The 4th Asia Smart City Conference in Yokohama

The 4th Asia Smart City Conference

Report

October 20th, 2015

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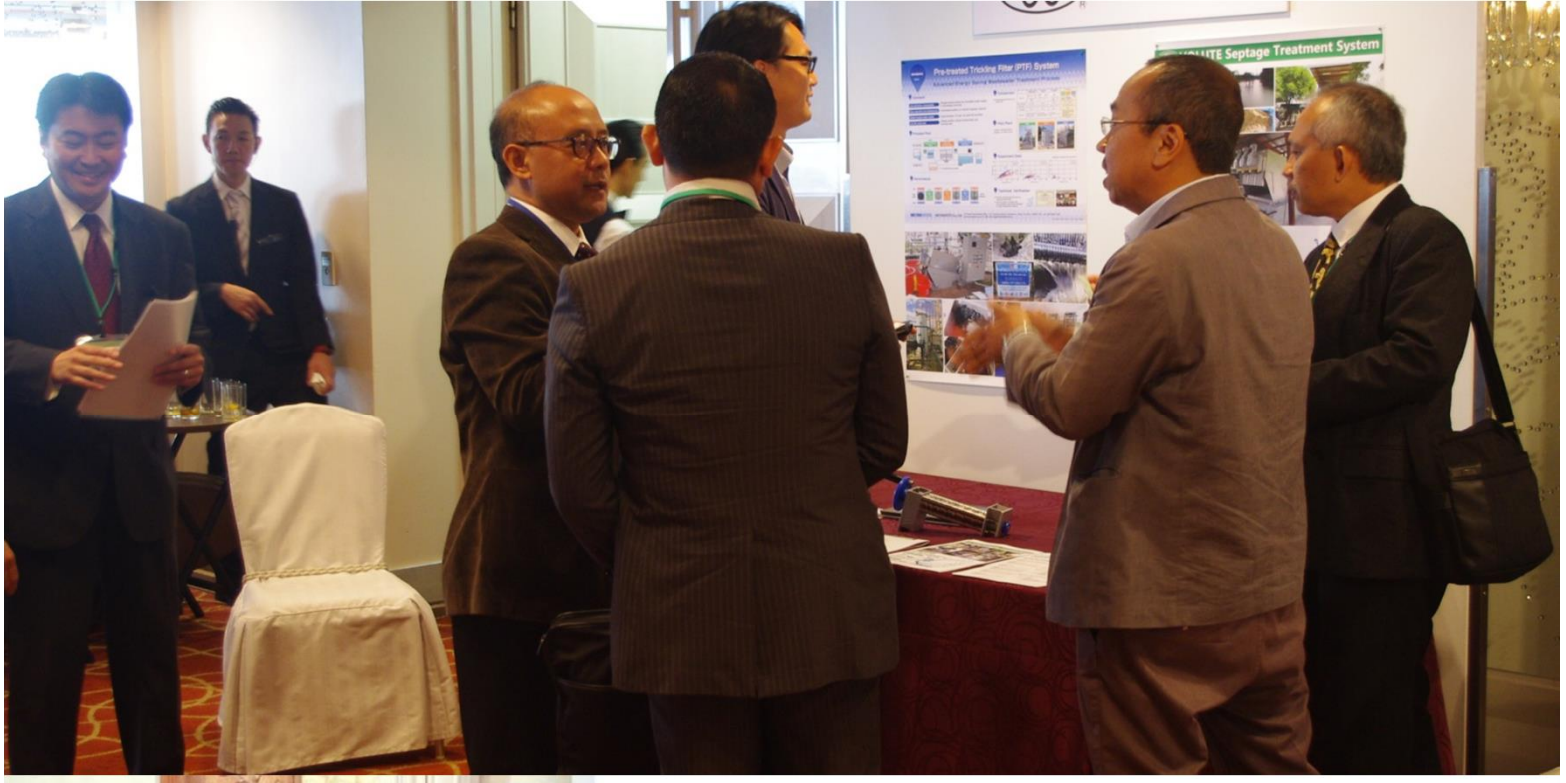
Asia Smart City Alliance



will enable members to link with one another to play active roles in contributing to smart sustainable development in Asia.

1. Conference Outline

■Date & Time: Tuesday, 20th October 2015, 09:30 - 19：30

■Venue: InterContinental Yokohama Grand
(1-1-1 Minatomirai, Nishi-ku, Yokohama)

■Organizer: City of Yokohama, Japan

■Supported by: Cabinet Office, Japan/ Ministry of Foreign Affairs of Japan/ Ministry of Economy, Trade and Industry, Japan/ Ministry of Land, Infrastructure, Transport and Tourism, Japan /Ministry of the Environment, Japan/Institute for Global Environmental Strategies (IGES)/Yokohama City University/Japan International Cooperation Agency (JICA)

■Outline:

The City of Yokohama, which is selected as "Future City" by Cabinet Office, promotes international technical cooperation projects based on public-private partnership, an initiative called "Yokohama Partnership of Resources and Technologies (Y-PORT)". As part of the Y-PORT project, the City of Yokohama regularly holds the Asia Smart City Conference since 2012, where mayors of emerging Asian cities and specialists from international organizations gather to share their knowledge and expertise on sustainable urban development.

This year, decision makers such as mayors and city administrators from 21 Asian cities, and more than 30 supporting agencies including the Government of Japan, international organizations, academic institutions and private enterprises participated at the 4th conference.

In the morning, 4 thematic meetings were held in parallel with representatives from cities and supporting agencies, where the participants made presentations about their approaches to create smart city and program of supporting organizations and held technical discussions. Bringing discussions from each thematic meeting, the participants shared cities' challenges and supporting agencies' knowledge in Plenary Meeting.

During the Roundtable Session of Plenary Meeting, "Asia Smart City Alliance (ASCA)" was proposed to link the participating cities and agencies in order to strengthen collaboration towards sustainable urban development.

"Yokohama Declaration" which wrapped up the discussion at the conference was adopted by the participants, and the declaration was proposed to the Chair's Summary of the 6th Asia Pacific Urban Forum (APUF-6) of the United Nations Economic and Social Commission for Asia and the Pacific held in Jakarta, Indonesia on Wednesday, 21st October.

As the related events, "Joint Credit Mechanism (JCM) City to City Collaboration Workshop" (hosted by Ministry of the Environment, Japan) and "Asia Smart City Summit 2015" (hosted by Nikkei Business Publications, Inc.) were held on Monday, 19th October. Site visit of smart technologies in Yokohama was offered to the conference participants on Wednesday, 21st October at Nissan Global Headquarters Gallery and the venue of "Enemane House 2015".

■ **The total number of participants :** 200

2. Agenda

Thematic meetings (run in parallel)	
09:30-11:30	**1. City to city cooperation towards sustainable urban development**
	2. Roles of city leaders to attract good involvement of private sector
	3. Co-create urban solutions through smart technologies
	4. Indices to facilitate sustainable urban development
Lunch	
12:00-14:00	**Lunch & Business Matching**
Plenary meeting	
14:00-14:50	**Opening Session & Group Photo** • **Opening Speech** Ms. Fumiko Hayashi, Mayor, City of Yokohama • **Keynote Speech** Mr. Masakazu Hamachi , Parliamentary Vice-Minister for Foreign Affairs, Ministry of Foreign Affairs, Japan • **Keynote Speech** Mr. Masaaki Kobayashi, Vice-Minister for Global Environmental Affairs, Ministry of the Environment, Japan • **Keynote Speech** Mr. Rintaro Tamaki, Deputy Secretary-General, OECD
14:50-15:20	**Networking Break**
15:20-16:30	**Roundtable Session** Moderator: Mr. Hideyuki Mori, President, IGES Panelists: Dr. Bindu Lohani, Former Vice President, ADB / Special Advisor for Y-PORT Center Mr. Yosuke Mochizuki, Director, Cleantech Institute, Nikkei Business Publications, Inc. Dr. Vijay Jagannathan, Secretary General, CITYNET and Senior Fellow, WRI Dr. Alfonso Vegara, President, Fundacion Metropoli Mr. Toru Hashimoto, Director of Development Cooperation Department, Yokohama
16:30-16:50	**Closing Session** • **Special Presentation** Ms. Maria Carmela Dinglasan Locsin, Director General, Sustainable Development & Climate Change Department, ADB • **Declaration of the 4th Asia Smart City Conference** • **Closing Remarks** Prof. Hironori Hamanaka, Chair, Board of Directors, IGES
Cocktail Party	
17:15-19:30	**Cocktail Party**

3. Participants List

<Cities> (in alphabetical order by nation)

Huot Hay

Phnom Penh, Cambodia

Deputy Director of Administration

Dendi Purnomo

Batam, Indonesia

Head of BAPEDAL

Jon Arizal

Batam Indonesia
Free Zone Authority (BIFZA)

