

Leading Climate Action in Cities: How are Balikpapan City and Bogor City doing it?

This final report details the climate action plan development process of Urban-LEDS II model cities Balikpapan and Bogor, both in Indonesia. Starting in 2012, the climate action journey of the two cities will ideally support the nation's 2020-2024 national development agenda named "Low Carbon Development Indonesia" (LCDI).

ICLEI Case Studies

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Summary

Embedding a low emission development approach into the city's five-year development planning was supported by the Urban-LEDS Project—an outstanding action for the Cities of Balikpapan and Bogor in Indonesia.

Following a comprehensive multi-level stakeholder process through the National Advisory Group (NAG) meetings, as well as consultations with the cities climate core team, the Cities of Balikpapan and Bogor—Urban-LEDS II model cities—reviewed their previous climate action plans (CAP).

As a result, the implementation of low emission development presented significant challenges during Phase I (2012-2015), as it required a strong understanding of the means of implementation by Balikpapan and Bogor Cities' staff as well as the other non-local budget supports.

Despite these challenges, some remarkable achievements were made. This case study outlines how the process in formulating the Urban-LEDS II CAP—to accelerate the low emission development with a climate resilience focus embedded—adopted and adapted the ICLEI's Green Climate Cities (GCC) methodology in line with the Indonesian urban planning system.



Aerial view of Balikpapan Bay

Facts and Figures

Population

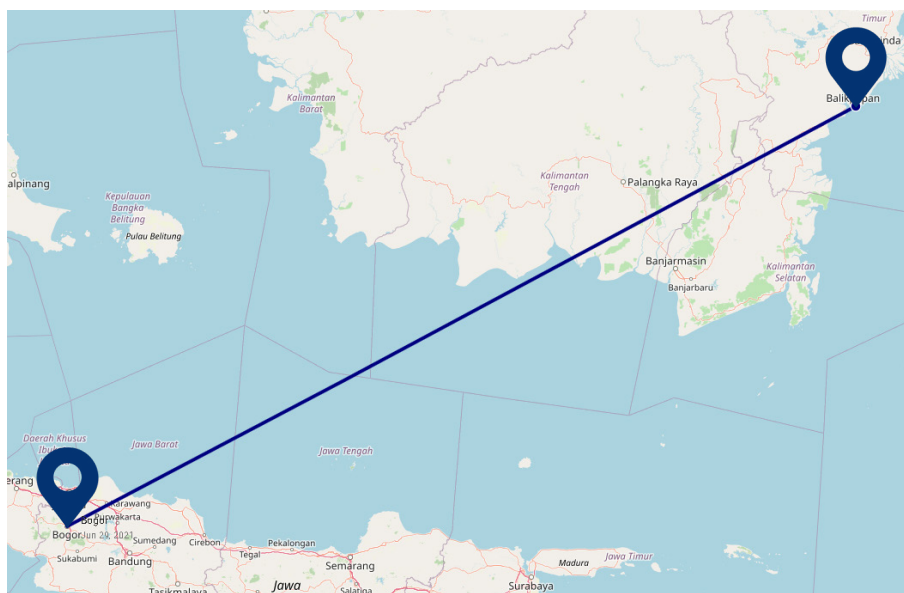
Balikpapan City: 625,965*
Bogor City: 1,081,099**

Land Area

Balikpapan City: 503.3 km²
Bogor City: 118.5 km²

Population Density

Balikpapan City: 1,244/km²*
Bogor City: 9,122/km²**



*as of 2016
**as of 2017

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Balikpapan Islamic Center Mosque, Balikpapan City

From urban-LEDS Global Program to Support National Agenda and Local Impacts

The urban-LEDS Project is a global initiative jointly implemented by UN-Habitat and ICLEI - Local Governments for Sustainability which aspires to bring cities to a path of green and resilient development. Following a robust and evidence-based methodology, the project supports local champions in identifying and creating low-carbon and climate-resilient strategies and maximizing opportunities to achieve sustainable growth. This four-year program is being delivered in partner cities undergoing rapid transformation and is committed to addressing today's biggest urban challenges.

Since the project's first phase in 2012-2015, two Indonesian model cities, Balikpapan and Bogor, have been part of the urban-LEDS global network of local governments poised to tackle climate change through peer-to-peer learning, partnerships, and concrete demonstration projects. A key lesson from Urban-LEDS I was that the Cities of Balikpapan and Bogor, as emerging economies, are using climate change mitigation as a driver to address a multitude of development issues, such as eco-mobility, energy efficiency, sustainable and local renewable energy, waste-to-energy projects, spatial planning improvement, inclusive and multi-level governance, and cities' technical and institutional capacities. The achievements of phase I are available on the project website (<https://urban-leds.org/about-the-project/achievements-of-phase-i/>).

