Air Policy, Centro de Derechos Humanos y Ambiente, Centro Studi Galileo, Environmental Investigation Agency, European Partnership for Energy and the Environment, Institute for Global Environmental Strategies, Institute for Governance & Sustainable Development, International Climate Change Partnership, International Institute for Sustainable Development, International Solid Waste Association, Molina Center for Strategic Studies in Energy and the Environment, Natural Resources Defense Council, Refrigerants Australia, Refrigerants, Naturally! The member companies, Swiss Foundation for Technical Cooperation, TERRE Policy Centre, and the World Meteorological Organization

Private Sector: Danfoss, [Dupont], [Honeywell], [Ingersoll Rand] and [United Technologies]

We, the supporters of this Joint Statement, support an amendment to phase down the production and consumption of hydrofluorocarbons (HFC) under the Montreal Protocol, while emissions accounting and reporting remains under the United Nations Framework Convention on Climate Change (UNFCCC) and we will work with others to begin formal negotiations in 2014.

We will take action to promote public procurement of climate-friendly low-global warming potential (GWP) alternatives whenever feasible and gradually transition to equipment that uses more sustainable alternatives to high-GWP HFCs.

We welcome complementary private sector-led efforts, including a Global Cold Food Chain Council to reduce the use and emissions of high-GWP HFCs and enhance energy efficiency in the cold food chain while minimizing food spoilage, and a Global Refrigerant Management Initiative on HFCs in servicing with a goal of reducing global emissions by 30-50 percent within 10 years.

Other supporters are encouraged to join, and can contact the CCAC Secretariat at ccac_secretariat@unep.org

Action Plan

This announcement builds on efforts launched by the CCAC through its initiative on promoting HFC alternative technology and standards, with a long-term goal of deploying commercially viable, energy-efficient, climate-friendly alternatives to high-GWP HFCs.

The Opportunity: 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 percent per year. By 2050, the radiative forcing is projected to increase by up to 0.4 W m^{-2} relative to 2000^{ix}. Fast action to address high-GWP HFCs would also catalyse gains in energy efficiency in refrigeration and air conditioning systems, thereby reducing electricity use and CO₂ emissions, consistent with past transitions under the Montreal Protocol, along with emissions of the HFCs themselves.

The Problem: HFCs are manmade greenhouse gases used principally in the refrigeration and air conditioning sectors. HFCs were created to replace chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which were previously used in those sectors, but were or are being phased out under the Montreal Protocol because of their destructive impact on the ozone layer, while also having high GWPs. HFCs are potent greenhouse gases, with a warming effect hundreds to thousands of times more powerful than CO₂. HFCs presently represent only a small portion of the climate problem (about 1 percent of greenhouse gas emissions), but their rapid growth is taking place faster than any other greenhouse gas, also due to the phase out of ozone depleting substances occurring under the Montreal Protocol. A lack of action to prevent the growth of HFCs would greatly undermine efforts to limit global average temperature rise to less than 2°C.

Benefits of Solving the Problem: An HFC phase down could prevent warming of up to 0.1°C by 2050 and warming of up to 0.5°C by 2100,^x offering one of the most cost-effective climate mitigation strategies available to the world today. Recent demonstration projects initiated by the CCAC on commercial refrigeration where HFCs were replaced by climate friendly alternatives are expected to validate energy efficiency improvements that can be gained in the transition to low-GWP refrigerants.

How to Solve the Problem: Because HFCs are manmade, the best approach for reducing them is to gradually phase down their production and consumption, as was agreed by world leaders at the Rio+20 summit in 2012.^{xi} The Montreal Protocol has over 25 years of success in undertaking gradual phaseouts of the production and use of greenhouse gases—e.g., CFCs and HCFCs—manufactured for the same purposes as HFCs. The Montreal Protocol has the expertise and institutions needed for Parties to schedule, fund and implement a gradual phase down of HFCs over the next several decades. Alternatives to HFCs are available or are being introduced for many uses, and switching to these alternatives would not only lower the climate impact of refrigerant gases themselves, but would also catalyse energy efficiency gains in appliances that would both save consumers money and reduce emissions of carbon dioxide as well. The Montreal Protocol has successfully implemented phase downs of the CFCs and HCFCs that were previously used in the sectors now using HFCs, and has a financial mechanism to help developing countries implement policies and regulations, and to help with technology conversions.



