

Urban-LEDS II

Pilot projects special issue

December 2021

Highlights from this issue...

This special and final project newsletter focuses on the low-carbon, climate resilient implementation projects that have been developed in many of the Urban-LEDS cities with support from project funds. Read on to find out more about how these leading cities are making the most of investments to showcase and inspire local communities and businesses by walking the talk on climate action.

Name: Accelerating climate action through the promotion of Urban Low Emission Development Strategies (Urban-LEDS II)

Start Date: 1/4/2017

End Date: 31/12/2021

Duration: 57 months

Total Budget: 8,000,000 €

Funding mechanism: European Union (DCI-ENV/2017/384-555)

Consortium: UN-Habitat HQ and regional offices in Lao PDR, Rwanda and Colombia, ICLEI World Secretariat and 5 ICLEI regional offices active in Europe, Bangladesh, Brazil, Colombia, Indonesia, India, Lao PDR, Rwanda and South Africa



The installation of an Educational module in La Heliodora Park in Envigado, Colombia, contributes to environmental awareness among citizens © Juan Pablo Sepulveda.

Pilot projects point way to brighter future

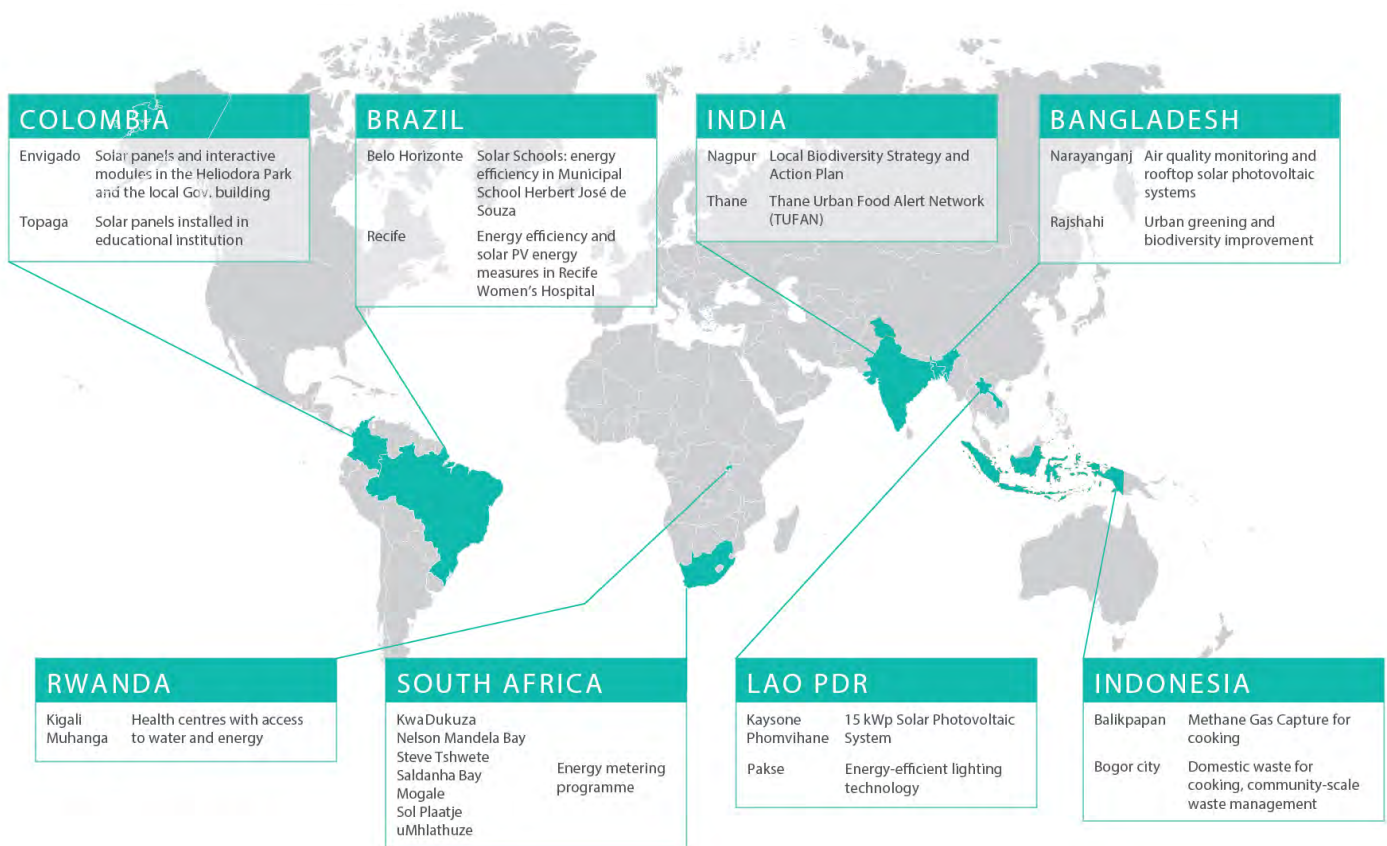
Many Urban-LEDS project cities have been directly and closely supported to complete the major steps required as part of their commitment to the Global Covenant of Mayors. These steps include:

- A greenhouse gas inventory
- A climate risk and vulnerability assessment
- A low emissions development strategy and action plan
- Reporting their actions and commitments to the ICLEI-CDP unified reporting platform

However, just as important has been the Urban-LEDS project support to fast track implementation of individual climate actions. This is achieved through two main means: technical support to develop project proposals and seek financing to implement them, and direct financing to develop and implement small-scale pilot projects. In an era in which systemic solutions for climate change are increasingly recognised as important, one might think the age of the pilot project is over. It is undoubtedly true that to affect the radical and transformative changes we need in cities to get to net zero, integrated, holistic and systemic interventions are required. Nevertheless, local government led pilot projects are vitally important in encouraging local

community and business action on climate change. By walking the talk, and reducing operational local government emissions at the same time, local governments can gain useful insights into the applicability of climate solutions in their local area, and gain important momentum for the wider delivery of their climate strategies.

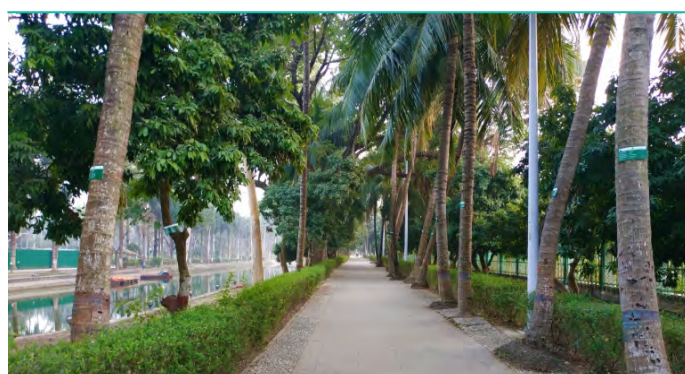
In this special newsletter, we highlight some of the projects implemented using project funds generously provided by the European Commission – in areas as diverse as methane landfill capture, energy management, air quality monitoring and urban greening among others. Read on to find out more!



Focus on pilot projects

Bangladesh: Narayanganj city furthers its 'low emission urban development' through innovative pilot projects

Narayanganj city is committed to improving its air quality and contributing to the Bangladesh government's goals on increasing use of renewable energy sources. Narayanganj has introduced sensors for monitoring air quality and rooftop solar photovoltaic (Solar PV) systems through two pilot projects under the Urban-LEDS II project. **Read the full story [here](#).**



Tree Labelling at Shahid Kamruzzaman Botanical Park, Rajshahi. © ICLEI South Asia

Rajshahi advances its Urban Greening actions and completes plantation for a pilot project on biodiversity

The city of Rajshahi is forging ahead with its efforts on urban greening and biodiversity improvement. Through the support of the Urban-LEDS II project, this city from Bangladesh has taken actions to improve and better manage its open green spaces, create awareness among the citizens of its biodiversity, promote outdoor activities, and thereby also contribute to active participation, social interaction and better physical and mental well-being among its residents. **Read the full story [here](#).**

For more information on the pilot projects and the Climate Resilient City Action Plans (CRCAPs) in the cities of Narayanganj and Rajshahi, **please click [here](#).**

Brazil: Energy efficiency and solar PV energy measures installed in public buildings in Recife

The initiative took place in a public building of the health sector, the Recife Women's Hospital (Hospital da Mulher do Recife, HMR), and resulted in the promotion of clean energy sources, reducing greenhouse gas emissions and aiding in financial savings for the municipality.

