

**Summary Document**  
**Zero Carbon International Forum**  
**9-10 March 2022**

The Zero Carbon City International Forum 2022 was hosted by the Ministry of the Environment, Japan and the Office of Special Presidential Envoy for Climate, United States of America on 9– 10 March 2022, in full cooperation with the United Nations Framework Convention on Climate Change (UNFCCC), ICLEI- Local Governments for Sustainability and the Institute for Global Environmental Strategies (IGES), in collaboration with Organisation for Economic Co-operation and Development (OECD) and Global Covenant of Mayors for Climate & Energy (GCoM).

The forum opened with a video message from Mr. KISHIDA Fumio, Prime Minister of Japan and remarks from Mr. YAMAGUCHI Tsuyoshi, Minister for the Environment, Japan and Mr. Rahm Emanuel, United States Ambassador to Japan, followed by a framing presentation by Mdm. Patricia Espinosa, Executive Secretary, UNFCCC. The event featured Speakers from 22 cities and regions and 10 institutions from 14 countries who shared opportunities and challenges of sub-national climate actions based on leading practices taken by different regions of the world.

**Key points shared at the forum are summarized below.**

**1. Critical Role of Sub-national Level Actions in Achieving Carbon Neutrality by 2050**

- Fifty-five percent of the world's population lives in urban areas that cover only 3% of the world's land area, and the number will rise to 68% of the world's population by 2050.
- Cities are responsible for about 70% of the global CO<sub>2</sub> emissions, and cities and local regions have a crucial role to play as we work to achieve net-zero greenhouse gas emissions by 2050.
- To realize the ambitious commitment to carbon neutrality, a variety of bottom-up measures according to local situations are necessary, such as promoting local energy resources on compact, low-energy-consumption lifestyles.
- Every city has win-win opportunities for economic growth and GHG reduction. Climate actions not only address the climate crisis but also promote economic opportunities (e.g. creation of new industries and services, new or better job opportunities) and just transition.
- Cities are at risk of increasing climate hazards. It is critical for cities to increase adaptive capacity to climate impacts.
- Solutions already exist, and it is important to take actions immediately to address the global challenge. Subnational governments are often in the best position to take climate actions in

that they have good knowledge about local economies, contexts, policies and actions that link directly to citizens' daily life and activities.

## **2. Sub-national climate actions, challenges, and directions**

- A growing number of cities have committed to reaching net-zero greenhouse gas emissions by 2050. The forum also witnessed proactive adaptation actions at a local level that have been promoted to increase local resilience.
- The commitment and leadership of leaders of subnational governments are essential to move forward and ensure local climate actions.
- Carbon neutrality targets should be integrated into urban planning, including key policy areas such as district development, mobility management, local energy plan and others. A systemic, integrated and sector-wide approach can maximize policy impacts in both mitigation and adaptation.
- Electrification of people's lifestyles, goods, and services, and an increase in energy efficiency and renewable energy have been promoted by sub-national government to reduce emissions, especially in building and transportation sectors. Such practices can also contribute to more opportunity creation for local economies, urban amenity and energy security.
- Creating decarbonization model districts/communities can provide a good reference for other areas. By duplicating good model cases, a local decarbonization domino effect has been accelerated.
- A whole city approach is key to the success of local climate actions. Partnership and collaboration with different stakeholders and involving them in climate actions should be further promoted, especially involvement of vulnerable populations and youth.
- Climate actions should be aligned with local actions for the UN Sustainable Development Goals (SDGs).
- Securing finance for local actions is critical. In this regard, partnership with the private sector and involvement of financial institutions need to be further promoted.

## **3. Roles of national and sub-national governments**

- Cities and regions cannot tackle climate change alone. National governments must create an enabling environment to support local climate actions.
- Cooperation between national and sub-national governments should be ensured for coordinated and consistent climate actions of national and sub-national levels.
- Such cooperation can bring more sub-national voices to the national policy development process and implementation, including the needs of capacity development, technical

information, and finance assistance.

- City-to-city collaboration is an important driving force to raise ambition and to accelerate local climate actions through mutual learning and support.
- A cross-border decarbonization domino effect should be further promoted through city-to-city collaboration with support from national governments and the international community.
- Global platforms for collaborative partnership among non-state actors including cities and regions for net-zero and resilient pathways are provided by the UNFCCC, such as two global campaigns, “Race to Zero” and “Race to Resilience”. More cities and regions are encouraged to join such campaigns.

