


IKHTIAR JAKARTA: TOWARDS A SUSTAINABLE DKI JAKARTA



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Document Information

This report consists of the Ikhtiar Jakarta, a document showcasing the low emission development strategies pledged by different local stakeholders of Jakarta. This report reflects the inputs gathered from a series of consultations with relevant agencies of DKI Jakarta, members of the National Advisory Group of ICLEI Indonesia, and representatives of various stakeholder groups in Jakarta. This document is expected to serve as inputs to the Rencana Aksi Daerah Penurunan Emisi Gas Rumah Kaca (RAD-GRK) of DKI Jakarta as well as to other relevant planning documents and policies on climate change mitigation by the province. This report was prepared with supervision from ICLEI Indonesia Office, Southeast Asia Secretariat, and World Secretariat under the project: **Ambitious City Promises Project**.

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List of Acronyms

3R	: Reduce, Reuse, Recycle
ACP	: Ambitious City Promises
AFOLU	: Agriculture, Forestry and Other Land Use
AKSARA	: Low Carbon Development Planning and Monitoring Application
BAU	: Business as usual
BAPPEDA	: Local Development Planning Agency
BAPPENAS	: Ministry of National Development Planning
BMU	: German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety
BPBD	: Badan Penanggulangan Bencana Daerah
BRT	: Bus Rapid Transit
CDP	: Carbon Disclosure Project
CSOs	: Community Social Organizations
CSR	: Corporate Social Responsibility
DAS	: Watershed (Daerah Aliran Sungai)
DBM	: Bina Marga Agency
DLH	: Environment Agency
DCKTRP	: Cipta Karya, Spatial Planning and Land Agency
Dinkes	: Health Agency
Disdik	: Education Agency
Dishub	: Transportation Agency
Diskominfotik	: Communication, Informatics and Statistic Agency
Distamhut	: Park and Forestry Agency
DKPKP	: Maritime, Agriculture and Food Security Agency
DPPAPP	: Child Protection and Empowerment and Population Control Agency
DPRKP	: Public Housing and Settlement Agency
DRRM	: Disaster Risk Reduction Management
DSDA	: Water Resource Agency

DTKTE	: Manpower, Transmigration and Energy Agency
EPR	: Electronic Road Pricing
ERP	: Extended Producer Responsibility
IKI	: International Climate Initiative
IEC	: Information, Education, and Communication
ITF	: Intermediate Treatment Facility
GcoM	: Global Covenant of Mayors for Climate & Energy
GHG	: Greenhouse Gas
KRL	: Electric Commuter Train (Kereta Rel Listrik)
LRT	: Light Rail Train
MoEF	: Ministry of Environment and Forestry
MRT	: Mass Rapid Transit
MRV	: Monitoring, Reporting and Verification
NGOs	: Non-Government Organizations
NDC	: Nationally Determined Contribution
PKK	: Family Welfare Movement (Pemberdayaan Kesejahteraan Keluarga)
RAD-GRK	: Local Action Plan for Greenhouse Gas Emission Reduction
R&D	: Research and Development
RPJMD	: Local Medium Term Development Plan
RPJPD	: Local Long Term Development Plan
SMG	: Seoul Metropolitan Government
SIGN SMART	: National GHG Inventory System: Simple, Easy, Accurate, Concise and Transparent
SRN	: National Registry System (Sistem Registri Nasional)
UNFCCC	: United Nations Framework Convention on Climate Change

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Foreword

On behalf of myself and the Provincial Government of DKI Jakarta, allow me to express our gratitude and appreciation to ICLEI Indonesia for collaborating in the climate crisis control action in DKI Jakarta. This collaboration is related to formulating a Strategy for Accelerating the Achievement of Greenhouse Gas (GHG) Emission Reduction Targets in DKI Jakarta through the Ambitious City Promises (ACP) Program. One of the program’s outputs is the formulation of the Ikhtiar Jakarta document: Towards a Sustainable DKI Jakarta.

The climate crisis has affected natural and human systems in the entire world. It exacerbates climate hazards and amplifies the risk of extreme weather disasters on all continents. It must be admitted that human activities have heavily contributed to this climate crisis. To address climate change, we have to increase our efforts and collaborate with various stakeholders vastly.

Jakarta has a firm commitment to being involved in the movement against the global climate crisis. Since 2012, the DKI Jakarta Provincial Government has paid serious attention to dealing with the threat of the climate crisis by committing to reduce Greenhouse Gas (GHG) emissions by 30% by 2030. This commitment is part of the DKI Jakarta Provincial Government’s efforts to support Indonesia’s commitment to reduce greenhouse gas emissions by 29% (unconditional) and 41% with support from international funding (conditional) in 2030, as stated in the Nationally Determined Contribution (NDC). The DKI Jakarta Provincial Government has integrated this global agenda into the Regional Medium-Term Development Plan (RPJMD). Considering the impact of climate change, which will be more massive in the future, accelerated action is needed. For this reason, in 2021, the DKI Jakarta Provincial Government is determined to transform Jakarta into a Climate-Resilient City. Jakarta is not only focused on ambitious efforts to reduce its Greenhouse Gas (GHG) emissions, but also build community resilience to the climate and environment that is constantly changing.

The Ikhtiar Jakarta document, which contains commitments, strategies and integrated actions, is an integral part of the priority policies of the DKI Jakarta Provincial Government in implementing the climate mitigation and adaptation agenda. It shall serve as a reference in evaluating and monitoring climate action for all stakeholders in combating climate change globally.

This commitment will strengthen our collaboration to save the earth and Jakarta from the threat of the climate crisis. Hopefully, this collaboration can be an essential part in reaching the Global Paris Agreement and building the earth’s resilience from the climate crisis in the future.

Finally, all of these efforts are part of our collective concrete action to provide a better environment for our children and grandchildren as well as future generations.

Wassalamualaikum Warahmatullahi Wabarakatuh

Jakarta, 24 May 2021

Governor of DKI Jakarta

Anies Baswedan Ph.D



Foreword

The world is currently faced with the COVID-19 pandemic, which has had a significant impact on changes in human understanding, way of thinking and behavior. The effect on the community's economy certainly contributes to the economic growth of a country's micro, meso and macro levels. The world's recovery from COVID-19 and its impact on the economy, according to experts, will take several years to come. In essence, this pandemic is quickly accepted as a real threat, so a fast response is given.

In contrast to that, the threats and impacts of climate change are slow onset events (slowly but surely, the effect will be much more significant on biological and natural physical systems on this earth). There is a shift in the way of looking at the causes and effects of climate change, which is no longer merely an environmental issue but is more related to the pattern of development strategies that have been implemented so far. As a result, it affects the macroeconomic stability of the country, regionally and even globally. To respond to these threats, the development strategy approach must comprehensively include all strategic development sectors through development strategies that adopt climate change considerations. At the national level, climate change discourse is embedded in low-carbon and climate-resilient development policies.

It is estimated that by the end of this century, fifty percent of the population will live in urban areas, which occupy only three percent of the total land area. In the previous century, eighty percent of population growth occurred in cities and towns. This condition will be even more worrying for developing countries, which will be home to eighty percent of the world's population in the next twenty-five years. Of the twenty major cities, seventeen will be in the developing world by the end of this decade. As a result, municipal governments in these countries are under tremendous pressure to provide basic services and infrastructure to residents.

The urban picture in most major cities in developing countries is characterized by air pollution that has exceeded emission limits and health standards. Some urban environmental problems, such as inefficient use of energy and energy sources that are not environmentally friendly, then the issue of access to clean and safe drinking water progressed along with economic growth, while other things tended to worsen. It is estimated that by 2050, around 70% of the world's 6.4 billion population will live in urban areas, which have the potential to create problems and challenges. The threat of climate change makes it a factor contributing to aggravating the existing conditions. Of course, this places urban areas as very vulnerable to the effects of climate change.



The world community, including Indonesia, realizes that the threat of climate change due to global warming has caused enormous losses to the social life of society, the physical and biological environment and the economy of a country. That is the rationale that the Indonesian government is part of the climate change negotiations at The United Nations Framework Convention on Climate Change (UNFCCC) every year. In its development, negotiations at the UNFCCC resulted in the Paris Agreement adopted by 196 parties at COP 21 in Paris on 12 December 2015 and entered into force on 4 November 2016. The agreement aims to limit global warming to below 2, preferably up to 1.5 degrees Celsius, compared to pre-industrial levels.

As a follow-up to the ratification of this agreement, the Government of Indonesia issued Law no. 16 of 2016 concerning Ratification of the Paris Agreement to The United Nations Framework Convention on Climate Change. In the journey and process of the UNFCCC to date, the Paris Agreement is the first agreement binding all parties (countries) to undertake ambitious efforts to combat climate change and adapt to its impacts.

The DKI Jakarta Provincial Government is currently preparing strategies and policy plans to achieve a 30% emission reduction in 2030 and towards net zero emissions in 2050, proclaimed by the Governor of DKI Jakarta, Anies Baswedan. Collaboration with various parties is an essential strategy in achieving these targets, one of which is collaboration with the ICLEI – Local Governments for Sustainability Indonesia Office through the Ambitious City Promises (ACP) program which has been implemented since 2017. The big theme presented was Ikhtiar Jakarta to create a province and a big city (Megacity) as a sustainable city by inviting community participation through its capabilities and capacities to participate in the implementation of climate action.

Also, ICLEI – Local Governments for Sustainability Indonesia Office would like to express our gratitude to the Governor of DKI Jakarta and his staff. The successful implementation of programs and activities could be achieved due to mutual support and commitment. We would also like to thank community groups, civil society organizations, universities and other private sectors who have worked and collaborated with us so far. Finally, thank you to Indonesian ACP team, Selamat Daroyni and Happy Tiara Asvita as well as internal teams within the ICLEI – Local Governments for Sustainability Indonesia Office, ICLEI Southeast Asia Secretariat and ICLEI World Secretariat, for your initiative and cooperation.

Ari Mochamad

Country Manager

ICLEI – Local Governments for Sustainability Indonesia Office

Rationale

Climate change is progressing rapidly and universally, challenging cities across the world to rise to the challenge and inspire their peers. Many mitigation and adaptation efforts have already been prepared to address the issue of climate change, but implementation must commence immediately to meet the Paris Agreement goals of keeping the global temperature increase below 1.5°C by 2030. As one of the signatories of the Paris Agreement, the Indonesian government submitted its first Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) in November 2016. This affirmed the country's commitment to reduce its emissions with an unconditional target of 29% and a conditional target of up to 41% under a business as usual scenario by 2030.

"Cities must become the pioneers of the movement to combat climate change in the world. If you look at the impact, the current condition is more accurately called the climate crisis. For that, the movement needs to be integrated into the development planning of each city and province in collaboration with all parties so that the earth's future can be saved from this climate crisis."

- Anies Baswedan, Governor of DKI Jakarta Province

As the seat of Indonesia's capital, DKI Jakarta has always been committed to taking leadership among Indonesian local governments in advancing priorities towards climate action. Even before the country's submission of its NDC, the DKI Jakarta Provincial Government has already set its GHG emissions reduction target of 30% (equivalent to 35.24 million tCO₂e) by 2030, per Governor Regulation No. 131 of 2012 concerning the Regional Action Plans for Reducing Greenhouse Gas Emissions of DKI Jakarta (RAD-GRK). In 2018, it was reported that the province has already achieved a 7.95% reduction in emissions, equivalent to 26.5% of its reduction target. The majority of this reduction was attributed to measures in improving power plant efficiency as well as shifts to the use of biofuels in the transportation sector¹.

With the country's NDC submission and the governor's urgent call to action, DKI Jakarta reaffirms its pledged GHG emissions reduction targets as well as its aspiration to achieve zero emissions by 2050. To fulfill this, the provincial government recognized its need to enhance its ambitions and expedite implementation through collaborative efforts with all relevant stakeholders. Therefore, DKI Jakarta welcomed participation in the Ambitious City Promises (ACP) Project², implemented by ICLEI-Local Governments for Sustainability, in cooperation with the Seoul Metropolitan Government (SMG) and funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through the International Climate

¹ GHG Emission Inventory and GHG Emissions Reduction Report of DKI Jakarta Province. 2019.

² <https://acp.iclei.org/>

Initiative (IKI) program. This four-year international project aims to extend technical assistance to key metropolitan areas in Indonesia, the Philippines, and Vietnam to formulate their respective "City Promises," characterized by strong GHG emissions reductions and a local climate action plan directed by concrete targets, enhanced multi-stakeholder engagement, and integrated strategies. In Indonesia, DKI Jakarta was selected as the model city while the cities of Bekasi and Tangerang were selected as satellite cities.

Inspired by the success of the Seoul Metropolitan Government (SMG) in pursuing its own low emission development pathway through its "Promise of Seoul: Taking Actions against Climate Change," DKI Jakarta has partnered with ICLEI in developing "**Ikhtiar Jakarta: Towards a Sustainable DKI Jakarta.**" This document is a compendium of climate actions jointly developed and pledged by various stakeholders in an inclusive and participatory manner to support the provincial government's efforts in meeting its GHG reduction/avoidance targets.

Ikhtiar Jakarta was developed after an exhaustive review of relevant policies and plans as well as multi-stakeholder consultation activities. The five main planning documents that were reviewed are: (a) Governor Regulation No. 131, 2012, concerning DKI Jakarta's Regional Action Plan for GHG Reduction (RAD-GRK); (b) Inventory of Emissions Profiles and Reporting of GHG Emission Reduction Target of DKI Jakarta Province (2019); (c) DKI Jakarta Mid-Term Development Plan 2018-2022; (d) The Strategic Plan of Each Agency for 2018-2022, and (e) Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050. Governor Anies Baswedan articulated the province's potential to step up its climate ambitions during the Zero Carbon City International Forum on March 17th, 2021, which was jointly organized by the Ministry of the Environment Japan, UNFCCC, ICLEI, and the Institute for Global Environmental Strategies (IGES). DKI Jakarta is committed to stepping up its efforts to realize its potential to declare and achieve zero emissions target through a more aggressive, accelerated, and concerted effort to implement concrete climate actions together with stakeholders. This dedication is also in line with DKI Jakarta's commitment as a member of the Global Covenant of Mayors for Climate & Energy (GCoM)³, the largest global alliance for city climate leadership with more than 10,000 cities globally sharing a long-term vision to work towards a resilient and low-emission society.

A series of consultation meetings and workshops with the different agencies of the provincial government as well as representatives from different stakeholders including women's union, youth groups, religious groups, business community, academia, CSOs/NGOs, among others were also organized. These consultations served as venues for DKI Jakarta and ICLEI to solicit pledges of climate actions to support the government's efforts in meeting its GHG reduction targets at the provincial and national levels.

Ultimately, Ikhtiar Jakarta was developed to expand the stakeholder engagement reach of RAD-GRK, the primary planning document outlining DKI Jakarta's GHG emissions reduction strategies. The pledged actions in Ikhtiar Jakarta also adhered to the GHG reduction targets and mitigation roadmap indicated in the Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050; this document

³ <https://www.globalcovenantofmayors.org/>

elaborated and quantified the GHG reduction target of the province and outlined a mitigation roadmap for the provincial government. Therefore, Ikhtiar Jakarta shall serve as a reference for all stakeholders in identifying concrete actions that are in line and will drive the implementation of climate action in DKI Jakarta to meet the province’s target of reducing its GHG emissions by 30% (normal scenario) and 50% (ambitious scenario) by 2030 and achieve net zero emissions by 2050. Additionally, the document can also be used to inform future directions of other development planning documents of the province such as the Regional Medium-Term and Long-Term Development Plans (RPJMD and RPJPD) as well as the Regional Action Plan for Climate Change Control in DKI Jakarta.



Ikhtiar Jakarta contains climate strategies and actions jointly developed and pledged by various stakeholders in an inclusive and participatory manner to support the provincial government’s efforts in meeting its GHG reduction/avoidance targets. This document forms an integral part of the priority policies of the DKI Jakarta Provincial Government in implementing the climate mitigation and adaptation agenda.