Phase II (2017-2021) is an expansion to the urban-LEDS project, accelerating climate action not only curbing GHG emissions but also enhancing the cities' climate resilience. To enrich the formulation of the CAPs for both model cities, phase II did not only update the cities greenhouse gas inventories (GHGI) but also augmented the adaptation and resilience components of the model cities' action plan, by providing support in the conduct of science-based climate risk and vulnerability assessment (CRVA). Ultimately, the main goal is to help the model cities formulate and develop Urban-LEDS CAP, with a climate resilience focus embedded and guiding integrated climate action by using climate change co-benefit (hereinafter co-benefit) approach.

These Urban-LEDS II CAPs ideally will support the implementation of the 2020-2024 national development agenda, namely Low Carbon Development Indonesia (LCDI). The Government of Indonesia (GoI) through the Ministry of National Development Planning/Bappenas introduced the national priority sectors for low-carbon development (climate mitigation) include sustainable energy development, waste management, low carbon coastal and marine development, green industry development, and sustainable land restoration. Meanwhile, the national priority sectors for climate resilience (climate adaptation) include marine and coastal areas, water, agriculture, and health. Furthermore, the GoI established the LCDI Secretariat, which is coordinated by the Ministry of National Development Planning/Bappenas, to support green and climate investments, strengthen cross-sector integration in decision-making, and make Indonesia a leader in low-carbon development.

Adopting the Green Climate Cities (GCC) Methodology in Urban-LEDS II CAP Formulation

ICLEI staff and the contracted consultant worked in direct collaboration with the model cities to formulate the Urban-LEDS II CAPs. The implementation of the GCC required several steps, which tie into its various elements and need to be adopted with the Indonesian urban planning system (Figure 1).

