# Report

# 12th Asia Smart City Conference

Asia Smart City Conference in YOKOHAMA



November 13 (Monday) - November 15 (Wednesday), 2023

















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# Overview

# The 12th Asia Smart City Conference (ASCC)

# **Background of the Asia Smart City Conference (ASCC)**

The Asia Smart City Conference (hereinafter referred to as "ASCC") is an international conference that brings together representatives from Asian cities, national governments, international organizations, academic institutions, and private companies, aiming to discuss on the realization of a sustainable city where economic growth and a favorable urban environment are compatible. At the conference, representatives from cities present their visions for growth as well as their current challenges and needs; private companies and academic institutions propose innovative solutions; international organizations offer programs to support efforts by cities and private companies; and best practices from around the world are shared. Furthermore, we offer an occasion for participants to find new business opportunities.

This year's 12th ASCC, for the first time in four years, was held face-to-face with the main theme of "Asian cities together towards Zero Carbon". We shared knowledge, know-hows and best practices about urban development that society is currently seeking. We also aimed to provide a meeting place for a wide range of key players and create further business opportunities for the creation of economically, socially, and environmentally sustainable cities.

# Features of the 12th ASCC

The 12<sup>th</sup> ASCC was held as the main conference of Y-SHIP 2023, launched by the City of Yokohama. Y-SHIP is an international convention that aims to achieve open innovation by inviting professionals and businesses involved in Green Transformation (hereinafter referred to as "GX") from across Japan and the world to come together in Yokohama. By holding the ASCC in unison with Y-SHIP 2023, we powerfully communicated the vision of a sustainable city from the City of Yokohama to the world as a showcase of a new society through green innovation in preparation for GREEN×EXPO 2027.

In collaboration with the Asian Development Bank / Asian Development Bank Institute and World Bank TDLC, the coorganizers of ASCC, 44 international cities and government agencies participated in the conference and shared their decarbonization practices.

# **Basic Information of the 12th ASCC**

[**Dates**] November 13 (Mon) through 15 (Wed), 2023 \*Pre-conference Event was held on November 13. [**Venue**] PACIFICO Yokohama North

# [Organizer] City of Yokohama

[Co-organizers] Asian Development Bank Institute (ADBI), World Bank Tokyo Development Learning Center (TDLC) [Supporters]

Cabinet Office, Government of Japan/ Ministry of Foreign Affairs, Japan/ Ministry of Finance, Japan/ Ministry of Economy, Trade and Industry, Japan/ Ministry of Land, Infrastructure, Transport and Tourism, Japan/ Ministry of the Environment, Japan / CITYNET / Japan International Cooperation Agency (JICA) / UNDP Representative Office in Japan / Japan External Trade Organization (JETRO)

# [**Theme**] Asian cities together towards Zero Carbon [**Planning**]

GALERIO Planning Committee (alphabetical order)
Asian Development Bank Institute (ADBI) / Japan
International Cooperation Agency (JICA) / Smart City
Institute Japan (SCI-Japan) / World Bank Tokyo
Development Learning Center (TDLC) / Institute for
Global Environmental Strategies (IGES) / YOKOHAMA
URBAN SOLUTION ALLIANCE (YUSA) / Yokohama
National University / Yokohama City University /
International Affairs Bureau, City of Yokohama

### [Number of Countries]

45 regions and countries (Y-SHIP)

### [Number of Participants]

Around 2,000 on-site and 700 online (Y-SHIP)

# The 12th ASCC Schedule

The 12<sup>th</sup> ASCC focused on the main theme of "Asian cities together towards Zero Carbon," with sessions aimed to discuss how to realize an effective decarbonized society, how to create a city with hope through decarbonization, and how to expand the city network of decarbonization.

- Main session: Yokohama led the joint declaration for decarbonization of Asian cities.
- Thematic session: To share best practices and to discuss future directions among cities
- **GX business matching sessions and exhibition:** To create business opportunities for companies between Japan/Yokohama and overseas in conjunction with thematic sessions
- Youth event: To foster the next generation through presentations and discussions of research by students

Date and Time		Program	
Nov.13 (Mon)	13:00-17:00	Site Visit of Urban Infrastructure Facilities	
	10:00-11:00	Opening and Keynote Speech	
	11:00-12:30	[Youth Event] Research Presentation on Urban Issues by Japanese and International University Students	
Nov. 14 (Tue)		[Thematic Session 1] City Management to Achieve Carbon Neutrality	
	13:00-15:30	[Thematic Session 2] Designing Livable and Thriving Cities	
	15:30-17:30	[GX Business Matching] Philippines and Japanese Companies' Business Matching	GX Business Exchange / Exhibition
	17:30-19:00	Reception	
	10:00-10:30	Greetings from the Organizer	
	10:30-11:30	[Main Session] Joint Declarationt for Zero Carbon in Asia	
	11:00-12:30	[Thematic Session 3] Case Studies of Well-Being Indicators and Policy through Industry-Academia-Government Collaboration	
N = 45 0M = 1	11:30-12:45	[Thematic Session 4] Inclusive Transition towards Decarbonized and Attractive Living	-
Nov. 15 (Wed)	13:00-14:30	[Thematic Session 5] Sustainable Development Led by Public Private Partnership towards Zero Carbon in Japan and Overseas	
	13:00-15:00	[Thematic Session 6] Promoting the SDGs through City Networks -Starting with VLR-	
	15:00-16:45	[GX Business Matching] Vietnamese and Japanese Companies' Business Matching	
	17:00-17:10	Closing Remarks	



# **Opening and Keynote Speech**

**Opening** Nov. 14 (Tue) 10:00-10:30

At the opening of Y-SHIP 2023, Mayor Yamanaka, the 12<sup>th</sup> ASCC organizer, highlighted Yokohama's potential as a global business hub, its attractiveness as a source of innovation, and initiatives to realize a carbon neutral city.

Furthermore, Deputy Chief of Mission Raymond F. Greene of the U.S. Embassy & Consulates in Japan, spoke about the importance and the roles of cities in building an inclusive and sustainable society. Mr. Hiroyuki Matsuzawa from the Ministry of the Environment also delivered a lecture on the Japanese government's efforts and future plans towards achieving carbon neutrality, along with expectations for Yokohama.

[Speakers]

Takeharu Yamanaka, Mayor, City of Yokohama

Raymond F. Greene, Deputy Chief of Mission, The U.S Embassy & Consulates in Japan

Yutaka Matsuzawa, Vice Minister for Global Environmental Affairs, Ministry of the Environment of Japan







Keynotes Speech Nov. 14 (Tue) 10:30-11:00

Experts from Japan and abroad shared their expectations for Yokohama as a global business hub in relation to GX and decarbonization.