The Urban-LEDS team facilitated and mediated matchmaking meetings with several prospective funders, managing to establish a partnership between Recife's City Government and CELPE (local energy provider to the State of Pernambuco). The system contributes to environmental preservation, reducing 7,000 tons of CO₂ annually. The impact is equivalent to planting almost 50,000 trees in the same period.



Official inauguration of the PV installation in HMR. © ICLEI South America, 2021



Municipal School Herbert José de Souza at Belo Horizonte. © ICLEI South America, 2021

"Solar Schools Project" in Belo Horizonte shows learners the green way by reducing energy usage and electricity bills in Municipal School Herbert José de Souza

The Urban-LEDS II project supported the "Solar Schools Project: Energy to renew the hopes of future generations", emerged from an initiative called *COMPASSOS* that brought together the community and the local government, with the Federal University of Minas Gerais (UFMG). The Municipal School Herbert José de Souza was selected for the implementation of the pilot project, having stood out for being the largest school unit in the northern region of the city, and for being located in an area of climate vulnerability.

Climate Education Centers created in Belo Horizonte and Recife

The Centers were installed at the Center for Idioms, Languages, Innovation and Creativity - CLIC, in Belo Horizonte, and at the EcoNúcleo Jaqueira, in Recife with the objective to serve as a teaching laboratory to disseminate topics such as climate change, renewable energies and energy efficiency, as well as being a space for exhibition and meeting for various social actors. The target audience of the Centers is diverse and includes municipal public education students, city hall employees, community or educational environmental groups and groups led by ICLEI, among others.



EcoNúcleo Jaqueira's educational centre in Recife. © Paluana e Sapoti, 2021.



Photovoltaic solar energy system of the Envigado Secretariat of Environment and Agricultural Development. © Envigado City.

Colombia: Solar projects installed in two cities to contribute to mitigating and adapting to climate change

Tópaga and Envigado now have solar energy modules and education centers about climate and energy for their communities to use, thanks to the Urban-LEDS II project. In Tópaga, the Carlos Julio Umaña educational institution installed solar panels that cover around 75% of the school's entire energy demand, which provides a significant economic saving for the municipality. In Envigado, the installation of solar panels and interactive modules in the Secretariat and in La Heliódora Park contributes to citizen awareness and engagement of climate change in public spaces. These actions aim to be sustainable, scalable at different levels and replicable in other territories. **Read the full story [here](#).**

India: Nagpur advocates for actions to conserve and enhance biodiversity through a Local Biodiversity Strategy and Action Plan (LBSAP)

The Urban-LEDS II project is supporting the Indian city of Nagpur in developing a Local Biodiversity Strategy and Action Plan (LBSAP) that will provide strategic guidance and support effective management of the city's biodiversity and ecosystem services. The development of the LBSAP has been complemented by pilot-scale census and mapping of the city's trees, creation of a city-wide natural asset map, and preparation of a pictorial tree handbook. Other projects developed in Nagpur as a result of this process are the rainwater harvesting systems at two public schools, and a children-centric Climate Resilient Park to raise awareness among children and their caregivers on climate change and sustainable actions that they can take. The Trikon Park, located at Bidipeth, has been equipped with place-making interventions and solutions including plantation of local plant species, urban farming, rainwater harvesting, sensory walkway, bicycle track, tree labels, and information boards on sustainable lifestyles. **Read the full story [here](#).**



Survey for tree census. © WWF-India



Water level sensor installed at B.N. Bandodkar (Thana) College

Thane's pilot-scale flood warning system (TUFAN) augments city's climate resilience

Thane city has completed implementation and integration of an early warning system called the Thane Urban Flood Alert Network (TUFAN), to help better address incidence of waterlogging and flooding in the city. The real-time warning system comprises four ultrasonic water-level sensors, two radar-based water-level sensors and an automatic weather monitoring station. Real-time information captured by the sensors is shared through a webpage. Having completed the implementation of the IoT-based TUFAN system, the Thane Municipal Corporation (TMC) is now better equipped for improving its preparedness, reducing the response time of emergency services, and for safeguarding human health and assets during incidents of waterlogging and flooding. **Read the full story [here](#).**

For more information on the pilot projects and the Climate Action Plans (CAPs) in the cities of Nagpur and Thane, please click [here](#).