Vice Chairman

Muhammad Masri Tiro

Makassar, Indonesia

Head of Regional Environment Agency

Kengo Ishida

Kitakyushu, Japan

Chief Executive, Environment Bureau in charge of International Environmental Strategies

Douangsavanh Linkham

Vientiane, Laos

Director General of Department

Ahmad Roslee Hamzah

Melaka, Malaysia

Director, Department of Engineering

Roslan Ramly

Penang, Malaysia

Town Planner Director

Maimunah Mohd Sharif

Seberang Perai, Malaysia

Mayor

Bayarbaatar Sandagdorj

Ulaanbaatar, Mongolia

Head of Strategic Policy and Planning Department

Maria Adelaida Coloma Lacsamana

Baguio, Philippines
City Environment and Parks Management Officer

Dominica Bardinas Chua

Province of Cebu (MCDCB), Philippines
Vice Chair of Research Program Organizational Development Executive Committee, Metro Cebu Development and Coordinating Board

Michael L. Rama

Cebu, Philippines

Mayor

Violeta Somera Seva

Makati, Philippines

Senior Advisor, Office of the Mayor

Annjanette E. Dimaculangan

San Fernando, Philippines

City Administrator

Koralage Don Chithrapala

Colombo, Sri Lanka

Municipal Treasurer

Vallop Suwandee

Bangkok, Thailand

Chairman of Advisers to Governor of Bangkok

Donlapat Lalidsirajan

Rayong, Thailand

Educator, Education Religion and Culture Division

Nguyen Ngoc Tuan

Da Nang, Vietnam

Vice Chairman, Da Nang People's Committee

Nguyen Ich Huan

Hue, Vietnam

Director, Hue City International Cooperation Center

Fumiko Hayashi

Yokohama, Japan

Mayor

Nobuya Suzuki

Yokohama, Japan

Deputy Mayor

<Japanese Government>

Masaaki Takabatake

Cabinet Office, Japan
Counsellor, Office for Promotion of Overcoming Population Decline and Vitalizing Local Economy in Japan

Naoto Hisajima

Cabinet Secretariat, Japan

Counsellor

Masakazu Hamachi

Ministry of Foreign Affairs of Japan

Parliamentary Vice-Minister for Foreign Affairs

Tadayuki Miyashita

Ministry of Foreign Affairs of Japan
Director for Development Assistance Policy Coordination Division, International Cooperation Bureau

Hiroaki Machii

Ministry of Economy, Trade and Industry, Japan

Principal Deputy Director

Shinichi Fukunaga

Ministry of Land, Infrastructure, Transport and Tourism, Japan

Director for International Affairs Office, City Bureau

Hiroki Kawata

Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development
Senior Director, Project Department

Masaaki Kobayashi

Ministry of the Environment, Japan

Vice-Minister for Global Environmental Affairs

Nobuhiro Kino

Ministry of the Environment, Japan

Director, International Cooperation Office

<International Organizations / Private Companies / Other Supporting Agencies>

Maria Carmela Dinglasan Locsin

Asian Development Bank

Director General, Sustainable Development and Climate Change

Vijay Padmanabhan

Asian Development Bank

Technical Advisor, Urban and Water Sector

Takeo Koike

Asian Development Bank

Director, Concurrent Technical Advisor (PPP), Office of PPP

Dux Raymond Sy

AvePoint Public Sector

Chief Technical Officer

Milag San Jose- Ballesteros

C40 Cities Climate Leadership Group

Regional Director for Southeast Asia and Oceania

Vijay Jagannathan

CITYNET / World Resources Institute

Secretary General / Senior Fellow

Luis Gómez

Fira Barcelona

International Director, Smart City Expo World Congress

Alfonso Vegara

Fundación Metrópoli / Special Advisor for Y-PORT Center

President

Yoshiya Kamo

IBM Japan, Ltd.

Manager, Business Development Executive, Social Infra Business Development Smarter Cities

Takashi Otsuka

ICLEI - Local Governments for Sustainabilit

Director, ICLEI Japan Office

Hironori Hamanaka

Institute for Global Environmental Strategies

Chair, Board of Directors

Hideyuki Mori

Institute for Global Environmental Strategies

President

Kazuhisa Koakutsu

Institute for Global Environmental Strategies

Area Leader, Principal Policy Researcher

Toshiyuki Iwama

Japan International Cooperation Agency

Executive Technical Advisor to the Director General

Gen Takahashi

JFE Engineering Corporation

Deputy General Manager, Global Business Development

Stuart Kay

KPMG AZSA Sustainability Co., Ltd.

Director

Yosuke Mochizuki

Nikkei Business Publications, Inc.

Director, Nikkei BP Cleantech Institute

Rintaro Tamaki

Organisation for Economic Co-operation and Development

Deputy Secretary-General

Hidetomo Nagata

PricewaterhouseCoopers Co., Ltd.

Vice President, Cities Solution Centre Japan

H. E. A. Laxman Perera

UN-Habitat

Human Settlements Officer

Daniel A. Levine

World Bank Group

Senior Officer, Tokyo Development Learning Center

Hyoung Gun Wang

World Bank Group

Senior Economist

Victor Manuel Vergara

World Bank Group

Lead Urban Specialist

Motoyuki Okada

Yokohama Urban Smart Solution Alliance / FINETECH Co., Ltd.

Member / President & CEO

<Universities>

Satoru Sadohara

Yokohama National University

Dean, Professor, Faculty of Urban Innovation

Masazumi Ao

Yokohama City University

Director, Global Cooperation Institute for Sustainable Cities

Hidefumi Imura

Yokohama City University

Senior Project Manager, Global Cooperation Institute for Sustainable Cities

<Special Advisors for Y-PORT Center>

Bindu N. Lohani

Special Advisor for Y-PORT Center

Former Vice President of Asian Development Bank

Ryokichi Hirono

Special Advisor for Y-PORT Center

Professor Emeritus of Seikei University

4. Conference Summary

Thematic Meetings

No.1：City to city cooperation towards sustainable urban development

- What would be the rationale of city to city cooperation while each city has different state of development, resources, and endowment?
- What would be possible modality of bilateral city to city cooperation such as knowledge sharing, technical visit, pilot projects, etc.?
- Would it be possible and what would be the technical advantage to undertake multilateral cooperation among cities?

Moderator

Toru Hashimoto (Director, Development Cooperation Department, International Affairs Bureau, Yokohama)

Focusing on the theme of "city-to-city cooperation towards sustainable urban development," this session discusses how important inter-city collaboration is and what we can do through city-to-city cooperation by answering the following three questions: [1] What would be the rationale of city to city cooperation while each city has different state of development, resources, and endowment? [2] What would be possible modality of bilateral city to city cooperation such as knowledge sharing, technical visit, pilot projects, etc.? And [3] Would it be possible and what would be the technical advantage to undertake multilateral cooperation among cities? Please make your presentation based on these questions.

Vallop Suwandee (Chairman of Advisers to Governor of Bangkok)

We are receiving technical support from the City of Yokohama in various areas including Bangkok Master Plan on Climate Change, transportation systems and low-carbon technologies. Despite differences in our ways of thinking, resources and endowment, there also some similarities and we can learn from each other under city to city collaboration. We can also apply what we have learned to neighboring countries in a similar situation.

Economically and ecologically sustainable development requires a growth scenario for private companies and citizens and appropriate infrastructure building. In Bangkok, we are introducing innovative technologies, implementing our integrated urban development plan and promoting participation of the private sector. These are the keys to a success of the projects. Moreover, we should have a holistic perspective to understand the vulnerabilities of our city.

We are also engaged in city-to-city collaboration by holding conversation forums where leaders from each city share best practices and cooperate to solve problems.

Nguyen Ngoc Tuan (Vice Chairman, Da Nang People's Committee)

We believe that city-to-city collaboration is mutually beneficial. A city should clearly define its projects. In December 2015, the 4th Development Forum will be jointly held by Yokohama City, the Japan International Cooperation Agency (JICA), and Da Nang City to discuss six pilot projects and how to develop our cities. Moreover, we are receiving support from the CITYNET and the ICLEI, and this conference gives us opportunities to present our experiences as well as learn about various urban development efforts made in other cities. We will continue to promote city-to-city collaboration.

Kengo Ishida (Chief Executive, Environment Bureau in charge of International Environmental Strategies, Kitakyushu)

We are working to develop a low-carbon society by using the Joint Crediting Mechanism (JCM) supported by the Japanese Ministry of the Environment. For example, we have signed a Green Sister City Agreement with Surabaya in Indonesia. We also assisted Hai Phong, Vietnam, in formulating its Green Growth Promotion Plan utilizing a Kitakyushu model, and are now working with small and medium sized companies in Kitakyushu to realize 15 pilot projects in seven areas. We were the first Asian city to be recognized as a green city by the Organisation for Economic Co-operation and Development (OECD) in 2012, appreciating the city to city collaboration with Hai Phong. Moreover, we are implementing a project to promote household composting in Pasir Gudang in Malaysia through a JICA program. Furthermore, we are cooperating with the Thai Ministry of Industry and the National Economic and Social Development Board for a national project to establish an eco-industrial town in Rayong Province in Thailand.