[Speakers]

**F. Cleo Kawawaki**, Principal Director and Head of Office of Markets Development and Public Private Partnership, Asian Development Bank

**Bernice Van Bronkhorst**, Global Director of Urban, Resilience and Land Global Practice of World Bank **Hideaki Tanaka**, Executive Officer, General Manager, Hydrogen Business Department, ENEOS Corporation







November 15 (Wed) 10:30-11:30

# Main Session Joint Declaration for Zero Carbon in Asia

In the presence of 44 global cities and institutions, Mayor Yamanaka, together with the Governor of Bangkok Metropolitan Administration Chadchart Sittipunt, jointly declared a strong partnership with Asian cities for decarbonization. Support messages were received from Japan and abroad, including Mr. Yutaka Matsuzawa from the Ministry of the Environment of Japan, Mr. Ming Zhang from World Bank, Ms. F. Cleo Kawawaki from ADB and Ms. Naoko Ueda from OECD Tokyo Centre.

### [Speakers]

Takeharu Yamanaka, Mayor, City of Yokohama

Chadchart Sittipunt, Governor, Bangkok Metropolitan Administration

Yutaka Matsuzawa, Vice-Minister for Global Environmental Affairs, Ministry of the Environment of Japan

**Ming Zhang**, Practice Manager for Urban, Disaster Risk Management, Resilience, and Land in the East Asia and Pacific region, World Bank

**F. Cleo Kawawaki**, Principal Director and Head of Office of Markets Development and Public Private Partnership, Asian Development Bank

Naoko Ueda, Head of OECD Tokyo Centre







Abigail Binay, Mayor, Makati City (Video Message)





# **Thematic Sessions**

Session1

City Management to Achieve Carbon Neutrality Nov. 14 (Tue) 11:00-12:30

Organizer: Asian Development Bank (ADB) / Asian Development Bank Institute (ADBI)

# [Moderator / Keynote Speech]

**Satoshi Ishii**, Director, Strategy and Partnerships Team, Water and Urban Development Sector Office, Sectors Group, Asian Development Bank

[Emcee]

**Joy Blessilda Sinay**, Capacity Building and Training Economist, Asian Development Bank Institute [Panelists]

Giorgi Ebanoidze, ADB-Financed Project Coordinator, Tbilisi Development Fund, Tbilisi City, Georgia

Hon. Zairil Khir Johari, State Executive Councilor for Infrastructure and Transport, Penang State Government, Malaysia

Joseph Michael Espina, City Planning and Development Coordinator, Cebu City, Philippines

Yuya Shibuya, Associate Professor, Center for Spatial Information Science, University of Tokyo

**Yoshiyuki Yamamoto**, Director for Environmental Energy, Environmental Conservation Department, Environmental Planning Bureau, City of Yokohama

Cities are vital in addressing climate change and the challenge to limit global warming to 2°C. Over half the global population lives in urban areas, especially in Asia and the Pacific. Although urban areas cover just 2% of the land, they produce 75% of global carbon emissions, over 50% of which come from this region. Rapid urbanization requires energy, which exacerbates fossil fuel consumption and thus, leading to climate change. Despite these challenges, climate threat can be an opportunity to adopt low-carbon resilient measures to generate economic benefits, employment, and health improvements. Cities need to adapt and innovate, and to implement appropriate policy reforms to achieve carbon neutrality. This session focused on measures taken by city governments in the region towards carbon neutrality.







- Tbilisi outlined its city's carbon-neutral strategy, Penang presented sustainable initiatives for carbon neutrality, Cebu introduced zero-carbon measures, the University of Tokyo's research center discussed establishing a digital twin platform and citizen involvement in zero-carbon initiatives, and the Environment Planning Bureau of the City of Yokohama updated on their efforts in the Yokohama City Action Plan for Global Warming Countermeasures.
- The importance of establishing a national vision for urban decarbonization efforts first, taking into account the impact on local communities, was reconfirmed.
- Accurate data availability, stakeholder engagement and setting common goals to achieve decarbonization were identified as key factors for leveraging advanced technologies.
- It was confirmed that the main challenge in infrastructure development in developing countries is financing, and that there is a continued demand for funding and investment programs provided by governments, private sector, and foreign cities.

# **Designing Livable and Thriving Cities** Nov. 14 (Tue) 13:00-15:30

Organizer: World Bank Tokyo Development Learning Center (WB TDLC)

Christopher Pablo, Senior Urban Specialist and TDLC Team Lead, World Bank

Anna Wellenstein, Regional Director for Sustainable Development, East Asia and the Pacific Region at the World Bank [Moderator]

Ming Zhang, Practice Manager for Urban, Disaster Risk Management, Resilience, and Land in the East Asia and Pacific region, World Bank

[Speakers]

Megha Mukim, Senior Economist, World Bank Mark Roberts, Lead Urban Economist, World Bank

[Panelist]

Benjamin Magalong, Mayor, City of Baguio

Beng Hong Socheat Khemro, Director General, Land Management and Urban Planning, Ministry of Land Management, Urban Planning, and Construction, Cambodia

Helmy Budiman, Head of the Development and Planning Agency, City of Makassar Toru Hashimoto, Director General, International Affairs Bureau, City of Yokohama

The World Bank Tokyo Development Learning Center's session presented the key findings and the climate action policy tools from two World Bank publication: 1) Thriving: Making Cities Green, Resilient and Inclusive in a Changing Climate and 2) Unlivable: What the Urban Heat Island Effect Means for East Asia's Cities. The first report uses data from 10,000 cities worldwide to explore the relationship between growth of cities and the impact on the climate. The second report sampled 100 East Asian cities to understand the impact of urban heat effects on cities and outlines the options for policy action that reduce local temperatures and better prepare residents for heat waves. These reports are intended to help local and national policymakers utilize policy instruments revolving around information, incentives, insurance, integration, and investments, to design green, resilient, and inclusive cities.







- The World Bank and Asian cities led a discussion on urban greening, resilience, and inclusiveness toward livable cities.
- The World Bank presented data-based urban impacts and policy actions on climate change and the heat island effect associated with urban prosperity.
- The World Bank, Baguio, Cambodia, Makassar, and Yokohama held a panel discussion on each administration's policy instruments for climate change, countermeasures to address the urban heat island effect, and the nature of administrative support.
- In general, the participants confirmed the importance of action on the part of governments, active cooperation with citizens, and coordination among governments in their efforts to decarbonize their cities.
- The main challenge in addressing the heat island effect, especially in developing countries, is the limited access for accurate data and funding.
- As an example of Japan's effort to encourage the development of urban green spaces, an incentive mechanism was introduced where the maximum floor-area ratio regulation of buildings is eased for development plans that secure public spaces and parks.
- The importance of peer to peer collaboration to share and learn about the efforts of each city and country was emphasized.