The process of methane gas distribution

Indonesia: Balikpapan City Accelerates Low Emission Development through a Pilot Project on Methane Gas Capture

The city of Balikpapan stepped up its efforts to reduce greenhouse gas emissions by completing a small-scale pilot project that utilizes landfill-emitted methane gas as cooking fuel. Supported by the Urban-LEDS II project, the city was able to optimize the distribution of the captured methane gas to 50 houses for cooking purposes as an alternative to liquefied petroleum gas (LPG). The shift from LPG to biogas consumption contributes to environmental protection as well as introduces potential partnerships between the city and community, ensuring consistent delivery and an adequate supply of organic waste as input to the facility. Finally, there are opportunities for community-based livelihood programs that will help each of the beneficiary households save up to IDR 60,000 monthly. **Read the full story [here](#).**

Bogor City puts up community-scale waste management pilot project using hydro-pyrolysis technology and uses domestic waste to generate clean energy for cooking

Bogor recently implemented two pilot projects: one extracts methane gas from a Communal Wastewater Treatment Plant (WWTP) and food wastes, turning it into cooking fuel. The other seeks to manage municipal solid waste at the community level through hydro-pyrolysis technology. This technology aims to reduce greenhouse gases—particularly methane gas—generated by the waste sector, enhancing the involvement of the community in managing Municipal Solid Waste (MSW), and introducing hydro-pyrolysis products from waste streams in order to cultivate the city's circular economy. **Read the story here: [domestic waste for cooking](#) and [community-scale waste management using hydro-pyrolysis technology](#).**



The pilot project site is located at 3-R Temporary Collection Point (locally named TPS-3R) Cipaku, East Bogor, Bogor City. [A]. Entrance view of TPS-3R surrounded by small farming areas and a fish pond; [B]. Waste sorting area; [C]. Biogas reactor area; and [D]. Compost storage



15 kWp Grid-Connected Solar Photovoltaic Systems and solar LED street lights installed at the Nouhak Phoumsavanh Public Park

Lao PDR: Lao Cities pursue Low-Carbon Development with Solar Power and Energy Efficiency Projects

The two Urban-LEDS model cities of Kaysone Phomvihane and Pakse City have recently implemented solar powered and energy-efficient pilot projects to help shift to a clean energy future, and showcase these energy solutions to the local community.

The successful implementation of these pilot projects showcase green building solutions through solar photovoltaic systems and energy-efficient lighting technology. On top of contributing to GHG emissions reduction, these pilot projects demonstrate the benefits

of adopting renewable energy sources and raise public awareness in building a low-carbon city. These pilot interventions are the first solar pilot projects in the communities, advocating the city's "green concept" agenda as part of the city's master plan and ongoing effort to integrate Renewable Energy into the National Development Plan. **Read the full story [here](#).**



Installation of solar panels at one of the health centres

Rwanda: Making urban healthcare resilient for a green economic recovery by installing sustainable water and energy solutions in two Rwandan cities

The Urban-LEDS II project partnered with the City of Kigali and the District of Muhanga to roll out pilot projects to improve both the quality and sustainability of services at health centre by increasing their on-site water management systems and energy efficiency, which include: rainwater harvesting tanks that connect to the internal reticulation system for day-to-day uses of both non-potable and potable (filtered) water, and a number of energy-efficient lighting solutions including solar streetlights and energy-efficient bulbs, as well as high-pressure solar water heaters. These improvements also helped the cities put into practice the idea of “build back better,” a critical component of post COVID-19 economic recovery and climate resilience. **Read the full story [here](#).**

South-Africa:

Implementing a building energy metering programme in seven municipalities in South Africa with the objective of using energy data to reduce emissions and unlock climate finance


The Urban-LEDS II pilot programme in South Africa took a practical approach by installing energy meters in municipal buildings of seven


municipalities. The project aimed to address these energy data and finance gaps by: increasing the availability of energy data, building capacity of government officials and improving the technical skills of officials. **Read the full story [here](#).**




An image showing one building in KwaDukuza Local Municipality before and after the installation of the meter.

For more information on the Urban-LEDS project;

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