

## **Briefing Note for the 17th Ordinary Session of the African Ministerial Conference on Environment (AMCEN) : Clean Air, Health , Environment and Climate**

### ***Introduction to the CCAC-UNEP Africa Integrated Assessment on Air Pollution and Climate Change:***

#### ***An assessment process on the role and potential of emission mitigation strategies to support development in Africa***

#### **The opportunity**

The Climate and Clean Air Coalition (CCAC), hosted by the UN Environment Programme (UNEP), was established in 2012 to focus on enabling intensified reduction short-lived climate pollutants (SLCPs) as an urgent and collective challenge. The CCAC approach integrates climate action and air quality efforts, which helps countries maximise national environment and development benefits, deliver on the 2030 Sustainable Development Goals and define ambition to meet the Paris Agreement targets.

The CCAC membership comprise 66 state members, 18 Intergovernmental Organisations (IGOs) and 57 International Non-Governmental Organizations and research organizations (<https://www.ccacoalition.org/en/partners>). There are 19 State members from Africa. We welcome more African countries to join the coalition given the practical action focus that it pursues.

Short-lived climate pollutants (SLCPs), that include black carbon (BC), methane (CH<sub>4</sub>), tropospheric ozone (O<sub>3</sub>) and Hydrofluorocarbons (HFCs), are climate forcers many times more powerful than carbon dioxide (CO<sub>2</sub>) at warming, exerting global climate impacts or regional climate impacts – as in the case of BC. Short-lived climate pollutants are present in the atmosphere for a much shorter period of time than carbon dioxide and reducing them can rapidly reduce near-term warming. Certain SLCPs are also dangerous air pollutants that have harmful effects for peoples' health, ecosystems and agricultural productivity. Reducing SLCPs can therefore have multiple benefits for the environment and human health (see Figures 1 and 2).

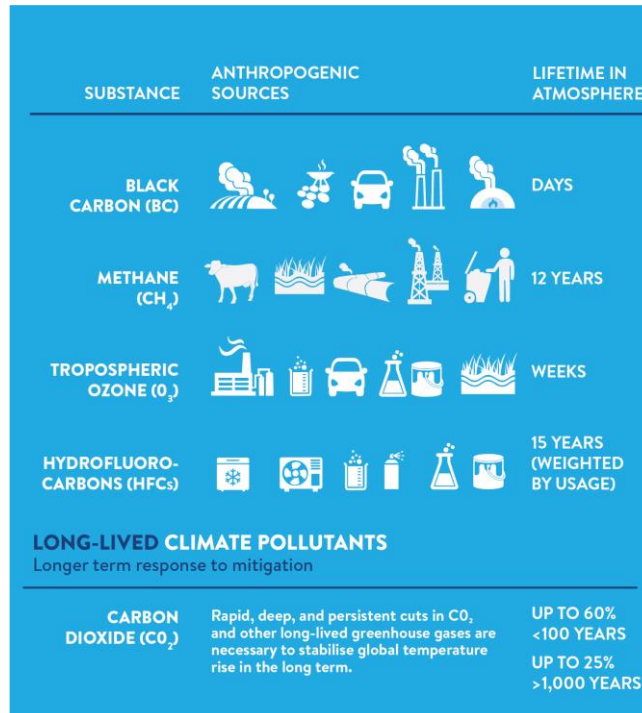


Figure 1: Short-Lived Climate Pollutant (SLCP) sources and lifetimes



Figure 2: What are the benefits of reducing SLCPs

The speed at which SLCPs can be removed from the atmosphere presents an opportunity for quick multiple development benefits. The CCAC takes action based on solid science. The activities follow a package of control measures identified by UNEP and the World Meteorological Organisation (WMO) for their ability to achieve “win-win” results for the climate, air quality, and human wellbeing over a relatively short timeframe, at little to no net cost.

The CCAC supports action on the ground through 11 initiatives across various sectors, which are designed to transform policies and practices and showcase practical actions that can quickly reduce SLCPs in the main emitting sectors.