We believe that there are three keys to effective city-to-city collaboration: strengthening relationships between cities; promoting inter-governmental cooperation to support the inter-city relations; and establishing a platform for private companies to build and expand businesses.

Roslan Ramly (Town Planner Director, Penang)

In cooperation with JICA, our city is implementing a flood mitigation project. Moreover, we are receiving support from the City of Yokohama as well as CITYNET. The cooperation between Penang and Yokohama began in the 1980s with projects to develop roads into shopping malls modeled after those in Yokohama. Now, we are engaged in the MURNInets developed by the government of Malaysia. This program enables cities to attain sustainable development. To be more specific, it aims to achieve the following six dimensions: [1] competitive economy; [2] sustainable environment; [3] livable community; [4] optimal use of resources and land; [5] efficient infrastructure and transportation; and [6] efficient governance.

Huot Hay (Deputy Director of Administration, Phnom Penh)

Phnom Penh faces serious traffic congestion as infrastructure development has not kept up with the pace of its rapid growth. Therefore, we are implementing projects to accelerate infrastructure development and enhance public transportation systems. In addition to the introduction of taxi meters and the augmentation of city bus services, we are cooperating with JICA to build a new sky train transportation system called "Automatic Guide Train (AGT)."

With regard to city-to-city cooperation, we have signed sister city agreements with cities in Japan and other countries across the world to promote mutual cooperation. We are carrying out various cooperation projects, such as those to develop water supply systems and to share technology for disaster control and economic and industrial development.

Vijay Padmanabhan (Technical Advisor, Urban and Water Sector, Asian Development Bank)

The role of the ADB is to provide financing, knowledge, and entry points for co-finance. In the Water Operators Partnership, we have assisted developing countries for around eight years in cooperation with other development partners. In order to promote city-to-city collaboration and urban development in Asia, we have supported 49 cities for the past eight years. We consider cities as partners who share knowledge mutually and solve problems with the experiences of other cities as an entry point For example, Pune in India, known as an IT hub, not only promotes cooperation among cities and the public sector, but also introduces smart solutions into some specific subject matters. Meanwhile, we are implementing the Trust Fund Program in 25 cities to enhance their resilience against climate change. This Program is designed to foster multilateral inter-city cooperation, through which cities share their knowledge and experiences to develop and implement solutions.

Milag San Jose-Ballesteros (Regional Director for Southeast Asia and Oceania, C40 Cities Climate Leadership Group)

C40 is a network of more than 80 cities around the world. We are promoting climate change mitigation and adaptation measures. We serve as a global repository of best practices and failures in various cities to help them to understand any potential, innovative solutions to address climate change issues.

In our opinion, the advantage of city-to-city cooperation is that small cities can learn lessons from past successes and failures from large cities despite their difference in size. As a single city cannot make a significant difference, we are pleased to contribute to the coordination of city-to-city collaboration and further discussions.

Masaaki Takabatake (Counsellor, Office for Promotion of Overcoming Population Decline and Vitalizing Local Economy in Japan, Cabinet Office, Japan)

The Cabinet Office of Japan is promoting the “FutureCity” Initiative to solve the common issues facing the world in the 21st century: the environment and super-aging society. The unique best practices developed by the Initiative are to be disseminated inside and outside Japan to help increase demand, create job opportunities, and develop the capacity to solve global challenges.

Measures taken under this Initiative include financial support and deregulation for local governments taking innovative measures. This aims to help them to attain their goals as soon as possible. We also aim to establish a system to accelerate business models, which will lead to sustainable development.

Now we have established a Promotion Council for the FutureCity Initiative consisting of 11 FutureCities (e.g., Yokohama and Kitakyushu), 23 Eco-model Cities, and other relevant municipalities and organizations. This Council has facilitated active discussions and the exchange of opinions and information. Going forward, we are planning to analyze best practices inside and outside of Japan to identify their success factors and summarize and present the results.

Naoto Hisajima (Counsellor, Cabinet Secretariat, Japan)

Aiming to increase the amount of orders for overseas infrastructure projects from 10 trillion yen in 2010 to 30 trillion yen in 2020, we set up the Ministerial Meeting on Strategy relating to Infrastructure Export and Economic Cooperation to discuss what we can do through public-private collaboration.

A council meeting was held in March 2014 to discuss the promotion of overseas infrastructure projects in cooperative efforts between the national and local governments. The meeting reached an agreement to assist local governments with their overseas infrastructure development projects by the following three means: [1] identifying the advantages of Japan (e.g., disaster prevention, environmental protection, and human resource development) to be promoted as an integrated package of "Japan Brand"; [2] holding international forums, workshops, and seminars to facilitate discussions; and [3] using the Official Development Assistance (ODA) scheme for international activities of local governments.

Luis Gómez (International Director, Smart City Expo World Congress, Fira Barcelona)

We facilitate urban development by organizing events for various cities and corporations and connecting cities around the globe. Last year, we held a conference where representatives from 450 cities gathered in cooperation with other cities and international organizations such as UN-HABITAT.

Every city hopes to become the best smart city, but in order to create smart cities, you need to understand what measures other cities have taken to make themselves smarter and what characteristics of theirs have enabled them to implement the measures before determining your own ways to cater your citizens' needs and your city's situation. Each city has a very strong power, and city-to-city cooperation can make a huge difference in the future of cities. Every one of you here holds the key to this issue.

Takashi Otsuka (Director, ICLEI Japan Office)

ICLEI is a network of local governments to promote city-to-city collaboration. In cooperation with C40, we are taking two actions. One of them is the Compact of Mayors. This is a platform for cities to internationally commit to taking climate change mitigation and adaptation measures, aiming to support the world to tackle the climate change. At present, 220 local governments have joined the Compact. The other action is the Transformative Actions Program (TAP), where member cities are to register their projects on an online database to share and promote best

practices as well as future plans. This program will be presented at the pavilion during the COP21 this year.

Difference is an essential key as diversity, not a barrier for urban development. Best practices of Yokohama and Kitakyushu can be introduced to Asian cities. We believe that collaboration between cities with different conditions is highly beneficial, and they can take a huge step towards further development by learning from each other's experiences.

Toshiyuki Iwama (Executive Technical Advisor to the Director General, Japan International Cooperation Agency)

JICA has implemented urban development projects in 120 cities for 40 years. Our urban development support aims to realize sustainable cities that suit the characteristics of each city under the categories of environmental friendliness, safety/security, equity/fairness, creativity, convenience/competitiveness.

We have received a request from the government of Thailand to assist their sustainable urban development plan, and are now supporting projects towards the year 2057. As a new approach, we held the Seminar on Inter-city Cooperation Platform for cities to exchange information and share experiences for sustainable urban development under five basic characteristics mentioned earlier. We will continue to organize similar conferences to build and strengthen partnerships between cities.

Gen Takahashi (Deputy General Manager, Global Business Development, JFE Engineering Corporation)

Upon an international technical cooperation partnership with Yokohama City, we are engaged in urban development, especially in the wastewater and waste treatment sectors in Asian cities. Collaboration with private companies is also important in urban development as well as city to city cooperation. For example, a PPP scheme was introduced into the construction of a waste treatment facility in a residential area of Tokyo, where the public sector was engaged in capacity building for the citizens and in establishment of a plan and regulations. Meanwhile, the private sector provided its cutting-edge technologies and maintenance services, and such public private collaboration was the key to the success of the project.

A good example of city to city cooperation is the project of waste water treatment and solid waste management conducted by the Tokyo Metropolitan Government and the City of Yangon in cooperation with JICA. We participated in the feasibility study, and after the dialogues with the City of Yangon, decided to introduce a small incineration plant as a pilot project, because a large plant would be financially difficult. Public private cooperation enables to find an appropriate approach and better solutions through a series of discussions.

Victor M. Vergara (Lead Urban Specialist, World Bank Group)

Urban development entails various challenges at a city level or a community level. The whole process cannot be controlled by a single city. This is why the World Bank aims to establish a platform and hold events to share information on planning and management of urban development through a region-oriented metro lab, and to provide various support across the city boundaries.

Our Tokyo Development Learning Center (TDLC) is now in its third phase. We would like all cities to be aware

of and join this mechanism, where cities can receive support to become a smart city through city to city cooperation, an advisor system and a learning system for knowledge sharing. We continue to support so that each city can proceed with urban development utilizing high technologies and innovative solutions.

Masazumi Ao (Director, Global Cooperation Institute for Sustainable Cities, Yokohama City University)

Yokohama City University established the International Academic Consortium for Sustainable Cities (IACSC) to support sustainable urban development and to suggest solutions for problems faced by cities, mainly in the environmental, urban planning, and public health sectors. In addition to the JICA Partnership Program in Seberang Perai, our university provides assistance for urban development in cooperation with Yokohama City Government, JICA, and CITYNET. Also, the IACSC organizes international conferences and implements a variety of research activities and other projects.