CCAC case studies on alternative technologies in the commercial refrigeration sector show that the phase down of HFCs is not only possible but also presents a unique opportunity for fast action at low-cost. HFC inventories in 14 countries and technology demonstration projects in four countries supported by the CCAC will provide an understanding of HFC use.

The public sector can play a key role in promoting climate-friendly alternatives through their own procurement policies to reduce purchasing and transition over time away from high-GWP HFCs toward energy-efficient, low-GWP alternatives. In many countries, the public sector represents a significant share of the total use of HFCs.

The Global Cold Food Chain Council (GCFCC) aims to reduce the use and emissions of high-GWP HFCs and enhance energy efficiency in the cold food chain while minimizing food spoilage. The GCFCC will promote efforts that stimulate the demand for climate-friendly technology and reduce refrigerant emissions in the cold food chain. The GCFCC will work with individual businesses, associations, governments and civil society to promote alternatives to high-GWP HFCs and monitor progress towards the twin GCFCC goals in the cold food chain of: (1) promoting climate-friendly alternatives, and (2) enhancing energy efficiency.

The Global Refrigerant Management Initiative seeks to identify and explore opportunities to educate the industry's global supply chain on ways to improve the management of refrigerants to reduce leak and service emissions and to promote the recycling, recovery, reclaiming and end of life destruction of refrigerants. Through public and private sector cooperative efforts, the Initiative will seek to develop, through work with key associations, educational services in all appropriate languages, and initiate programs in cooperation with the United Nations Environment Programme and the Montreal Protocol implementing agencies and other relevant UN bodies to build awareness for proper management and servicing and refrigerant end-of-life practices.

Next steps after Climate Summit: The next step is to begin formal negotiations in November 2014 of an HFC amendment under the Montreal Protocol, and to begin organising private sector initiatives on refrigerant management and the cold food chain. Any interested parties are invited to indicate their interest to the CCAC Secretariat at ccac_secretariat@unep.org.



City Action to reduce Methane & Black Carbon from Municipal Solid Waste

“Cities commit to ambitious actions to reduce emissions from SLCPs from municipal solid waste”

Action Statement

List of Supporters:

Cities: Abidjan, Accra, Addis Ababa, Amman, Barranquilla, Battambang, [Borås], [Cali], Cebu City, Concepcion, Dhaka, [Ho Chi Minh City], Jakarta, Johannesburg, Kitakyushu, Lagos, Lima, [New York], [Penang], Phitsanulok, [Pune], Queretaro, Rio de Janeiro, San Diego, [San Francisco], Stockholm, [Surabaya], Umeå, Viña del Mar, Yamoussoukro

Nation-States: [Bangladesh], Benin, Canada, Central African Republic, Chile, Colombia, Cote d'Ivoire, [Ethiopia], France, [Ghana], [Indonesia], Japan, [Jordan], Liberia, [Malaysia], Mali, Mexico, Mongolia, Morocco, the Netherlands, Nigeria, Norway, [Peru], [the Philippines], Poland, [Republic of Korea], Sweden, Tanzania, Togo, the United Kingdom, the United States, and [Vietnam]

IGOs, NGOs, CSOs and Private Sector: [Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais], C40 Cities Climate Leadership Group, California Air Resources Board, Centre for Clean Air Policy, CEID Colombia, the European Investment Bank, [Gevalor], Global Environment Centre Foundation, Local Governments for Sustainability ICLEI, Institute for Global Environmental Strategies, Institute for Governance and Sustainable Development, International Partnership for Expanding Waste Management Services of Local Authorities, International Solid Waste Association, Japan Environmental Sanitation Center, Molina Center for Strategic Studies in Energy and the Environment, Swiss Foundation for Technical Cooperation, United Nations Environment Programme, TERRE Policy Centre, Veolia, World Bank, and World Meteorological Organization

Municipal solid waste, including landfills, is the third largest source of anthropogenic methane emissions globally, responsible for 800 Mt of CO₂e annually. Municipal solid waste is also a significant source of black carbon, as well as carbon dioxide, from open burning and waste transport, driving both near -and long -term climate impacts: creating serious air pollution in cities.