The Inspiration: Promise of Seoul

During the 2015 ICLEI World Congress in Seoul, SMG announced its ambitious and comprehensive strategy and climate action plan to reduce 20 million tonnes of GHG emissions by 2030. The plan’s core feature is its strong engagement of stakeholders. The Promise of Seoul expands the participatory governance with enhanced citizen involvement, engaging 3.5 million of Seoul’s 10 million residents in various initiatives. Citizens played a vital role in shaping the action plan and making their own pledges to reduce GHG emissions. The Promise of Seoul is an integrated plan and a comprehensive strategy covering 10 urban sectors: **energy, transport, air quality, resource circulation, water, ecology, urban farming, health, safety, and urban planning**. More importantly, it is an action-oriented plan with strong vision, priority areas, and specific action plans in identified policy areas for citizens, businesses, and the city administration. As a means of implementation and monitoring, concrete performance indicators are in place to measure the performance of every initiative.

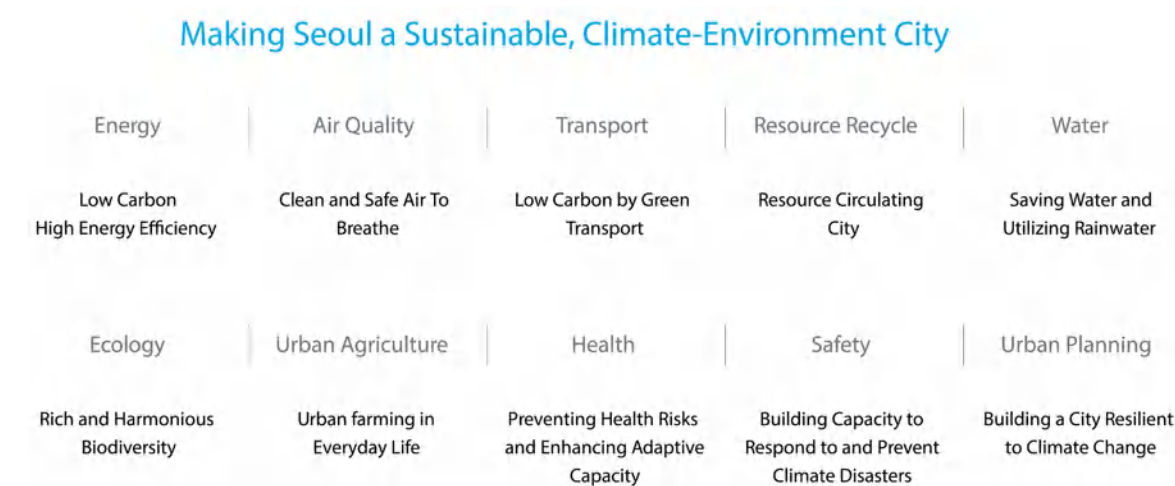


Figure 1. Promise of Seoul (2015)

The Promise of Seoul marked an important milestone in SMG’s climate strategy. Although national GHG emissions increased by about 30% (with the baseline of 2018 compared to 2005 levels), Seoul saw a 5% reduction in its emissions from 2005-2018. The household sector showed the greatest improvement (11% reduction) thanks to rigorous local stakeholder engagement.

Following the assessment, SMG aimed to preemptively cut emissions of its heaviest contributors (buildings, transport and waste), while accelerating a transition to renewable energy and creating forests. As next steps, SMG announced in July 2020 the ‘2050 GHG Reduction Strategy by Promoting Green New Deal Policy’ with the more ambitious goal of carbon neutrality by 2050. In the policy, Seoul committed to climate neutrality and strives particularly for reducing the large emissions from the private sector that would require stronger regulations and more attractive incentive schemes. Then, in December, Seoul followed with its ‘2050 GHG Reduction Plan’ for specific, detailed implementation.

The Process: Ikhtiar Jakarta Formulation

Institutional Structures

To ensure alignment with national policies and priorities, Ikhtiar Jakarta is primarily guided by the first NDC submission of the Indonesian government, which stated the country's intent to reduce its emissions with an unconditional target of 29% and a conditional target of up to 41% under a business as usual scenario by 2030. It was further informed by the following documents that established DKI Jakarta's strategic direction for climate action and sustainable development: (a) Governor Regulation No. 131, 2012 concerning DKI Jakarta's Regional Action Plan for GHG Reduction (RAD-GRK); (b) Inventory of Emissions Profiles and Reporting of GHG Emission Reduction Target of DKI Jakarta Province (2019); (c) DKI Jakarta Mid-Term Development Plan 2018-2022; (d) The Strategic Plan of Each Agency for 2018-2022, and (e) Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050. After a careful examination of these documents, ICLEI Indonesia and the Environment Agency has identified potential entry points for Ikhtiar Jakarta to provide additional value in the overall climate strategy of DKI Jakarta.

The Environment Agency, in collaboration with Deputy Governor for Spatial Plan and Environment – as the lead agency in the formulation, implementation, and monitoring of climate strategies of the provincial government – has also engaged and mobilized the participation of the following agencies throughout the formulation process: Local Development Planning Agency (BAPPEDA); Manpower, Transmigration and Energy Agency (DTKTE); Transportation Agency (DISHUB); Water Resource Agency (DSDA); Park and Forestry Agency (Distamhut); Maritime, Agriculture and Food Security Agency (DKPKP); Regional Disaster Management Agency (BPBD); Health Agency (Dinkes); Education Agency (Disdik); Child Protection and Empowerment and Population Control Agency (DPPAPP); Cipta Karya, Spatial Planning and Land Agency (DCKTRP); Public Housing and Settlement Agency (DPRKP); Bina Marga Agency (DBM), and Communication, Informatics and Statistic Agency (DISKOMINFOTIK). This multi-agency group has enabled the aggregation of relevant and timely data, and assembled expert inputs via existing initiatives and the province's development trajectories and priorities.



Capacity Building and Peer-to-Peer Learning Exchanges



In the early stages of project implementation, ICLEI Indonesia carried out a needs assessment survey for the local government. This survey aimed to determine the capacity needs of the local government to effectively formulate and implement low emission development. Survey results informed capacity building opportunities offered by the ACP project since 2017. These opportunities included sector-specific workshops, learning exchanges between technical staff of DKI Jakarta and SMG through the annual experts meeting, dialogues with national ministries and private sectors, study tours, among others. ICLEI East Asia, together with Seoul Human Resource Development Centre, organized capacity building for local governments involved in the ACP project on September 2-8 2018 and September 1-8 2019. Five technical staffs from DKI Jakarta participated in a class training and field trip to Nanjido Museum, a hydroelectric power station, Seullo 7010, the Seoul Upcycling Plaza, and a community-led self-energy sufficient village. The aim was to learn about implemented policies and experience of Seoul in addressing environment and climate change issues including waste, transportation, energy and citizen participation. In June 2019, ICLEI also gave the opportunity for 2 staff members of DKI Jakarta government from the Environment Agency and the Manpower, Transmigration, and Energy Agency to take part in the Urban LEDS study tour "Local Climate Action and Low Emissions Development in Europe" to Helsinki (Finland), Bologna (Italy), and Warsaw (Poland) on June 2019. By visiting three leading Urban LEDS cities, participants had the opportunity to explore first-hand a wide range of solutions, in a variety of sectors, including wastewater treatment, green districts, urban regeneration, energy efficiency in buildings, nature-based solutions, district energy, and sustainable mobility measures.



City-level GHG Inventory

Per Presidential Regulation 71/2011, the National Government of Indonesia mandates local governments (cities, regencies, provinces) to conduct and report their GHG emissions via SIGN SMART⁴. Developed in 2015, SIGN SMART is a web-based GHG data management system that enables local governments to input activity data and calculate their GHG emissions in the energy, waste, industrial processes and product use (IPPU), agriculture, and forestry sectors. The Ministry of Environment and Forestry (MoEF) is the primary agency responsible for the collection, quality assurance and control, and national reporting of data inputs and GHG estimates generated by SIGN SMART. In the process of updating the RAD-GRK, DKI Jakarta updated its GHG inventory with 2010 as the base year. This inventory also showed projected emissions for 2030 and 2050 under a business-as-usual (BAU) scenario. The province also conducted another inventory with 2018 as the base year to further track its emissions performance. The results of these inventories were used as a reference to inform the level of ambition of Ikhtiar Jakarta. An overview of DKI Jakarta's GHG emissions inventory results can be found in the section, "DKI Jakarta GHG Emissions Profile."

Stakeholder Consultations

At the heart of Ikhtiar Jakarta formulation process is an extensive and participatory consultation process, jointly led by ICLEI Indonesia and the Environment Agency. These consultations included the participation of both relevant government agencies (local and national) and various stakeholder groups. Sharing knowledge and ideas among stakeholders groups through a collaborative planning process provided an opportunity for stakeholders to be directly involved in the planning and decision-making process, resulting in concrete actions capable of intensifying DKI Jakarta's climate change efforts.

Inclusive and value-laden engagement with various representatives and societal groups of the community enabled diversification of the climate action to deliver greater positive impact. While scientific data provides a basis for identifying priority sectors, engaging with stakeholders presents an opportunity to discover indigenous and local knowledge uncovering possible new solutions. Therefore, actions of citizens, especially mobilized by the civil society organizations, play irreplaceable roles in the achievement of GHG reduction targets.

The formulation process of Ikhtiar Jakarta positioned different stakeholders as both the creators and implementing actors of the province's promises to act on climate change. Strategies and actions laid out in this document came directly from stakeholders. This approach demonstrated how different stakeholders are viewed as equal partners of the government that take active roles in the planning and decision-making process of Ikhtiar Jakarta. As such, these stakeholders had

At the heart of Ikhtiar Jakarta formulation process is an extensive and participatory consultation process

⁴ <http://signsmart.menlhk.go.id/v2.1/app/>

also taken more confident ownership over this document, resulting in stronger sense of commitment and accountability in the subsequent implementation stage. Identifying actions and strategies employed a methodological, participative process to ensure that contributions from public and private stakeholders will be considered and given focus in Ikhtiar Jakarta. Various areas of cooperation and support among the different stakeholders within the DKI Jakarta were identified to raise the probability of achieving the targets.



Source: ICLEI Indonesia



Source: ICLEI Indonesia

Putting the local stakeholders at the center of the Ikhtiar Jakarta presented an opportunity for the local government to empower them as main actors in achieving climate targets. 11 of consultation and validation workshops were conducted simultaneously. These attracted more than 470 participants to solicit inputs of different stakeholder groups, such as citizens, private sector, non-profit organizations, cooperatives, and media. In particular, the stakeholders were asked of their existing strategies and programs which they deemed helpful to addressing climate change impacts and mitigating GHG emissions.

Every consultation activity ensured the representation of various stakeholder groups which consist of government and community groups which are identified through the stakeholder mapping process. These stakeholder groups were identified as having influence and potential in supporting the emissions reduction's efforts of DKI Jakarta. The community groups consist of nine groups including women; youth and children; elderly; people with disabilities; fishermen; business and industry; CSOs/NGOs; communities engaged in environmental issues; religious groups, and academia. Notably, at least 30% of the total participants in these activities were women, meeting the percentage standard of women in parliamentary elections as regulated by law. Of the nine aforementioned groups, three were identified to have the most potential resources and influence to actively support implementation of climate actions in Ikhtiar Jakarta: children and youth; religious groups, and business and industry groups.

The formulation process of Ikhtiar Jakarta positioned different stakeholders as both the creators and implementing actors of the province's promises to act on climate change.

Children and youth have potential as agents of change and can advocate for environment sustainability, while providing learning opportunities for the local government to consider innovative approaches to advancing climate targets. Religious groups have enormous organizing potential; they share the same values to protect and conserve the environment, and can mobilize their large, diverse constituencies. Business and industry groups share values in their core business related to environmental sustainability, such as energy efficiency, renewable energy, circular economy, and sustainable transportation. They play a key role in actualizing ideas with their capacities to mobilize financial resources and steer innovation that can positively influence market dynamics and consumption patterns. Focused discussions with these three groups identified ideas for concrete action and their preferred involvement method in supporting implementation of Ikhtiar Jakarta.



Despite more focused discussions with those three groups given their perceived strongest potential to translate plans into climate action, the project designed discussion with all stakeholders (through public consultation and workshops) to ensure meaningful representation and to gather diverse insights. These activities led to a comprehensive, grounded, and informed plan. The public consultations were facilitated via combinations of plenary and focus group discussions (FGDs). FGDs allowed each stakeholder group to have open and free spaces to express their observed and felt challenges. In turn, these discussions became ways to co-create ideas and solutions to address these challenges and further contribute to emissions reductions.



Source: ICLEI Indonesia



Source: ICLEI Indonesia



Source: ICLEI Indonesia

Citizens led concrete actions, thorough evaluations of each urban sector they deemed relevant to their own authorities as representatives of their stakeholder groups and all Jakartans. The plenary sessions also allowed for each stakeholder group representative to present their collective ideas and recommendations for inclusion in the Ikhtiar Jakarta. This also provided a venue for all stakeholder groups to have a more direct interaction and exchange to widen and resolve conflicting perspectives thus minimizing risks of potential unintended consequences. These consultations were facilitated by ICLEI and officials of DKI Jakarta to ensure the achievement of informed discussions and grounded recommendations. The overview framework of stakeholder engagement in formulation of Ikhtiar Jakarta can be seen in Figure 2.



Figure 2. The framework of stakeholder engagement as followed by ACP implementation in DKI Jakarta and formulation of Ikhtiar Jakarta

Identified and pledged climate actions in these consultation activities were determined and categorized to be executed by three main stakeholder groups as outlined in Figure 3.



Figure 3. Three main stakeholder group categories of Ikhtiar Jakarta

Identification and Prioritization of Climate Actions

Based on the results of the mutually reinforcing activities discussed above, Ikhtiar Jakarta's priority sectors are the following: **energy & green building, transportation & air quality, solid waste management**. Other sectors receiving considerable attention are **water, green spaces & urban farming, and health & disaster risk reduction and management (DRRM)**. Priority climate actions under each urban sector to be executed by the three main stakeholder group categories were also determined by the stakeholders through an exercise employing multi-criteria analysis. The definition and prioritization of climate actions of Ikhtiar Jakarta also adhered to the common characteristics of a City Promise: **ambitious GHG reduction targets; inclusive, integrated & cross-sectoral; actionable for all partners, and measurable and verifiable**.

Characteristics of a City Promise: ambitious GHG reduction targets; inclusive, integrated & cross-sectoral; actionable for all partners, and measurable and verifiable.



Figure 4. Overview of timeline of Ikhtiar Jakarta formulation activities.



Source: Heru Eko Saputro - Unsplash

The Result: Ikhtiar Jakarta Formulation

About DKI Jakarta

Jakarta is the capital of Indonesia and heart of the second largest megacity in the world, Jakarta Metropolitan Area (locally known as Jabodetabek). With a population of 10 million people, Jakarta is the most populated city in Indonesia and the largest city in Southeast Asia⁵. It is also the economic, political, cultural, trade, business, and finance center of the country. Jakarta’s economy is heavily reliant upon trade, finance, and construction activities⁶.

A coastal province traversed by 13 rivers, Jakarta is exposed to climate-related disasters, such as coastal flooding and sea level rise. The northern portion of the province is especially at risk because it is progressively sinking due to land subsidence. Severe flooding across Jakarta – due to increasingly frequent and intense typhoons, plus heavy rainfall – lead to displace hundreds and thousand people as well as loss of lives and property damage.

Similar to other megacities in the Global South, Jakarta experiences rapid urbanization and it is expected to continue to do so in the future. This urbanization trend also enhances the province’s influence in Indonesia and in Southeast Asia at large. As such, demand for more and improved infrastructure services, such as power and transportation, is also on the rise. These are also resulting in changes in consumption patterns of citizens with an observed increase in energy consumption and waste generation and consequently a rise in its GHG emissions as well.

DKI Jakarta’s GHG Emissions Profile

DKI Jakarta’s first GHG inventory with 2005 as base year showed that the province had an emissions level of 34.03 million tCO₂e. Using this baseline emission, it was projected that DKI Jakarta could generate as much as 117 million tCO₂e by 2030 under a business as usual (BAU) scenario, nearly three times higher than its 2005 baseline emissions. The projected emissions served as the province’s basis in setting its commitment to reduce its projected GHG emissions by 30% by 2030.

In 2019, DKI Jakarta commenced the updating process of its existing RAD-GRK and was compelled to also update its GHG inventory using 2010 as base year and recalculate its projected emissions up to 2030. Based on this inventory, it was determined that the province emitted approximately 38 million tCO₂e in 2010. The energy sector contributed to more than half of the total emissions (74%); the

⁵ Jakarta Population 2021. Source: [link](#).