# Case studies of Well-being Indicators and Policy through Industry-Academia-Government Collaboration Nov. 15 (Wed) 11:00-12:30

Organizer: Smart City Institute Japan (SCI-J)

[Speaker / Moderator]

Takehiko Nagumo, Executive Managing Director, Smart City Institute Japan

[Speakers]

**Tomoyuki Miyazaki**, Professor, Yokohama City University / Group Head, Center for Promotion of Research and Industry-Academic Collaboration

Makoto Kuroki, Professor, Graduate School of Data Science, Yokohama City University

Shumpei Komura, Head of the Education Innovation Center, Benesse Education Research Department

Japan's smart cities are entering the implementation phase, and there is a need to reexamine the purpose of smart cities and explore how technology enhances the well-being of citizens. The Liveable Well-being City Index (LWCI) measures the livability and well-being of citizens through both subjective and objective measures, and the results for all municipalities and prefectures are available to public for free. In particular, a major social issue nowadays with significant impact on well-being is difficulties young people face in life, as evidenced by the increase in depression and the high suicide rate. To create a society where young people can achieve well-being, it is necessary to improve their self-characteristics and acquire a resilient mind.

In this session, the discussion covered LWCI's potential to enhance citizens' well-being, initiatives to alleviate difficulties young people face, and how the efforts contribute to citizens' well-being.





- Support measures for young people utilizing the metaverse through government-academia-private sector collaboration
  were introduced, and discussions took place on improving citizens' well-being through the synergy of data and digital
  technologies.
- SCI-J shared comprehensive analytical results using indicators on the current state of well-being among Yokohama citizens.
- Yokohama City University presented the initiatives of COI-NEXT with a focus on creating well-being indicators and addressing societal issues identified through these indicators. Additionally, various applications of well-being indicators in government, academia, and private sector were introduced.
- Benesse Educational Research & Development Institute introduced the characteristics of the current generation and the future form of education.
- The panel discussion focused on the direction which City of Yokohama should take in the future to improve the well-being of young generation, and the roles required from the government, academia, and private sector.

# **Inclusive Transition towards Decarbonized and Attractive Living**

Nov. 15 (Wed) 11:30-12:45

# Organizer: Climate Change Policy Headquarters, City of Yokohama / Institute for Global Environmental Strategies (IGES)

### [Moderator]

**Atsushi Watabe**, Programme Director, Sustainable Consumption and Production Area, Institute for Global Environmental Strategies (IGES)

### [Panelists]

**Kazuaki Takahashi**, Executive Director, Planning and Coordination Department, Climate Change Policy Headquarters, City of Yokohama

**Pornphrom Vikitsreth**, Advisor to Governor of Bangkok, Bangkok Metropolitan Administration **Takeshi Konishi**, Senior Managing Director, GUUN Co., Ltd.

This session focused on the critical theme of maximizing the utilization of local resources, which encompasses renewable energy and digital transformation (DX) to cultivate a sustainable lifestyle that enhances well-being. It underscores the significance of fostering partnerships between governmental bodies, businesses, and citizens to facilitate positive transformations in urban living.

Throughout this session, four panelists representing local governments and businesses discussed the collaborative efforts required from government, businesses, and citizens to collectively address the challenge of establishing sustainable lifestyles that leverage the potential of local resources. This approach is aimed to ensure well-being for all while effectively reducing resource consumption, energy usage, and greenhouse gas emissions (GHGs).







- Discussions took place on the direction and challenges of promoting a shift to attractive lifestyles that contribute to
  decarbonization and waste recycling, while addressing the challenges of urban management, such as aging, disaster
  preparedness and providing employment opportunities.
- City of Yokohama and Bangkok Metropolitan Administration introduced government initiatives to address climate change
  and how citizens and private sectors are involved. In addition, Guun Co., Ltd, a company in Yokohama, introduced its waste
  recycling project in the Philippines and its initiatives to raise recycling awareness among local citizens.
- During the panel discussion, the roles required from the government, citizens, and the private sector were discussed to achieve a decarbonized and attractive city. In particular, it was emphasized that in implementing decarbonization measures, the government needs to ensure sufficient accessibility for residents to these policies and engaging with appropriate key partners and individuals is important.
- Furthermore, a mutual understanding was formed that initiating the decarbonization process with small-scale measures and
  gradually expanding the number of participants among citizens and private enterprises, as well as the scope of target areas,
  can ultimately lead to drastic changes for decarbonized society.

# Sustainable Development Led by Public Private Partnership towards Zero Carbon in Japan and Overseas Nov. 15 (Wed) 13:00-14:30

Organizer: International Affairs Bureau, City of Yokohama

[Moderator]

**Setsuko Saya**, Vice President for International Business, Urban Renaissance Agency [**Panelists**]

Takeshi Ishikawa, Director General of Climate Change Policy Headquarters, City of Yokohama

**Tri Dewi Virgiyanti**, Acting Deputy Minister of National Development Planning for Regional Development, Ministry of National Development Planning (BAPPENAS), Indonesia

Jannarong Takumi Saga, Assistant Director, Eastern Economic Corridor Office of Thailand

Eiichi Tanabe, Deputy CEO, Amata Corporation

Yasuhiro Yamaguchi, Advisor, YOKOHAMA URBAN SOLUTION ALLIANCE (YUSA)

In order to decarbonize cities, it is important to leverage the overall urban development by implementing and practicing decarbonization initiatives. In Southeast Asia countries, there are many examples of development that actively introduce carbon neutral technology through public-private partnerships (PPPs) and private-sector-led urban development that have served as model districts of decarbonization for neighboring regions.

In this session, government organizations and major developers from Thailand and Indonesia were invited to introduce advanced case studies as well as practical examples of Yokohama's decarbonization leading area and information on also on the business development of Japanese private companies in Southeast Asia through public-private partnerships. Furthermore, key players working on large-scale urban development projects discussed ways to achieve decarbonized urban development, with a view to further expanding partnerships between cities and private companies that resonate with smart city development / decarbonization / sustainability initiatives.







- The participants shared their cases of urban planning including Minato Mirai 21, a decarbonization leading area, and discussed how to plan and implement public-private partnerships to lead the decarbonization of cities.
- Presentations on climate change and decarbonization initiatives, as well as collaboration with the private sector, were
  delivered by public institutions such as the City of Yokohama, Ministry of National Development Planning of Indonesia, and
  Eastern Economic Corridor Office of Thailand.
- Amata, a private developer, introduced climate change solutions by private enterprises and the development of decarbonized smart cities, such as in industrial parks.
- YUSA, which is formed mainly by companies in the City of Yokohama, presented examples of decarbonization technologies
  possessed by YUSA member companies, as well as examples of cooperation between YUSA and overseas companies.
- The panel discussion was on the challenges in realizing decarbonized initiatives and the key points in realizing projects. The discussion revealed that five key points are important for successful public-private partnerships: (1) having a long-term vision, (2) public sector financing, (3) private sector investment, (4) developing a communication platform linking citizens, public sector and private sectors, and (5) implementing public-private partnerships on an international scale.

