City Profile: National Capital Region of Jakarta (Indonesia)

IKI Ambitious City Promises project

As of 12 December 2017

City Overview

As the national capital of the country and the largest city based on population, DKI Jakarta bears its function not only as the center of governance and politics, but also of business and culture, giving it an extraordinary status equivalent to a province. Jakarta serves as headquarter of various public, private, and multinational companies, as well as government institutions, including the ASEAN Secretariat. Its economy particularly relies on trade, services, property, creative industry, and finance.

Having up to 28 million inhabitants in the Greater Jakarta metropolitan area (Jakarta, Bogor, Depok, Tangerang, and Bekasi), it is the largest metropolitan area in Southeast Asia and the second in the world. The rapid growth of urbanization and land commercialization caused a leap in its energy consumption, and consequently, its GHG emission. Accordingly, the local government of DKI Jakarta has demonstrated their commitment to low emission development and a climate adaptive agenda.

GHG emissions

In 2010, the GHG emissions of DKI Jakarta were majorly produced from its energy sector (99.19%), followed by waste (0.63%) and IPPU sector (0.18%). Based on its fuel consumption, landfill and
wastewater management, and green open space, the total GHG emission of DKI Jakarta is 34.45 million tCO₂e (including its surface biomass absorption capability up to 0.65 million tCO₂e).

The high traffic rate promotes (and caused by) the use of motorcycle, aside from macro-buses (i.e., angkot). In order to solve the high traffic problem and reduce its GHG, the local government of DKI Jakarta is developing a Macro Transportation Pattern (PTM). The PTM regulates that the future transport system management in DKI Jakarta integrates various mobility modes, including railway (i.e., Commuter Line), bus rapid transit (i.e., Trans-Jakarta), light rapid transit, mass rapid transit, airport train to Soekarno-Hatta International Airport (i.e. Rail link), and non-motorized transport (i.e. wide and circular pedestrian bridge, cycling line). Demand management approach is also to be taken through the introduction of ERP, higher tax for cars, emission test for old vehicles, etc.

Following the national direction on taking action towards the climate change, the Governor of DKI Jakarta expressed their commitment to reduce its GHG emissions by up to 30% by 2030, as written in the Government Law no. 131 year 2012 on Local Action Plan on GHG. Through its Department of Environment, they have developed the city-specific Local Action Plan on GHG in order to achieve this highly ambitious target.

**Targets and actions**

Jakarta Governor has committed to reducing its GHG emissions by 30% by 2030. Jakarta Provincial Government through the Environmental Management Agency (BPLHD) Jakarta also has developed a Local Action Plan as a step towards achieving the target and has been established in the Province of Jakarta Governor Regulation No. 131 of 2012 on the Regional Action Plan for GHG Emission Reduction. In 2016 Jakarta has committed to reducing energy and water consumption by 30% in 2030.

The target is going to be reached by activities in Stationary energy, Transport, Waste management, Industrial processes and product use (IPPU) and Agriculture, forest and other land use (AFOLU) sectors. Moreover, the city plans to provide replace the conventional lamp to LED, target to be installed until 2030 is 367,070 units, while currently 59,310 units have been installed until 2015.

The Local Action Plan includes the following plans:

- **Cakung Recycle and Composting Center**: Cakung Center of Recycling and Composting (PDUK) currently operates and will be developed into Intermediate Treatment Facility (ITF). ITF is expected to reduce the burden on Bantar Gebang Landfill. The decision to put the location in Cakung is also expected to reduce the burden of waste transport vehicles and thus reduce the traffic. Based on 2010 data, PDUK Cakung able to process waste as much as 400 tons/ day.
- **Bus Rapid Transit (BRT) system**: A mass transportation system developed by DKI Jakarta by encouraging changes in public behavior from the use of private vehicle-based vehicles to mass public transportation tools that are more energy efficient and environmentally friendly and sustainable.
- **Installation of gas capture in landfill** (waste to energy project): In 2010, a gas-based power plant is developed in Bantar Gebang Landfill using methane gas produced there as the resource.
The gas potential contained in this waste has the capacity up to 2 MW, producing up to 12,865,695 Kwh energy in 2010. According to 2010 GHG inventory, this program successfully reduce as much as 9,623,54 ton CO2eq emission.

- **ITS (Intelligent Transport System)**: Installation of ITS sensors at traffic lights that regulate the duration of traffic lights based on vehicle volume
- **Developed Electric Train**: The government has developed a mass transportation system in the form of electric train by encouraging the change of public behavior to use public transportation of mass (electric train) which is more energy efficient and sustainable

Specifically for the Ambitious City Promises project, the city expressed their interest in the project in integrating their ambitious target into the upcoming City Mid-Term Development Plan/ RPJMD and City Energy Plan/ RUED. In doing so, the city government is committed to engaging the citizen and various stakeholders through existing Musrembang (public engagement on development plan) and the “Aspiration House” initiatives that have been taken by the newly elected governor to promote inclusiveness.

**Initiatives and awards**

DKI Jakarta is part of ICLEI Network Cities and has participated in the *Earth Hour City Challenge* (now known as *One Planet City Challenge*) since 2015 and has been awarded the National Earth Hour Capital consecutively since then. At the national level, it also received environment award for local governments, *Adipura Awards*. Adipura is awarded by the Ministry of Environment and Forestry of Indonesia every year to cities that are assessed to be successful in managing their urban environment and for maintaining cleanliness.