

Land area (km<sup>2</sup>) 7,639 Population size (2019) 10.1 million Greenhouse gas (CO<sub>2</sub> equivalent) 34.5 tonnes

As the capital of Indonesia, Jakarta is taking effective action to reach its goal of reducing the city's greenhouse gas emissions 30% by 2030, a target set in 2012. The local action plan serves as a means to help achieve Indonesia's national emission reduction target of 29% by 2030, with a focus on renewable energy. Jakarta also committed in 2016 to reducing its water and energy consumption 30% and to achieving 30% renewables in its energy mix by 2030. To meet this latter target, the municipal government plans to increase its solar panel capacity by 600 kW-peak per year and to develop waste-to-energy plants.

The local government also is actively engaging citizens and stakeholders in the formulation of the Ikhtiar Jakarta ("city promise") initiative, which outlines Jakarta's commitments in the areas of energy, green buildings, transport, clean water, waste and disaster management. Six public consultations with a total of 300 attendees were conducted in 2018-19 to promote sustainable lifestyles and support the initiative. Jakarta also is developing a Regional Energy Plan (RUED-P), which contributes to achieving the targets set in the National Energy General Plan (RUEN) and the National Energy Policy (KEN).

In 2019, Jakarta implemented Governor Instruction No. 66, which mandates the city's Transmigration, Manpower and Energy Agency to install rooftop solar on large public buildings, including all schools, sport facilities, hospitals and government buildings during 2019-22. In 2019, a total solar capacity of 2,060 kW-peak was installed on 98 schools, bringing the combined rooftop solar capacity on schools and government buildings to 2,675 kW-peak and showcasing the great potential to minimise local carbon footprints.

Source: See endnote 100 in the Citizen Participation chapter.



In Jakarta citizens have actively helped

shape the city's climate action plan.

## KAMPALA uganda

Land area (km<sup>2</sup>) 189 Population density (per km<sup>2</sup>) 189 Population size 1.7 million Total final energy demand (million GJ) 35.8

Kampala is the capital city and largest urban centre of Uganda, with more than 1.7 million inhabitants in 2020. As the country's economic hub, it accounted for 80% of Uganda's industrial and commercial activities in 2016 and generated around 65% of national GDP that year. City operations fall under the responsibility of the Kampala Capital City Authority (KCCA).

KCCA is a pioneer signatory to the Covenant of Mayors in Sub-Saharan Africa (joining in 2015), through which the city developed its first energy and climate action plan – the Kampala Climate Change Action Strategy – in 2016. This strategy frames KCCA's approach to furthering the deployment of renewables through assessing the local renewable energy potential, supporting the city's green economy, promoting the implementation of a feed-in tariff system and reducing the use of individual motorised transport in favour of non-motorised mobility and green and public transport. KCCA's strategy is consistent with the Draft National Energy Policy of 2019, which promotes the deployment of non-hydropower renewable generation sources to diversify the energy mix and thereby mitigate Uganda's over-reliance on hydropower, which accounted for 90.5% of the national electricity supply in 2018.

The transport sector dominates Kampala's energy demand, accounting for 45% of the total in 2016, followed by the residential (23%), industrial (21%) and services (11%) sectors. The majority of this energy demand is fuelled by fossil fuels used in transport (55%) and by (mainly traditional) biomass used for cooking and water heating (36%). After biomass, electricity (90% of which comes from hydropower) is the second largest non-transport energy carrier, accounting for 17% of total final energy consumption; it is used across the industrial, services and residential sectors, mainly for lighting, cooling and the powering of heavy machines.

The transport sector's large share of energy consumption is seemingly in contrast with Kampala's service-based economy. However, the service sector has low energy intensity, in part because 57% of businesses in the city were informal as of 2017, focused mainly on non-tradeable services such as retail, transport and restaurants. Informal roadside vending has added to city congestion, and significant passenger travel also occurs through inefficient transport modes such as motorcycles (boda boda) and private cars, which together accounted for 70% of total passenger transport energy demand in 2016.

These transport and mobility challenges helped shape KCCA's Climate Change Action Strategy 2016 and the Kampala City Strategic Plan 2025, which hinges on the principle of SMART mobility<sup>i</sup> to improve the efficient movement of people and goods within and through Kampala City. The City established an air quality monitoring and assessment system and is promoting electric mobility to gradually replace conventional commercial motorcycles as a way to reduce noise and air pollution, petrol demand and traffic jams.

KCCA's leadership has enabled successful public-private partnerships, and by 2020 start-ups such as Bodawerk and Zembo had resulted in the use of more than 200 new and retrofitted electric motorcycles for public transport in the city (charged mostly from the hydropower-dominant grid). Electric mobility through e-motorcycles provides a framework for KCCA to contribute to national and international climate change mitigation efforts by deploying renewables in the transport sector. Because electric motorcycles require little infrastructure, are silent and produce virtually no emissions (thereby improving air quality levels), they hold promise for successful uptake among boda boda riders.

Source: See endnote 74 through 87 in the Feature: Renewable Energy in Sub-Saharan African Cities chapter.

i The SMART mobility strategy, detailed in the Transport Master Plan for the Kampala Metropolitan Area, supports the construction and operation of a Mass Rapid Transit System based on buses, rail and cable cars by 2040.