⁶ BPS. Statistics of DKI Jakarta Province. DKI Jakarta Province in Figures. 2021. Source: [link](#)

remaining emissions were shared by the power generation (21%), waste (4.65%), and AFOLU (0.08%) sectors. Based on the 2010 baseline emissions, it was projected that DKI Jakarta could generate up to 106 million tCO₂e by 2030 and 189 million tCO₂e by 2050 under a BAU scenario.

Table 1. GHG emissions per sector of DKI Jakarta⁷

Sector	2010 Baseline GHG Emissions in thousands tCO ₂ e	Projected GHG Emissions in thousands tCO ₂ 3 under BAU scenario	
		2030 GHG Emissions	2050 GHG Emissions
Energy (stationary energy, transport, indirect emissions)	28,243	83,327	165,274
Power generation	7,985	19,029	19,029
Waste (solid waste, wastewater)	1,770	4,233	5,241
AFOLU	31	59.80	-
TOTAL	38,029	106,559	189,544

DKI Jakarta also estimated its GHG emissions using 2018 as the base year. In this inventory, the province has an estimated total emissions of 29 million tCO₂e, notably lower than its previous emissions in 2005 and 2010. By including a consumption-based inventory approach, however, it was determined that the province yielded 57.55 million tCO₂e. Almost half of these emissions was shared by electricity consumption (49%), while the remaining emissions were shared by the stationary fuel use (33%), power generation (14%), and waste sectors (4%).

DKI Jakarta’s GHG Emissions Reduction Target

By using its recalculated GHG emissions using 2010 as base year, DKI Jakarta has also revisited its GHG emissions reduction targets. DKI Jakarta aims to achieve **a 30% reduction of its projected GHG emission under the BAU scenario by 2030**. Mitigation actions in the energy (68.18%), power generation (28.45%), and waste (4.43%) sectors are the most likely paths to achieving this target. These mitigation actions are to be executed by the provincial government with additional support from relevant national ministries and external stakeholders.

Considering the tangible impacts of climate change and the increasing frequency of climate disaster globally, ambitious actions are needed. In 2021, the DKI Jakarta Provincial Government commit to transforming Jakarta into **Climate Resilient City**, which Jakarta strives to reduce GHG emissions and increase the community’s adaptive capacity in dealing with the impacts of climate change. The province aspires **to cut 50% of its GHG emissions by 2030 (in comparison to forecasted emissions levels under a BAU scenario) and achieve net zero emissions by 2050**.

⁷ Draft RAD-GRK May Version. 2021

To achieve this, climate action shall be focused on the energy sector by increasing the shift from diesel and gasoline to biofuels, natural gas and electricity. In the waste sector, waste-to-energy power plants will also be in operation to augment power requirements and reduce methane emissions from the landfill. For the agricultural, forestry, and land use (AFOLU) sectors, additional absorption areas shall be defined to offset the carbon emissions.

Table 2. GHG emissions reduction target of DKI Jakarta under a BAU scenario⁸

Sector	2010 Baseline GHG Emissions in thousands tCO ₂ e	2030 Projected GHG Emissions under BAU scenario in thousands tCO ₂ e	GHG Emissions Reduction against projected GHG emissions under BAU scenario by 2030 in thousands tCO ₂ e	
			30% GHG reduction scenario	50% GHG reduction scenario
Energy (stationary energy, transportation, indirect emissions)	28,243	83,237	21,689	40,453
Power generation	7,985	19,029	9,185	9,248
Waste	1,770	4,233	1,429	2,057
AFOLU	30.92	59.8	19.30	27.43
TOTAL	38,029	106,559	32,322	51,786

Sector-specific Priority Climate Strategies and Actions

To urgently fulfill the GHG reduction/avoidance targets set by DKI Jakarta while maintaining consistency with the local conditions, existing measures, and pledges and aspirations of different stakeholders, Ikhtiar Jakarta presents supplemental and reinforcing low emission development strategies. This document details the pledged actions in the following sectors: **energy & green building, transportation & air quality, solid waste management, water, green spaces & urban farming, and health & disaster risk reduction and management (DRRM)** to be delivered by **government (national and provincial), community groups, and business entities**. These measures build and expound on the RAD-GRK based on the rigorous review and consultations undertaken by the Environment Agency and ICLEI Indonesia. These pledged actions were derived from the identification and prioritization of climate strategies and actions by different stakeholders themselves during the consultation activities in the formulation process of Ikhtiar Jakarta. These interventions were defined by the stakeholders based on their perceived capacities,

⁸ Draft RAD-GRK versi Mei, 2021

influence, and potential as representatives of their stakeholder groups and as citizens of Jakarta. As such, this elevates the ownership of these stakeholders over Ikhtiar Jakarta and to move forward with the implementation.

The priority strategies and actions were determined by stakeholder group representatives and by using the CLIMACT PRIO as a tool. Prioritization was carried out based on the following eight criteria: **GHG emissions reduction potential; air pollution reduction potential; cost; social acceptability; job creation; improvement of well-being (comfort, safety, security); ensuring social inclusion, and availability of public facilities.**

The following subsections provide an overview of the identified priority actions per stakeholder group, including information on the basis of relevance, strategy, objectives, and target.



Figure 5. Overview of priority strategies per sector of Ikhtiar Jakarta

Energy and Green Building

Main Actions

- a. Monitoring and recognition of energy saving measures by building owners
- b. IEC campaigns on energy saving measures
- c. Renewable energy adoption assistance fund
- d. Clean energy campaigns
- e. Promoting the use of energy efficient equipment and devices
- f. Implementation of green building policies
- g. Development of solar-powered devices and machines for practical uses
- h. Capacity building of renewable energy practitioners
- i. Renewable energy investment

A. Energy and Green Building

According to the 2010 GHG inventory of DKI Jakarta, the energy sector contributed to 95.3% of the total estimated emissions of the province. This included emissions attributable to stationary fuel consumption of the residential, commercial and institutional, and industrial sectors as well as emissions attributable to power generation, fuel consumption in the transport sector and electricity consumption. The province's most recent GHG inventory with base year of 2018 (which also included accounting of indirect emissions) showed that the energy sector had 96% of the province's overall emissions. Almost half of these energy emissions were attributable to electricity consumption (49%), followed by stationary and transport fuel consumption (33%), power generation (14%), and waste (4%). It is worth noting that the two power plants in the administrative area of DKI Jakarta are managed by PLN, a state-owned power company.

To achieve its mitigation targets, **DKI Jakarta must reduce its GHG emissions in the energy and power generation sectors by up to 30,874,000 tCO₂e by 2030 and 52,682,000 tCO₂e by 2050.** This would entail measures that improve energy efficiency, green building certification, utilization of clean energy (e.g. switching from gasoline and diesel to biofuels), LED retrofitting, and installation of rooftop solar photovoltaic systems⁹. A mitigation roadmap for the provincial government has been outlined in RAD-GRK and the Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050. The following subsection outlines the pledged climate actions by different stakeholders to support DKI Jakarta in delivering the targets in the roadmap.

Strategy :	Promote energy efficiency, energy conservation, and renewable energy
Objective :	To contribute to the reduction of GHG emissions in the energy and power generation sectors by up to 30,874,000 tCO₂e by 2030 through measures that promote energy efficiency conservation and adoption of renewable energy.

⁹ Preliminary Study: Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050.2020

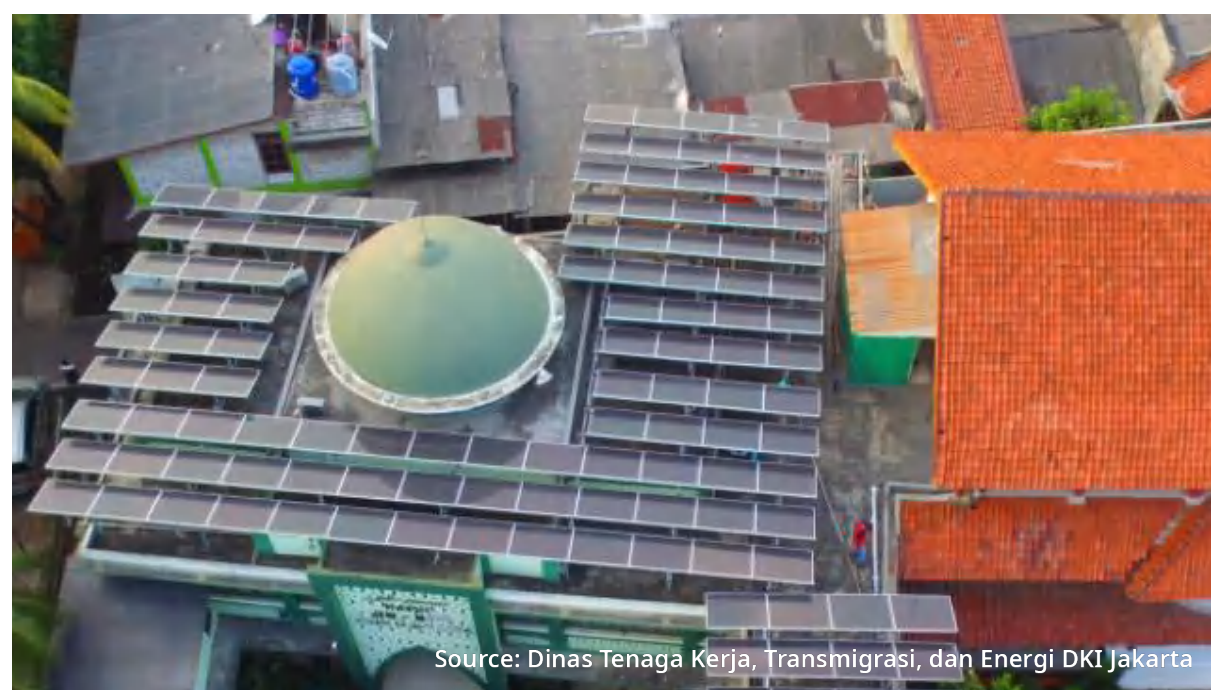
Main Action		
Monitoring and recognition of energy saving measures by building owners		
Indicators		
<ul style="list-style-type: none"> At least 30% of schools reduced their annual electricity consumption by up to 20% by 2030 	<ul style="list-style-type: none"> At least 30% of existing commercial buildings have reduced their annual electricity consumption by up to 30% by 2030 	<ul style="list-style-type: none"> At least 50% of DKI Jakarta residents practice energy saving measures
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Monitor energy usage and give recognition to community groups and business entities with the best energy saving practices Regularly review regulation on energy by taking into account the principles of participatory, inclusivity and gender equity Construct new buildings and / or renovate existing government buildings that are compliant to green building standards 	<ul style="list-style-type: none"> Enable cooperation and transparency with the government on the implementation of energy use monitoring programs by allowing better access of the government to energy audits of offices, business and commercial buildings. Regularly submit to relevant government agencies reports on energy efficiency activities and green building measures undertaken. 	<ul style="list-style-type: none"> Use energy saving appliances Building managers of schools, worship places, and other facilities develop effective IEC materials that inform and encourage their community members to practice energy saving measures Monitor energy consumption and effectiveness of energy saving measures being practiced and share proven best practices to community members



Main Action		
IEC campaigns on energy saving measures		
Indicators		
<ul style="list-style-type: none"> At least 30% of schools reduced their annual electricity consumption by up to 20% by 2030 	<ul style="list-style-type: none"> At least 30% of existing commercial buildings have reduced their annual electricity consumption by up to 30% by 2030 	<ul style="list-style-type: none"> At least 50% of DKI Jakarta residents practice energy saving measures
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop IEC materials in partnership with academia and/or CSOs Organize campaigns and workshops on energy saving measures for public spaces, buildings, and schools Organize energy saving competitions among government offices and schools in collaboration with CSO and private sector 	<ul style="list-style-type: none"> Organize campaigns and workshops on energy saving measures in their companies Actively participate in campaign on energy saving measure such as issue company policy to turn off the lights or electronic devices during lunch break as well as campaign which organized by government Offer expert advisory services to the provincial government in energy saving competitions activities 	<ul style="list-style-type: none"> Actively participate, promote, and adopt lessons learnt on energy savings organized by the government Actively participate in energy saving competitions organized by the government Take part in organizing Earth Hour Campaigns / We Love Jakarta (inspired by WWF's One Planet City Challenge) campaigns in their own communities.



Main Action		
Renewable energy adoption assistance fund		
Indicators		
<ul style="list-style-type: none"> At least 1,000 rooftop solar panels have been installed in residential, commercial, industrial buildings through funding assistance from the provincial government 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop a study of alternative financing including fiscal and non-fiscal incentive modalities for renewable energy installation Give recognition awards and incentives to companies and residents that install rooftop solar photovoltaic system installations in their own properties Install rooftop solar photovoltaic system in all government buildings and facilities 	<ul style="list-style-type: none"> Install rooftop solar photovoltaic systems in own properties Increase rooftop solar production capacity Make use of available renewable energy adoption assistance fund by the provincial government to install own rooftop solar photovoltaic systems in own building and facilities 	<ul style="list-style-type: none"> Actively participate in consultations and advocacies in relation to finance and funding mechanism to implement of renewable energy Install rooftop solar photovoltaic systems at home, schools, and places of worship, wherever feasible.



Main Action		
Clean energy campaigns		
Indicators		
<ul style="list-style-type: none"> At least 10% of industries operating in DKI Jakarta have switched from diesel/gasoline to biofuels 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop campaign materials in partnership with academe and/or CSOs Organize campaigns on clean energy measures for government buildings, schools, places of worship, commercial buildings, markets, etc. Implement a pilot project on the utilization of clean energy in public facilities and government offices such as waste-to-energy and rooftop solar photovoltaic systems and scale-up if proven significant potential and benefits of replicability. 	<ul style="list-style-type: none"> Actively participate in campaign for the clean energy utilization Switch to alternative clean fuels in its operations (e.g. stationary energy, vehicle fuel) 	<ul style="list-style-type: none"> Develop and disseminate online- and offline-based IEC materials on clean energy utilization Switch to alternative clean fuels in its operations (e.g. stationary energy, vehicle fuel)



Main Action

Promoting the use of energy efficient equipment and devices

Indicators

- 100% of public buildings and facilities use energy efficient equipment and devices
- At least 30% of commercial buildings and facilities use energy efficient equipment and devices

Pledged Actions

Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Issue policies to promote the use of energy-efficient equipment and devices in government buildings, schools and public spaces • Procure and use of energy efficient equipment and devices in all government buildings • Organize campaigns on promoting the use of energy efficient equipment and devices 	<ul style="list-style-type: none"> • Switch to energy efficient equipment and devices (e.g. cooling and lighting systems) in business operations, offices, and commercial buildings 	<ul style="list-style-type: none"> • Switch to energy efficient equipment and electronic devices (e.g. cooling and lighting systems) in schools, places of worship, and households. • Actively participate in advocacy and campaigns on promoting the use of energy efficient equipment and devices and encourage their community members to use of energy efficient equipment and devices



Source: Muhammad Rizki - Unsplash

Main Action

Implementation of green building policies

Indicators

- At least 60% of existing public and private buildings have met green building standards per Governor Regulation No. 38 of 2012
- All new public buildings and facilities have met green building standards per Governor Regulation No. 38 of 2012

Pledged Actions

Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Provide clear technical guidelines for all building types on the implementation of green building standards per Governor Regulation No. 38 of 2012. • Set up Green Building Certification Program as an avenue for monitoring compliance of all building types. • Apply green building measures in all government buildings, public buildings, schools, hospitals, etc. consistent with the developed technical guidelines per Governor Regulation No. 38 of 2012 as well as applicable procurement policies. • Conduct socialization of the concepts and regulations on green buildings • Give recognition awards and incentives to community groups and business entities that implement green building concept 	<ul style="list-style-type: none"> • Apply green building measures consistent with the developed technical guidelines per Governor Regulation No. 38 of 2012. • Actively participate in consultations, workshops and socialization in the formulation of technical guidelines and consequently in the implementation of green building measures. • Conduct independent monitoring audits of buildings and report to the provincial government regarding the implementation of green building policies. • Participate in the Green Building Certification Program to ensure transparency in certification processes 	<ul style="list-style-type: none"> • Apply green building measures in houses, schools, and places of worship consistent with the developed technical guidelines per Governor Regulation No. 38 of 2012. • Actively participate in consultations, workshops and socialization in the formulation of technical guidelines and consequently in the implementation of green building measures.