For many cities, waste consumes a disproportionate and unsustainable share of municipal budgets, leaving many communities without basic collection and disposal services, driving them to burn their waste -- with deleterious health impacts. Cities often rely on informal waste pickers, typically from impoverished and marginalized groups working in hazardous conditions, to help address this growing burden. Uncontrolled leachate contaminates ground water and increases incidence of vector-borne diseases. Waste is therefore not only an important climate challenge, but one that affects every aspect of life for millions of people around the world. Today, more than half the global population lives in cities. Recognizing that urbanization is growing, especially in the developing world, and that rising incomes also increase waste generation, addressing the downstream consequences of municipal solid waste is clearly a priority. Reducing short-lived climate pollutants (SLCPs) through well managed waste systems will mitigate climate change and have significant local



and national health, environmental and economic co-benefits, including improved quality of life and importantly - dignity for local communities.

Building on the successful network of cities around the world that are taking action to reduce SLCPs through improved municipal solid waste collection and disposal practices, and launched under the Climate and Clean Air Coalition (CCAC);

Commit, on the occasion of the United Nations Secretary General's Climate Summit, to support the significant scaling up of city-led actions to make meaningful reductions of SLCPs, with the aim of reaching 1,000 cities by 2020. We will work together to achieve the following aspirational goals:

- By December 2015, 50 cities globally will commit to develop and implement quantifiable plans of action to reduce SLCPs from the waste sector by 2020, with support from national and partner city governments;
- By December 2020, expand the global city network to reach an additional 100 cities to build capacity and utilize the network's tools and resources to mainstream SLCP-considerations in waste management practices;

The initial 150 cities that join the initiative by 2020 will motivate and lead to up to 1,000 cities undertaking action by communicating, sharing, disseminating, mentoring, and scaling around the world their own successful best practices, supported by partners.

To amplify these efforts, we also intend to:

- Inspire and catalyze global city action by measuring and communicating the impact of this city network, including emissions reductions, human health, and sustainable development benefits; and

Working with the private sector and development banks to build public private partnerships to mobilize project financing, technology transfer, and implement locally appropriate actions that will immediately reduce SLCP emissions.

Action Plan

The Challenge

Landfills are the third largest anthropogenic source of methane, accounting for approximately 11 per cent of estimated global methane emissions, or about 75Tg of methane emissions annually. Currently, the methane emissions from this source alone represent about 0.13 Wm⁻² forcing. The waste sector is also a significant source of black carbon, as well as carbon dioxide, through open burning of uncollected or unsoundly disposed waste and transport of waste by outdated and polluting vehicles.

Waste is therefore a key area in which to reduce short-lived climate pollutants, to harness near-term climate benefits and realize significant health, economic, and environmental co-benefits. Mismanaged waste contaminates local ground water through uncontrolled leachate, and accelerates the transmission of communicable diseases. 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, placing increasing pressure on cities to manage this growing and complex challenge.

The Opportunity

The CCAC city network offers a flexible approach to help fast growing and developing cities move up the waste hierarchy, and implement *near term* actions to immediately and significantly reduce SLCPs. This approach can *transform* the waste sector, shifting the trajectory of emissions growth from the waste sector onto a more sustainable pathway in the *long-term*. This moves beyond capturing emissions already produced to first *prevent* emissions. This approach also allows cities to capture the material and energy value inherent in their waste (through recycling, composting, and digestion), implementing solutions that not only make climate sense, but also economic, financial and social sense.

Since the launch of the CCAC Municipal Solid Waste Initiative, a group of cities have committed to accelerate the implementation of actions in their corresponding solid waste management systems to reduce the emissions of SLCPs. The replication and scaling up of their actions in additional cities has been supported by national governments and partners of the CCAC. The city and national partnerships developed through the Initiative have proven to be a working model of rapid capacity building and technical expertise development to reduce SLCPs in the waste sector.