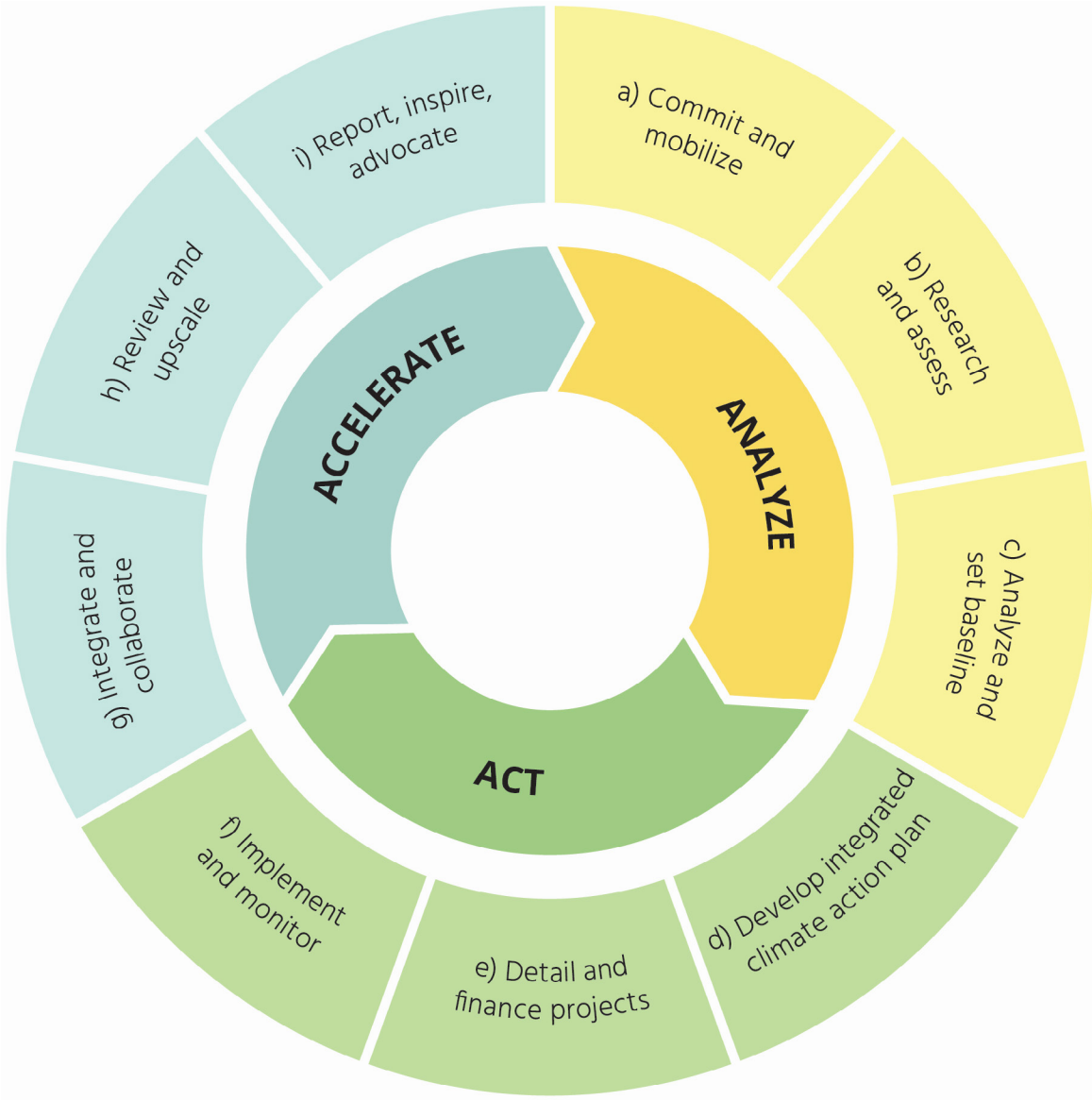


Figure 1. ICLEI Green Climate Cities (GCC) Methodology

Phase 1: Analyses

Commit and Mobilize: Both model cities have committed to combating climate change. Balikpapan City and Bogor City have set a target to reduce their greenhouse gas (GHG) emissions from 2010 Business-as-Usual (BAU) by 29% and 19.39% come 2020¹, respectively, as a voluntary action to support the Presidential Regulation No. 61 of 2011 on the National Action Plan in Reducing GHG Emissions. In addition, the two local leaders have submitted their commitment to tackling climate change under the Global Covenant of Mayors for Climate and Energy (GCoM).

Research and Assess: Following the GCC's first phase, the team have reviewed the updated GHG Inventory (2015-2018), CRVA Report (2020), CAP documents from Urban-LEDS phase I, Urban-LEDS Phase I Final Report, the existing 2020-2024 Bogor City's Mid-Term Development Planning document (locally named Rencana Pembangunan Jangka Menengah Daerah or RPJMD), the Final Draft 2021-2026 Balikpapan City technocratic RPJMD document including final draft Strategic Environmental Assessment (SEA) of 2021-2026 RPJMD, cities statutory planning document, and other relevant national policies. These resources established the evidence base for kicking off Urban-LEDS Phase II in the model cities.

Following the desk study, several consultations with the NAG members and the cities' climate core team were held to validate the collected data and solicit inputs from NAG members representing different levels of government and key stakeholders. Consultations were organized virtually due to the contingency of COVID-19 pandemic (Figure 2).