Main Action		
Development of solar-powered devices and machines for practical uses		
Indicators		
<ul style="list-style-type: none"> At least 5 new solar-powered devices and machines intended for practical uses have been developed and marketed by 2030. 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Provide spaces and seed funds to startups and universities to innovate new and affordable solar-powered devices and machines for practical uses in daily lives. Establish learning programs on renewable energy technologies for the youth. Organize competitions for innovative solar-powered devices and machines for practical daily uses 	<ul style="list-style-type: none"> Intensify R&D to make renewable energy affordable and accessible for everyone. Extend expert advisory services to the provincial government to encourage investment in renewable energy technologies including solar-powered devices for practical uses. 	<ul style="list-style-type: none"> Intensify R&D to make renewable energy affordable and accessible for everyone.



Main Action		
Capacity building of renewable energy practitioners		
Indicators		
<ul style="list-style-type: none"> At least 500 renewable energy practitioners have been certified by 2030 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop and offer free training courses on renewable energy in partnership with academia and/or CSOs 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the development of training modules and in serving as training facilitators/lecturers Mobilize relevant employees to participate in these training courses to enhance their technical knowledge and skills 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the development of training modules and in serving as training facilitators/lecturers Host the delivery of training courses to own members Organize competitions, conduct research studies, implement community-scale projects to facilitate practical application of learnings from the training courses



Main Action		
Renewable energy investment		
Indicators		
<ul style="list-style-type: none"> Investment in a 35 MW solar energy have been achieved by 2030 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop an interactive and publicly accessible map of the optimal locations for solar energy installations throughout Jakarta. Install rooftop solar panels in all government buildings that can harness solar energy based on the map developed. Give recognition and incentives to building owners that voluntarily installed rooftop solar panels in their buildings. 	<ul style="list-style-type: none"> Offer expert advisory services, data, and resources to the provincial government in the development of interactive and publicly accessible maps of the optimal locations for solar energy installations throughout Jakarta. Install rooftop solar panels in own buildings Form consortium with other business entities to gather a pool of funds to assist in the installation of rooftop solar panels in buildings such as schools and places of worship. 	<ul style="list-style-type: none"> Offer expert advisory services, data, and resources to the provincial government in the development of interactive and publicly accessible maps of the optimal locations for solar energy installations throughout Jakarta. Install rooftop solar panels in own buildings Foster partnerships with business consortiums committed to investing in the installation of rooftop solar panels in buildings such as schools and places of worship as well as residential communities.



Transportation and Air Quality

Main Actions

- a. Upgrading of infrastructure for active mobility that is accessible for people with physical limitations (i.e. disabled, elderly)
- b. Upgrading of infrastructure for improved public transport interconnectivity that is accessible for people with physical limitations (i.e. diffable, elderly)
- c. Promotion of public transportation use
- d. Promotion of active mobility
- e. Compliance to air quality standards
- f. Promotion of clean fuel for vehicles
- g. Deployment of electric vehicles
- h. Vehicle emission testing
- i. Greening of public transportation route
- j. Vehicle sharing

B. Transportation and Air Quality

Transport sector is the most energy-intensive sector, accounting for 47.4% of total energy demand in 2018 in DKI Jakarta, making it one of the main contributors to the GHG emissions in DKI Jakarta¹⁰. The increasing number of private vehicles, combined with 1.2 million commuters to Jakarta, worsens traffic congestion¹¹. Consequently, traffic contributes to the degradation of air quality: 75% of air pollution in DKI Jakarta is due to land transportation service¹².

GHG emissions for the transport sector were accounted for in the energy sector. As discussed in the previous subsection, the energy sector contributed to 95.3% of the total estimated emissions of the province, while sub sector transportation contributed to 39.7% of the estimated emissions of energy sector (direct emission) equivalent to 7,498 thousands ton CO₂e. Based on the mitigation targets under the energy sector, **the transport sector's share in GHG emissions reduction measures of DKI Jakarta are 10,051,000 tCO₂e by 2030 (31%) and 9,797,000 tCO₂e by 2050 (17%)**. According to the province's mitigation roadmap, the following measures shall be put in place to meet and monitor this target: improvement of vehicle emissions testing, vehicle fuel shift from diesel to biofuels, deployment of electric vehicles, improvement of BRT, MRT, LRT, and electric train systems to enable citizens to shift from the use of private cars to public transport, and upgrading of pedestrian and bicycle tracks to encourage citizens to practice active mobility¹³. Simultaneously, the Gubernatorial Instruction No. 66 Year 2019 on Air Pollution Control shall guide the implementation and monitoring of the quality of emission standards of vehicle to address air pollution in Jakarta. This roadmap and regulation is supported and complemented by the pledged climate actions in transportation and air quality sectors by different stakeholders as shown in the table below. The pledged actions had only taken into consideration the formal transportation sector due to lack of representation of the informal transportation sector in the consultation processes. Therefore, it is strongly suggested that the informal transportation sector will be given a more active voice and role in the first Ikhtiar Jakarta Forum and in the updating process of Ikhtiar Jakarta to fill this gap in the current document.

Strategy : Mode shift from private vehicle use to public transportation use and active mobility

Objective : To contribute to the reduction of GHG emissions in the transport sector by up to 10,051,000 tCO₂e by 2030 and by 9,797,000 tCO₂e by 2050 by increasing mode share of public transport and active mobility.

¹⁰ GHG Emission Inventory and GHG Emissions Reduction Report of DKI Jakarta Province. 2019

¹¹ BPS. Jabodetabek Commuter Statistics. 2019. Source: [link](#)

¹² Regional Environmental Management Performance Information Document of DKI Jakarta Province 2019. 2019

¹³ Preliminary Study: Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050

Main Action		
Upgrading of infrastructure for active mobility that is accessible for people with physical limitations (i.e. disabled, elderly)		
Indicators		
<ul style="list-style-type: none"> All existing and new public and private buildings have allocated a minimum of 10% of available parking space for bicycle parking per instructions and guidelines set by Governor Regulation No. 51, Year 2020 and Governor Regulation No. 38, Year 2012. 	<ul style="list-style-type: none"> At least 50 app-based bicycle rental locations that are integrated with other formal public transport modes are built by 2030 	<ul style="list-style-type: none"> At least 150 km of bicycle lanes have been built by 2030 At least 600 km of pedestrian lanes have been built by 2030
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Construct infrastructure for non-motorized transport (walking and cycling) that are inclusive and integrated with public transportation such as pedestrian and bicycle lanes, bicycle parking spaces, and shower rooms Provide installations such as elevators, trams, low decks, light-colored floor, and lifts to enable better access for people with physical limitations Provide bicycle storage facilities in public transportation Enforce regulations regarding pedestrian functions and bicycle lanes Establish enabling policies that will support and create a collaborative framework with startup companies that develop bicycle rental facilities. Enact policies that will regulate the operations of bicycle rental facilities to ensure seamless integration with the public transportation system of Jakarta. 	<ul style="list-style-type: none"> Provide facilities for pedestrians and cyclists that are inclusive and integrated with public transportation such as pedestrians, bicycle line, bicycle parking space and shower room in office and operational areas Provide facilities for disabled groups that are integrated with public transportation such as priority lifts and special lanes in commercial building Collaborate with the government to provide application-based bicycle rental in public spaces 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the design of infrastructure facilities for active mobility. Utilize and maintain quality infrastructure for non-motorized transportation (walking and cycling) that are inclusive and integrated with public transportation such as pedestrian and bicycle lanes, bicycle parking spaces, and shower rooms Utilize and maintain quality of infrastructure to improve accessibility for people with physical limitation that are integrated with public transportation such as priority lifts and special lanes

Main Action		
Upgrading of infrastructure for improved public transport interconnectivity that is accessible for people with physical imitations (i.e. disabled, elderly)		
Indicators		
<ul style="list-style-type: none"> All public transportation services meet the standards of customer satisfaction 	<ul style="list-style-type: none"> All mass transportation systems (BRT, MRT, LRT) are integrated with other transport modes (pedestrians, bicycles, feeder buses, microbus, etc.) for better transit experience 	<ul style="list-style-type: none"> At least 1 million daily commuters have shifted from private vehicle use and adequately served by public transport systems
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Increase the quantity of feeder buses Improve the service quality of public transportation (convenience), especially for commuters with physical limitations Enhance interconnectivity of different modes of public transportation Increase the number of signage or route markers to the nearest public transportation Develop an integrated application of real time information related to public transportation schedules 	<ul style="list-style-type: none"> Cooperate with the government to improve the quality and quantity of infrastructure and an integrated transportation system that is commuter-friendly Providing feeders from the office complex to the nearest public transportation point. Actively get involved in campaigns that promote the use of public transportation 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the design of infrastructure facilities for more seamless interconnectivity. Actively use public transportation Maintain public transportation infrastructure Actively participate in consultations and campaigns that promote the use of public transportation and JakLingko card among communities



Main Action		
Promotion of public transportation use		
Indicators		
<ul style="list-style-type: none"> At least 60% of mode share is shared by public transportation systems by 2030 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Issue policy to encourage government officials to shift to public transportation Implementation of policies on limiting the use of private vehicles, such as Electronic Road Pricing (ERP), implementing odd and even schemes (license plates) Implement low emission zone or car free day at certain locations Provide incentive policies such as discounts for the elderly and students 	<ul style="list-style-type: none"> Issue a company policy that encourages all employees to shift to public transportation 	<ul style="list-style-type: none"> Reduce private vehicle use and shift to public transportation Actively participate in low emission zone or car free day implementation at certain locations Actively participate in consultation, advocacy and campaign on using public transportation



Main Action		
Promotion of active mobility		
Indicator		
<ul style="list-style-type: none"> Increased satisfaction rate by users of pedestrian and bicycle infrastructure is achieved 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Advocate for government officials to walk and/or cycle for short distance trips Monitor pedestrian paths to ensure safety for pedestrians 	<ul style="list-style-type: none"> Apply active frontage in company buildings and properties to increase willingness of employees to walk Encourage and give appreciation to employees who use bicycles and walk 	<ul style="list-style-type: none"> Walk for the distance trips below 1 km and use bicycle for the distance trips in daily activity Actively participate in campaigns that promote use of non-motorized transportation such as walking and cycling. Advocate for law enforcement for violators of the rights of pedestrians and cyclists to ensure the safety



Main Action		
Compliance to air quality standards		
Indicators		
<ul style="list-style-type: none"> Measurement of both PM 10 and PM 2.5 pollutant parameters is regularly undertaken Mobile emissions are compliant to national and international air quality standards 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop real time air quality monitoring publication system Law enforcement on quality standards for pollutant parameters Additional installation of air quality monitoring stations Disseminate information on real-time air quality data to the public Establish platforms to disseminate information on air quality regulations and programs as well as for providing feedback and suggestions from citizens 	<ul style="list-style-type: none"> Comply to minimum air quality standards and take active measures to continuously improve efficiency of air pollution control technologies in buildings/facilities and vehicles. Provide periodic air quality monitoring reports to the relevant agencies and to the public. 	<ul style="list-style-type: none"> Comply to minimum air quality standards and take active measures to continuously improve efficiency of air pollution control technologies in buildings/facilities and vehicles. Provide periodic air quality monitoring reports to the relevant agencies and to the public. Assist the provincial government in compliance monitoring of pollutant-emitting industries throughout Jakarta Actively participate in consultations and advocacy on improving the quality standard for pollutant parameters Conduct research studies and recommendations to continuously improve air quality monitoring and air pollution abatement programs.



Main Action		
Promotion of clean fuel for vehicles		
Indicators		
<ul style="list-style-type: none"> • All of the provincial government's vehicles and public transportation systems are using biofuel 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Shift from diesel/gasoline to biofuel of public transportation modes • Encourage the private sector to shift from diesel/gasoline to biofuel for the fuel use of their vehicles 	<ul style="list-style-type: none"> • Gradually replace company fleet with vehicles that use biofuel • Produce affordable biofuel-powered vehicle to be made available in the market 	<ul style="list-style-type: none"> • Assist the provincial government in educating vehicle owners to shift from diesel/gasoline to biofuel

Main Action		
Deployment of electric vehicles		
Indicator		
<ul style="list-style-type: none"> • Increase the share of electric vehicles as public transportation mode 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Deploy electric vehicles as public transportation option throughout the province in partnership with private sector • Deploy solar-powered electric vehicle charging stations in strategic locations. • Allocate spaces for solar-powered electric vehicle charging stations 	<ul style="list-style-type: none"> • Gradually replace company fleet with electric vehicles • Assist the provincial government in identifying and allocating solar-powered charging stations within their properties • Organize training on retrofitting fuel vehicle into electric vehicle in collaboration with government 	<ul style="list-style-type: none"> • Assist the provincial government in identifying and allocating strategic locations for solar-powered charging stations

Main Action		
Vehicle emission testing		
Indicators		
<ul style="list-style-type: none"> • All publicly and privately owned vehicles pass vehicle emission standards 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Increase the number of locations for vehicle emissions testing centers and provide easy emission testing for all vehicles • Set more stringent emissions standards for all vehicle types • Enforce policies and provide disincentives for vehicle owners who do not comply with minimum vehicle emission standards 	<ul style="list-style-type: none"> • Conduct emission tests for all operational vehicles as well as employees' private vehicles • Conduct regular maintenance of vehicles to maintain fuel efficiency 	<ul style="list-style-type: none"> • Conduct emission tests for all operational vehicles as well as private vehicles • Conduct regular maintenance of vehicles to maintain fuel efficiency



Source: Army Virmansyah - Unsplash

Main Action		
Greening of public transportation route		
Indicators		
<ul style="list-style-type: none"> Trees are planted and green spaces are incorporated along the road networks, as appropriate 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Replanting replacement green canopies along public transport development routes (especially BRT, MRT, LRT) as part of an integrated mode of transportation Plant tree and plants along the walking route to public transportation 	<ul style="list-style-type: none"> Create green fences along vehicle lanes around company buildings and properties, wherever feasible 	<ul style="list-style-type: none"> Maintain green canopies in transportation routes and public areas. Offer expert advisory services to the provincial government in the design of greening public transportation routes to maximize co-benefits such as improved air quality, walkability, and aesthetics, among others.

Main Action		
Vehicle sharing		
Indicators		
<ul style="list-style-type: none"> At least 500 school buses and 70 school bus routes are operational by 2030 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Provide bus services for government officials and students to encourage a shift from private vehicle use 	<ul style="list-style-type: none"> Provide employee bus services Develop company advocacy on vehicle-sharing among employees 	<ul style="list-style-type: none"> Practice vehicle sharing with peers by availing employee and school bus services Practice vehicle sharing in private vehicle

Solid Waste

Main Actions

- a. Waste reduction, sorting, and recycling at source
- b. Community-scale and medium waste-to-resource facilities
- c. Implementation of Extended Producer Responsibility (EPR)
- d. Eco-friendly household products innovation and production
- e. Food waste reduction
- f. Reduction of use of single-use plastic packaging and promote the use of recycled products

C. Solid Waste

In 2019, DKI Jakarta recorded a daily waste generation of 7,702 tonnes. More than half of the waste was from households (60%), followed by commercial and institutional offices (22.48%) and waste collected on roads (10.04%). Food waste dominates the composition of DKI Jakarta’s wastes with 53% share, followed by plastics (9%), paper (7%)¹⁴. About 90% of the solid waste generated is transported to the Integrated Waste Processing Site and Landfill in Bantar Gebang, located in Bekasi City, where these are further processed via recycling and composting. The Bantar Gebang landfill has almost reached its maximum capacity and can only accommodate approximately 10 million tonnes of solid wastes in the coming years¹⁵. Landfill expansion is not a feasible immediate solution, due to land unavailability.