# **Promoting the SDGs through City Networks -Starting with VLR-**

Nov. 15 (Wed) 13:00-15:00

**Organizer: CITYNET SDGs Cluster** 

[Opening]

Minatomiraihoncho Elementary School

Hirotoshi Shiro, Deputy Mayor, City of Yokohama

[Keynote Speech]

Sanjeevani Singh, Economic Affairs Officer, Sustainable Urban Development Section, Environment and Development Division, UNESCAP

[Moderator]

Yatsuka Kataoka, Programme Director, City Taskforce, Institute for Global Environmental Strategies (IGES)

[Speakers]

**Takuya Endo**, Executive Director for SDGs Future City Promotion Climate Change Policy Headquarters, City of Yokohama **Xuanxuan Kumazawa**, World Horticultural Exhibition Promotion Division, Kamiseya Development and World Horticultural Exhibition Promotion Office, Urban Development Bureau, City of Yokohama

Nor Nazariah binti Kamardin, Senior Deputy Director, Administration Department, Kuala Lumpur

Le Minh Tuong, Vice Director of Department of Planning and Investment, Da Nang City

Naoki Ishii, President, Ishii Zouen Landscape Co., Ltd.

**Noboru Okazaki**, Deputy Manager, Overseas Administration Department, JFE Engineering Corporation [**Closing**]

Rumi Kurita, Head of Office, CITYNET Yokohama Project Office

With the increasing global interest in SDGs and decarbonization, local governments worldwide are voluntarily conducting Voluntary Local Reviews (VLRs) to assess progress towards sustainable development goals, and CITYNET supports member cities in creating VLRs. This session featured presentations from CITYNET member cities, international organizations, private companies, and elementary school students from Yokohama city, showcasing their efforts towards SDGs and decarbonization. Besides, toward promotion of SDGs and decarbonization in Asia Pacific area, the discussion will also explore the potential for VLR expansion making use of CITYNET's network.

\*VLR (Voluntary Local Review): A process in which local and regional governments (LRGs) voluntarily initiate an assessment of their progress of implementation of the 2030 Agenda and its SDGs.







- CITYNET member cities, international organizations, private companies, and academic institutions introduced their SDGs and decarbonization initiatives.
- At the opening of the seminar, the elementary students of Yokohama Minatomiraihoncho elementary school delighted the audience with a school song with an SDGs theme, created last year.
- During SDGs initiatives presentation session, the representatives from CITYNET member cities including Yokohama, Kuala Lumpur, Vietnam as well as private companies such as Ishii Zouen Landscape Co., Ltd. and JFE Engineering Corporation, showcased their efforts towards SDGs and decarbonization.
- The moderator initiated the discussion by asking questions to the participating members on two topics (1) VLR/ review process and how to utilize the results, and (2) collaboration between actors on SDGs. The discussion concluded with the positive outcomes including encouraging statements from government representatives and others expressing a commitment to start tracking SDGs implementation.



# **GX Business Networking Event**

# Philippines and Japanese Companies' Business Matching Nov. 14 (Tue) 15:30-17:30

YOKOHAMA URBAN SOLUTION ALLIANCE (YUSA) organized a business matching event between the Philippines and Japanese companies. Eleven companies (5 from the Philippines, 6 from Japan) with strong interests in wastewater treatment, solid waste management and energy saving delivered sales pitches, followed by individual business meetings.

# Company List (alphabetical order)

**Philippine Companies** 

- Aqua terra integrated solutions, Inc
- Netforce International Incorporated
- Pacific Spectrum Environmental Research and Consultancy, Inc.
- Richetec RSA
- Testech, Inc.

### Japanese Companies

- AMCON INC. Japan
- Geosphere Environmental Technology Corp.
- MIKUNIYA Corporation
- Murata Manufacturing Co., Ltd
- T.K.K Evolution Co., Ltd
- TRiPAC Corporation









# Vietnamese and Japanese Companies' Business Matching Nov. 15 (Wed) 15:00-16:45

YUSA organized a business matching event between 6 Vietnamese and 6 Japanese companies interested in wastewater treatment, solid waste management and energy saving, followed by individual business matching.

# Company List (alphabetical order)

Vietnamese Companies

- EPS Trading and Technology., JSC
- Happy House Vietnam Japan Co., Ltd
- Nal Solutions., JSC
- STPOWER., JSC
- Tam Nguyen Group
- Vconnex Technology., JSC





- CarbonFree Consulting Co., Ltd.
- ENERES Co., Ltd.
- Guun Co., Ltd
- iFORCOM Co., Ltd.
- MURATA Keisokuki Service Co., Ltd.
- STANLEY ELECTRIC Co., Ltd.









# GX Business Exhibition Nov. 14 (Tue) and 15 (Wed)

In order to promote business matching and networking, booths were exhibited by the speakers, embassies, domestic and international companies and organizations, and local companies (YUSA member companies, GX-related companies in Yokohama, start-up companies, etc.). The four key themes for this years' booth exhibits were GX, cutting-edge technology, solutions to urban issues, and innovation.

### Company List (alphabetical order)

- AMCON INC.
- ChopValue Manufacturing Japan
- Economic and Investment Section (BOI Tokyo Office),
   Royal Thai Embassy
- Eight-Japan Engineering Consultants Inc.
- ELEKS Japan
- Embassy of Botswana
- ENERES Co., Ltd.
- Geosphere Environmental Technology Corporation
- HealthCareGate.inc
- iFORCOM Co., Ltd.
- TerraCycle Japan G.K.
- Japan Association for the International Horticultural Expo 2027, Yokohama
- Japan India Industry Promotion Association (NPO)
- JFE Engineering Corporation

- Kajima Corporation
- KDDI Corporation
- Liquitous Inc.
- LOOVIC Inc.
- Murata Manufacturing Co., Ltd.
- MYAKU Inc.
- NEC Networks & System Integration Corporation
- Nekotronic Inc.
- Sansei Corporation
- ShinMaywa Industries, Ltd.
- Sports Culture and Dynamic City Development Bureau,
   City of Yokohama
- Takenaka Corporation
- Toshiba Infrastructure Systems & Solutions Corporation
- Tripac Inc.