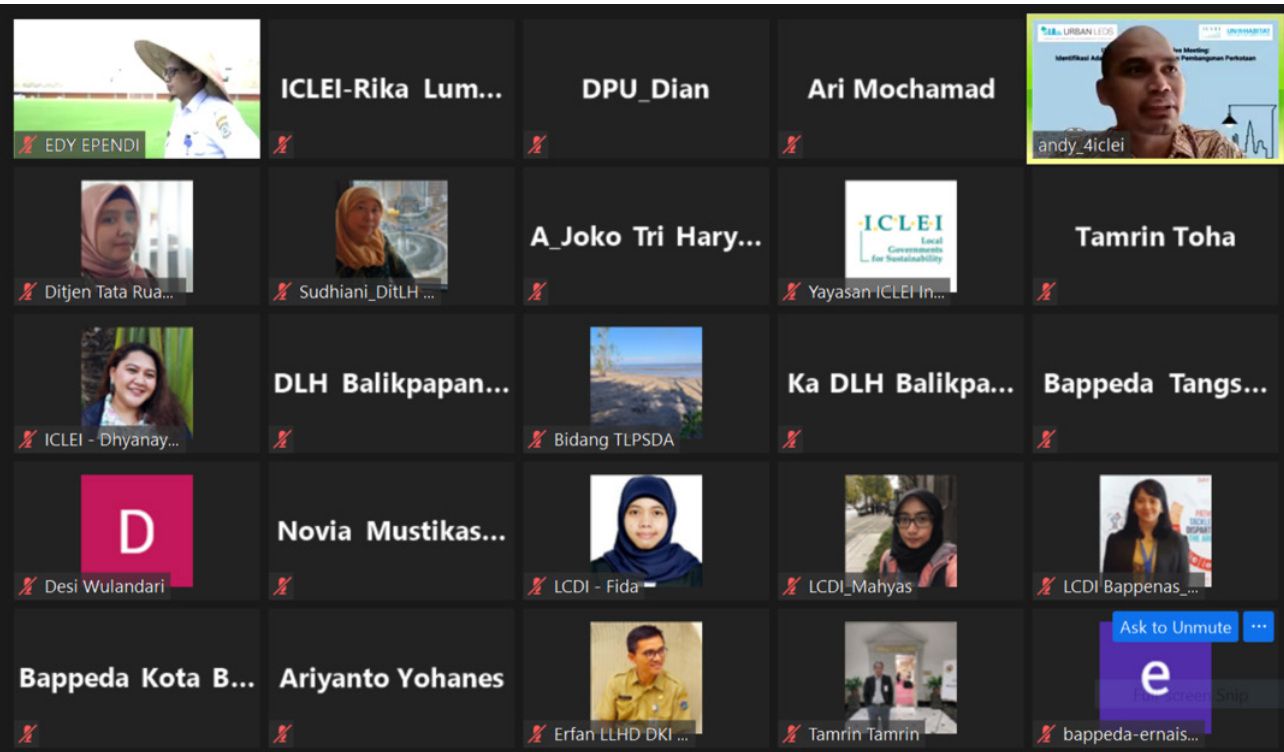


Figure 2. Virtual NAG Meeting with Balikpapan and Bogor' Local Government Organizations (LGOs) on 22 October 2020 which aimed to receive inputs for the identified co-benefits of the CAPs

Analyze and Set Baseline: One key insight generated from updating the cities' GHGs year 2015-2018 showed that energy (including transportation), waste, and agriculture, forestry and other land use (AFOLU) are still the top GHG-emitting sectors. On the other hand, the CRVA report (2020) showed that Balikpapan City is projected to face decreased water availability, increase in sea level, floods, drought and strong winds. Meanwhile for Bogor City, it is expected to experience water shortages, disruption to urban ecosystems, extreme weather, increased prevalence of climate-related diseases, disruption to food security, and increased climate-related disasters.

Considering the need for both structural and transformative adaptation strategies that allow for mitigation functions as well, a co-benefits approach was used to formulate the Urban-LEDS II CAPs. According to Mayrhofer and Gupta (2016: 23), co-benefits is a term that has been used to describe synergies between climate change mitigation and adaptation and other goals (Figure 3). As a result, the co-benefit approach also helps the cities in identifying the potential contribution of each Urban-LEDS II CAP to the United Nations Sustainable Development Goals (SDGs), particularly goals No. 2 (Zero Hunger) No. 3 (Good Health and Well-being), No. 7 (Affordable and Clean Energy), No. 9 (Industry, Innovation and Infrastructure), No. 11 (Sustainable Cities and Communities), No. 13 (Climate Action), and No. 15 (Life on Land).

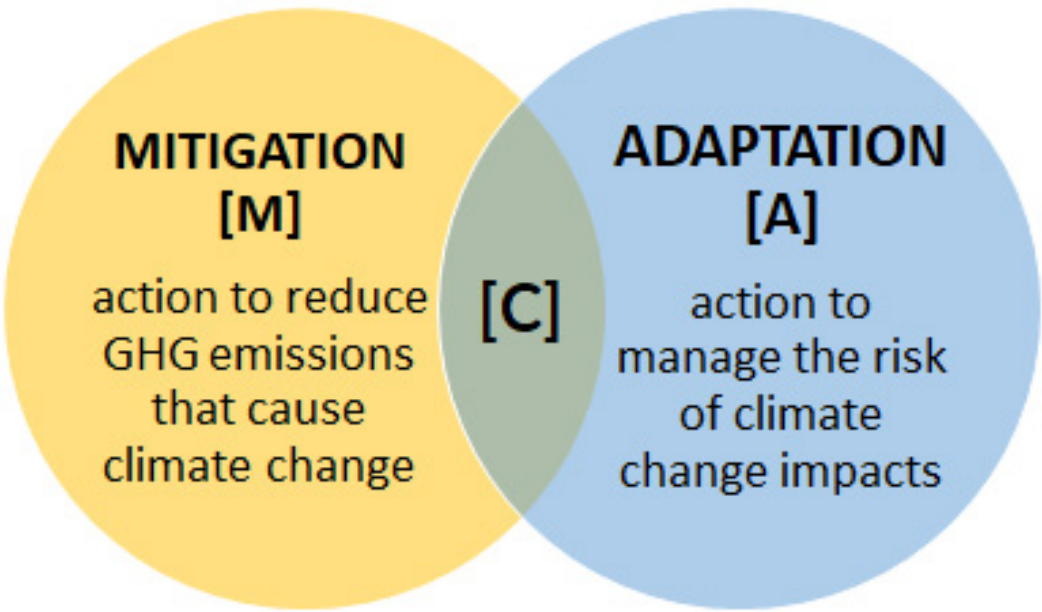


Figure 3. Co-benefit [C] approach is used in the formulation of Urban-LEDS II CAPs