Waste Composition of DKI Jakarta

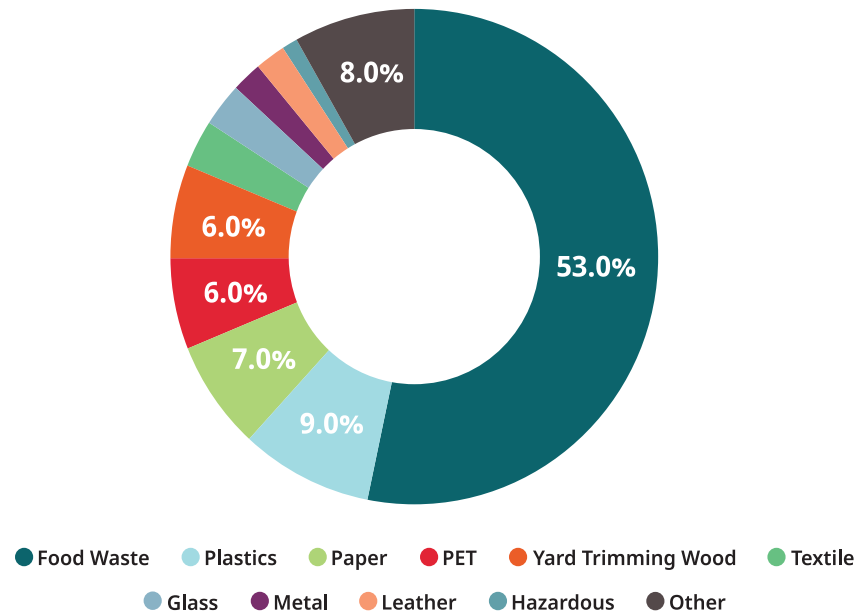


Figure 6. Waste Composition of DKI Jakarta

According to the 2010 GHG inventory of DKI Jakarta, the waste sector contributed to about 4.6% of the province’s total emissions. This includes emissions in both solid waste and wastewater subsectors. To meet DKI Jakarta’s mitigation pledges, **the province needs to reduce its GHG emissions in the solid waste sub-sector by up to 1,401,000 tCO2e by 2030 (4.3%) and by 2,691,000 tCO2e by 2050 (4.9%).** Some of the actions identified to meet this target include reduction of waste disposal to landfills by 3R policies and practices as well as reduction and better management of organic waste¹⁶. Per Governor Regulation No. 108 of 2019 concerning Regional

¹⁴ GHG Emission Inventory and GHG Emissions Reduction Report of DKI Jakarta Province, 2019

¹⁵ Regional Environmental Management Performance Information Document of DKI Jakarta Province 2019. 2019

¹⁶ Preliminary Study: Long-Term Strategy to Achieve DKI Jakarta’s Low Carbon Society 2050. 2020

Policies and Strategies of DKI Jakarta Province in the Management of Household Waste and Wastes Similar to Household Wastes (Jakstrada), DKI Jakarta aims to reduce household waste and household-like waste by up to 30% by 2025. To achieve this target, the provincial government has also issued several regulations such as Governor Regulation No. 77 of 2020 concerning waste management within RW and Governor Instruction No. 107 of 2019 concerning waste reduction and segregation in the government environment.

To contribute to DKI Jakarta’s efforts in addressing its urban waste management challenges while simultaneously reducing its emissions, ACP implemented a pilot project on community-scale waste management using a black soldier fly (BSF) system in TPST Rawasari. The pilot project is expected to treat at least one ton of organic waste per day and can contribute to a GHG emissions reduction of approximately 400 tCO2e annually. Based on the findings of the pilot implementation (with its potential for scalability in DKI Jakarta and replicability across Indonesia), this intervention was included in the list of pledged actions outlined below. The Long-Term Strategy to Achieve DKI Jakarta’s Low Carbon Society 2050 identified a mitigation roadmap that can lead to meeting the GHG reduction target in the waste sector. The pledged actions seek to enable and complement the actions indicated in the roadmap.

Strategy : Solid waste reduction and treatment at source

Objective : To contribute to the reduction of GHG emissions in the solid waste subsector by up to 1,401,000 tCO2e by 2030 and by 2,691,000 tCO2e by 2050 by reducing waste generation and improving waste management efficiency.



Main Action		
Waste reduction, sorting, and recycling at source		
Indicators		
<ul style="list-style-type: none"> Waste volume reduced by at least 30% by 2025 	<ul style="list-style-type: none"> At least 70% of waste collected are properly segregated into organic and inorganic wastes 	<ul style="list-style-type: none"> At least 5,000 Pemberdayaan Kesejahteraan Keluarga (PKK) or Family Welfare Movement members have been engaged and capacitated on 3R practices
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Issue a circular directing waste reduction, sorting, and recycling in public buildings and facilities. Formulate and enact waste management action plan in collaboration with CSO and business sector Provide drinking water refilling stations in public buildings, facilities, spaces, schools, and terminals to avoid waste generation from single-use plastic bottles Set minimum waste generation quota per generator per collection period and issue disincentives to generators that exceed the minimum quota. Issue an incentive scheme for businesses that reduce waste and induce circular models Implement community-driven waste-to-resource livelihood programs 	<ul style="list-style-type: none"> Issue internal company policies to practice waste reduction, sorting and recycling in operational areas and offices Provide drinking water refilling stations throughout the company premises to avoid waste generation from single-use plastic bottles Set up recycling facilities in collaboration with the provincial government Support the implementation of community-driven waste-to-resource livelihood programs by providing market spaces for recycled products 	<ul style="list-style-type: none"> Issue internal organization/community policies to practice waste reduction, sorting and recycling in operational areas Discourage the use and advocate for the refusal of single-use plastics among members Initiate campaigns on 3R policies and practices at the household and entity levels in partnership with schools and universities to develop effective communication materials and wider outreach Volunteer in the management of community waste banks (e.g. collection, sorting, recycling) Organize capacity building to sort and manage waste properly in neighborhood



Source: Hamza Javaid - Unsplash

Main Action		
Community-scale and medium waste-to-resource facilities		
Indicators		
<ul style="list-style-type: none"> Construction and operation of community-scale waste management system facilities such as BSF system and composting facilities in each neighborhood 	<ul style="list-style-type: none"> At least 10,000 individuals have been actively engaged as volunteers or employees of community-scale waste management facilities 	<ul style="list-style-type: none"> At least 4 intermediate treatment facilities (ITF) constructed in high generation areas by 2030
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Construct an Intermediate Treatment Facility (ITF) in high generation areas Conduct regular technical, administrative and community engagement capacity buildings for managers of waste banks and ITFs for effective management and efficiency of operations. Replicate the construction and operation of BSF in other communities (as appropriate) using TSP Rawasari BSF Facility as model to manage organic wastes Give recognition awards and incentives to communities that successfully implement community-based waste management solutions 	<ul style="list-style-type: none"> Develop and implement environment-friendly and cost-effective waste management technologies Align CSR programs with the implementation of community-scale waste management solutions of the provincial government by offering technical and/or financial assistance 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the design, implementation, and monitoring of community-scale waste management and livelihood programs



Source: ICLEI Indonesia

Main Action		
Implementation of Extended Producer Responsibility (EPR)		
Indicators		
<ul style="list-style-type: none"> Formulation and enactment of EPR policy in DKI Jakarta At least 100 manufacturing companies in Jakarta are fully compliant to EPR policy by DKI Jakarta 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Conduct socialization on existing law which cover EPR provision such as Law no. 18 of 2008 concerning waste management, and Government Regulation No. 81 of 2012 concerning Management of Household Waste and Household-like Waste Formulate policy related the implementation of EPR Provide rewards for business people to implement EPR - Extended Producer Responsibility 	<ul style="list-style-type: none"> Comply regulation on waste management which cover EPR provision such as Law no. 18 of 2008 concerning waste management, and Government Regulation No. 18 of 2012 concerning Management of Household Waste and Household-like Waste Provide compensation for consumers who return packaged bottles to producing companies through cooperation with shops, minimarkets and supermarkets 	<ul style="list-style-type: none"> Actively participate in monitor the enforcement of EPR laws Deliver product's packaging to producer practising EPR



Source: ICLEI Indonesia

Main Action		
Eco-friendly household products innovation and production		
Indicators		
<ul style="list-style-type: none"> At least 1,000 people are trained and employed in the production of eco-friendly household products At least 50 business entities are actively engaged in innovating and producing eco-friendly household products 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop modules on innovating and producing eco-friendly household products and offer these as courses in vocational training centers. Provide facilities for eco-friendly household product innovation and production. 	<ul style="list-style-type: none"> Produce and/or redesign households products to be more environment-friendly, durable, and recyclable 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the development of training modules on producing eco-friendly household products to be offered in vocational training centers Host training programs and for interested individuals, especially targeting low-income, unemployed and underemployed individuals, based on the modules developed for vocational training centers Implement livelihood assistance programs for the trained individuals in partnership with the provincial government and business sector.



Source: Sara Groblechner - Unsplash

Main Action		
Food waste reduction		
Indicators		
<ul style="list-style-type: none"> At least 1,000 tonnes/day of food wastes disposal is reduced 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Formulate and enact policies on food waste reduction in restaurants and hotels which shall also include incentive and disincentive mechanisms Construct food waste collection points and recycling facilities such as BSF, composting, and biogas digesters to reduce food waste disposals to landfills Construct food banks for low-income households and homeless people. Create a network of key food waste generators (districts for households, restaurants, hotels, etc.) to link with and maximize the use of food waste collection points and recycling facilities as well as food banks. 	<ul style="list-style-type: none"> Improve transport and storage infrastructure for agricultural produce to minimize waste from the production and distribution stages Conduct studies to better understand preferences, serving sizes, trends, and customer volume among other factors to determine ingredients and menus that will reduce/eliminate food wastes Adopt own food waste recycling facilities such as BSF, composting, and biogas digesters. Join a network of key food waste generators (districts for households, restaurants, hotels, etc.) to link with and maximize the use of food waste collection points and recycling facilities. Donate excess, clean, and untouched leftover ingredients and meals to food banks for low-income households and homeless people. Collaborate with CSOs/NGOs that manage food banks for quality assurance and proper distribution. Implement a discount mechanism for food products at certain hours in supermarkets and public markets. 	<ul style="list-style-type: none"> Avoid buying too much food that may go to waste Only cook and consume an adequate amount of food and avoid generating too much leftover Store food products properly Offer expert advisory services and participate in socializations on the formulation of policies on food waste reduction in restaurants and hotels Construct food waste collection points and recycling facilities such as BSF, composting, and biogas digesters to reduce waste disposals to landfills Construct food banks for low-income households and homeless people. Join a network of key food waste generators (districts for households, restaurants, hotels, etc.) to maximize the use of food waste collection points and recycling facilities. Collaborate with key food waste generators that donate excess, clean, and untouched leftover ingredients and meals to food banks for low-income households and homeless people and serve as quality control officers.

Main Action		
Reduction of use of single-use plastic packaging and promote the use of recycled products		
Indicators		
<ul style="list-style-type: none"> At least 5,000 individuals are engaged as advocates to reduce the use of single-use plastics Inorganic wastes disposal to landfills is reduced by at least 50% All shopping centers have eliminated the use of single-use plastic bags At least four monthly campaigns on the use of reusable products are disseminated across all platforms in Jakarta 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Conduct socializations to determine an just and radial transition in the implementation of the ban of single-use plastics Enact and monitor compliance on regulations banning the production and use of single-use plastics per Governor Regulation No. 142 of 2019 Conduct research, disseminate information, and provide access to alternatives to single-use plastics for both producers and consumers Provide regulatory obligations for product manufacturers (e.g. condiments, ingredients, toiletries, etc.) that heavily rely on plastic packaging to provide strategically placed used packaging collection points for recycling as well as to redesign product packaging to allow for better recycling Provide regulatory obligations for product manufacturers (e.g. condiments, ingredients, toiletries, etc.) to provide refilling stations for their product to reduce packaging waste. Issue a regulation mandating the use of reusable products for all government-led activities 	<ul style="list-style-type: none"> Offer alternatives to plastic bag packaging and offer discounts to customers that bring their own shopping bags and containers in supermarkets and public markets. Product manufacturers and distributors set up strategically placed refilling stations at discounted prices for products such as condiments, ingredients, toiletries, etc. Product manufacturers and distributors set up strategically placed used packaging collection points for recycling. Product manufacturers redesign product packaging to allow for better recycling. Product manufacturers include information on the environmental impact of their products in the packaging 	<ul style="list-style-type: none"> Offer expert advisory services and participate in socializations in the formulation of policies banning the production and use of single-use plastics to provide affordable and accessible alternatives and observe a just transition Assist the provincial government in monitoring the implementation of policies Collaborate with product manufacturers and distributors in setting up refilling stations as well as used packaging collection points for recycling neighborhoods/communities. Bring containers and shopping bags and refuse single-use plastic bags when shopping in supermarkets and public markets Develop and disseminate effective IEC materials advocating and capacitating citizens to refuse single-use plastics

Water

Main Actions

- a. Construction of biopori holes and infiltration wells
- b. Rainwater harvesting
- c. Clean water supply services
- d. Sustainable wastewater management
- e. Water conservation
- f. Wastewater recycling technology
- g. Sustainable watershed (DAS) management

D. Water

According to 2017 data, clean water service coverage of households in Jakarta is only at 60%¹⁷. The remaining 40% relies on pumping water supply from groundwater sources, more than half of which are mildly polluted¹⁸. Groundwater extraction is also exacerbating land subsidence in the northern portion of the province, which in turn exposes the population to risks of getting displaced due to coastal flooding and sea level rise. Domestic wastewater in Jakarta is managed via a centralized system and individual household septic tanks; service coverage of domestic wastewater treatment is only 14.33%¹⁹. Many households still directly discharge their wastewater to water bodies.

The 2010 GHG inventory of DKI Jakarta showed that the waste sector (both solid waste and wastewater) contributed to 6.5% of the province's total emissions. To meet DKI Jakarta's mitigation targets, **the province needs to reduce its GHG emissions in the wastewater sub-sector by up to 28,000 tCO₂e by 2030, and by up to 33,000 tCO₂e by 2050**²⁰. To address these dual challenges of providing adequate supply of clean water and expanding domestic wastewater treatment while also reducing its GHG emissions, DKI Jakarta aims to increase clean water services to at least 79.61%, and expand domestic wastewater treatment coverage to at least 26.44% by 2022²¹. Measures to meet these targets include operating an effective and efficient integrated wastewater treatment plant and sludge treatment plant. These measures can be considered adaptation methods, as the entire province anticipates increased and prolonged periods of extreme hot days and droughts.

The Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050 identified a mitigation roadmap for the wastewater subsector. The following table contains the pledged actions by different stakeholders to further drive implementation of targets and interventions identified in the roadmap.

Strategy: Improve access to safe and clean water as well as domestic wastewater treatment

Objective: To contribute to the reduction of GHG emissions in the wastewater subsector by up to 28,000 tCO₂e by 2030 and by 33,000 tCO₂e by 2050 by increasing coverage to clean water services and domestic wastewater treatment.

¹⁷ Local Medium term Development Plan (RPJMD) DKI Jakarta 2018 - 2022

¹⁸ Regional Environmental Management Performance Information Document of DKI Jakarta Province 2019. 2019

¹⁹ Local Medium term Development Plan (RPJMD) DKI Jakarta 2018 - 2022

²⁰ Preliminary Study: Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050. 2020

²¹ Local Medium term Development Plan (RPJMD) DKI Jakarta 2018 - 2022

Main Action		
Construction of biopori holes and infiltration wells		
Indicators		
<ul style="list-style-type: none"> At least 700 infiltration wells constructed in public green spaces 	<ul style="list-style-type: none"> At least 300 infiltration wells constructed in private green spaces 	<ul style="list-style-type: none"> At least 700,000 households constructed biopori holes
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Construct biopore holes and infiltration wells in public buildings and space, hospitals, terminals, schools and others, as wells as construct injection wells to store water underground Develop an inventory of biopori holes in neighborhood areas and periodically report it at the household (RT) and neighborhood (RW) scale. 	<ul style="list-style-type: none"> Construct biopore holes and infiltration wells in company building and properties areas 	<ul style="list-style-type: none"> Construct biopori holes and infiltration wells in residential areas, houses of worship and schools. Construct injection wells to store water for reuse when needed. Develop an inventory of biopori holes in neighborhood areas and periodically report it at the household (RT) and Rukun Warga (RW) scale.