Our students and faculties can join the Sustainable Urban Development Program (SUDP). We are planning to provide the program on the Internet in the future so that it can be accessed by the students and faculties of universities joining the IACSC, regardless of their location.

No.2：Roles of city leaders to attract good involvement of private sector

- Solving the complex inter-disciplinary issues require a long term plan and longer term commitment but City Leaders (like Mayors) have a shorter term, requiring them to undertake short term visible programs and projects. Private sector involvement requires longer term commitment. What can be done to address this gap?
- Cities are rich and have stable income. Some cities in Asia produce more than 30% of GDP. Why cities don't have resources to fix the existing problems? Most cities lack proper governance and credit rating, hence limits them to go raise capital market for funds. How should the City Leaders address such issues in future?
- The investment needs in the cities are huge and require mobilizing private sector resources. Private sector needs to be comfortable with risk mitigation or risk sharing during the period of their investment. They may need policy risk guarantee, partial risk guarantee and/or developing a public-private partnership (including financial contribution from central and/or local governments) for investment. How are City Leaders addressing or planning to address these issues?

Moderator　Bindu N. Lohani (Special Advisor for Y-PORT Center)

I would like to ask the following three questions: [1] How can mayors and other city leaders involve the private sector? [2] How can they attract investment from capital markets? And [3] what roles can local governments play? Please make your presentation based on these questions.

Tadayuki Miyashita (Director for Development Assistance Policy Coordination Division, International Cooperation Bureau, Ministry of Foreign Affairs of Japan)

Currently there is huge demand for infrastructure development in Asia, and public investment, such as Official Development Assistance (ODA), alone cannot meet it. The government of Japan therefore considers using public-private partnerships (PPP) to be important. Current PPP issues are [1] a legislation system enabling technical cooperation, [2] lack and/or delay of related infrastructure development, and [3] insufficient support and finance for project formulation and implementation. In response to these issues, we and the Japan International Cooperation Agency (JICA) are promoting PPP projects in ways such as public calls for feasibility studies on PPP using ODA, support for necessary information/funding to form PPP projects, private investment, etc.

We can provide financial as well as technical support by using Japan's expertise and know-how. We would like to cooperate with the private sector to promote PPP projects; therefore, if you require any assistance, please do not hesitate to contact your local embassy or JICA office.

Hiroki Kawata (Senior Director, Project Department, Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development)

JOIN is Japan's only organization specialized in overseas infrastructure investment that has a government-private sponsored fund. It was established based on the goal, set at the Ministerial Meeting on Strategy relating to

Infrastructure Export and Economic Cooperation in March 2014, to increase the amount of orders for overseas infrastructure projects from 10 trillion yen in 2010 to 30 trillion yen in 2020. We are engaged in urban development in cooperation with Japanese firms, banks, etc. and promote infrastructure development through two pillars: [1] funding to those involved in transportation and urban development projects and [2] technical transfer and expert dispatch-led human resource development, helping Japanese companies enter this market. In 2015, our investment capacity is 136 billion yen.

Michael L. Rama (Mayor of Cebu)

We would like to actively involve the private sector in the development of our city, and the government and municipalities of the Philippines have many PPP projects such as international airport development, bridge construction, and joint venture projects with the private sector. At present, Cebu City and Cebu Island are promoting urban development to make the metropolis more inclusive, innovative, and sustainable based on the Mega Cebu Vision created in cooperation with Yokohama City and JICA. There are a number of restrictions on the government, but by involving the private sector we can accelerate development activities.

Dominica Bardinas Chua (Vice Chair of Research Program Organizational Development Executive Committee, Metro Cebu Development and Coordinating Board, Province of Cebu)

Metro Cebu consists of 7 cities and 6 municipalities and its leaders and citizens are finding, building and strengthening connections in the following areas: [1] addressing shared challenges, [2] consolidating interests and forging common directions, [3] emerging aspirations and creating a collective vision, [4] sharing information and knowledge and facilitating understanding, and [5] formulating development strategies and plans. Specifically, formulating these plans involves creating roadmaps, etc. for sustainable urban development.

Jon Arizal (Vice Chairman, Batam Indonesia Free Zone Authority (BIFZA))

Batam is one of the islands of Indonesia. Located very close to Singapore and Malaysia, the island is designated a free trade area. Batam, the gateway to western Indonesia, is the third most significant free trade zone after Jakarta and Bali, attracting more than two million tourists every year. We believe in the importance of attracting the private sector; therefore, we are developing the environment for investment by it, offering incentives such as tax breaks. Together with municipalities such as Batam City we are carrying out projects including an international airport, electric power generation, and road pavement. We are also undertaking a project to build a six-kilometer bridge connecting Batam and Bintan Island as well as monorail and port expansion projects. The country’s economic growth was 5% but Batam City’s was 7%. We would appreciate your support through the PPP framework.

Douangsavanh Linkham (Director General of Department, Vientiane)

Located along the Mekong River, Vientiane is the capital of Laos with a population of more than a million. As a result of deliberations on how to develop this capital city and how to produce more wealth, we have decided to shift our focus from conventional infrastructure investment and support from the government to PPP projects involving the private sector.

Our urban development plan aims to make Vientiane more environmentally friendly, peaceful, and safe. At present, we are receiving support from various cities including Beijing, Bangkok, Paris, Ho Chi Minh City, and Hanoi, and we are about to sign a memorandum of understanding (MOU) with Kyoto. We also want to enhance tourism promotion and nutrition services.

Takeo Koike (Director, Concurrent Technical Advisor (PPP), Office of PPP, Asian Development Bank (ADB))

Amid abundant infrastructure need, PPP not only fills funding gaps but enables use of the latest technology; however, both the public and private sectors must take responsibility for advancing the projects. Considering the shared issues of PPP to be [1] advocacy and capacity development, [2] enabling environment, [3] project development, and [4] project financing, the Asian Development Bank (ADB) addresses these four issues by using unique support measures and funding to support urban development together with governments and associated institutions.

Unfortunately, however, so far there have been few PPP projects and we have felt a gap in the feasibility of projects; therefore, we recently established an office providing transaction advisory services. ADB is assisting a tender process to invite the private sector. Moreover, we will invest in projects that can assist communities with their economic and social development.

Hyoung Gun Wang (Senior Economist, World Bank Group)

In addition to conventional infrastructure, urban development has been exploring new approaches using ICT such as cloud computing, big data, and social media. The World Bank is supporting Tamil Nadu, India, in using ICT to create policy and operating systems such as e-government.

In smart city development, understanding the lives of citizens and obtaining their approval of outlooks depicting the city is important. In order to respond promptly, we want to build interactive relationships between policymakers and citizens using ICT, consolidate resources for projects, and connect this to infrastructure projects.

Hidetomo Nagata (Vice President, Cities Solution Centre Japan, PricewaterhouseCoopers Co., Ltd.)

PwC has a network connecting 758 cities as well as a wealth of experience in delivering solutions, and offers support for cities to solve their problems inside and outside the country. PwC Japan is expanding its offer to Asian and other countries by disseminating knowledge and solutions to city issues that Japan faced in the past. We are currently partnered with Yokohama City, which experienced rapid urbanization, and JFE Engineering to implement a project to introduce waste-to-energy technology in Bangalore, India.

Stuart Kay (Director, KPMG AZSA Sustainability Co., Ltd.)

City competitiveness is on the rise and by 2050, 70% of the world's population are predicted to live in cities.

Cities must address not only short-term issues but long-term opportunities.

Governments can take the lead and use public-private funds to attract investment to advance projects.

Going forward, we should take measures not only to strengthen the economy but also to enhance security to protect people from disasters such as floods and earthquakes. There are sufficient capital resources in the market, so we need to work to create environmentally-friendly projects that are attractive to investors.

Moderator　Bindu N. Lohani (Special Advisor for Y-PORT Center)

Why is it difficult for municipalities to attract private investment to projects despite there being the capital? Why do they not use the numerous mechanisms available to them for PPP, such as the ADB's CDIA and the Asian Infrastructure Fund?

Takeo Koike (Director, Concurrent Technical Advisor (PPP), Office of PPP, ADB)

Some PPP does not go well because municipalities do not know these mechanisms for smooth progress as they seldom consult with experts. We think there is much that could be done at the project formulation stage such as testing projects on a small scale.

Moderator　Bindu N. Lohani (Special Advisor for Y-PORT Center)

One obstacle to PPP is that private companies cannot commit time or capital to projects during the project formulation stage before they have taken them on. Do you think that government-led capacity development programs like the National Economic and Development Authority in the Philippines can be used as a model for other cities?