In response to the needs of the member countries and international agreements on sustainable development goals, and to tackle air quality and climate change, the CCAC has commissioned an African Integrated Assessment on Air Pollution and Climate Change to enable science-based and fast-tracked action.

This assessment will bring together practitioners working across Africa to address the growing air pollution and associated climate threats while promoting capacity enhancement and action to reduce air pollution with a focus on both short-lived climate pollutant (SLCPs) and long-lived greenhouse gas strategies (LLGHG). The assessment will build a community of practice, integrating and enhancing existing science-policy-practice networks, to consider the role and potential of emission mitigation strategies to support sustainable development and climate change adaptation in Africa.

### **The Approach**

The CCAC and UNEP are developing the integrated assessment process for Africa to:

1. determine how development in Africa can proceed at the same time as limiting air pollution and its negative impact on environment, health and agriculture;
2. understand the potential to limit climate change in the near term, and its implications for adaptation to climate change in Africa; and
3. Inform review of ambition of NDCs by countries in Africa.

The assessment will also concentrate on strengthening capacity as part of the assessment process and develop information flows and activities to create a continental network for collaboration in the region to address the issues now and in the future.

### **African Context**

Africa has the second fastest growing economy in the world, and more than half of global population growth between now and 2050 is expected to occur in Africa. Sustaining this growth without a large increase in problems associated with air pollution and native impacts of climate change will depend heavily on whether policy makers in the region adopt and implement cost-effective solutions to air pollution and climate change. Africa is considered particularly vulnerable to climate change due to high levels of poverty, vulnerable water resources and dependency on rain-fed agricultural production. For example, African agriculture is having to adapt to increasing climate variability, and many crops widely grown in Africa are close to their temperature limits. This makes the influence of temperature increase in the near term particularly relevant, and the prospects of limiting warming by reducing emission of SLCP strategies critically important. Not surprisingly, therefore, climate adaptation is a key issue in Africa's future development. Taking people out of poverty and creating green jobs is a major goal, and this will need to be accompanied by increasing access to renewable clean energy and quality potable water. The achievement of the different SDGs over the next 12 years is important for African governments, and the recent IPCC 1.5 °C report (<http://www.ipcc.ch/report/sr15/>) shows that we can only solve global problems with accelerated local action extending to non-CO<sub>2</sub> pollutants.

The sources and impacts of air pollution and climate change are closely interlinked, and many air pollutants have important impacts on the climate. In this context, an integrated approach for addressing air pollution and climate change could bring important air quality and climate benefits for Africa by empowering countries to

establish coherent actions and policies that contribute effectively to national development priorities, including those for health, while also delivering near- and long-term environment and climate benefits.

Air quality is an important issue for cities across Africa, as they develop rapidly and emission sources remain largely unconstrained. Of the thirty fastest-growing cities in the world, twenty-one are in Africa. Industry in the region is often not regulated and emissions are unnecessarily large due to lack of planning, legislation and poor enforcement. Importantly, a large proportion of the poorer parts of the population across the whole region is dependent on the use of biomass or coal for cooking and heating (in some areas), and impacts to health are largely attributed to exposure to particles from these sources, disproportionately affecting women and children, in rural as well as urban areas.

While availability of air quality and emissions data remains an issue in the region, in recent years there has been a significant increase in the interest and ambition of work being done in Africa on air quality and emissions monitoring and inventories. This includes efforts across African countries supported by the following initiatives:

- the CCAC's Supporting National Planning for Action on SLCPs (SNAP) Initiative work in West and East Africa;
- the Pollution Management and Environmental Health (PMEH) programme of the World Bank in Lagos, Cairo, Accra, and Johannesburg;
- US Environmental Protection Agency (EPA) Megacities Programme in Accra and Addis Ababa;
- SEI work in Kenya and Nairobi in support of the Kenya Air Quality Network;
- GEO-Health Hubs in East and West Africa;
- the World Meteorological Organization Global Atmospheric Watch (GAW), and a newly formed African Group on Atmospheric Sciences (ANGA; <http://www.igacproject.org/index.php/activities/african-group-atmospheric-sciences-anga>) supported by the International Global Atmospheric Chemistry Project (IGAC);
- CCAC's Urban Health Initiative work in Accra, its Heavy-Duty Vehicles Initiative, and the Africa sustainable transport forum and other sector related groupings.