Source: Marco Bicca - Unsplash

Main Action		
Rainwater harvesting		
Indicators		
<ul style="list-style-type: none"> At least 1 million liters of rainwater are treated and reused annually 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Install rainwater harvesting facilities in public buildings and facilities including hospitals and schools. Provide subsidies for the construction of medium-scale to large-scale rainwater harvesting facilities in neighborhoods/communities. Conduct trainings on the construction of rainwater harvesting facilities for different building types Conduct regular information dissemination on the rainwater harvesting especially its benefits as practical adaptation measure, water conservation and associated cost savings. 	<ul style="list-style-type: none"> Install rainwater harvesting and recycling facilities in the company building and properties Develop affordable rainwater harvesting facilities for different building types 	<ul style="list-style-type: none"> Install rainwater harvesting and recycling facilities in buildings and properties. Assist the provincial government in developing and disseminating effective IEC materials on constructing rainwater harvesting and recycling facilities for different building types as well as its benefits such as practical adaptation measure, water conservation, and associated cost savings



Source: Dhyanyu L. Almitra - ICLEI Indonesia

Main Action		
Clean water supply services		
Indicators		
<ul style="list-style-type: none"> Increased service coverage to 100% by 2030 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Regular maintenance of treatment plants and distribution pipes. Conduct regular spot checks on the quality of tap water among households. Issue penalties to households with functional service connection but continue to practice groundwater extraction. Accelerate expansion and construction of additional service connections to unserved households. Improve wastewater recycling for own operations to reduce water supply demand. 	<ul style="list-style-type: none"> Regular maintenance of own treatment plants and distribution pipes. Improve wastewater recycling for own operations to reduce groundwater extraction. Develop technologies for real-time detection and prevention of water leakage in distribution pipes. 	<ul style="list-style-type: none"> Assist the provincial government in the inventory and prioritization of unserved households to benefit from additional service connections. Assist the provincial government in monitoring water leakage, wastage, and illegal connections. Practice proper maintenance of water pipes to ensure efficient delivery of clean water



Source: Anisetus Palma - Unsplash

Main Action		
Sustainable wastewater management		
Indicators		
<ul style="list-style-type: none"> At least 70% of private companies have operational wastewater treatment management facilities Increased domestic wastewater treatment coverage to 35% by 2030 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Enforce laws and regulations on wastewater management to prevent surface water and groundwater pollution. Construct and expand coverage of domestic wastewater management facilities Construct wastewater treatment and recycling facilities in public buildings and facilities such as offices, schools, and hospitals. Publicly disclose the status of enforcement and compliance of public and private entities on wastewater management regulations annually. 	<ul style="list-style-type: none"> Install wastewater treatment and recycling facilities within own buildings and properties. Regularly report wastewater discharge volume and quality as well as compliance measures to wastewater management policies to appropriate agencies. 	<ul style="list-style-type: none"> Install wastewater treatment and recycling facilities within own buildings and properties. Avoid directly discharging wastewater that is pollutive/contains harmful chemicals (e.g. from detergents) to drainage systems and water bodies.



Source: Ivan Bandura - Unsplash

Main Action		
Water conservation		
Indicators		
<ul style="list-style-type: none"> Annual 20% reduction in water use and associated costs in residential and public buildings 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Formulate and enact policies on water conservation measures for all user types. Develop and disseminate water conservation campaigns targeting different stakeholders. Issue directive to all managements and employees of public buildings and facilities to practice water conservation, avoid water wastage, and conduct regular maintenance to prevent water leakage. 	<ul style="list-style-type: none"> Align CSR programs with government measures and campaigns on water conservation. Issue company-wide directive to practice water conservation, avoid water wastage, and conduct regular maintenance to prevent water leakage. 	<ul style="list-style-type: none"> Issue directive and campaigns to members to practice water conservation, avoid water wastage, and conduct regular maintenance to prevent water leakage. Assist the provincial government in developing and disseminating effective water conservation campaigns targeting different stakeholders. Offer expert advisory services in the formulation, enactment, and monitoring of policies on water conservation measures for all user types. Reuse water used such as from washing vegetables and fruit, religious purposes for other purposes such as watering gardening, washing car, etc



Main Action		
Wastewater recycling technology		
Indicators		
<ul style="list-style-type: none"> At least 1 million liters of wastewater (heavy category) are treated and recycled annually by adopting appropriate wastewater recycling technologies At least 2 million liters of gray water are treated and recycled annually by adopting appropriate wastewater recycling technologies 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Allocate budget for startups to develop and pilot-test affordable wastewater recycling technologies for different building types. Formulate and enact policies requiring key wastewater generators (e.g. industries, real estate, malls, etc.) to install and operate wastewater treatment and recycling technology as part of requirements for business operations. 	<ul style="list-style-type: none"> Establish partnerships with government and academia to develop wastewater recycling technology. Use wastewater recycling technology for office and operational activities 	<ul style="list-style-type: none"> Use of wastewater recycling technology Offer expert advisory services and participate in consultations on the formulation and enactment of policies requiring key wastewater generators (e.g. industries, real estate, malls, etc.) to install and operate wastewater treatment and recycling technology as part of requirements for business operations. Actively involved in campaigns utilizing simple wastewater recycling technologies provided by the government or from business sector through CSR



Main Action		
Sustainable watershed (DAS) management		
Indicators		
<ul style="list-style-type: none"> • Strict enforcement of watershed management regulations by protecting and preserving 6295 hectares of Ciliwung Watershed 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Naturalization / normalization of the Ciliwung and Cisadane watersheds (DAS) with the city and district governments around Jakarta • Enforce law against river polluter and occupying riverbanks 	<ul style="list-style-type: none"> • Actively participate in the watershed and river conservation movement by not discharged wastewater directly to the waterbody 	<ul style="list-style-type: none"> • Maintain and conserve the river by not throwing garbage and discharge wastewater into the river • Actively participate in the watershed and river conservation movement • Report the activity of river pollution and development along riverbanks to the authorities



Source: Ivan Bandura - Unsplash

Green Spaces and Urban Farming

Main Actions

- a. Expansion of green spaces
- b. Mangrove area preservation
- c. Preservation of DKI Jakarta’s biodiversity
- d. Transforming vacant lots into productive green spaces
- e. Increased participation of urban farming actors
- f. Urban farming market
- g. Seedling distribution for urban farms

E. Green Spaces and Urban Farming

According to the strategic plan of DKI Jakarta's Forestry Agency 2018 - 2022, only 4.86% (equivalent to 3,175.22 hectares) of the province's total land area is dedicated to green spaces. This is far below the green space standard of 30% of total land area set by the government. The main challenges of providing an adequate green space in the province include very limited land availability and complexities in land ownership and management. Therefore, innovations and paradigm shifts are precursors to optimizing and transforming urban areas into productive green spaces. Tree planting initiatives and urban farming are the key strategies that DKI Jakarta seeks to adopt and promote.

DKI Jakarta continues to implement and aggressively expand its tree planting program by building partnerships with the private sector. This partnership is envisioned to lead the efforts in transforming idle lands and abandoned infrastructures (e.g. railroad tracks) into productive and attractive green spaces.

Urban farming is an initiative that is gaining popularity among the public. The Maritime, Agriculture, and Food Security Agency of DKI Jakarta has kickstarted the implementation of urban farming programs such as the Gang Hijau (greening of small alleys), Kebun Bibit (seed development center), Green House, Child-Friendly Integrated Public Spaces for Urban Farming (RPTRA), and Demo Plot (advisory services on urban farming by creating demonstration plot)²². The Environment Agency of DKI Jakarta also coordinates the implementation of Climate Village Program (Proklim) which promotes urban farming as one of the activities under this program by engaging the community as the main actor. The provincial government is planning to develop urban farming in residential areas by delivering capacity building training on farming practices at the household level as well as establishing community-scale urban farms that employ different forms and strategies such as vertical gardening and hydroponics. Despite these initial efforts, opportunities for scale-up remain slow and challenging for the province. As such, several CSOs and community groups are also stepping in to fill the gaps and accelerate the government's efforts by implementing their own urban farming projects with the objective of making urban farming a norm among communities in Jakarta.

DKI Jakarta remains committed to these initiatives, given a range of social, economic, and environmental benefits. Community urban farms offer the potential of reimagining Jakarta's urban food systems by making nutritious food more affordable and accessible to households. Management of community urban farms can also generate new jobs for unemployed and underemployed individuals. It can also build stronger social cohesion, offering spaces for hobbies (especially for the elderly) and volunteer activities for young people. Productive green spaces also improve community air quality. These can also potentially contribute to meeting DKI Jakarta's by increased carbon sequestration, shortened travel distance in transporting and distributing agricultural products, diverting organic waste disposal by composting and using as fertilizers in urban farms (among others).

²² Grand Design Urban Farming of DKI Jakarta Province 2018 - 2030

Due to these multitude of benefits, DKI Jakarta endeavours the expansion of productive green spaces throughout the province as part of its development and climate action agenda.

Strategy : Expansion of productive green spaces in DKI Jakarta

Objective : To contribute to the reduction of GHG emissions and increase in carbon sequestration capacity by expanding its productive green spaces through tree planting and urban farming



Source: Dhyanyu L. Almitra - ICLEI Indonesia

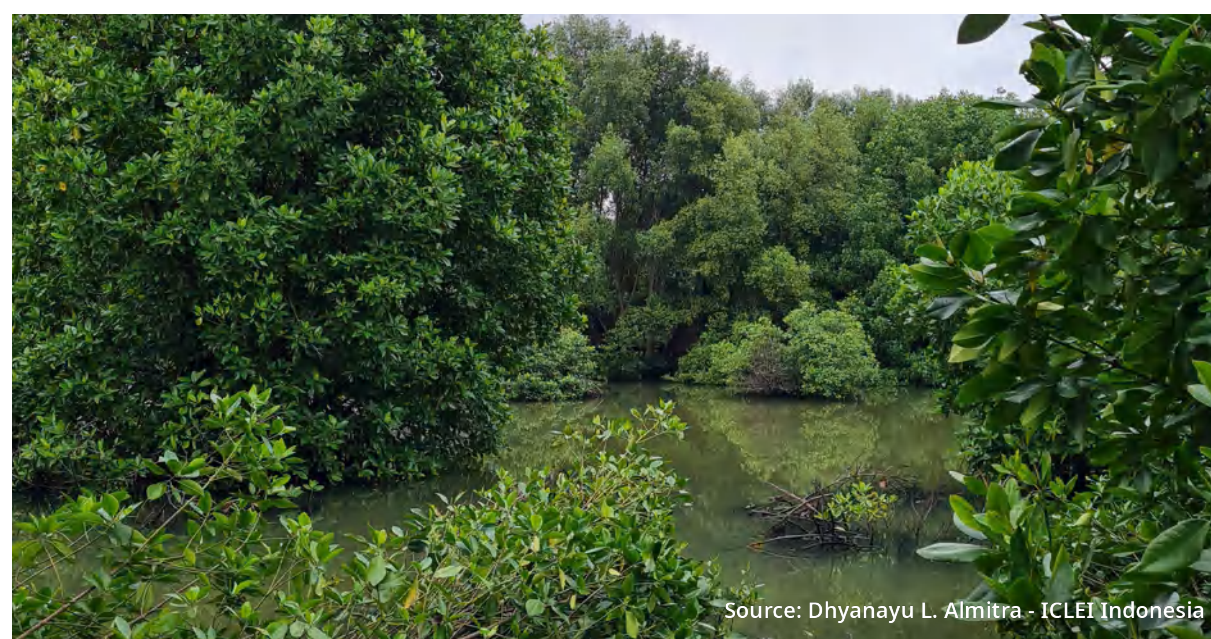
Main Action		
Expansion of green spaces		
Indicators		
<ul style="list-style-type: none"> At least 100 hectares increase in green space 	<ul style="list-style-type: none"> At least 2 million trees planted by 2030 	<ul style="list-style-type: none"> At least 30% of total land area is dedicated for urban farming by 2030
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Formulate and enact a policy allowing for stronger mainstreaming of green spaces in urban planning throughout Jakarta. Formulate green open space policy which is inclusive and gender-responsive to increase area coverage, improve quality and include additional categories such as garden, green wall, vertical gardens, green corridors, etc. Develop a tree planting guide according to the concept of "planting the right tree at the right place" to maximize the absorption of emissions. Designate, build, and maintain urban forest areas in the province. Implement urban greening activities including capacity building and community mobilization/engagement in collaboration with CSOs/NGOs, academe, and private sector. Implement greening activities through Friday Planting Movement (Go JakFarm) in office locations, green houses / alleys, RPTRAs, schools, and flats Enhance capacities of urban planners and policymakers in urban greening designs and implementation in areas of infrastructure, policy, and advocacy through learning exchanges with CSOs/NGOs, academe, and other local governments. 	<ul style="list-style-type: none"> Allocate green spaces (e.g. vertical gardens, green walls, parks, rooftop gardens) in buildings and properties. Integrate green spaces and design in new building constructions/developments. Align CSR program with urban greening advocacy and activities of the provincial government by offering technical and financial assistance in infrastructure and actively participate in advocacy drives and community mobilization/engagement. 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the formulation, enactment, and monitoring of policy allowing for stronger mainstreaming of urban green spaces in urban planning throughout Jakarta. Organize advocacy drives and tree planting activities with members as well as greening activities in residential area, schools, worship house. Offer capacity building training to members, businesses, and the provincial government in adopting green space design in different building/property types. Assist the provincial government in mobilizing community members in the maintenance of green spaces throughout the province.

Main Action		
Mangrove area preservation		
Indicators		
<ul style="list-style-type: none"> At least 20% increase in mangrove canopy cover by 2030 	<ul style="list-style-type: none"> At least 5 pilot mangrove conservation areas are built 	
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Organize educational tours in mangrove protection areas. Organize mangrove planting activities with CSOs/NGOs, schools, and the private sector. 	<ul style="list-style-type: none"> Align CSR programs with mangrove area preservation programs of the provincial government. Organize mangrove tree planting activities among employees in collaboration with the provincial government. 	<ul style="list-style-type: none"> Organize mangrove tree planting activities among members in collaboration with the provincial government. Co-organize educational tours in mangrove protection areas with the provincial government. Assist the provincial government in monitoring mangrove protection areas.



Source: Dhyanyu L. Almitra - ICLEI Indonesia

Main Action		
Preservation of DKI Jakarta's biodiversity		
Indicators		
<ul style="list-style-type: none"> The existing biodiversity in DKI Jakarta is safe from extinction and destruction 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Perform area profiling, flora and fauna assessments, and valuation of ecosystem services, among others. Publish periodic reports on the state of local biodiversity in Jakarta. Develop and disseminate IEC materials on biodiversity protection and conservation for all stakeholders. Implement programs and projects that enable integrated biodiversity management with livelihood opportunities together with relevant stakeholders. 	<ul style="list-style-type: none"> Ensure that development projects are compliant with land use and zoning policies and plans of the province as well as do not pose detrimental impacts (intended and unintended) impacts to the local biodiversity. Align CSR programs to allow offering of technical and financial support to biodiversity management programs of the provincial government. 	<ul style="list-style-type: none"> Offer expert advisory services in the conduct of area profiling, flora and fauna assessments, and valuation of ecosystem services, among others. Offer local knowledge and participate in the conduct of assessments as well as in the planning, implementation, and monitoring of biodiversity management programs and projects. Assist the provincial government in the advocacy and educational campaigns on biodiversity management measures among members.



Main Action		
Transforming vacant lots into productive green spaces		
Indicators		
<ul style="list-style-type: none"> At least 30% of vacant lot is utilized for urban farming and green space 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop an inventory of idle public and private lands that can be transformed into productive green spaces and publish it to public Set up framework agreements between the provincial government and private landowners in transforming and utilizing these into productive green spaces 	<ul style="list-style-type: none"> Transform idle lands into productive green spaces in collaboration with CSOs/NGOs and neighborhood communities under the framework agreement set up by the provincial government. 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in developing an inventory of idle and public and private lands. Offer capacity building training to members, businesses, and the provincial government in adopting designs for transforming idle lands into productive green spaces.