Takeo Koike (Director, Concurrent Technical Advisor (PPP), Office of PPP, ADB)

I think it can be applied to other cities. What is important in PPP is that the government is able to coordinate the branches relevant to the project, rank priorities and conduct appropriate financing. At the stage of negotiation with partner governments, having this ability will aid progress in terms of finances and planning.

Dominica Bardinas Chua (Vice Chair of Research Program Organizational Development Executive Committee, Metro Cebu Development and Coordinating Board, Province of Cebu)

For PPP projects, local governments need to go through a long process of planning and preparing budget and other relevant documents. A lack of capacity in local governments is one of the biggest obstacles to the implementation of PPP projects. Therefore, it is essential to develop guidelines, as we have done for Mega Cebu Vision 2050, and assist local governments in managing PPP projects and preparing to receive financial support so that they can push forward with sustainable development. Because there are limitations on what local governments can do, we will seek assistance from private enterprises, financial institutions, international agencies, and other relevant organizations while making self-help efforts for urban development.

Michael L. Rama (Mayor of Cebu)

One of the biggest obstacles is distrust toward governments. Many private companies are afraid that the intervention of government agencies may result in restrictions on their operating flexibility. For example, if you have a term in office of three years but spend a year or two for preparation, you cannot complete everything by the end of your tenure. However, in our Mega Cebu Vision 2050 approach, municipal leaders can continue a project past their terms of service, and any project can be treated as a national one, regardless of its budget size. We are receiving technical support from JICA and Yokohama for sustainable urban development.

Moderator　Bindu N. Lohani (Special Advisor for Y-PORT Center)

It has been said that there are 1,699 multinational corporations in Batam. Does that mean Batam is a tax haven? Are there any tax benefits for these multinational corporations and organizations involved in PPP projects?

Jon Arizal (Vice Chairman, Batam Indonesia Free Zone Authority (BIFZA))

Singapore, Japan, the U.S., Malaysia, China, and other countries invest in Batam City. Jakarta and Bali levy a 10% value-added tax but the Batam free trade zone levies no value-added tax, import/export tax, or any other tax apart from corporate taxes on enterprises. We would like to use the build-operate-transfer (BOT) form of infrastructure financing to develop a monorail, toll roads, a port and other infrastructure.

Moderator　Bindu N. Lohani (Special Advisor for Y-PORT Center)

Some cities have their own branding strategies, such as “Green City” for Songdo, “Y-PORT” for Yokohama, and “PlaNYC” for New York. What branding strategy do you have for your city?

Michael L. Rama (Mayor of Cebu)

Of course, we are also working on the branding of our city. Our theme is “shine.” This branding strategy is not only to attract tourism but is shared across all sectors including commerce.

Douangsavanh Linkham (Director General of Department, Vientiane)

We would like to use PPP in Vientiane. We used to rely on government-led initiatives to develop our city, but this did not go so well. From about five years ago we have prioritized attracting the private sector from the project formulation stage and bringing the private sector and citizenry together in implementation. We are aiming to be a green city, an eco-city, a peaceful city.

Hyoung Gun Wang (Senior Economist, World Bank Group)

When the City Creditworthiness Academy was held two or three years ago with invitations sent to Asian cities, a Korean city said that even their central government was unable to obtain guarantees and so could not get funding. This indicates that it is difficult to use PPP if the municipalities do not have technical guidance and appropriate schemes. The World Bank is helping national governments support municipalities and strengthen their financial capacities.

Moderator　Bindu N. Lohani (Special Advisor for Y-PORT Center)

Now, central governments are the guarantors and municipalities are rated on their creditworthiness. If financial capacity is increased, asset management becomes possible and schemes to raise annual revenue can be devised. Many Asian countries are chronically short of funds for development. The needs cannot be met by government investment alone, and therefore it is crucial to involve the private sector in development processes. Moreover, rating cities on their creditworthiness to increase their trustworthiness is essential, as are city-to-city partnerships and city branding. But beyond municipality guarantees, what about project guarantees?

Stuart Kay (Director, KPMG AZSA Sustainability Co., Ltd.)

I think strategies such as issuing debt securities to finance several projects together, like Green Bonds, are extremely effective. Branding is also very important.

Hideyuki Mori (President, IGES)

The Government of Japan has initiated a financial assistance through the bilateral Joint Crediting Mechanism (JCM). Under this mechanism to mitigate climate change, the Ministry of the Environment of Japan is promoting city-to-city collaboration, involving Japanese companies, and the IGES has also participated in it.

Michael L. Rama (Mayor of Cebu)

Although the Government of the Philippines is less engaged in the Mega Cebu Vision 2050 than Yokohama and JICA, it has been going very well. The involvement of the national government in a project entails the risk that the project could be influenced by politics; therefore, you do not have to involve the national government at the beginning. You can follow the examples of Cebu and Yokohama and start cooperation not at the national level but at the city level.

Tadayuki Miyashita (Director for Development Assistance Policy Coordination Division, International Cooperation Bureau, Ministry of Foreign Affairs of Japan)

In Japan, some complain that support from the public sector for PPP is insufficient. It is difficult to forego negotiation with the central government when obtaining the necessary guarantees and support to advance a project. This goes for partnering with other cities as well. With the existence of private-private partnerships, some even insist that the government sector should take more risk, though this may be because Japanese businesspeople have a different perspective from other Asian investors on risk sharing. On the other hand, I think the government and municipalities of Japan should place more emphasis on the speedy implementation of projects.

No.3：Co-create urban solutions through smart technologies

- Technical: What would be practical way and examples to utilize ICT and IoT to raise quality of life of people and city itself?
- Human Resources: To achieve the above goal how the city can cultivate the necessary human resources?
- Collaboration: What would be the roles of public sector and private sector in this regard? What would be the expectations of the government towards private sector and vice versa?

Moderator

Yosuke Mochizuki (Director, Nikkei BP Cleantech Institute)

The world population is expected to reach 9 billion in 2050, especially with rapid growth of urban population. This will lead to problems of energy, water and CO2 emissions, as well as challenges in transportation, aging population and employment. On the other hand, investment into ICT and IoT will increase and the number of devices connected to the Internet will grow rapidly. With such a background, this session will discuss the theme of technology and urban development from the three perspectives of technology, human resources, and collaboration. In terms of technology, we would like you to discuss how information and communications technology (ICT) and the Internet of things (IoT) can make cities better. In terms of human resources, please share your perspective on how to sustainably retain or develop human resources capable of making effective use of information technology (IT). In terms of collaboration, we would like to hear requests from the public sector to the private sector and vice versa.

Nguyen Ich Huan (Director, Hue City International Cooperation Center, Hue)

In our city, the electronic taxation system called E-tax Payment Service has been adopted by all private companies, and its steering committee is working to further raise awareness of the service. In terms of human resource development, a commercial bank holds seminars and training programs to demonstrate how to use the service. Meanwhile, other electronic payment services have been introduced, such as E-water Payment Service and E-electricity Payment Service.

We are implementing our master plan for the future, focusing on three key themes: smart tourism city, smart health/education city, and smart green city. We will continue efforts to make our city even smarter.

Muhammad Masri Tiro (Head of Regional Environment Agency, Makassar)

We are trying to make our city sustainable and livable and addressing the issues of waste, transportation, environment and public services. We have introduced IT services such as transportation information system and Smart Card. Smart Card is provided in collaboration between the Makassar City Government and a bank. A single card supports various services, including ATM processing, healthcare and social security, and tax payment. Each card is embedded with a chip that holds information on taxes paid and medical services received by the user. Moreover, we provide information services via web portals. For example, the website of Makassar City offers the latest information on the city and municipal organizations, and also posts the results of relevant meetings to ensure

transparency. In addition, we have also launched information systems for communities, health care, residential reports as well as an information system for students.

Ahmad Roslee Hamzah (Director, Department of Engineering, Melaka)

Since Melaka is a sightseeing city registered on the World Heritage List, measures should be taken not only to develop but also to preserve the heritage. I would like to hear other cases and look for ideas during this conference. Because the heritage site is extremely fragile, it is very difficult to preserve it, and also implementation of smart technology must be limited.

Another challenge of our city is frequent flooding. This is not only because the city lies below sea level but also because it is an old port city with a number of traditional structures. Moreover, relying on tourism as its main income source, the city also faces serious traffic congestion and parking shortages. Going forward, we will promote public transport projects such as the development of train and mass rapid transit (MRT) systems.

Annjanette E. Dimaculangan (City Administrator, San Fernando)

In San Fernando, the smart city development is promoted under the leadership of the government. Based on the three concepts of information, connectivity, and engagement, we are working to empower community leaders and citizens through ICT.

To be more specific, we deployed the Barangay Information System in 2013. This is an internal government system application for village-level management. It is used to build a consensus, develop strategies, and formulate budgets for village development. Moreover, the city government has recently been expanding the free community WiFi service in cooperation with the Department of Science and Technology of the Philippines. We will continue to carry out development projects through ICT technologies with the aim of increasing the engagement of citizens.