¹ Urban-LEDS Phase I Final Report

Phase 2: Act

Peer-to-peer webinars: The co-benefit approach is a new concept in the Indonesian urban planning system. In response, several webinars were carried out in order to fill the knowledge gap and enhance capacity of the NAG members and the model cities' LGOs. One advantage of adopting the co-benefit approaches is that it enables the achievement of several development goals despite a limited local budget. On the other hand, the introduction of the co-benefit approach to the national government (the Ministry of Home Affairs and the Ministry of National Development Planning/Bappenas) could also encourage the ministries to add new uniform programming codes to flag adaptation and co-benefit actions in the national reporting systems, namely Regional Government Information System, SDGs Dashboard, and AKSARA platform².

Drafting and administering Urban-LEDS II CAPs: The proposed Urban-LEDS II CAPs for both model cities have been designed in a way that they can be integrated into the city mid-term development planning document (Figure 4). Balikpapan City is preparing the updated GHG emissions reduction target by 2030, which will then be embedded in the completion of the final draft of the 2021-2026 City Mid-term Development Planning document. Further, Bogor City is administering the Urban-LEDS II CAP as a reference in the revision processes of the existing 2020-2024 Bogor City's RPJMD and delivering the proposed policy recommendations to support the on-going revision processes of the West Java Provincial Spatial Planning Document for the period of 2009-2029 as well.