Main Action		
Increased participation of urban farming actors		
Indicators		
<ul style="list-style-type: none"> At least 1,000 people involved in urban farming activities 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Conduct training on technical and management of urban farming training for citizens Conduct regular consultations and assistance to urban farmer Promote success story of urban farmer through media Introduce urban farming practice to children and youth Build partnership with private sector, CSO, universities, and financial institution in utilizing public facilities for urban farming Organize event or competition on urban farming from sub district level to provincial level 	<ul style="list-style-type: none"> Align CSR program to support the implementation of urban farming by organizing capacity building training for urban farming actor Develop social enterprise and cooperative of urban farming Offer expert advisory services to the provincial government in urban farming competition 	<ul style="list-style-type: none"> Actively participate in urban farming activities from cultivation process to marketing in residential area, schools, worship place Offer capacity building training to members in practising urban farming using several techniques such as hydroponic, verticulture, etc Practice urban farming in residential area, schools, worship place Actively participate in mapping urban farming area



Source: Adian Sudiana

Main Action		
Urban farming market		
Indicators		
<ul style="list-style-type: none"> 1 official information hub and urban farm produce marketplace was developed At least 50% of mini-markets have partnered with urban farmers to sell their produce At least 5 locations for urban farm market festival are established 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Developing an portal/platform based on digital technology for urban farming products market Develop and operate an urban farming market system that connects directly between consumers and producers Facilitating access for urban farmers to partner with minimarkets in Jakarta. Organizing the "Jakarta Urban Farming Market Festival" Monitor the quality of urban farming product by providing guidance to the urban farmer and testing the urban farming product 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the development of portal/platform based on digital technology for urban farming products market Establish partnership with urban farming actor and government to market urban agricultural products Participate in the Jakarta urban agricultural market festival. 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government the in the development of portal/platform based on digital technology for urban farming products market Sell and buy urban farming products through online system and/or offline system (neighbors and nearby communities) by practicing buy and sell activity which environmentally friendly such as does not use single-use plastic packaging Actively participate in urban farming community by selling and buying crops between them and sharing information Participate in the Jakarta urban agricultural market festival.



Source: Soo Ann Woon - Unsplash

Main Action		
Seedling distribution for urban farms		
Indicators		
<ul style="list-style-type: none"> At least 10,000 seedlings of plants, trees, and vegetables are distributed to urban farmers in Jakarta annually 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Distribute seedlings to urban farmers in Jakarta through the Agriculture Agency 	<ul style="list-style-type: none"> Align CSR programs in R&D of climate-resilient crop production 	<ul style="list-style-type: none"> R&D of climate-resilient crop production Offer expert advisory services to the provincial government to prioritize procurement and distribution of seedlings to climate-resilient crops Conduct capacity building training for farmers on farming practices that are adaptive to the changing climate.



Health and DRRM

Main Actions

- a. Community clean-up activities
- b. Capacity building disaster response and risk management
- c. Safeguarding public health from climate change-related diseases
- d. Updating of hazard maps
- e. DRRM information platform
- f. DRRM Standard Operating Procedure (SOP)

F. Health and DRRM

A poor drainage system and lack of surface runoff absorption contribute to severe flooding across Jakarta. Compounding matters, 40% of Jakarta is considered a low-lying area at risk of accelerated subsidence, due to groundwater extraction. Affected areas and communities with inadequate sanitary facilities are further exposed to diseases such as leptospirosis and dengue fever. The effects of climate change such as increased magnitude and intensity of precipitation as well as sea level rise put Jakarta’s population of 10 million at high risk.

In 2018, DKI Jakarta launched the Jakarta Satu, an integrated online and open access map that provides information on flood risks in the province. This allows the government and the citizens to be better prepared not only in responding to flooding events but also in informing urban planning directions of the province thereby preventing loss of properties and lives. Recognizing the importance of these measures, the provincial government continued to improve the Early Warning System by optimizing data and information management on disaster response management. The government also continued to refine its hazard maps and standard operating procedures by involving the community in the process. Community members take part in mapping exercises to identify and validate hazards they’ve experienced and how these are changing over time. These exercises are necessary in ensuring accuracy of modeled hazard maps. The provincial government also intensified its infrastructure measures for flood protection and control by improving river systems, floodgates, reservoirs, and river renaturalization. While several infrastructure projects are already underway, building the capacities of affected and vulnerable communities in responding to disasters and adapting to the changing climate is equally important but remains weak in practice. Therefore, the Ikhtiar Jakarta focuses the pledged actions on these measures to complement the infrastructure projects that are in the pipeline. Finally, the provincial government also encourages its citizens to actively participate in creating a clean and healthy environment in their own neighborhoods.

Strategy

: Build a resilient and healthy environment for everyone

Objective

: Enhance adaptive capacity of citizens to climate change-related disasters by strengthening preventive measures

Main Action		
Community clean-up activities		
Indicators		
• Regular clean-up activities every Fridays or Saturdays in all sub-districts		
Pledged Actions		
Local Government	Business Sector	Community Groups
• Re-mobilizing the important role of household (RT) and neighborhood (RW) in community clean-up activities in residential areas.	• Organize volunteer groups for community clean-up activities with the community in the company's surrounding areas	• Organize clean-up activities with members in residential areas, schools, and houses of worship. • Join organizations at the RT and RW levels in building a spirit of mutual cooperation.



Source: Refhad - Unsplash

Main Action		
Capacity building disaster response and risk management		
Indicators		
<ul style="list-style-type: none"> • All communities in disaster-prone areas (settlements, schools, worship houses, etc.) are trained on disaster response • 150 disaster-safe schools established by 2030 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Regularly organize drills and simulations in partnership with RT and RW administrators to build the capacities of community members on disaster response. • Regularly disseminate timely information through various platforms (e.g. posters, text brigades, television, radio, etc.) on anticipated disasters, response and evacuation protocols, among others, to the community members. 	<ul style="list-style-type: none"> • Regularly organize drills and simulations in partnership with the provincial government to build capacities of employees on disaster response. • Organize volunteer and donation drives among employees to help affected and displaced communities. 	<ul style="list-style-type: none"> • Regularly organize drills and simulations in partnership with the provincial government to build capacities of members on disaster response. • Assist the provincial government as well as RT and RW administrators in information dissemination on anticipated disasters, response and evacuation protocols, among others, to community members. • Organize volunteer and donation drives among members to help affected and displaced communities.

Main Action		
Safeguarding public health from climate change-related diseases		
Indicators		
<ul style="list-style-type: none"> • At least 5 projects that safeguard public health from climate change-related diseases have been implemented with funding support by religious and social funds by 2030 • At least 1,000 volunteers to undertake campaigns and capacity building activities at disaster-prone areas are mobilized 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> • Facilitating access and utilization of religious and social funds for public health activities • Maximizing public interaction space for campaigns on safeguard public health such as during Car Free Day and others • Develop material for both online and offline campaign on safeguard public health • Organize community movement campaigns for healthy living (Germas) 	<ul style="list-style-type: none"> • Actively participate in campaigns and movements on safeguard public health together with the community 	<ul style="list-style-type: none"> • Actively participate in campaign and movement on safeguard public health in neighborhood, school and houses of worship • Monitor the use of religious and social funds in the implementation of projects related to safeguard public health. • Participate in the maintenance of facilities built with religious and social funds



Source: Refhad - Unsplash



Source: Sabda Rhamdhoni - Unsplash

Main Action		
Updating of hazard maps		
Indicators		
<ul style="list-style-type: none"> Comprehensive and updated hazard maps are created and disseminated All relevant stakeholder groups have participated in the development, validation, and dissemination of hazard maps 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop a hazard map through participatory and inclusive processes in collaboration with academic, national government and the community. Organize socialization to disseminate the hazard maps 	<ul style="list-style-type: none"> Offer expert advisory services, data, and resources to the provincial government in the preparation of a participatory and inclusive urban disaster map. 	<ul style="list-style-type: none"> Offer expert advisory services, data, and resources to the provincial government in the process of compiling and validating a participatory and inclusive hazard map. Actively involved in the dissemination of disaster maps



Source: Maximilio Vickystra - Unsplash

Main Action		
DRRM information platform		
Indicators		
<ul style="list-style-type: none"> 1 integrated web-based and/or app-based DRRM information platform developed 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Developing disaster information platforms in collaboration with academia and business and industry. Updating data on the Jakarta Smart City database or portal database through the development of gender responsive information data. 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in the development of disaster information platforms 	<ul style="list-style-type: none"> Offer expert advisory services to the provincial government in data collection on disaster-prone areas Offer expert advisory services to the provincial government in reporting disaster event to the platform



Source: Sabda Rhamdhoni - Unsplash

Main Action		
DRRM Standard Operating Procedure (SOP)		
Indicators		
<ul style="list-style-type: none"> All of government agencies (provincial to sub-districts), schools, and businesses have prepared their DRRM-SOP 		
Pledged Actions		
Local Government	Business Sector	Community Groups
<ul style="list-style-type: none"> Develop and disseminate DRRM-SOP through participatory, inclusive and gender responsive process (including coastal communities) Develop disaster contingency planning documents for all potential disasters and conduct regular evaluations. Provide general guidance for residents in dealing with disasters (floods, earthquakes, fires, etc.) 	<ul style="list-style-type: none"> Develop DRRM-SOP in office and operational areas Providing standard equipment to reduce the risk of disaster impacts in office areas and business activities 	<ul style="list-style-type: none"> Offer expert advisory services the formulation of DRRM-SOP (SOP) through participatory, inclusive and gender responsive process (including coastal communities) Offer expert advisory services formulation of disaster contingency planning documents Actively participate in consultations, workshops and socialization of DRRM-SOP Using local culture as a medium for delivering disaster preparedness SOPs in the surrounding environment.



Source: ICLEI Indonesia

Financing the Ikhtiar Jakarta

DKI Jakarta allocates an annual budget which is distributed to around 14 agencies to finance the implementation of its programs and projects on climate change and environmental management which is expected to also finance the implementation of Ikhtiar Jakarta. However, it is anticipated that the annual provincial government budget would not be sufficient for full implementation. Therefore, DKI Jakarta enjoins its partners – CSOs/NGOs, financing institutions, private sector – to co-implement the Ikhtiar Jakarta through various instruments such as co-financing (e.g. loans, grants), technical assistance, infrastructure development, research, advocacy and capacity building. Detailed description of opportunities for co-financing arrangements shall be determined and communicated in the regular meeting of the Climate Disaster Mitigation and Adaptation Working Team under leadership by the Environment Agency (DLH) as daily chairman and the Local Planning Development Agency (BAPPEDA) as the head.

Table 3. Overview of potential financial sources for the implementation of Ikhtiar Jakarta

No	Sector	Strategy	Provincial Government	Domestic and/or International financing Institutions	Development Partners	Private Sector
1	Energy and Green Building	Promote energy efficiency, energy conservation, and renewable energy	✓	✓	✓	✓
2	Transportation and Air Quality	Mode shift from private vehicle use to public transportation use and active mobility	✓	✓	✓	✓
3	Solid Waste	Solid waste reduction and management at source	✓	✓	✓	✓
4	Water	Improve access to safe and clean water as well as domestic wastewater treatment	✓	✓	✓	
5	Green Spaces and Urban Farming	Expansion of productive green spaces in DKI Jakarta	✓		✓	
6	Health and DRRM	Build a resilient and healthy environment for everyone	✓		✓	

Measurement, Reporting, Verification (MRV)

Per Governor Decree No. 96/2020, a Climate Disaster Mitigation and Adaptation Working Team was created to coordinate the implementation, monitoring and evaluation of adaptation and mitigation activities in DKI Jakarta, headed by the Local Planning Development Agency (BAPPEDA) and the Environment Agency (DLH). The working team shall be responsible for supervising the implementation and monitoring of milestones of Ikhtiar Jakarta. BAPPEDA and DLH shall be assisted by other relevant departments and agencies. The following tables describe the roles and responsibilities of each city department as well as outline the specific strategies each department shall be taking a lead on.

Table 4. Roles and responsibilities of different stakeholders in the implementation of Ikhtiar Jakarta

BAPPEDA	DLH
Coordinate action plans and budget related to the implementation of Ikhtiar Jakarta	Coordinate the implementation and monitoring of Ikhtiar Jakarta among relevant agencies
Diskominfo	
<p>Coordinate with other agencies to disseminate timely and factual information and campaign related to Ikhtiar Jakarta's actions to public</p> <p>Advise the Environment Agency on the effective measures to mobilize citizen action for climate change</p>	Periodically perform and report the GHG emissions of Jakarta the GHG emissions reduction contribution of the successfully implemented actions of Ikhtiar Jakarta to existing national platforms (i.e. SIGN SMART, SRN) and global independent reporting platforms (e.g. CDP-ICLEI Unified Reporting System)
DTKE, Dishub, DSDA, Distamhut, DKPKP, BPBD, Dinkes, Disdik DPPAP, DCKTRP, DPRKP, DBM	
<p>Implement the pledged actions in Ikhtiar Jakarta vis-a-vis their mandates</p> <p>Coordinate, facilitate and supervise the implementation of actions as well as mobilize community groups in implementing actions in Ikhtiar Jakarta based on their mandate</p> <p>Coordinate with Environment Agency to provide timely data and information about the status of implementation of actions as well as potential adjustments in implementation targets and approaches in Ikhtiar Jakarta</p> <p>Assist the Environment Agency in the advocacy efforts and educational programs that will enjoin their relevant stakeholders in collaborative measures for climate action.</p>	

District Authorities	Private Sector
Coordinate, facilitate and supervise the implementation of actions in their area as well as mobilize community in implementing actions in Ikhtiar Jakarta in collaboration with relevant local government agencies	Implement actions in Ikhtiar Jakarta according to their authority and provide support facilities in coordination with relevant local government agencies
CSO/NGO	
<p>Assist and mobilize community in implementing actions in Ikhtiar Jakarta in collaboration with relevant local government agencies</p> <p>Assist DKI Jakarta in the effective implementation of Ikhtiar Jakarta by offering expert advisory services and perform independent review and recommendations for actions that will enhance the climate ambitions of Jakarta.</p>	

Table 5. Overview of lead implementing department/agency of priority strategies of Ikhtiar Jakarta

No	Sector	Strategy	Implementing Department/Agency
1	Energy and Green Building	Promote energy efficiency, energy conservation, and renewable energy	<ul style="list-style-type: none"> Manpower, Transmigration and Energy Agency (DTKTE) Education Agency (Disdik) Public Housing and Settlement Agency (DPRKP) Communication, Informatics and Statistic Agency (Diskominfo)
2	Transportation and Air Quality	Mode shift from private vehicle use to public transportation use and active mobility	<ul style="list-style-type: none"> Transportation Agency (Dishub) Environment Agency (DLH) Bina Marga Agency (DBM) Communication, Informatics and Statistic Agency (Diskominfo)
3	Solid Waste	Solid waste reduction and management at source	<ul style="list-style-type: none"> Environment Agency (DLH) Communication, Informatics and Statistic Agency (Diskominfo)
4	Water	Improve access to safe and clean water as well as domestic wastewater treatment	<ul style="list-style-type: none"> Water Resource Agency (DSDA) Communication, Informatics and Statistic Agency (Diskominfo)

5	Green Spaces and Urban Farming	Expansion of productive green spaces in DKI Jakarta	<ul style="list-style-type: none"> • Park and Forestry Agency (Distamhut) • Maritime, Agriculture and Food Security Agency (DKPKP) • Child Protection and Empowerment and Population Control Agency (DPPAPP) • Communication, Informatics and Statistic Agency (Diskominfotik)
6	Health and DRRM	Build a resilient and healthy environment for everyone	<ul style="list-style-type: none"> • Regional Disaster Management Agency (BPBD) • Health Agency (Dinkes) • Cipta Karya, Spatial Planning and Land Agency (DCKTRP) • Communication, Informatics and Statistic Agency (Diskominfotik)

An Ikhtiar Jakarta Forum shall be held three times a year to convene all relevant stakeholders. The forum will serve as a venue for DKI Jakarta to report the implementation process and achievements, as well as to continuously solicit inputs, advice, and pledges from different stakeholders to effectively accelerate implementation mechanisms. In addition, citizens can also continuously communicate their individual climate action pledges as well as feedback and recommendations for effective implementation of Ikhtiar Jakarta via the Ikhtiar Jakarta²³ website, an online stakeholder engagement platform that serves to educate and inform the public about different climate actions that they can do to support efforts in reducing the province's GHG emissions contribution. Pledges and feedback collected through this online platform and Forum Ikhtiar Jakarta shall also be analyzed and used to inform future directions of Ikhtiar Jakarta.