Kimihiro Kuromizu (Deputy Executive Director, Climate Change Policy Headquarters, Yokohama)

Aiming to develop a concrete plan for climate change mitigation measures such as how to reduce energy consumption and how to introduce renewable energy, we implemented the Yokohama Smart City Project (YSCP) to demonstrate energy management systems. This project was carried out to control energy demand across the area by integrating various systems through ICT such as energy management system of households called HEMS, energy management system of buildings and factories, and electricity supply from an electric vehicle to a house. This was one of the largest projects conducted in an existing city in the world, involving approximately 3,500 households in HEMS. As a result of the project, we could reduce peak energy consumption in the summer. Moreover, building on this project, the Yokohama Smart Business Association (YSBA) was established to promote smart city development.

Dux Raymond Sy (Chief Technical Officer, AvePoint Public Sector)

Technologies such as cloud computing, big data, mobile and smart phones, and SNS are useful to promote smart city development with limited budgets and resources. For example, when I was engaged in a project implemented

by the United Nations to support the victims of human trafficking, we raised funds through crowd funding and also increased awareness of human trafficking through the funding website. Moreover, we developed a mobile application with which citizens can report when they hear about human trafficking cases. In Singapore, mobile devices are used for home visits by social workers and for health inspection of restaurants. A city in the U.S. uses cloud-based technologies to communicate with its citizens.

Let me give you another example, as transparency was mentioned earlier in this session. The Ministry of Labor of Saudi Arabia provides citizens with information on the projects and budgets of the ministry on the Internet.

Alfonso Vegara (President, Fundación Metrópoli / Special Advisor for Y-PORT Center)

Medium-sized cities are becoming more important in the world, and it is necessary for those cities to be connected physically and digitally with nearby cities and the world, instead of developing in isolation. Also, smart city development entails risk. It sometimes alienate people with an identity who live in a specific area or people with traditional assets. City leaders should keep it in mind that smart city development is not about just advancing technology but using it to realize their vision for the future.

It is projected that over the next 30 years, investment in urban solutions will reach seven times of the GDP of the world and projects related to urban solutions will account for 22 percent of the global economy. We believe that the technologies and city-to-city or public-private partnership mechanisms that have been created in Singapore and Yokohama for urban development can be shared to other cities around the world.

Yoshiya Kamo (Manager, Business Development Executive, Social Infra Business Development Smarter Cities, IBM Japan, Ltd.)

In a smart city, it is important how its citizens and government are connected. Each city faces different challenges including energy, transportation, education and other various issues, and needs to consider them as a whole, using ICT.

As shown by the recent attention to big data, there has been a remarkable advancement in technology to collect data from a variety of sources; however, what matters the most here is to have a clear idea of what data you need, how you can use them, and what outcomes you can make with them. Then, you should collect data and use them to formulate new strategies or to prevent future risks. If you can make good use of IT for these purposes, you can make your city even smarter.

Satoru Sadohara (Dean, Professor, Faculty of Urban Innovation, Yokohama National University)

One of the challenges in putting into practice the results of research through IT is the difficulty to find ways to apply research results to society. We should explain how and through what mechanism our research results will affect society and consider what the future

should be like.

Human resource development is also important since information literacy should be promoted to prevent technology from producing unintended consequences. Technology can work only when seeds meet needs. I hope that everyone will consider the future of ICT from this perspective so as to develop user-friendly smart cities.

Motoyuki Okada (Member, Yokohama Urban Smart Solution Alliance / President & CEO, FINETECH Co., Ltd.)

As a member of Yokohama Urban Smart Solution Alliance, which is a participant of the Y-PORT Center, we develop projects under public-private partnership, as the City of Yokohama promotes city to city collaboration with its knowledge and experiences for urban solutions.

While being engaged in urban development, we have created the Smart Green Park. This is an energy park consisting of small-scale power plants such as solar, biomass gasification, hydro, and wind power plants. One of its most prominent characteristics is its ability to monitor and control the operation of the power stations in real time through the communication network. This compact, new power generation system is planned to be deployed in ASEAN countries in the future. Moreover, we would like to expand our comprehensive green energy business not only to generate renewable energy but also to produce new materials from biomass.

Moderator　Yosuke Mochizuki (Director, Nikkei BP Cleantech Institute)

Automatic driving technology has attracted attention as automobile technology. Do you think this technology can be spread evenly throughout the world? In Vietnam and Indonesia, many cities face severe traffic congestion and road accidents. Do you think this technology can be applied to those cities?

Nguyen Ich Huan (Director, Hue City International Cooperation Center, Hue)

One of our challenges is the development of human resources. We should learn how to use high technologies. A smart city like Yokohama is a dream for our city. We are now preparing our master plan and once it is completed, support from private companies will be also appreciated to develop our city.

Muhammad Masri Tiro (Head of Regional Environment Agency, Makassar)

Makassar faces serious traffic congestion. In our city, the roads are too narrow, and the number of cars and motorcycles is increasing rapidly. Therefore, we are considering developing mass transit systems such as a monorail and rail transit. We are planning to conduct feasibility studies to verify the effectiveness of each option since our financial resources are limited.

Kimihiro Kuromizu (Deputy Executive Director, Climate Change Policy Headquarters, Yokohama)

Mass transit systems that require a large amount of investment, such as rail transit, are difficult to start with. Eventually, rail transit is the best solution, but you should first establish basic transport networks such as bus services. It is also important to change the awareness of citizens since many of them are distrustful of public transportation systems.

Alfonso Vegara (President, Fundación Metrópoli / Special Advisor for Y-PORT Center)

Each city has its own sense of values and requires different technologies to support it. Local leaders should have a clear vision and share it with their citizens to keep consistency in the development of their cities.

Moderator Yosuke Mochizuki (Director, Nikkei BP Cleantech Institute)

Through the discussion on technology, I have renewed my recognition that the IoT is spreading across the globe. I think we can appreciate that the time has come when we can predict natural disasters, road accidents, and crimes as a result of the advancement of the IoT. In terms of human resource development, we have realized that we cannot achieve sustainable development unless information literacy is developed in individual cities.

No.4：Indices to facilitate sustainable urban development

- Why is it important to set up "brand" of cities under the current competitive environment among the cities?
- Is it important and possible to set up city wide indicators to measure the progress of city?
- How best to start up the outcome oriented city wide indicators?

Moderator

Vijay Jagannathan (Secretary General, CITYNET / Senior Fellow, World Resources Institute)

The world today is facing a number of serious challenges such as poverty and unemployment. However, one problem is what you measure and how you measure. Therefore, this session will focus on the measurements and their incentives. Especially in a city, when a new leader is elected, he or she is not allowed to simply change the measurements even if he or she does not like it. The evaluation criteria and methodologies should be kept consistent at all times.

Maria Adelaida Coloma Lacsamana (City Environment and Parks Management Officer, Baguio)

The government of the Philippines has recently been considering competitiveness very important. While national competitiveness may not be applied to cities, three core pillars for urban development have been identified: [1] economic dynamism; [2] government efficiency; and [3] infrastructure development. We have adopted main indicators and their corresponding sub-indicators for each of these pillars to assess performance/capacity at the local level. The assessment results help us to understand the baseline and our problems, analyze and manage data, and build scenarios for urban development. Although it is very important to track the data collected from the local governments, there are financial and technical obstacles for us to manage large amounts of data, and therefore we are receiving support from various sources. We have recognized that we will need to review and improve our development efforts and mechanisms.

Maimunah Mohd Sharif (Mayor of Seberang Perai)

We regard the following six criteria as important indices to evaluate a smart city: [1] good governance; [2] sustainable community; [3] efficient transportation and infrastructure; [4] sustainable environmental quality; [5] optimal use of land and natural resources; and [6] competitive economy.

Moreover, we are placing the emphasis on development to maintain our smart city systems. We believe that branding is essential to any city and aim to become an "EcoCity". We will continue to promote sustainable development to make the city, where people gather, more inclusive, safe, resilient and sustainable so that it can attract more people.

Koralage Don Chithrapala (Municipal Treasurer, Colombo)

We have 20 evaluation indicators for local governments. They include physical and social indicators, but the

most emphasis is given to those of land use. We are taking various measures, such as developing safer road networks, constructing facilities to improve the convenience of public places, and preserving cultural heritage places.

In order to make Colombo a sustainable smart city, we will plan the sufficient allocation of resources and budgets and carry out systematic development.

Violeta Somera Seva (Senior Advisor, Office of the Mayor, Makati)

ISO 37120 is a new international standard to measure sustainable development, the performance of city services and the quality of life. It has 100 indicators across various themes, including the economy, education, energy, environment, fire and response, solid waste, shelter, telecommunications, and governance. We have taken various measures based on these indicators. However, the collecting of data at the city level puts a heavy burden on the local government under its limited budget. We believe that we should update the indicators on a regular basis in order to monitor our performance and provide feedback for future planning.