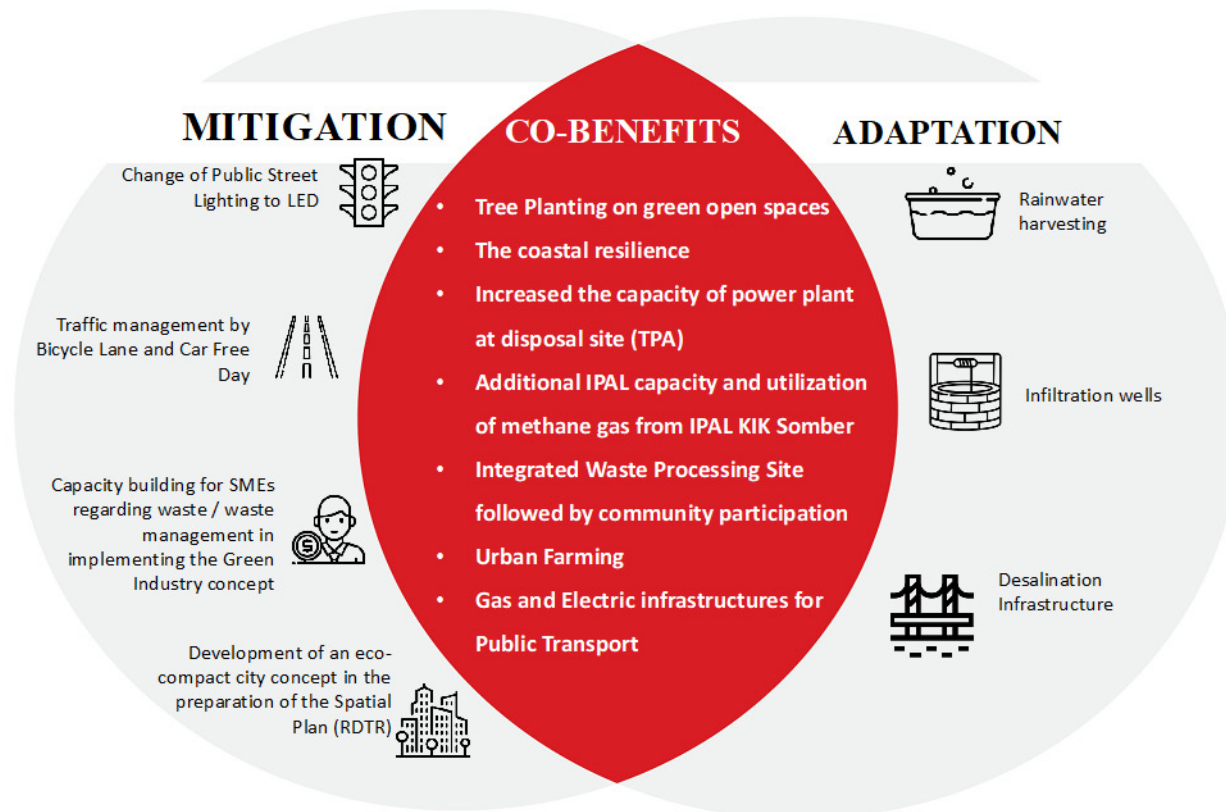


Figure 4. Proposed Urban-LEDS II CAP for Balikpapan City

² AKSARA (Aplikasi Perencanaan dan Pemantauan Aksi Pembangunan Rendah Karbon Indonesia) is a transformation from PEP Online, a portal for monitoring, evaluating and reporting climate change mitigation developed by the Ministry of National Development Planning/Bappenas. It has four modules that help the Local Governments to design and plan the climate actions, to monitor the implementation, to evaluate the achievements, and to provide regular information. AKSARA is a platform for recording low carbon development actions that are transparent, accurate, complete, consistent and integrated with SIGN SMART (national greenhouse gas inventory system), NRS (national registry system) and KRISNA (planning and budget performance information system).