The Action Plan

Cities are currently piloting innovative waste practices through a pipeline of activities that begin by collecting reliable waste data (often unavailable in developing cities) and utilizing this data to design integrated waste management systems that address municipal waste priorities, including creating jobs and improving human health and sanitation, while reducing SLCPs.

Cities will be trained to design integrative systems that are financially sustainable and to mobilize public and private financing to implement projects. Private sector engagement is central to this strategy. Cities and national governments are and will continue to work closely to replicate pilot city programs nationally, regionally and globally. In terms of real, on-the-ground actions, cities are implementing a range of sustainable waste practices that include waste prevention, with a focus on preventing organic / food waste; 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.

To achieve success, this global partnership will be supported by a voluntary coalition of vertically integrated city, State, and non-state partners that share a common vision – to prevent and reduce SLCPs through tailored, sustainable municipal solid waste practices. This network of policy-makers

and practitioners has a broad range of technical, policy and financial expertise ready to be deployed to support committed cities to take action to reduce SLCPs.

This global network will also be closely linked with the C40 Cities Climate Leadership Group and the International Solid Waste Association – two of the world’s largest city and waste networks, respectively. These networks strengthen city-to-city collaboration, build waste management capacity, and facilitate the scaling up of actions and messaging to reduce SLCPs. In addition, the network will work closely with financial institutions, including the European Investment Bank and the World Bank, to enhance capacity in local and national governments to implement effective waste management programs, policies and projects, as well as access funding to drive on-the-ground implementation. Finally, cooperation with the private sector, including Veolia, will be key to building public private partnerships that ensure waste programs are financially, economically and environmentally sustainable.

The framework for this network will reside with the CCAC and its municipal solid waste network. The network is currently comprised of 28 City Partners in Latin America, Africa, Asia, the Middle East and North Africa, North America and Europe. Country Partners include Bangladesh, Cambodia, Canada, Chile, Colombia, Cote d’Ivoire, Ethiopia, Ghana, Indonesia, Japan, Jordan, Mexico, Morocco, Nigeria, Peru, the Philippines, Sweden, Thailand, and the United States. Other partners include European Investment Bank, International Solid Waste Association (ISWA), C40 Cities Climate Leadership Group, Global Environment Centre, Japan Environment Sanitation Centre, World Bank, Center for Clean Air Policy, United Nations Environment Programme, Gevalor, Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais (ABRELPE), Institute for Global Environmental Strategies (IGES). Key actors are cities, national governments, the private sector and waste practitioners.

The network will develop a set of tools to build the capacity of local governments to financially, socially and ecologically manage their municipal solid waste, and to measure progress, including quantifying their baseline emissions and emission reductions (projected and actual).

Monitoring and Reporting

Each city receiving financial support is paired with an implementer and/or a partner city. These partners support the technical work of each city, and play an important role in fulfilling reporting requirements to the United Nations Environment Programme, including implementation of actions and resource use. This network will also report on activities where each city and State has been engaged, which is reviewed by the CCAC at least annually, with opportunities for more frequent monitoring of activities at each monthly municipal solid waste initiative meeting and quarterly CCAC Working Group meetings. Finally, cities joining the network – including those receiving support - are asked to support the replication of these efforts by mentoring partner cities anywhere in the world.

Follow-up after the Summit

Cities, national governments and other entities interested in joining the network should contact the CCAC Secretariat at ccac_secretariat@unep.org to express interest. New Partners are invited to participate on a rolling basis.