Kazuhisa Koakutsu (Area Leader, Principal Policy Researcher, IGES)

We believe that the change of the society cannot be achieved by policymakers unless without support from local governments and private companies.

Branding and setting indicators are essential to urban development. Development efforts can be facilitated by branding, and their progress can be measured by indicators. In particular, outcome-oriented indicators are an important key. Indicators are meaningful only when they actually have an impact. You should keep this point in mind when you develop indicators.

Hiroaki Machii (Principal Deputy Director, Ministry of Economy, Trade and Industry, Japan)

Government-to-government (G2G) projects are no longer the best solution to address the issue of urbanization. It has become necessary to involve all relevant organizations, such as municipal or other local authorities, government agencies, universities, and industrial sectors, to solve the problem. This is because the issue of urbanization has become so complex that it cannot be solved without integrating knowledge and know-how from a wide range of domains. We have not yet identified specific evaluation indicators for this issue. Though there are some city ranking systems, they are all based on the perspective of investors or industries but not on that of citizens. Going forward, we would like to develop appropriate indicators that let us confirm where we are.

Ryokichi Hirono (Special Advisor for Y-PORT Center)

The efficient and effective use of all resources including financial and human resources as well as ideas is a key to sustainable city development. I believe that the most important principle here is equity. Citizens will never

cooperate unless they feel they are treated equitably. Without equity, they will not have a sense of belonging to the community where they live.

We should continue to consider not only economic, social and environmental sustainability but also cultural sustainability. In our world, each community has its own cultural heritage. I hope that these traditions will be respected and passed down to future generations.

Hidefumi Imura (Senior Project Manager, Global Cooperation Institute for Sustainable Cities, Yokohama City University)

Indices to evaluate urban development should include those that can be used to assess the efficiency of the use of resources. For example, indices should be designed to measure the amount of energy and other materials input into the development process as well as the amount of waste output generated from the process. Further discussions are required to define such indices.

At the administrative level, there is a need to consider how to reflect the flow of resources in urban planning. It is also important to integrate all the policies and plans and implement them as a single development program under the leadership of the mayor. This will produce good governance of a city.

H. E. A. Laxman Perera (Human Settlements Officer, UN-Habitat)

Indices to evaluate a city may vary depending on the situation of the city or the direction of the development. However, to begin with, we should ask ourselves the following two questions: “why do we want these indicators?” and “why do we want to have smart cities?” This is because we want to assess the quality of life of people or because we want to know whether citizens are satisfied with the life they lead in the city. In light of these points, we suggest two principal indices: [1] social and human capital such as knowledge, culture, and politics, and [2] infrastructure.

In order to take steps in the right direction, we should explore human-centered development and consider how to involve citizens in the process and how to improve the quality of life. These efforts can enable us to make our cities further smarter.

Nobuhiro Kino (Director, International Cooperation Office, Ministry of the Environment, Japan)

In many Asian cities, it is surely difficult to set appropriate indicators, but it seems even more difficult to monitor progress against indicators. Therefore, there is a need to discuss this issue thoroughly when setting indicators in order to make them realistic. This will lead to the formulation of branding strategies that can clarify the direction for each city to follow.

When we discuss how to set evaluation indicators, we usually keep the following two points in mind: [1] starting with smaller areas and then gradually moving to larger areas; and [2] paying attention not only to output and outcome but also to input and processes.

(Question from the audience)

I think that indicators to compare cities are different from those used as a tool for policy making. Also, I was surprised that no one had mentioned the triple bottom line. I think that is very important.

Moderator

Vijay Jagannathan (Secretary General, CITYNET / Senior Fellow, World Resources Institute)

I recognize that many people mentioned the concept of triple bottom line though they used different terms for it. In reality, however, many mayors prefer more limited set of indicators. Ultimately, the point is how citizens interpret them.

(Question from the audience)

I would like to know more about the outcome-, process-, and holistic-oriented approaches (OPH-oriented approaches). It seems to me that roles have been segmented and specialized in many cities, which would easily result in sectionalism. Could you tell me how you have promoted the OPH-oriented approaches, especially the holistic approach?

Ryokichi Hirono (Special Advisor for Y-PORT Center)

We established a city platform for all stakeholders to gather under one roof. It is a platform to discuss how to integrate sector-specific issues into a holistic strategy. Moreover, for example, because there are 3,000 foreigners with Ph.D. in Musashino City, we are discussing how to integrate them. The problem is that many citizens do not understand what this means. Therefore, the leadership of mayors is very important. Meanwhile, from the policy aspect, consideration must be always given to the poor. Needless to say, governance is also essential.

Moderator

Vijay Jagannathan (Secretary General, CITYNET / Senior Fellow, World Resources Institute)

Ultimately, not only should we consider how to make our cities more competitive and smarter, but we should also include all citizens regardless of whether they are rich or poor. When putting policy into practice, we should confirm whether it can help citizens to gain their vitality. Moreover, at the evaluation stage, we should not rely on a single index but assess the set of processes in a holistic manner.

Plenary Meeting

Opening Speech

Fumiko Hayashi (Mayor of Yokohama)

Selected as a ”FutureCity” by the Japanese Government and as a case study city for the project “Sustainable Urban Development Policies in Ageing Societies” by OECD, Yokohama has taken innovative measures, such as introducing next-generation mobility and smart city technologies, and produced various positive outcomes. In order to share these experiences, we have launched the Y-PORT Project, an international technical cooperation project undertaken through public-private partnership, and also been holding this conference since 2012. Seeing that the conference has expanded in scale year by year, we realize that there have been growing expectations for this conference. In 2017, the 50th annual meeting of the Asian Development Bank will be held in Yokohama. We are committed to establishing a new sustainable cooperative framework and developing and disseminating solution models to achieve sustainable and high-quality development in cooperation with delegates of city authorities, representatives of international organizations, and other participants in this conference.

Keynote Speech

Masakazu Hamachi (Parliamentary Vice-Minister for Foreign Affairs, Ministry of Foreign Affairs of Japan)

The Government of Japan has recognized that Japanese local governments have unique experiences and knowledge which enable them to play an important role in solving the problems faced by developing countries. Based on this recognition, the Government of Japan adopted the Development Cooperation Charter in February 2015, which states that the Government will enhance its development assistance efforts by promoting collaboration with local governments as well as private companies. Moreover, the Government announced the “Partnership for Quality Infrastructure” in May, in which it is committed to investing approximately 110 billion U.S. dollars in high-quality infrastructure projects in Asian countries in the following five years in cooperation with the Asian Development Bank. The Government is also promoting other ODA projects, such as grant aid projects in collaboration with local governments, technical cooperation projects implemented by JICA based on proposals from private enterprises, training programs for trainees from developing countries, and the JICA Partnership Program using the technology and experience of local governments. Going forward, the Ministry of Foreign Affairs of Japan will continue to strengthen partnership with other countries and provide effective, high-quality development assistance through the “All Japan” approach, involving private enterprises and local governments.

Masaaki Kobayashi (Vice-Minister for Global Environmental Affairs, Ministry of the Environment, Japan)

In the Declaration of the G7 summit held at Schloss Elmau in Germany in June this year, the leaders declared that they shared a common vision for the reduction target for global greenhouse gas emissions; that is, they agreed to support the latest recommendation of the Intergovernmental Panel on Climate Change (IPCC) to cut greenhouse gas emissions at the upper end of the range of 40% to 70% of the 2010 level by 2050 and use the figure as a target of all parties to the United Nations Framework Convention on Climate Change (UNFCCC). The G7 leaders also agreed to facilitate the adoption of a new framework applicable to all the parties at the 21st Conference of Parties (COP21) to the UNFCCC to be held in Paris, France, at the end of the next month. Climate change is an urgent issue for the global community. This year will mark one of the most significant milestones, comparable to the year 1997, when COP3 was held in Kyoto, as COP21 will aim to establish a new, fair and enforceable international framework for all nations, both developed and emerging, to join together beyond 2020. Moreover, Japan will host a G7 summit in Ise-Shima and a G7 environment ministers meeting in Toyama next May. We would like to take the initiative in putting the new international framework into practice.

This September, the 2030 Agenda for Sustainable Development was adopted by the UN General Assembly. The Agenda includes Sustainable Development Goals (SDGs) on the issues left unsolved by the Millennium Development Goals (MDGs) adopted in 2001, such as health and education. It also focuses on continuing and emerging issues, such as disaster resilience, environmental protection, and increasing inequalities. These goals apply to all nations, including developed ones. In fact, the Agenda calls for action at global, regional, and national levels.