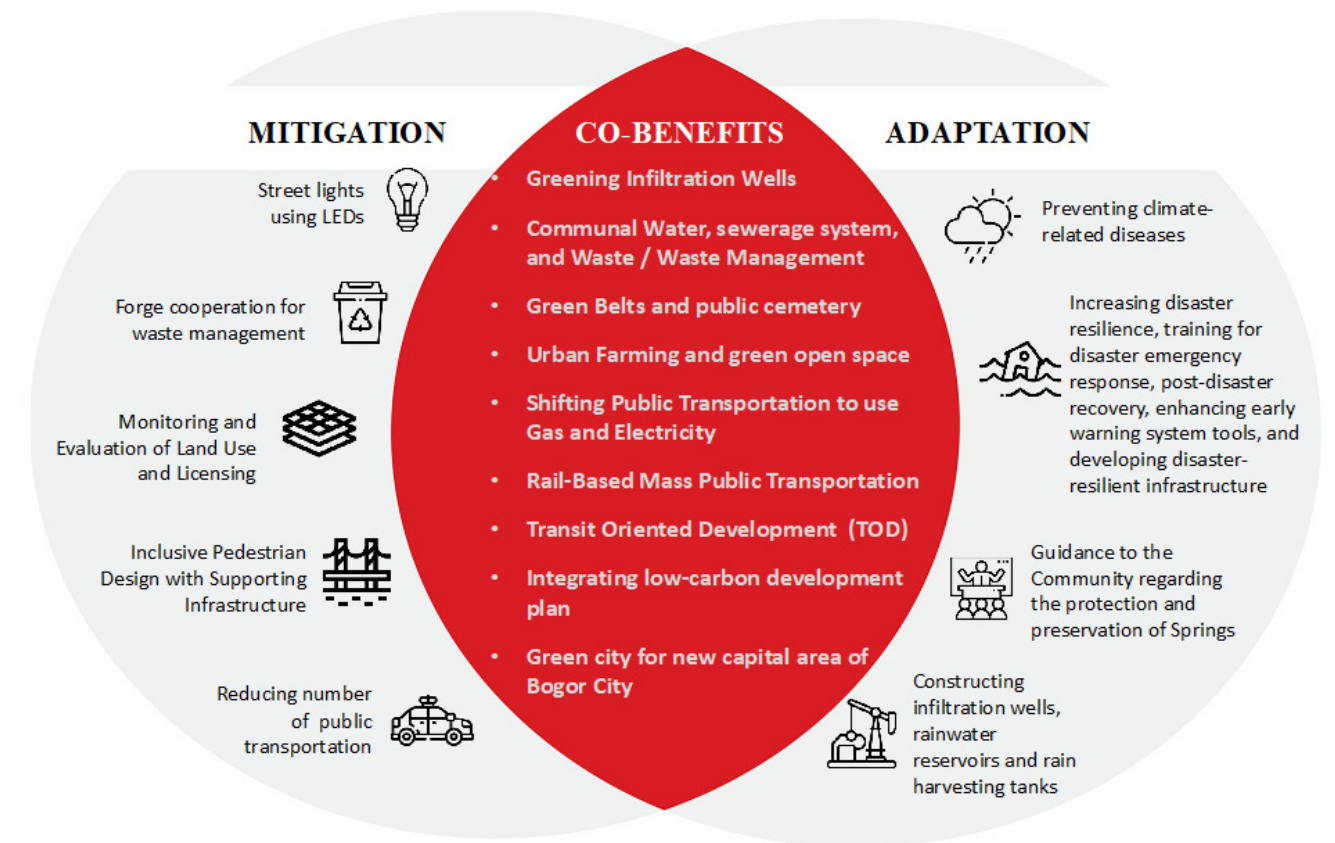


Figure 5. Proposed Urban-LEDS II CAP for Bogor City

Local Implementation and Means of Implementation: Means of implementation is a broad category of support areas that shall enable the implementation of the CAPs. In the context of Balikpapan City and Bogor City, these include optimizing the institutional capacities of city's staff (institutional) to financing, and leveraging necessary green technology development and transfer. With these support areas in place, the CAPs are in a better place to be implemented fully and reach their objectives. The general monitoring and evaluation framework, including its key performance indicators (KPIs) in the Urban-LEDS II CAPs document, needs to reflect these means of implementation in line with the existing policies and operational instruments. Moreover, the cities should take into account to develop financial indicators to track the status, progress, and outcomes of the actions and projects being implemented.



Phase 3: Accelerate

Integration and Collaboration: The Urban-LEDS II CAPs are not stand-alone planning documents. To support the ultimate goal of phase II in accelerating climate action, the Urban-LEDS II CAPs shall be integrated into local statutory processes, particularly for development and spatial planning purposes. In terms of development planning (RPJMD), Urban-LEDS II action plan should be a part of the city's programs and activity. In addition, the location of the program should be accommodated in the structure and land use plan of RTRW. Both statutory planning is the legal basis of Urban-LEDS II Action Plan. For example, in the RPJMD Bogor City, the list of Urban-LEDS II programs has been incorporated in several kinds of programs.

To maintain and leverage the collaboration as the heart of climate action, both model cities have to actively engage stakeholders, local universities, city development partners, private sector and so on, by promoting the priority issues and their solutions nationally and internationally.

Results

The Urban-LEDS II CAPs were formulated in perfect timing as Balikpapan City was completing its final draft 2021-2026 RPJMD while Bogor City was revisiting the quality of its existing 2020-2024 RPJMD. Thus, the Urban-LEDS II CAPs are used by both model cities to mainstream low carbon development strategies and climate resilience into their respective RPJMD.

Several discussions with the representatives of each LGOs resulted in a list of priority action plans and their description, location and timeframe indications, funding estimation, key LGOs and external partners, and SDGs indicators. Moreover, the consultation processes with the NAG members captured the complementary benefits in the formulation of Urban-LEDS II CAPs in order to ensure that the identified CAPs supported the implementation of LCDI and national climate resilience.



A mosque in Bogor City

Table 1. ICLEI' GCC Methodology for Urban LEDS II CAP Formulation in the Cities of Balikpapan and Bogor

STEP	ELEMENT	FULLY OR PARTLY IMPLEMENTED	JUSTIFICATION	
			Balikpapan City	Bogor City
Analyze	[a] Commit and mobilize	Fully	<ul style="list-style-type: none"> Locally, both cities embedded the low emission development strategies into the city mid-term development planning document. Globally, both cities have voluntarily committed to tackle climate change under the GCoM. 	
	[b] Research and assess	Fully	Updating GHGI and CRVA report completed	
	[c] Analyze and set baseline	Partly	Plan to renewal target of GHG emissions reduction by 2030	Plan to revisit proposed target of GHG emissions reduction by 2030
Act	[d] Develop integrated action plan	Fully	Urban-LEDS II CAP is integrated to complete final draft 2021-2026 technocratic RPJMD including final draft 2021-2026 SEA-RPJMD	Urban-LEDS II CAP is being integrated to complete the revision process of the existing 2020-2024 RPJMD
	[e] Detail and finance project	Partly	Urban-LEDS II CAPs need to sharpen each action by carrying out feasibility study (including detailed engineering design) and developing financial indicators.	
	[f] Implement and monitor	Partly	Each Urban-LEDS II CAP needs to provide detailed KPIs.	
Accelerate	[g] Integrate and collaborate	Partly	Urban-LEDS II action plan is being discussed in the technical design meeting for the upcoming 2021 - 2026 RPJMD	Urban-LEDS II action plan is being adapted to the list of programs in the revision processes of the existing 2020-2024 RPJMD.
	[h] Review and upscale	Partly	Urban-LEDS II action plan has been reviewed the LEDS phase I and highly recommended for replication	
	[i] Report, inspire and advocate	Partly	<p>Both model cities report their climate action plan, status, progress and outcome:</p> <p>i. National Registry System and PEP Online; and</p> <p>ii. CDP-ICLEI Unified Reporting System.</p> <p>Balikpapan City and Bogor City have inspired the other cities around the world and awarded The World's Most Lovable City, respectively in 2015 and 2016. Moreover, Balikpapan City was the national winner of One Planet City Challenge (OPCC) 2019/2020.</p>	