# **Youth Event**

# Research Presentation on Urban Issues by Japanese and International University Students

Yokohama City University actively engages in the ASCC, with students and faculty contributing to collaborative urban challenges. They collaborated with universities in Southeast Asia through the International Academic Consortium for Sustainable Cities (IACSC). In the summer of 2023, Yokohama City University students, along with IACSC members like Thammasat University in Thailand, the National University of Vietnam, and Hasanuddin University in Indonesia, organized a workshop on urban growth and suburbanization challenges at Thammasat University Rangsit Campus.

In this session, students shared insights and proposals for sustainable city development based on the workshop's outcomes. JICA staff also participated as commentators, offering expertise from the standpoint of international cooperation and urban development.

### [Moderator]

**Nakanishi Masahiko**, Professor, Yokohama City University Graduate School of Urban Social and Cultural Studies / Leader for Urban Planning Unit, Global Cooperation Institute for Sustainable Cities (GCI)

Marina Kitahara, Project Assistance Professor, Global Cooperation Institute for Sustainable Cities (GCI)

# [Speaker]

**Akio Onishi**, Professor, Yokohama City University Graduate School of Data Science / Director of GCI / Leader of Environmental Unit, Global Cooperation Institute for Sustainable Cities (GCI)

### [Presenter]

5 students from Yokohama City University

### [Commentators from JICA]

Masanori Abe, Senior Deputy Director, Team 2, Urban and Regional Development Group, Infrastructure Management Department Takahiro Mizukami, Assistant Director, Team 2, Urban and Regional Development Group, Infrastructure Management Department Takuya Akiba, Associate Expert, Team 2, Urban and Regional Development Group, Infrastructure Management Department









# **Networking Event**

**Reception** Nov. 14 (Tue) 17:30-19:00

Participants of Y-SHIP 2023 gathered to acknowledge the purpose of this international convention and to share recent activities, issues, and initiatives.















November 13 (Mon) 13:00-17:00

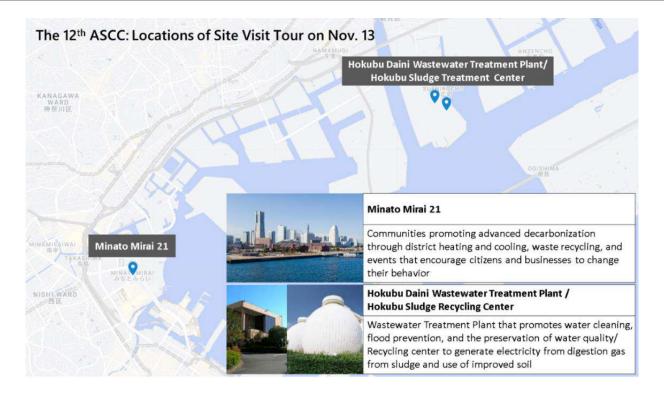
# **Pre-Conference Event**

# Site Visit of Urban Infrastructure Facilities

Site visit tour of urban infrastructure facilities in Yokohama was conducted for invited cities and organizations. There were four types of tour as listed in the table below, with a total of 100 participants from 20 countries. Tour A focused on advanced business district of Minato Mirai 21 (MM21), recognized as a "Decarbonization Leading Area" by the Government of Japan. Tour B showcased a wastewater treatment plant and sludge recycling facility in Tsurumi Ward that utilizes circular-oriented technologies.

Course Visited Facilities

<b>Tour A1 Minato Mirai 21</b> Promotion of Green Energy	[Yokohama City Hall] The City of Yokohama opened its new city hall in 2020 with a concept of Zero-Energy Building (ZEB) that exhibits the highest level of energy saving performance and promotes local consumption of renewable energy.
<b>Tour A2 Minato Mirai 21</b> R&D Hub and Liveliness	[Mulabo!] Mulabo! is a Research and Development (R&D) center operated by Murata Manufacturing that features hand-on exhibits teaching the basics of electricity.  [Yokohama Landmark Tower] Highest building in Yokohama that adopts renewable energy sources and promotes waste recycling and wastewater reuse.
<b>Tour A3 Minato Mirai 21</b> Eco-Friendly MICE and PPP	[PACIFICO Yokohama] World-class convention complex committed to turning all waste generated in facility into resource. A circular economy is achieved by supplying electricity generated from industrial waste and biomass power from food waste to the neighboring district.
<b>Tour B</b> Advanced Technology of Water Circulation	[Wastewater Recycling Center] Promotes water cleaning, flood prevention, and the preservation of water quality.  [Sludge Treatment Center] Generates electricity from digestion gas of sewage sludge and improved soil for landfill.



# **Tour A1**

# **MM21** | Promotion of Green Energy

The delegation visited Yokohama City Hall, which was built with the concept of a Zero Energy Building (ZEB) to promote the highest level of energy-saving performance and local production and consumption of renewable energy within MM21.

# Yokohama City Hall

The participants observed architectural environmental technologies such as double-skin curtain walls and ecovoids, as well as electrical facilities such as fuel cell and solar power to generate power to be used in the municipal building. Moreover, hybrid seismic isolation which combines seismic isolation device and motion control device was introduced, which was implemented as a Business Continuity Plan (BCP) measure to ensure business continuity even during disasters.













# **Tour A2**

# MM21 | R&D Hub and Liveliness

The participants visited Mulabo! operated by Murata Manufacturing, and the Landmark Tower, which promotes the usage of renewable energy, waste recycling and the use of reclaimed water from wastewater.

# Mulabo!

At Mulabo!, the purpose of establishing an R&D center at MM21, case study of traffic counter system in Bangkok, and environmental sensor system were introduced. The participants also experienced hands on exhibits that teach basics of electricity under the theme of 'visible science'.













# Yokohama Landmark Tower

At Yokohama Landmark Tower, the participants were briefed on the history of urban planning in Yokohama and the building's features, such as its symbolism in the city center. They also observed recent environmentally friendly initiatives such as introducing renewable energy, waste recycling, and reuse of wastewater.













# **Tour A3**

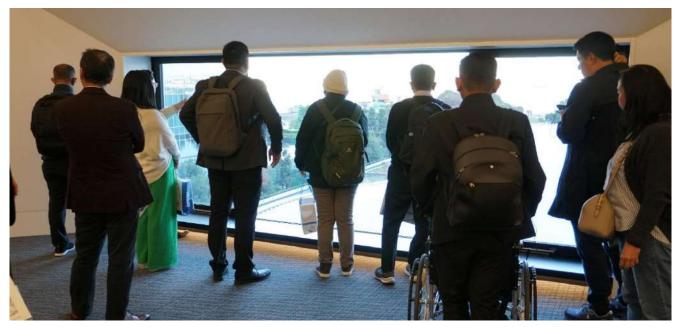
# MM21 | Eco-Friendly MICE and PPP

The participants visited PACIFICO Yokohama, one of the largest convention complexes in the world, and observed initiatives to realize a circular economy by converting waste generated in the facility into resources and supplying electricity generated from industrial waste and biomass electricity generated from food waste to neighboring districts.