**The forum also expects countries, sub-national governments, and relevant stakeholders to take the following actions.**

- Promote climate actions at sub-national level with strong leadership, which contribute not only to the global challenges of climate change but also strengthen local sustainability and resilience.
- Continue various actions and initiatives that are underway across a wide range of countries and regions to raise the level of ambition to achieve net-zero emissions by 2050;
- Further facilitate lesson sharing and discussion to identify subnational needs and to discuss how to promote local actions; and
- Convey the outcomes of the forum to the 27th Conference of the Parties (COP27) to the UNFCCC and other international processes such as G7 and G20.

## Annex

### Summary of the Forum

#### Opening

Prime Minister KISHIDA Fumio stated in his video message that cities and local regions have a crucial role to play in achieving carbon neutrality by 2050 and they are key actors in a “new form of capitalism” and a “Vision for a Digital Garden City Nation”. He also stated that sub-national action is an essential element of the “Asia Zero Emissions Community” vision.

Minister of the Environment, Mr. YAMAGUCHI Tsuyoshi stated that this decade is critical to decarbonize the world by 2050 and emphasized the importance of close cooperation between national and local governments toward zero carbon society. He also mentioned that city-to-city collaboration within a country and beyond borders can accelerate the “decarbonization domino effect” by raising ambitions and strengthening climate actions at the sub-national level. He expressed that this Forum, organized as part of “U.S.-Japan Global Subnational Zero Carbon Promotion Initiative” launched at UNFCCC COP26, would contribute to promoting subnational decarbonization in each country.

Mr. Rahm Emanuel, US Ambassador to Japan explained that every city has win-win solutions for economic growth and greenhouse gas emissions reduction and introduced specific initiatives he implemented during his tenure as Mayor of Chicago, including elimination of coal plants, introduction of energy-efficient equipment to buildings in commercial spaces, introduction of LED in street light systems, and modernization of the transportation system. Ambassador Emanuel urged mayors and regional leaders around the world to take a leadership role in reducing GHG emissions and unite in their common goal of fighting for a green future.

UNFCCC Executive Secretary, Ms. Patricia Espinosa expressed the view that the Forum, co-hosted by Japan and the US, is an excellent example of multi-government collaboration to accelerate the decarbonization domino effect. She expressed her thanks to Minister YAMAGUCHI for his leadership for recent action by the Japanese government to strengthen its support for local governments. She stated that the success or failure of climate change efforts would largely depend on the actions of cities, and pointed out that both climate mitigation and adaptation can be promoted through cross-sectoral and integrated actions in a complex and dynamic urban ecosystem.

**Session 1 (“Net- Zero Transition: how cities are moving towards zero carbon”)** invited five leaders of sub-national governments and shared their commitments and practices.

- Mr. Bruce Harrell, Mayor of Seattle City, US introduced measures to reduce GHG emissions by promoting carbon-free transportation system and housing. He underscored that local climate actions should go together with stimulation of economic opportunities to create more sustainable city.
- Mr. AKIMOTO Katsuhiko, Mayor of Sapporo City, Japan showed the city’s efforts to increase energy efficiency and renewable energy use in buildings and districts. He expressed that the city would promote climate actions and the SDGs and become a leading city of sustainable development.
- Mr. Marcos Penido, Secretary of Infrastructure and Environment of the São Paulo State, Brazil sent a video message that introduced actions taken by the state to facilitate a rapid transition based on the São Paulo 2050 Climate Change Plan in the areas of energy, transportation, buildings, land, and cities.

- Mr. Cameron Dick, Queensland Treasurer and Minister for Trade and Investment, Australia mentioned that decarbonization of the energy market and the shift of cleaner energy is a global goal. He explained how Queensland has been promoting more renewable energy production and use and cooperation with Japanese industries in green hydrogen production and supply.
- Ms. Katja Dörner, Mayor, City of Bonn, Germany emphasized that the path to carbon neutrality and clean energy is contributing to the resilience of the city. After explaining Bonn's program of engaging citizens and youth in climate actions, she called for stepping up local actions towards carbon neutrality for a better and sustainable future.

**In Session 2 (“Working Together for Zero Carbon Society – national-subnational and city-to-city cooperation”),** national actions to support local climate actions and leading practices of local governments were shared.

- The Ministry of the Environment, Japan expressed its commitment to identify and support subnational needs in developing countries, to accelerate the cross-border decarbonization domino effect by promoting international city-to-city collaboration and to continue the forum activities, as well as specific cooperation activities to identify and support the needs of developing cities, in cooperation with U.S. and other countries and international organizations.
- The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, Germany explained about national support to sub-national level of actions in and outside of the country, and mentioned that the G7 Presidency of Germany will host the first G7 Ministerial Conference on Sustainable Urban Development in which multi-level governance will be a topic for discussion.
- Under the "Kawasaki Carbon Zero Challenge 2050" and the “Basic Plans to Promote Kawasaki City’s Global Climate Change Mitigation” to be updated, Kawasaki City has promoted climate actions with local stakeholders, based on their legacy of environmental technologies. The city also has been promoting city-to-city collaboration with Jakarta, Indonesia.
- Los Angeles explained that it carries out climate mitigation actions as a part of the city’s green new deal plan, thereby contributing to not only GHG emission reduction targets but also to better human life, health, and employment opportunity creation.
- Jakarta reported that it had accelerated climate actions towards carbon neutrality by 2050 and reduction of negative impacts of climate change including improving its governance structure. Jakarta saw the importance of collaboration with various stakeholders, including collaboration with other cities like Kawasaki.