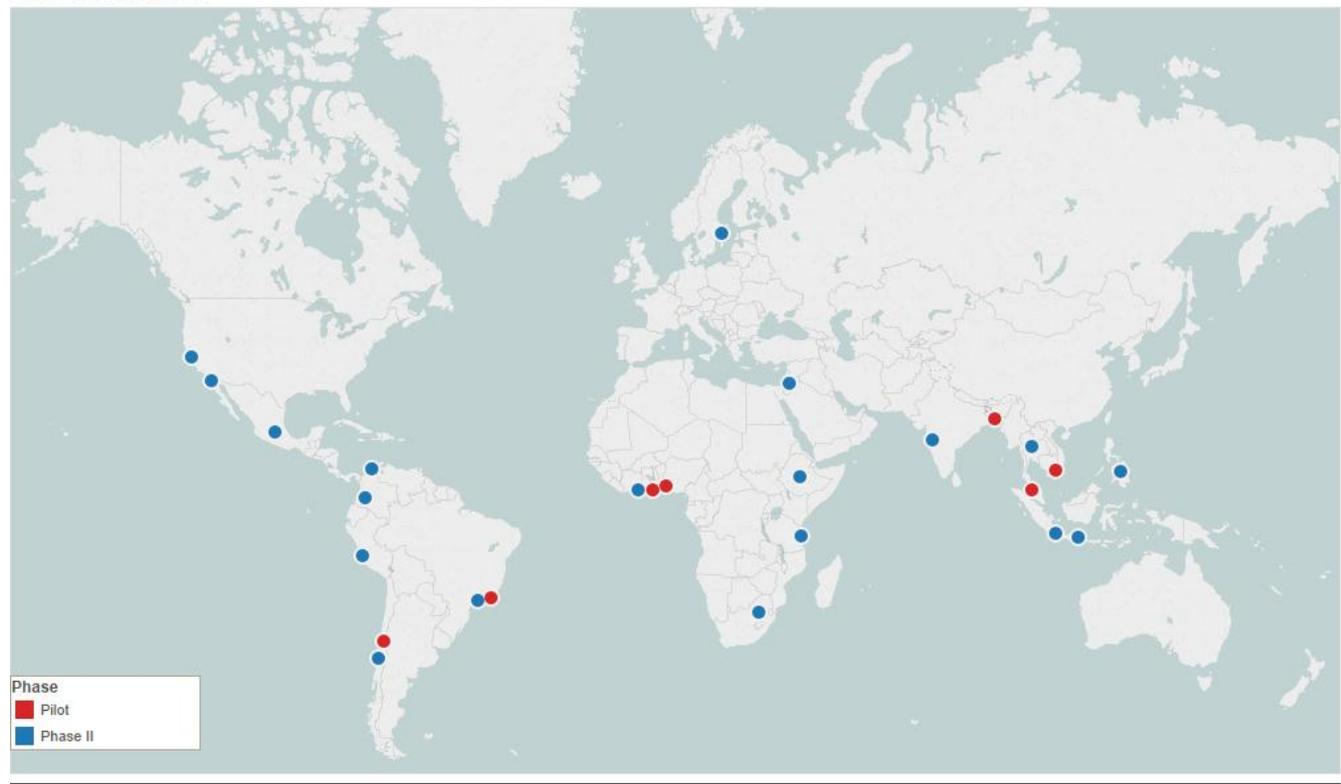


CLIMATE SUMMIT 2014

CATALYZING ACTION

Current Status – Cities under CCAC MSW Initiative

CCAC MSW Initiative



Initiative Target: To benefit 200 million lives by improving the waste management system quality in participating cities.

