

USDoS PROJECT

Supporting Countries to improve urban air quality

Status of Implementation: Ongoing

Duration: 2018-2021 (36 months)

Budget: \$ 1,573,457.00

Main Donor: United States Department of State

Background

Air pollution is the world's largest single environmental risk to health causing approximately 7 million deaths across the world each year. Only 12% of cities reporting air quality data meet WHO air quality guidelines yet over half the world population lives in urban areas where air pollution is on the increase. Persistent air pollution data gaps inhibit most countries from tackling air pollution. UN Environment supports the implementation of the UN Environment Assembly Air Quality Resolutions, UNEA 1/7 on Strengthening the Role of the UNEP in promoting Air Quality of June 2014 and (Resolution 1/7), and the air quality resolution adopted at the third session of the United Nations Environment Assembly in December 2017 (Resolution 3/8), Preventing and reducing air pollution to improve air quality globally. This project provides technical support and capacity building to selected countries to develop air quality monitoring systems and collect data to identify the sources of air pollution and to develop strategies and action plans to improve the urban air quality.

Objectives

Support the development of low-cost sensors-based air quality monitoring networks in two cities in Africa (Addis Ababa, Ethiopia; Kampala, Uganda) and Latin America (San José, Costa Rica; and Lima, Peru)

Key Deliverables

- Train people in air quality management, improvement, or related issues
- Improve institutions capacity to assess or address air quality issues
- Develop tools and methodologies for affordable monitoring, air quality management, and strategy development
- Sharing project outcomes, tools, and methodologies to other interested countries and cities to replicate.

Milestones

Operational air quality monitoring networks established in 3 countries (Costa Rica, Ethiopia and Uganda) with 15 people trained on network operation and maintenance

Outputs

1. Ethiopia

Output i): Sensor Deployment

In 2019, UNEP installed 5 air quality monitors in collaboration with the Ethiopian Ministry of Environment, Forestry and Climate Change (MEFCC), at the Addis Ababa Environmental Protection and Green Development Commission (EPGDC) office, the US Embassy in Addis Ababa, the International Community School (ICS), court of appeal and Addis Ababa City Mayor's office.

Outputs 2: Training in air quality monitoring

The objective of a joint USEPA-UNEP air quality management workshop, held on 23-25 September 2019, was to understand how air quality measurement using various techniques (ranging from reference equipment e.g. BAM at US Embassy to low-cost sensors to be deployed for this project) can support air quality policy goals. During the workshop, UNEP led a hands-on training course on air quality sensors at the International Association of Athletics Federations (IAAF) Stadium and the Addis EPGDC offices. Participants were taken through first-level air quality data analysis and interacted hands-on with several air quality monitoring devices.

1. Uganda:

Output i): Sensor deployment

In 2019, UNEP deployed 1 sensor in the vicinity of the Kampala US Embassy. The device is collocated with a variety of sensors from different groups actively working on air quality monitoring in Kampala. This includes a local group, AirQo from Makerere University who collocated their device on 25 July. Twenty-five Clarity Sensors (five in each administrative district) were purchased by the Kampala Capital City Authority in consultation with UNEP.

Outputs 2: Training in air quality monitoring

At a project inception of the regional air quality and health assessment workshop in Kampala on 16th July 2019, lead project partners from UNEP, ECI, Kampala Capital City Authority (KCCA), National Environment Management Authority (NEMA), and other stakeholders discussed air quality monitoring and health impact research and, national air quality management initiatives in Uganda. At the workshop, UNEP provided a training on the application and deployment of low-cost air quality sensor. (See workshop report in annex 1).

1. Costa Rica:

Output i): Sensor Deployment

The project team worked with the local partners, the Ministry of Environment and the Costa Rican Meteorology Laboratory (LACOMET), to facilitate the deployment of a sensor alongside a weather station in San Jose. In 2019, an air quality monitoring device was delivered to Costa Rica by UNEP was installed at a reference station located at the RECOPE (Costa Rican Petroleum Refiner) for collocation studies.

Project timeline

Activity/Year	Year 1	Year 2	Year 3	Year 4
	2018	2019	2020	2021
1. Project agreements drafted and signed with cities or local partners	X	X		
2. Launch inception workshops in four cities	X	X		
3. Three monitoring networks running	X	X	X	X
4. All monitoring networks running			X	X
5. Training conducted (monitoring and policy)			X	X

Partners



Key Contacts

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