**The second day of the forum** was opened with some remarks from Mr. SHODA Yutaka, Vice Minister for Global Environmental Affairs, MOEJ and Ms. Jane Nishida, Assistant Administrator for International and Tribal Affairs, USEPA. Mr. SHODA briefly summarized the key points of discussion and expressed his expectation for further active discussions on the second day. Ms. Nishida mentioned that the US EPA and the Ministry of the Environment, Japan have been collaborating to strengthen actions on the climate agenda. She also referred to the Educational Partnerships for Innovation in Communities (EPIC) program and Adaptation Resource Centre (ARC-X) that have been contributing to increased local capacity for adapting to climate impacts in the U.S. and other countries.

After the opening remarks, four thematic sessions were organized.

**Parallel Session 1 (“City-to-City Collaboration: accelerating the decarbonization domino”)** featured city-to-city collaboration beyond borders to promote decarbonizing efforts at the

local level.

- At the beginning of the session, Mr. YAMANAKA Takeharu, the Mayor of Yokohama City underscored the power of local governments in promoting local and global climate actions and the importance of collaboration between national and sub-national governments. The lessons and experiences shared in the session include: Yokohama (Japan) has been promoting city-to-city collaboration with cities such as Da Nang (Viet Nam) and Bangkok (Thailand) to support decarbonizing efforts of those cities. Such collaboration has been with both the public and private sectors.
- Da Nang (Viet Nam) has a long history of collaboration with Yokohama City in sustainable urban planning including waste management and low-carbon development. The city declared its commitment to carbon neutrality by 2050 and will continue collaboration with Yokohama City towards this target.
- Bangkok (Thailand) is strengthening its climate actions, responding to the commitment of the Thai government on carbon neutrality at COP26 in collaboration with various stakeholders including Yokohama City and JICA.
- Toyama City (Japan) declared its commitment to be a zero carbon city by 2050 in March 2021 and has been promoting various climate actions such as a model project of an independent and decentralized energy system that combines mitigation and adaptation measures. The city also has been engaged in city-to-city collaboration projects with cities outside of Japan and contributed to provide solutions to sustainable urban development of partner cities in Indonesia and Chile.
- Mr. Claudio Castro, Mayor of Renca (Chile), one of the administrative districts of Santiago declared its zero carbon commitment at COP26. In addition to promoting local climate measures, Renca has been actively collaborating with the international community, national governments and other districts to promote sustainability and reinforced the climate action governance. Internationally, the district is collaborating with Toyama City, Japan.
- Greater Manchester (UK) published its Five-Year Environmental Plan, which sets out detailed actions to pave the way toward carbon neutrality by 2038. The authority is collaborating with Osaka City (Japan) on the topic of decarbonization under the EU's IURC (International Urban and Regional Cooperation) Program.

**Parallel Session 2 (“Zero Carbon Challenges: trends and initiatives to promote transition in key areas”)** shared leading practices at the local level in the transportation and building sectors which make up about 60% of global CO<sub>2</sub> emissions.

- City of Ann Arbor (US) has taken action to reduce emissions from the building sector, a major source of CO<sub>2</sub> emissions. The city encourages building owners to take action to reduce emissions from their properties, as well as providing capacity development opportunities to the related businesses.
- Sapporo City (Japan) has been promoting the improvement of energy efficiency of buildings and houses by introducing its own energy efficiency standards. The city also promotes renewable energy and hydrogen energy. The city has plans to develop a hydrogen model district.
- Referring to the expansion of a low-emission public transportation system in Jakarta, ITDP emphasized the importance of urban development for pedestrians and bicycles, rather than for vehicles. To realize carbon neutrality at the city level, the city should not only promote electrification of transportation but also carry out compact city development.
- Baguio City (Philippines) explained about its projects to modernize public transportation and to reduce the number of cars used by making public transportation

- easier to use. A local transportation plan is being developed to promote routes that do not allow vehicles using old energy sources to enter the city.
- A project in Xiangtan (China) to reduce CO<sub>2</sub> emissions was introduced by the Asian Development Bank. Policy changes are underway in the city including low-carbon infrastructure transition utilizing ICT and this contributes to knowledge platform development, and capacity building.
  - In the discussion, the importance of working with local stakeholders and consolidating all possible efforts to reduce emissions were emphasized as key actions to advance current efforts on decarbonization. The importance of inventories was also mentioned.
  - Funding is an issue when implementing plans and strategies. Both international support to sub-national governments and public-private partnerships are important.