# Tour B

# **Advanced Technology of Water Circulation**

The participants visited the wastewater treatment plant in Tsurumi Ward. At the center, the group toured a sewage treatment plant that utilizes circular technology for water purification, flood prevention and water quality conservation and a sludge treatment plant that reuses sewage sludge for digestion gas power generation and landfill soil.



















**Joint Declaration for Zero Carbon in Asia** 

# Yokohama Declaration Asian Cities together towards Zero Carbon

November 15, 2023

We, the cities of Asia, commend each other for overcoming the challenges of city management amidst the COVID pandemic. We have once again gathered at the Asia Smart City Conference in the City of Yokohama. Here, we declare our solidarity to co-create a sustainable and resilient zero-carbon future. This commitment stems from the valuable experiences of each city overcoming urban issues such as environmental pollution and transportation problems. Through diverse policy approaches, we improve the quality of life for our citizens. Participating cities will share, learn from one another, innovate with the private sector, and grow together.

Cities are at the forefront of experiencing and addressing the impacts of climate change, witnessing an increase in flooding and energy issues. Achieving zero carbon is essential for building sustainable and resilient cities that prioritize the well-being of all citizens, including those with disabilities, and celebrate diversity.

The City of Yokohama declared its goal of achieving carbon neutrality by 2050 in 2018. Bangkok Metropolitan Administration announced its goal of carbon neutrality by 2050 in 2021. These cities are frontrunners in their respective countries, having declared their goals early on, and are working together towards realization of carbon neutrality.

The Asia Smart City Conference is a universal platform to share knowledge, innovative technologies, and future visions for a carbon neutral society.

We call upon all cities, municipalities, the private sector, and international partners to join us in this platform, the Asia Smart City Conference. Together, we will continue to adapt, learn, and grow, pursuing higher sustainability, inclusivity, and resilience in the face of a rapidly changing world.

This declaration is hereby proposed in the City of Yokohama, Japan on November 15 of 2023, by the representatives of Yokohama and Bangkok and is endorsed by the participating cities.

# [Proposing Cities]

Mayor of the City of Yokohama **Takeharu Yamanaka**, **Ph.D.** 

Governor of the Bangkok Metropolitan Administration **Mr. Chadchart Sittipunt** 

Note: This joint declaration is a commitment by participating cities at the 12th Asia Smart City Conference to work together towards a sustainable, resilient, and inclusive future based on the following key concepts and themes discussed:

# 1. Sustainable and Resilient Urban Development

Cities will integrate green infrastructure and renewable energy, enhancing resilience and reducing carbon footprint for current and future generations.

# 2. Community Engagement and Capacity Building

Cities will emphasize community involvement and capacity building, nurturing a sense of shared responsibility and fostering corporations and individuals for a zero-carbon urban future.

### 3. Inclusive and Citizen-centric Approach

Cities will ensure inclusivity, respect diversity, and focus on the well-being of all citizens in the design, planning, and management of our cities.

# [Participating Cities and Organizations]

**Armenia** 

Ministry of Territorial Administration and Infrastructure

Azerbaijan

The State Committee on Urban Planning and Architecture

**Bangladesh** 

Khulna City Corporation

Cambodia

Ministry of Economy and Finance

Ministry of Land Management, Urban Planning and

Construction

**Cook Islands** 

Ministry of Finance and Economic Management

Georgia

Ministry of Finance

Tbilisi

Tbilisi Development Fund

Indonesia

Ministry of National Development Planning /

National Development Planning Agency Ministry of Public Works and Housing

Balikpapan Jakarta Makassar Samarinda

**Kyrgyz Republic** 

Cabinet of Ministers of the Kyrgyz Republic

Lao PDR

Ministry of Public Works and Transport

Malaysia

Kuala Lumpur

Penang

**Maldives** 

Ministry of Environment, Climate Change and

Technology

Mongolia

Ulaanbaatar

Nepal

Ministry of Urban Development

**Papua New Guinea** 

Port Moresby

**Philippines** 

Department of Human Settlements and Urban

Development

Department of Science and Technology

Tourism Infrastructure and Enterprise Zone

Authority Baguio Bayugan Butuan Cabadbaran

Cebu Danao Iloilo Mandaue Naga Santa Rosa

Metropolitan Waterworks and Sewerage System

Samoa

Ministry of Works, Transport, and Infrastructure

Samoa Water Authority

Sri Lanka

Colombo

**Thailand** 

Eastern Economic Corridor Office

**Amata Corporation** 

Vietnam

Thua Thien Hue Province

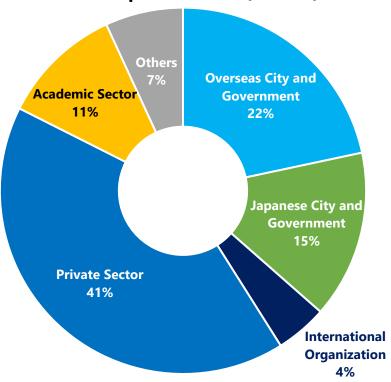
(alphabetical order)

# **Participating Countries**

45 Countries and Regions (Y-SHIP)

Armenia, Australia, Austria, Azerbaijan, Bangladesh, Benin, Bhutan, Botswana, Cambodia, Canada, China, Cook Islands, Democratic Republic of the Congo, Egypt, Germany, Georgia, Hong Kong, India, Indonesia, Ireland, Japan, Kyrgyz Republic, Lao PDR, Malaysia, Mauritania, Mongolia, Myanmar, Nepal, Pakistan, Papua New Guinea, Philippines, Portugal, Samoa, Singapore, South Africa, South Korea, Sri Lanka, Tanzania, Thailand, Ukraine, United Kingdom, United States of America, Vietnam (alphabetic order)

# **Sector Representation (Y-SHIP)**



# **ASCC List of Speakers** (honorifics omitted)

# November 14 (Tue) Opening

Role	Name	Affiliation
Organizer	Takeharu Yamanaka	Mayor, City of Yokohama
	Raymond F. Greene	Deputy Chief of Mission, the U.S. Embassy & Consulates in Japan
	Yutaka Matsuzawa	Vice-Minister for Global Environmental Affairs, Ministry of the Environment of Japan







# **Keynote Speech**

Role	Name	Affiliation
	F. Cleo Kawawaki	Principal Director and Head, Office of Markets Development and Public Private Partnership, Asian Development Bank
	Bernice Van Bronkhorst	Global Director, Urban, Resilience and Land Global Practice World Bank
	Hideaki Tanaka	Executive Officer, General Manager, Hydrogen Business Department, ENEOS Corporation