The working team shall also oversee the periodic reporting of DKI Jakarta's annual GHG emissions inventory to SIGN SMART²⁴. Implementation progress of mitigation and adaptation actions incorporated in the RAD-GRK, Long-Term Strategy to Achieve DKI Jakarta's Low Carbon Society 2050, Ikhtiar Jakarta, and other relevant planning documents (as well as standalone interventions) shall be reported to the National Reporting System (SRN)²⁵ and Low Carbon Development Planning and Monitoring Application (AKSARA)²⁶. These are the reporting platforms set up by the national government that enable local governments to report their climate action contributions in delivering the NDCs. DKI Jakarta will also continue to report its progress in delivering the Ikhtiar Jakarta to the the CDP-ICLEI Unified Reporting System (CDP-ICLEI URS) as part of its commitment to the GCoM.

²³ <https://lingkunganhidup.jakarta.go.id/ikhtiarjakarta/en>

²⁴ <http://signsmart.menlhk.go.id/v2.1/app/>

²⁵ <http://srn.menlhk.go.id/>

²⁶ <https://pprk.bappenas.go.id/aksara/>

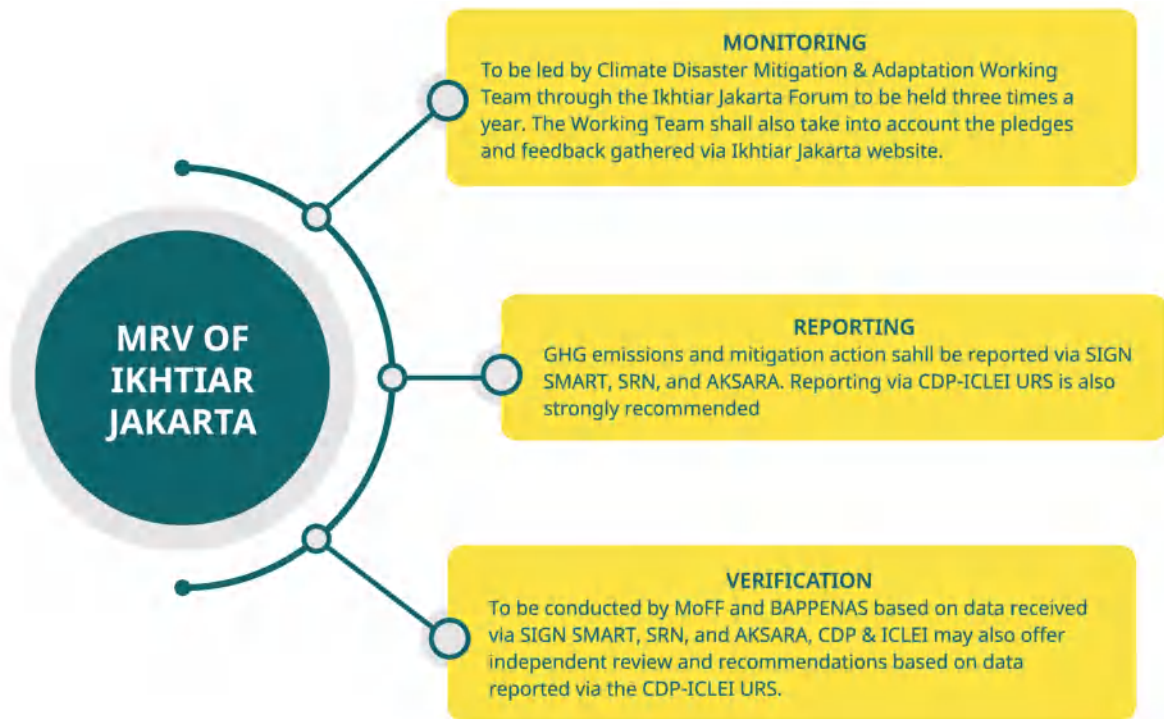


Figure 7. Overview of Ikhtiar Jakarta Monitoring Reporting and Verification (MRV)



Source: Eko Herwanto - Unsplash

Appendix

Stakeholders Involved

The following is a list of stakeholders involved during the pdevelopment process of Ikhtiar Jakarta (Promise of Jakarta) document

A. Provincial Government of DKI Jakarta

1. Deputy Governor for Spatial Plan and Environment
2. Assistant of Development and Environment Regional Secretariat
3. Local Development Planning Agency (BAPPEDA)
4. Regional Disaster Management Agency (BPBD)
5. Environment Agency (DLH)
6. Manpower, Transmigration and Energy Agency (DTKTE)
7. Transportation Agency (DISHUB)
8. Cipta Karya, Spatial Planning and Land Agency (DCKTRP);
9. Communication, Informatics and Statistic Agency (DISKOMINFOTIK)
10. Health Agency (Dinkes)
11. Park and Forestry Agency (Distamhut)
12. Maritime, Agriculture and Food Security Agency (DKPKP)
13. Public Housing and Settlement Agency (DPKP)
14. Child Protection and Empowerment and Population Control Agency (DPPAPP);
15. Education Agency (Disdik)
16. Water Resource Agency (DSDA)
17. Bureau of Development and Environment
18. Governor Delivery Unit
19. Regional Office of the Ministry of Religion
20. Jakarta Research Council

B. Climate Village Community (PROKLIM)

1. Climate Village Community (PROKLIM) of Central Jakarta
 - a. RW 01 Kel. Sunter Jaya - Bapak RB Sutarno
 - b. RW 3 Kel. Kelapa Gading Timur: Bapak Budi Winarko
 - c. RW 05 Kel Rawa Badak Selatan: Bapak Rahmad Djoenaedi
2. Climate Village Community (PROKLIM) of North Jakarta

- a. RW 01 Kel. Sunter Jaya - Bapak RB Sutarno
- b. RW 3 Kel. Kelapa Gading Timur: Bapak Budi Winarko
- c. RW 05 Kel Rawa Badak Selatan: Bapak Rahmad Djoenaedi

3. Climate Village Community (PROKLIM) of East Jakarta

- a. RW 04 Kel. Ciracas
- b. RW 03 Malaka Sari

4. Climate Village Community (PROKLIM) of South Jakarta

- a. RW 07 Kebayoran Lama Selatan
- b. RW 08 Petukangan Selatan

5. Climate Village Community (PROKLIM) of West Jakarta

- a. RW 08 Duri Kosambi
- b. RW 06 Meruya Utara

C. Waste Bank Community

1. Waste Bank Community of Central Jakarta

- a. Hijau Selaras Mandiri Waste Bank, RW 06 Kebon Kosong Kemayoran
- b. Dahlia Waste Bank, Jln Kebanggaan RT. 002/08 Cempaka Putih Barat

2. Waste Bank Community of East Jakarta

- a. SEMESTA Waste Bank, Jl. Balai Pustaka IV, Gereja Kel. Kudus, Rawamangun
- b. Harapan Ibu Waste Bank, Jl. Cibubur IV No. 57 RT 04 RW 02 Cibubur Kec. Ciracas

3. Waste Bank Community of South Jakarta

- a. Rawajati Waste Bank: Ibu Ninik
- b. Mekar Sari Mampang Waste Bank: Ibu Djuraidah

4. Waste Bank Community of West Jakarta

- a. Mawar Waste Bank, Perumahan Dinas LH Bambu Larangan
- b. Anggrek Waste Bank, Perumahan Dinas LH Tegal Alur

5. Waste Bank Community of North Jakarta

- a. Karya Peduli Waste Bank RW 09 Kel. Semper Barat: Bapak Nanang Suwardi
- b. Delima Waste Bank RW 06 Kel. Kelapa Gading Timur: Ibu Gadis Valleria

D. Environmental Community Forum (FORMAPEL)

1. FORMAPEL of West Jakarta

2. FORMAPEL of Central Jakarta

3. FORMAPEL of South Jakarta

4. FORMAPEL of East Jakarta

5. FORMAPEL of North Jakarta

6. FORMAPEL of Thousand Islands

E. Representative of SAMTAMA DKI Jakarta

1. RW 03 Cempaka Putih Timur – Bapak Adian

2. RW 02 Pondok Bambu – Bapak Edi

F. Schools

Elementary Schools (SD)

1. SD N 01 Menteng Central Jakarta

2. SD N 11 Pegadungan Central Jakarta

3. SD N 01 Kebon Jeruk West Jakarta

4. SD N 04 Lebak Bulus Jakarta Selatan

5. SD N 01 Kelapa Dua Wetan East Jakarta

6. SD N 03 Cijantung East Jakarta

7. SD N 02 Wijaya Kusuma West Jakarta

8. SD N 03 Kapuk Muara North Jakarta

Junior High Schools (SMP)

1. SMP N 181 Central Jakarta

2. SMP N 276 South Jakarta

3. SMP N 240 South Jakarta

4. SMP N 100 West Jakarta

5. SMP N 75 West Jakarta

6. SMP N 07 East Jakarta

7. SMP N 203 East Jakarta

8. SMP N 121 North Jakarta

Senior High Schools/ Vocational High Schools (SMA/SMK)

1. SMA N 01 Central Jakarta

2. SMA N 65 West Jakarta

3. SMA N 95 West Jakarta

4. SMA N 11 East Jakarta

5. SMK N 2 Central Jakarta

6. SMK N 57 South Jakarta

7. SMK N 27 Central Jakarta

8. SMK N 63 South Jakarta

G. Association/Group/Communities

1. Akademi Kompos

2. Asosiasi Atap Surya (AAS)

3. Asosiasi Daur Ulang Plastik Indonesia (ADUPI)

4. Asosiasi Pemerintah Kota Seluruh Indonesia (APEKSI)

5. Asosiasi Pemerintah Provinsi Seluruh Indonesia (APPSI)

6. Bike to Work Indonesia

7. Forum CSR DKI Jakarta

8. Gerakan Ciliwung Bersih (GCB)

9. Ikatan Arsitek Indonesia (IAI)

10. Ikatan Arsitek Lansekap Indonesia (IALI)

11. Indonesia Diet Kantong Plastik (IDKP)

12. Jaringan Rakyat Miskin Kota (JRMK)

13. Kesatuan Nelayan Tradisional Indonesia (KNTI) DKI Jakarta

14. Koalisi Pejalan Kaki Indonesia (KPKI)

15. Masyarakat Energi Terbarukan Indonesia (METI)

16. Sepeda Ontel DKI Jakarta

H. Disabled Community

1. Gerakan Peduli Disabilitas & Lepra Indonesia (GPDLI)

2. Gerakan untuk Kesejahteraan Tunarungu Indonesia (Gerkatin)

3. Perkumpulan Penyandang Disabilitas Indonesia (PPDI)

4. Sasana Inklusi & Gerakan Advokasi Difabel (SIGAB)

I. Elderly Community (Lansia)

1. Asosiasi Senior Living Indonesia

2. Senior Club Indonesia

J. Woman Community

1. House of Perempuan (HOPE)

2. Institut KAPAL Perempuan

3. Koalisi Perempuan Indonesia (KPI)

4. PKK Provinsi DKI Jakarta

5. Srikandi Bumi

K. Children and Youth Community

1. Gerakan Pramuka DKI Jakarta

2. KOPHI (Koalisi Pemuda Hijau Indonesia)

3. Earth Hour Jakarta
4. Climate Rangers Jakarta
5. i-Care
6. Golden Gropesh (Gerakan Orang Muda Peduli Sampah)
7. Komisi Perlindungan Anak Indonesia (KPAI)

L. Religious Groups

1. Lembaga Pemuliaan Lingkungan Hidup dan Sumber Daya Alam (LPLHSDA) MUI Provinsi DKI Jakarta
2. Lembaga Pemuliaan Lingkungan Hidup dan Sumber Daya Alam (LPLHSDA) MUI Pusat
3. Majelis Tinggi Agama Khonghucu Indonesia (MATAKIN) DKI Jakarta
4. Parisada Hindu Dharma Indonesia (PHDI) Provinsi DKI Jakarta
5. Pemerhati Peduli Lingkungan Hidup (Pepulih) Keuskupan Agung Jakarta
6. Persekutuan Gereja - Gereja di Indonesia (PGI)
7. Perwakilan Umat Buddha Indonesia (WALUBI) Provinsi DKI Jakarta

M. LSM/ CSO/ International Organizations

1. Aksi! for gender, social and ecological justice
2. C40
3. Divers Clean Action
4. Green Building Council Indonesia (GBCI)
5. Hutan Itu Indonesia
6. Indonesia Solid Waste Association (InSWA)
7. Indonesian Institute for Energy Economics (IIEE)
8. Institute for Essential Services Reform (IESR)
9. Institute for Transportation and Development Policy (ITDP)
10. KARINA – Caritas Indonesia
11. Kesatuan Nelayan Tradisional Indonesia (KNTI) DKI Jakarta
12. Koaksi Indonesia
13. Komite Penghapusan Bensin Bertimbal (KPBB)
14. RUJAK Center for Urban Studies
15. Sekretariat Jakarta Berketahanan
16. Solidaritas Perempuan
17. UCLG – Asia Pasific
18. Urban and Regional Development Institute (URDI)

19. Wahana Lingkungan Hidup Indonesia (WALHI) DKI Jakarta
20. World Research Institute (WRI) Indonesia
21. World Wild Fund for Nature (WWF) Indonesia

N. Academic Institutions

1. Universitas Indonesia – Research Center for Climate Change
2. Institut Pertanian Bogor – Centre for Climate Risk and Opportunity Management (CCROM)
3. i3URI (Indonesia International Institute for Urban Resilience and Infrastructure)
4. Institut Teknologi Bandung

O. State-owned Enterprises (BUMN) and Local Government-owned Enterprises (BUMD)

1. PD. Perusahaan Air Limbah (PAL) Jaya
2. PT. AETRA
3. PT. Jakarta Propertindo
4. PT. Kereta Api Indonesia (KAI) Persero
5. PT. Kereta Commuter Indonesia (KCI)
6. PT. Lintas Rel Terpadu (LRT) Jakarta
7. PT. Moda Raya Terpadu (MRT) Jakarta
8. PT. PAM Lyonnaise Jaya (PALYJA)
9. PT. Perusahaan Air Minum (PAM) Jaya
10. PT. Transportasi Jakarta
11. PT. Wijaya Karya (WIKA) Industri Energi

P. Private Sector (business and industry)dustri

1. Kamar Dagang dan Industri (KADIN) DKI Jakarta
2. PT. Akuo Energy Indonesia
3. PT. Allianz Life Indonesia
4. PT. ANTAM
5. PT. Bina Lintas Usaha Ekonomi (BLUE)
6. PT. Gerbang Multindo Nusantara (GMN)
7. PT. GOJEK Indonesia
8. PT. GOWES
9. PT. GRAB Indonesia
10. PT. High Volt Technology
11. PT. HSBC

12. PT. Integrasi Transit Jakarta (ITJ)
13. PT. Kalbe Farma Tbk
14. PT. King Azis Kontruksi Indonesia
15. PT. Kompas Gramedia (KG)
16. PT. Monica Hijau Lestari Sentosa (The Body Shop Indonesia)
17. PT. Nodeflux Teknologi Indonesia
18. PT. Optima Integra Tehnika
19. PT. Pembangunan Jawa Bali (PJB) u.p. Muara Karang
20. PT. Perusahaan Listrik Negara (PLN) Persero
21. PT. SPORA TEHNIKA Indonesia
22. PT. Starvo Global Energi
23. PT. Transit X
24. PT. Wasteforchange Alam Indonesia (Waste4Change)



ICLEI - Local Governments for Sustainability

ICLEI-Local Governments for Sustainability is a global network of more than 2500 local and regional governments committed to sustainable urban development. ICLEI became the official focal point for Local Governments and Municipal Authorities (LGMA) at COP/ UNFCCC conferences. Active in 125+ countries, we influence sustainability policy and drive local action for low emission, nature-based, equitable, resilient and circular development. Our Members and team of experts work together through peer exchange, partnerships and capacity building to create systemic change for urban sustainability.

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Program Ambitious City Promises (ACP)

Ambitious City Promise (ACP) is a project that aims to support the creation of a “City Promise” in contributing to national GHG mitigation targets through their own ambitious mitigation plans and activities in Southeast Asian large cities in Indonesia, the Philippines and Vietnam. The aim can be achieved through establishing strong GHG reduction commitments, local climate action plans directed by concrete targets, enhanced multi-stakeholder engagement, and integrated strategies.

ACP is funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) through its International Climate Initiative (IKI). The project is implemented by ICLEI - Local Governments for Sustainability in close cooperation with Seoul Metropolitan Government (SMG) who successfully implemented the Promise of Seoul, a comprehensive climate action that involves community participation in its implementation. In Indonesia, the project is implemented in DKI Jakarta as a model city, Tangerang and Bekasi City as satellite cities.