There is also political will at regional, sub-regional, national, and city levels to assess, cooperate, and combat air pollution and climate change. In 2015 the African Union (AU) adopted a 50 year (2013-2063) long-term development vision, the Agenda 2063, which commits to acting with a sense of urgency in addressing climate change and environment challenges in the context of sustainable development. A key priority in the first ten-year implementation period (2013-2023) of the Agenda 2063 for the goal of environmentally sustainable climate resilient economies and communities is to "develop/facilitate the implementation of Africa Quality Standards for air and other forms of pollution.

The Third United Nations Environment Assembly, UNEA-3, held in December 2017, produced Resolution 8 entitled 'preventing and reducing air pollution to improve air quality globally' that recognizes that 'some air pollutants, such as black carbon, methane and ground-level ozone, are also short-lived climate pollutants and are responsible for a significant portion of air pollution related deaths, as well as impacts on crops and hence food security, and that their reduction has co-benefits for the climate' and acknowledges 'that air pollution affects several aspects of society and that addressing air pollution results in multiple benefits to human health, the economy, ecosystems and climate, and that efforts across sectors are needed to improve air quality'. The resolution lays the foundation for the international community to assist countries in assessing and acting on their air pollution problems and urges member states to 'pursue a shared response and to identify solutions to address air pollution'. The African air pollution and climate change assessment is partly in response to UNEA-3 Resolution 3/8, entitled Preventing and reducing air pollution to improve air quality globally.

In the following paragraphs we outline how the integrated assessment will be undertaken in partnership with how we UNEP and CCAC will work with the key stakeholders in the region to increase capacity and shared knowledge in Africa to tackle air pollution.

In response to Resolution 3/8 the enhancement of cooperation and the building of communities of practices are main objectives of this assessment. Existing agreements in sub-regions of Africa will be built upon to promote action. An African Assessment will serve as a convening venue for re-energizing existing but inactive networks, and build upon newly forming networks. This assessment will bring together practitioners working across Africa to address the growing air pollution threats and promote capacity building and action on air pollution, SLCPs and LLGHGs. The assessment will consider the status of air quality and its impacts, as well as the linkage to climate change in Africa and globally, how these are projected to change into the future and what can be done to improve the situation. The process of undertaking the assessment will be used as an opportunity to enhance the capacity of African participating institutions, which will be an important aspect of the assessment process. Currently many of the air pollution-related activities in Africa are not sufficiently coordinated, especially in terms of meeting the combined challenges of the UNEA Resolutions, the SDGs, the Paris Agreement targets and Africa's development vision through agenda 2063.

## TWO PHASES OF THE ASSESSMENT

The work will proceed in two phases – a scoping phase in 2019 that will:

- I. Embed the assessment in the region and respond to demand
- II. Consult widely with African and international stakeholders
- III. Develop the modelling platform to be used in the assessment, alongside capacity building and training activities related to scenario generation
- IV. Identify all the implementers: Co-Chairs, Lead authors, contributing authors, reference group and reviewers
- V. Develop a draft story line, annotated outline and modelling brief

The second and main assessment phase in 2020 will:

- I. Hold author's meetings / 'write shops' to agree on the outline, content, approach and drafts; conduct internal reviews, and agree on the mitigation scenarios to be developed
- II. Develop the modelling scenarios, including training events allowing participants to share information
- III. Conduct an external Peer review of Draft 1
- IV. Finalize the assessment, editing, layout and publication
- V. Undertake outreach and communication throughout the assessment process and continuing after publication
- VI. Determine follow up and complementary activities and seek additional funding for these follow up activities