Lessons Learned



Comprehensive supporting documents. Development planning is a continuous process. With this regard the city government should also strengthen their planning supporting system to achieve multi-dimensional development targets in an effective and efficient manner. The availability of documents of the city's RPPLHD, RPB, RAD-API, RAD SDGs, and RPRKD^{3,4,5,6,7} can enhance the quality of the city's development planning document as well as regional spatial planning document.

Pinpointing the priority. It is well noted that city development is complex. With the limitation of the local budget to support the implementation of climate change adaptation and mitigation actions, the co-benefit is the best approach to optimize the budget in the terms of cost-effectiveness and goal-oriented. In addition, multiplier benefits are not only to keep the environment protected but also to encourage inclusive green economy growth and social welfare.

³ The formulation of Regional Environmental Protection and Management Plans (RPPLHD) is a mandate of the Law of the Republic of Indonesia Number 32 of 2009 and Number 23 of 2014

⁴ The formulation of Disaster Management Plans (RPB) is a mandate of of the Law of the Republic of Indonesia Number24 of 2007 and Government Regulation Number 21 of 2008

⁵ The SDGs Regional Action Plan (RAD SDGs) is a mandate of the Presidential Regulation of the Republic of Indonesia Number 59 of 2017

⁶ The Regional Action Plan for Climate Change Adaptation (RAD-API) needs to be formulated to support the mandate of Law of the Republic of Indonesia Number 31 of 2009 and Regulation of the Minister of Environment and Forestry of the Republic of Indonesia Number P.33 / Menlhk / Setjen / Kum.1 / 3/2016

⁷ Until this study has been formulated, a Presidential Regulation concerning Low Carbon Development Planning (PPRK) is still being prepared. RPRKD refers to local low carbon development planning documents

Securing the well understanding of the means of implementation. At any local government level - the local leader, LGOs, local parliamentary councils - shall be well understood that there are three pillars in the means of climate action implementation: (i). Institution including human resources; (ii). Technology; and (iii). Financing. One critical learning experience in the urban system is the consensus-based decision with all related stakeholders. Thus, the well understanding at any local government level can accelerate the low emission development and climate resilience, suppress loss and damage and support urban transformation into an equitable green economy.

Transforming the existing Development Planning Deliberation (locally named Musyawarah Rencana Pembangunan or Musrenbang) into e-Musrenbang. It is well known that Musrenbang is a forum for all relevant stakeholders to develop National and/or Local Development Planning. By transforming it into e-Musrenbang is not only as a response to the contingency of COVID-19 pandemic but also as an initial step in managing data and information. In addition, e-Musrenbang can be accessed easily through various devices and can be input from anywhere online.

Continuing the multi-governance dialogue. Broad stakeholder dialogues and consultations should be carried out continuously. Policy recommendations from bottom-up approach from several science-based assessments at least should be conveyed to the Ministry of Home Affairs as the local government's focal point and/or directly conveyed to the relevant key actors/ministries. Thus, the valuable inputs from sub-national level can upgrade the national reporting systems to track the status, progress and outcome. Through multi-governance dialogue, for example NAG meetings, welcome the wide opportunities to have peer-to-peer learning. For instance, giving a floor for local government to have access and/or receive capacity building upon guidelines of mainstreaming climate change adaptation and mitigation into spatial planning issued by the Ministry of Agrarian and Spatial Planning in 2018.



Replication

The formulation process of Urban-LEDS II CAP in the Cities of Balikpapan and Bogor can be replicated by the Indonesian local governments. The effectiveness of city' climate core team should be emulated wherever possible. Performing the updating of GHGI and assessing climate risk vulnerability (CRVA) are steps which can be followed by the Indonesian local governments wanting to tag on the co-benefit actions in their development planning, providing that funding is available.

The key to successful replication has less to do with time and money, and much more to do with the **what** (proposed actions), **who** (key actors and the project team engages with), **when** (indicated timeframe), **where** (the most vulnerable locations), **why** (level of priorities) and **how** (implementation).



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Mount Salak as seen from Bogor City