# **Youth Event**

Role	Name	Affiliation
Moderator	Masahiko Nakanishi	Professor, Yokohama City University Graduate School of Urban Social and Cultural Studies /Leader of Urban Planning Unit, Global Cooperation Institute for Sustainable Cities (GCI)
Moderator	Marina Kitahara	Project Assistant Professor, Global Cooperation Institute for Sustainable Cities (GCI)
Speaker	Akio Onishi	Professor, Yokohama City University Graduate School of Data Science, Director of GCI / Leader of Environmental Unit, Global Cooperation Institute for Sustainable Cities (GCI)
Presenter		5 students from Yokohama City University
Reactor	Masanori Abe	Senior Deputy Director, Team 2, Urban and Regional Development Group, Infrastructure Management Department, JICA
Reactor	Takahiro Mizukami	Assistant Director, Team 2, Urban and Regional Development Group, Infrastructure Management Department, JICA
Reactor	Takuya Akiba	Associate Expert, Team 2, Urban and Regional Development Group, Infrastructure Management Department, JICA







# **Thematic Session 1**

Role	Name	Affiliation
Moderator/ Keynote Speech	Satoshi Ishii	Director, Strategy and Partnership, Water and Urban Development, Asian Development Bank
Facilitator	Joy Blessilda Sinay	Capacity Building and Training Economist, Asian Development Bank Institute
Panelist	Giorgi Ebanoidze	ADB-Financed Project Coordinator, Tbilisi Development Fund, Tbilisi City, Georgia
Panelist	Hon. Zairil Khir Johari	State Minister, Penang State Executive Councilor for Infrastructure, Penang State Government, Penang City, Malaysia
Panelist	Joseph Michael Espina	City Planning and Development Coordinator, Cebu City, Philippines
Panelist	Yuya Shibuya	Associate Professor, Center for Spatial Information Science, University of Tokyo
Panelist	Yoshiyuki Yamamoto	Director for Environmental Energy, Environmental Conservation Department, Environmental Planning Bureau, City of Yokohama















# **Thematic Session 2**

Role	Name	Affiliation
Moderator / Welcome Remarks	Christopher Pablo	Senior Urban Specialist and TDLC Team Lead, World Bank
Opening Remarks	Anna Wellenstein	Regional Director for Sustainable Development, East Asia and the Pacific Region at the World Bank
Speaker	Megha Mukim	Senior Economist, World Bank
Speaker	Mark Roberts	Lead Urban Economist, World Bank
Moderator	Ming Zhang	Practice Manager for Urban, Disaster Risk Management, Resilience, and Land in the East Asia and Pacific region, World Bank
Panelist	Benjamin Magalong	Mayor, City of Baguio
Panelist	Beng Hong Socheat Khemro	Director General, Land Management and Urban Planning, Ministry of Land Management, Urban Planning, and Construction, Cambodia
Panelist	Helmy Budiman	Head of the Development and Planning Agency, City of Makassar
Panelist	Toru Hashimoto	Director General, International Affairs Bureau, City of Yokohama



# November 15 (Wed) Opening

Role	Name	Affiliation
Organizer Greeting	Takeharu Yamanaka	Mayor of City of Yokohama
	Sibi George	Deputy Chief of Mission, the U.S. Embassy & Consulates in Japan
	Sanjay Sarma	Massachusetts Institute of Technology







# **Main Session**

Role	Name	Affiliation
	Takeharu Yamanaka	Mayor, City of Yokohama
	Chadchart Sittipunt	Governor, Bangkok Metropolitan Administration
	Yutaka Matsuzawa	Vice-Minister for Global Environmental Affairs, Ministry of the Environment of Japan
	Ming Zhang	Practice Manager for Urban, Disaster Risk Management, Resilience, and Land in the East Asia and Pacific region, World Bank
	F. Cleo Kawawaki	Principal Director and Head, Office of Markets Development and Public Private Partnership, Asian Development Bank
	Naoko Ueda	Head of OECD Tokyo Centre













# **Thematic Session 3**

Role	Name	Affiliation
Speaker / Moderator	Takehiko Nagumo	Executive Managing Director, Smart City Institute Japan
Speaker	Tomoyuki Miyazaki	Professor, Yokohama City University / Group Head, Center for Promotion of Research and Industry-Academic Collaboration
Speaker	Makoto Kuroki	Professor, Graduate School of Data Science, Yokohama City University
Speaker	Shumpei Komura	Head of the Education Innovation Center, Benesse Education Research Department









# **Thematic Session 4**

Role	Name	Affiliation
Moderator	Atsushi Watabe	Programme Director, Sustainable Consumption and Production Area, Institute for Global Environmental Strategies (IGES)
Panelist	Kazuaki Takahashi	Executive Director, Planning and Coordination Department, Climate Change Policy Headquarters, City of Yokohama
Panelist	Pornphrom Vikitsreth	Advisor to Governor of Bangkok, Bangkok Metropolitan Administration
Panelist	Takeshi Konishi	Senior Managing Director, GUUN Co., Ltd.









# **Thematic Session 5**

Role	Name	Affiliation
Moderator	Setsuko Saya	Vice President for International Business, Urban Renaissance Agency
Panelist	Takeshi Ishikawa	Director General of Climate Change Policy Headquarters, City of Yokohama
Panelist	Tri Dewi Virgiyanti	Acting Deputy Minister of National Development Planning for Regional Development, Ministry of National Development Planning (BAPPENAS), Indonesia
Panelist	Jannarong Takumi Saga	Assistant Director, Eastern Economic Corridor Office of Thailand
Panelist	Eiichi Tanabe	Deputy CEO, Amata Corporation
Panelist	Yasuhiro Yamaguchi	Advisor, YOKOHAMA URBAN SOLUTION ALLIANCE (YUSA)













# **Thematic Session 6**

Role	Name	Affiliation
Opening		Minatomiraihoncho Elementary School
Organizer Greeting	Hirotoshi Shiro	Deputy Mayor, City of Yokohama
Keynote Speech	Sanjeevani Singh	Economic Affairs Officer, Sustainable Urban Development Section, Environment and Development Division, UNESCAP
Moderator	Yatsuka Kataoka	Programme Director, City Taskforce, Institute for Global Environmental Strategies (IGES)
Speaker	Takuya Endo	Executive Director for SDGs Future City Promotion Climate Change Policy Headquarters, City of Yokohama
Speaker	Xuanxuan Kumazawa	World Horticultural Exhibition Promotion Division, Kamiseya

		Development and World Horticultural Exhibition Promotion Office, Urban Development Bureau, City of Yokohama
Speaker	Nor Nazariah binti Kamardin	Senior Deputy Director, Administration Department, Kuala Lumpur
Speaker	Le Minh Tuong	Vice Director of Department of Planning and Investment, Da Nang City
Speaker	Naoki Ishii	President, Ishii Zouen Landscape Co., Ltd.
Speaker	Noboru Okazaki	Deputy manager, Overseas administration department, JFE Engineering Corporation
Closing Remark	Rumi Kurita	Head of Office, CITYNET Yokohama Project Office



# Closing

Role	Name	Affiliation
	Toru Hashimoto	Director General, International Affairs Bureau, City of Yokohama



# **GALERIO Planning Committee**

In order to enhance its role as an information hub for sustainable city development in Asia, GALERIO Planning Committee was launched by the experts from public, private and academic sectors. The contents of each session in this conference were planned by the GALERIO Planning Committee. IN cooperation with international organizations and academic institutions, the committee will lead the promotion of smart cities across organizational boundaries.