**Parallel Session 3 (“Pursuing Resilient Cities2)** shared practices to increase local resilience in different regions.

- Miami-Dade County (U.S.) has been taking various actions to strengthen resilience of the city under the Resilient305 initiative. Actions include both climate mitigation and adaptation measures, and coordination and cooperation within the administration and the region are important in the effort. Support is also needed to promote mutual learning and collaboration with communities, regions and federal governments.
- Chiba City (Japan) developed a policy package to increase the city’s resilience against natural disasters, including installation of storage batteries and PV systems in evacuation facilities that can also contribute to CO<sub>2</sub> reduction. Coordination and cooperation with local people is critical to support policy implementation.
- In Nagpur (India), vulnerable populations are more severely impacted by heat waves and flooding. Conservation and management of urban green and other natural areas were prioritized to combat climate change. It was underscored that institutional arrangements and continuity of finance in both mitigation and adaptation is vital to ensure policy implementation.
- San Carlos (Philippines) has embraced the importance of institutionalizing community-based safety and resilience by establishing an office that spearheads the implementation and monitoring of localized initiatives and programs to ensure disaster risk management. Integrating the “whole society approach” has been making significant impacts wherein different stakeholders cooperate with each other and take actions toward building a safer, adaptive and resilient city.
- Charleroi, an industrial city in Belgium, is aiming to transition away from oil-based industries, attract new talent through innovation, and build new industries such as bio and clean tech industries. The city is striving for an energy transition, sustainable construction, and transition to a circular economy.

**Parallel Session 4 (“Zero Carbon Urban Development (zero carbon town development)”)** emphasized (1) importance of mutual learning to solve problems at the township and city level, (2) integration of zero carbon goals with other priority goals of city development, and (3) collaboration with other regions and national governments. The following points were raised by each presentation.

- Wangsamaju District of Kuala Lumpur, Malaysia is aiming to be a model district for achieving zero carbon by 2050 through multi-stakeholder involvement, with a focus on five sectors, namely energy, mobility, waste, community, and green open space. Regional coordination, public-private partnerships, and evidence-based approaches are important elements for successful implementation.

- The smart city development in the Eastern Economic Corridor (EEC) in Thailand has been promoting green infrastructure development that pursues low-carbon economic development. Actions for decarbonization in the EEC focus on mobility, Bio-Circular-Green Economic Model (BCG) which is an integration of bioeconomy, circular economy and green economy, and smart cities. Five cities in the EEC region have already declared themselves to be smart cities.
- Lolland (Denmark) shared its experience with large green energy infrastructure development that has brought benefits to local economies. The city also emphasized the necessity for a large city and its surrounding cities to complement each other (e.g. Copenhagen and Lolland). Some success factors for green energy introduction include the role of national governments in risk management.
- Ishikari City (Japan) introduced a project to create a model for a carbon-free industrial area, making the most of its major potential for renewable energy. Hydrogen energy use is also promoted in the city. By achieving a green transformation of the environment and economy, the city is working to create a role model for decarbonization and regional growth.
- The World Bank Tokyo Development Learning Center (TDLC) shares Japan's experience with various countries and cities. In particular, the TDLC has brought together representatives from nine low-carbon countries to learn about low-carbon urban development in Japan (particularly Kyoto and Yokohama) examples. Some challenges faced by rapidly growing cities are incentive development, integration of different sectors' interests in urban planning, ways to develop compact and riveting cities, and project development that can attract investment.

**Closing remarks** from U.S. and Japan were given and following this, some key discussion points were summarized by ICLEI and IGES.

Mr. Reed Schuler, Senior Advisor to Special Presidential Envoy for Climate, John Kerry, expressed his gratitude to all speakers and participants. Underscoring that international cooperation of sub-national level can promote innovation and appropriate policy development towards zero carbon society, he mentioned that the U.S. and Japan would cooperate in achieving net-zero greenhouse gas emissions and support local government efforts towards this goal.

Mr. SHODA Yutaka, Vice Minister for Global Environmental Affairs, MOEJ also expressed his gratitude to the U.S. Government for co-organizing the event and thanked all those involved in the Forum. Referring to the importance of multi-level cooperation and cooperation among cities to accelerate the decarbonization domino effect, he stated that MOEJ would share the outcomes of this forum at COP27 and related meetings in the future, and hoped that the discussions would continue, thereby maintaining and improving momentum on subnational decarbonization.