CLIMATE SUMMIT 2014

CATALYZING ACTION

CCAC MSW Initiative: Expansion Phase



tableau

Figures to be confirmed prior to the final announcement

List of Acronyms

Associação Brasileira de Empresas de Limpeza Pública e Resíduos Especiais (ABRELPE)
Alliance for Responsible Atmospheric Policy (ARAP)
C40 Cities Climate Leadership Group (C40)
California Air Resources Board (CARB or ARB)
Centro de Estudios para el Desarrollo Sostenible (CEID Colombia)
Center for Human Rights and Environment (CEDHA)
Centre for Clean Air Policy (CCAP)
Centro Mario Molina Chile
Clean Air Initiative for Asian Cities, Inc. (Clean Air Asia)
Clean Air Institute
Clean Air Task Force
Environmental Defense Fund (EDF)
Environmental Investigation Agency (EIA)
European Investment Bank (EIB)
European Partnership for Energy and the Environment (EPEE)
FIA Foundation
Global Environment Center Foundation (GEC)
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 Institute for Sustainable Development (IISD)
International Partnership for Expanding Waste Management Services of Local Authorities (IPLA)
International Solid Waste Association (ISWA)
Japan Environmental Sanitation Center (JESC)
Local Governments for Sustainability (ICLEI)
Molina Center for Strategic Studies in Energy and the Environment
Natural Resources Defense Council (NRDC)
Organisation for Economic Co-operation and Development (OECD)
Partnership on Sustainable, Low Carbon Transport (SLoCaT)
Swiss Foundation for Technical Cooperation (Swisscontact)
UN Development Programme (UNDP)
UN Environment Programme (UNEP)
United Nations Framework Convention on Climate Change (UNFCCC)
UN Industrial Development Organization (UNIDO)
World Bank
World Health Organization (WHO)
World Meteorological Organization (WMO)

ⁱ UNEP & WMO (2011) Integrated Assessment of Black Carbon and Tropospheric Ozone. UNON/publishing Services Section/Nairobi, ISO 14001:2014

ⁱⁱ IEA (2003) World Energy Outlook Special Report: Redrawing the Energy – Climate Map
<http://www.worldenergyoutlook.org/energyclimatemap/> .

ⁱⁱⁱ Natural gas driven pneumatic controls and pumps; fugitive equipment and process leaks; centrifugal compressors with “wet” (oil) seals; reciprocating compressors rod seal/packing vents; glycol dehydrators; hydrocarbon liquid storage tanks; well venting for liquids unloading; well venting/flaring during well completion for hydraulically fractured wells; and casinghead gas venting.

^{iv} International Energy Agency (2013) World Energy Outlook

^v Lamarque J.-F., Bond T.C., Eyring V., Granier C., Heil A., Klimont Z., Lee D., Liousse C., Mieville A., Owen B., Schultz M.G., Shindell D., Smith S.J., Stehfest E., Aardenne J.V., Cooper O.R., Kainuma M., Mahowald N., McConnell J.R., Naik V., Rishi K., and Vuuren D.P.v. (2010) Historical (1850-2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application. Atmospheric Chemistry and Physics, 10, 7017-7039.

^{vi} UNEP & WMO (2011) Integrated Assessment of Black Carbon and Tropospheric Ozone. UNON/publishing Services Section/Nairobi, ISO 14001:2014

^{vii} International Energy Agency (2013) World Energy Outlook

^{viii} Lamarque J.-F., Bond T.C., Eyring V., Granier C., Heil A., Klimont Z., Lee D., Liousse C., Mieville A., Owen B., Schultz M.G., Shindell D., Smith S.J., Stehfest E., Aardenne J.V., Cooper O.R., Kainuma M., Mahowald N., McConnell J.R., Naik V., Rishi K., and Vuuren D.P.v. (2010) Historical (1850-2000) gridded anthropogenic and biomass burning emissions of reactive gases and aerosols: methodology and application. Atmospheric Chemistry and Physics, 10, 7017-7039.

^{ix} HFCs: A Critical Link in Protecting Climate and the Ozone Layer - A UNEP Synthesis Report (2011)

^x Xu Y., Zaelke D., Velders G. J. M., & Ramanathan V. (2013) The role of HFCs in mitigating 21st century climate change, ATMOS. CHEM. PHYS. 13:6083-6089; see also Hare B. et al. (2012) CLOSING THE 2020 EMISSIONS GAP: ISSUES, OPTIONS AND STRATEGIES; and Ramanathan V. & Xu Y. (2010) The Copenhagen Accord for limiting global warming: Criteria, constraints, and available avenues, PROC. NAT'L ACAD. SCI. U.S.A. 107:8055-8062 (The Ramanathan & Xu study was the first to model the climate benefit of HFC mitigation in combination with SLCPs, CO₂, and other long-lived greenhouse gases.).

^{xi} see, The Future We Want, para 222