### [Member of GALERIO Committee (alphabetic order)]

Tetsushi Sonobe, CEO, Asian Development Bank Institute

Yatsuka Kataoka, Programme Director of City Taskforce, Institute for Global Environmental Strategies

**Tatsuhiro Mitamura**, Deputy Director General of the JICA Yokohama Center, Japan International Cooperation Agency

**Takehiko Nagumo**, Executive Managing Director, Smart City Institute Japan

Christopher Pablo, Senior Urban Specialist and TDLC Team Lead, World Bank TDLC

**Masahiko Nakanishi**, Professor, School of International Liberal Arts · Graduate School of Urban Social and Cultural Studies, Yokohama City University

Satoru Sadohara, Honorary Professor, Yokohama National University

Kazunari Doi, Representative Director, Yokohama Urban Solution Alliance (YUSA)

Norio Tomioka, Executive Director of Development Cooperation, City of Yokohama

# **Result of Questionnaire on Decarbonization in Cities**

In order to gather information on decarbonization needs of participating cities at the ASCC, we conducted a questionnaire. The following four items were asked in advance and interviews were held during the ASCC, with responses received from a total of 41 cities and organizations.

### [Question Items]

- A) Basic information (City and country, Contact person)
- B) Status of Decarbonization Plan Development (Status of Decarbonization Plans, Goals or vision, Initiatives, Challenges)
- C) Interest in Solutions for Decarbonization (Urban Planning and Urban Development, Water Supply and Sewage, Energy, Waste Management, Transportation)
- D) Other Expectations for the ASCC

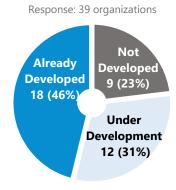
### List of Respondents (alphabetical order)

Oceania	[Cook Islands] Ministry of Finance and Economic Management [Samoa] Ministry of Works, Transport and Infrastructure / Samoa Water Authority
Central Asia	<b>[Kyrgyz Republic]</b> State Agency of Architecture, Construction and Housing and Communal Services under the Cabinet of Ministers of the Kyrgyz Republic <b>[Mongolia]</b> Ulaanbaatar
South-East Asia	[Cambodia] Ministry of Land Management, Urban Planning and Construction [Indonesia] Communication and Informatics Department, Bandung / Makassar / Ministry of National Development Planning (National Development Planning Agency) / Ministry of Public Works and Housing / Regional Development Planning Agency, Balikpapan / Samarinda [Lao PDR] Department of Water Supply, Ministry of Public Works and Transport [Malaysia] Subang Jaya [Philippines] Bayugan / Butuan / Cabadbaran / Cebu / City Environment and Parks Management Office, Baguio / Danao / Department of Science and Technology / Iloilo / Mandaue / Metropolitan Waterworks and Sewerage System / Naga / Santa Rosa / Tourism Infrastructure and Enterprise Zone Authority [Thailand] Bangkok Metropolitan Administration / Eastern Economic Corridor Office (EECO) [Vietnam] Thua Thien Hue Provence
West Asia	[Armenia] Ministry of Territorial Administration and Infrastructure / Yerevan [Azerbaijan] State Committee on Urban Planning and Architecture [Georgia] Ministry of Finance
South Asia	[Bangladesh] Khulna [India] Ahmedabad Study Action Group (NGO, answered for Chennai) [Maldives] Ministry of Environment, Climate Change and Technology [Nepal] Ministry of Urban Development [Sri Lanka] Colombo
Other	World Bank (answered for Samoa and the Philippines)

# Q. Status of Decarbonization Plan Development

Among 39 organizations that responded, 18 have already developed and been published, 12 are in the process of development, and 9 had not developed a decarbonization plan.

# Status of Decarbonization Plans and Climate Change Action Strategies



The 9 organizations that had not yet developed a plan identified "limited financial resources" and "lack of institutional capacity" as big challenges in developing decarbonization and climate change action plans, followed by "lack of social and political acceptance," "insufficient data and information," and "insufficient international cooperation."

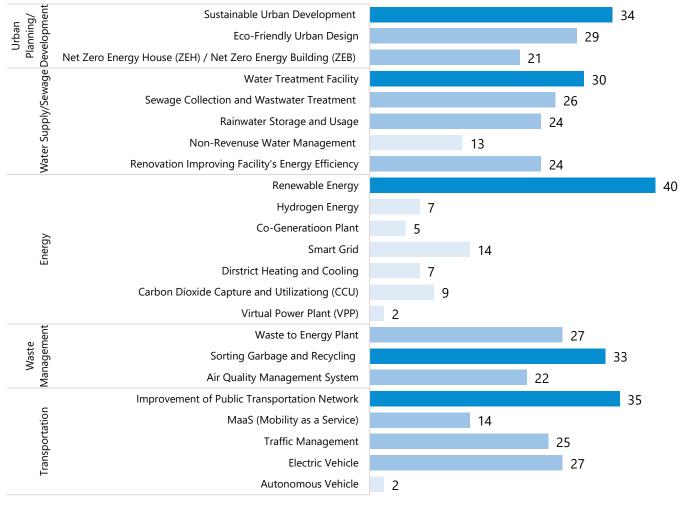
# Challenges in Developing Decarbonization Plans and Climate Change Strategies (Multiple answers)



# Q. Interest in Solutions for Decarbonization

Regarding the challenges of decarbonization and the sectors in which specific solutions are being considered for implementation, broad interests across sectors are raised: "urban planning and urban development," "water supply and sewage," "energy," "waste management," and "transportation" (multiple answers). As for individual solutions, over 30 organizations expressed interest in "sustainable urban development," "water treatment facilities," "renewable energy," "sorting garbage and recycling," "improvement of public transportation network." At the business matching venue during the ASCC, questionnaire results were used to facilitate business exchange between participants and companies with solutions of high interest.

# Interest in Solutions for Decarbonization (Multiple answers)



# Asian cities together towards Zero Carbon

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