Recently, there have been high expectations for Japan to transfer its innovative low-carbon technologies to emerging cities in Asia and other regions. To this end, we are utilizing the bilateral Joint Crediting Mechanism (JCM). This is a mechanism where the increase in greenhouse gas emissions in Japan will be offset by the decrease in emissions in other countries to which Japan's advanced low-carbon technologies are introduced based on intergovernmental agreements, so that Japan can achieve its emissions reduction target. The Intended Nationally Determined Contribution (INDC) of Japan also states that "[the JCM] is not included as a basis of the bottom-up calculation of Japan's emission reduction target, but the amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction" and that "accumulated emission reductions or removals by FY 2030 through governmental JCM programs to be undertaken within the government's annual budget are estimated to be ranging from 50 to 100 million t-CO2." The Ministry of the Environment of Japan will use the JCM to promote collaboration between cities in Japan and other Asian countries so that the know-how and experience of the former to realize a low-carbon society can be utilized to assist the latter in creating a low-carbon, resilient, and sustainable society.

Rintaro Tamaki (Deputy Secretary-General, Organisation for Economic Co-operation and Development)

Rapid urbanization offers an opportunity for well-being and also imposes a huge cost. As one example, air pollution from heavy traffic and industrialization has become a major issue, there has been an increasing need to achieve a low-carbon society. We must promote environmental policies to address climate change issues, however, this goal is not in line with the systems, regulations, laws and city planning we have developed over many years while heavily depending on fossil fuels.

OECD has been conducting studies on urban green growth and sustainable development. The results of the studies have been disseminated through three knowledge-sharing processes: [1] knowledge sharing among cities in OECD member countries and non-member economies; [2] knowledge sharing between municipal and national governments; and [3] knowledge sharing between municipal governments and implementing agencies. Yokohama participated in the case study of Bangkok as a peer learning partner. We will continue to share the knowledge learned from the studies through workshops and other activities to assist cities with their sustainable development.

Roundtable Session

Moderator Hideyuki Mori (President, IGES)

In this session, we will summarize the results of the four thematic meetings and then open the floor for general discussion.

Summary of Thematic Meetings

●No.1：City to city cooperation towards sustainable urban development

Toru Hashimoto (Director, Development Cooperation Department, International Affairs Bureau, Yokohama)

In our meeting, representatives from cities were asked three questions. The first question was what would be the rationale of city-to-city collaboration while each city has a different stage of development and situation. The answer to this question was that because of the variations, they can accumulate know-how in different areas and transfer it to other cities. The second question was what modalities can be best for city-to-city collaboration. For example, a city which has already completed its holistic urban planning can share successful or unsuccessful stories to a city which is trying to do so. Also, it is difficult for a local government to change its institutional structure to do projects, but a task force can be a solution in cooperation with private sectors and citizens. A wide variety of successful cases of collaboration were given such as the Water Operators Partnership of the ADB, learning programs of the World Bank, the Compact of Mayors by ICLEI, FutureCity initiative of the Cabinet Office of Japan, and projects of Kitakyushu. The last question was what would be the technical advantage of multilateral cooperation. It was concluded that a platform like this Asia Smart City Conference where various stakeholders gather can produce a new collaboration among supporting agencies and cities.

●No.2：Roles of city leaders to attract good involvement of private sector

Bindu N. Lohani (Special Advisor for Y-PORT Center)

First, all participants agreed that current available funds from the private sector into cities are not enough. There are several modalities to raise private funds other than PPP, but some cities have regulatory constraints that they need approval from their national government to borrow money, and some cities do not know how to go out to raise those funds. For a better utilization of available modalities, it is essential to involve all stakeholders, especially citizens, into a long-term plan such as Cebu City's master plan for 2050. Also the branding of projects is important, such as Green Clean City of Vietnam, Green City of Songdo in Korea, and Y-PORT of Yokohama.

To point out one single message, local governments do not know how to involve private sectors into public projects, and they need to have well developed project plans to obtain financial assistance. These are the problems that many cities are facing and they are looking for assistance and support.

●No.3：Co-create urban solutions through smart technologies

Yosuke Mochizuki (Director, Nikkei BP Cleantech Institute)

Each representative made a presentation on technology, human resources, and collaboration/partnership. To sum up, from the technological aspect, the advancement of information technology (IT) is accelerating the phenomenon of "the world is flat" and the time has come when we can predict near-future events, such as natural disasters and traffic congestion, from a large amount of various data. What is more, this technology is spreading to cities around the world.

In this context, it is essential to train human resources to develop IT systems. We reached the conclusion, however, that it is most important to improve the information literacy of human resources. Technology will not change human beings, but it will be developed based on human activities.

●No.4：Indices to facilitate sustainable urban development

Vijay Jagannathan (Secretary General, CITYNET / Senior Fellow, World Resources Institute)

In our meeting, representatives from cities were asked three questions. The first question was whether the branding of cities is required or not. The answer was that it is important because it can raise awareness about politics and policies as well as promote participation of local communities and attract interest from investors. For example, the crime rate of New York City was high in the 1990s, but with the change of its branding, the city now receives 100 million visitors per year. The second question was whether or not there is a need to develop city-wide indicators. On this point, we acknowledged that each city should have its own evaluation indicators according to its priority and that the priority should be set so that it is inclusive. The last question was whether or not we can develop an outcome-oriented, city-wide indicators and how we can start up. With regard to this question, we agreed that we should evaluate outcomes based on the whole process and that holistic evaluation indicators, including critical factors like finance, human resources and utilization of ICT, are required to do so.

Comment

Alfonso Vegara (President, Fundación Metrópoli / Special Advisor for Y-PORT Center)

We are living in the world of cities and city-to-city collaboration and urban diplomacy are important. The GDP of small- and medium-scale cities (with a population of 200,000 to 5,000,000) accounts for 11 percent of the total at present, but it will rise to 40 percent in 20 years. Thus, medium-scale cities are expected to continue to expand. Collaboration between cities is required to promote the development of small- and medium-scale cities. In this sense as well, city-to-city collaboration is becoming increasingly important. Meanwhile, competition is growing not only between countries but also between cities. Cities' responsibilities are also increasing in the issues like climate change and poverty, and therefore, cities can change the world. Intelligent urban development plans will be

essential going forward. I think that opportunities like this conference, where cities can share their knowledge and experiences and learn from one another, will serve as an extremely powerful tool to that end. On the other hand, I think “the world is not flat”, and we can not just replicate the successful ideas of a city to another one. It is important to consider the identity of a city and to share necessary knowledge among cities and supporting organizations.

Discussion

Moderator Hideyuki Mori (President, IGES)

Sustainable Development Goals (SDGs) have been agreed at the United Nations. How do you think the SDGs indicators should be used?

Vijay Jagannathan (Secretary General, CITYNET / Senior Fellow, World Resources Institute)

The SDGs indicators are very useful at the global level to compare communities with different values. Nevertheless, other indicators are also required to make a city truly competitive and livable, and self-evaluation is important.

Moderator Hideyuki Mori (President, IGES)

I believe that capacity development on how to interpret and use data and to create policies is extremely important. What do you think about the need to take institutional measures for this purpose?

Yosuke Mochizuki (Director, Nikkei BP Cleantech Institute)

One example is automatic driving, where the artificial intelligence can predict the near future from the images under the rule that someone may run in front of the car. Now that rules for data use can be configured automatically, data analysis has become even more important to evaluate the appropriateness of the rules. Every city needs to have human resources capable of doing that, while promoting city-to-city collaboration to share their knowledge.

Moderator Hideyuki Mori (President, IGES)

Are there any cities that have succeeded in fund raising?

Bindu N. Lohani (Special Advisor for Y-PORT Center)

To begin with, we found that most cities have not used all the financing modalities available. Some cities do not even know where to get financial assistance and resources or how to prepare projects. On the other hand, there are some successful examples, such as Cebu and Batam. Batam is very successful in an isolated environment with

investment incentives including industrial parks and tax haven. We can learn about urban development from the experiences of other cities.

Moderator Hideyuki Mori (President, IGES)

It has been pointed out that this Asia Smart City Conference can generate added value. What added value will this conference bring?

Toru Hashimoto (Director, Development Cooperation Department, International Affairs Bureau, Yokohama)

This conference takes the form of what is called “action learning” as it provides opportunities not only to discuss problems but also to share lessons learned from ongoing and completed projects. We can discuss things based on the actions and results of individual projects. This is the added value of holding this conference.

Moderator Hideyuki Mori (President, IGES)

Now we will take a couple of questions from the roundtable.

Michael L. Rama (Mayor of Cebu)

Every city aims to achieve sustainable development by making good use of technology; on the other hand, there are still many poor people who require support. In order to solve this problem, we should not only consider financing and the like but also take a bottom-up approach.

Toru Hashimoto (Director, Development Cooperation Department, International Affairs Bureau, Yokohama)

Japan has taken a growth-oriented trickle-down approach. One thing that we can do is to create opportunities for economic activities. For example, Yokohama was once an industrial city with many factories, and then city authorities and private sectors have established a plan and implemented it together to make the city more attractive. As a result, we have become an attractive city to receive more people as well as international conferences and other events.

Bindu N. Lohani (Special Advisor for Y-PORT Center)

I mentioned during the Asia Smart City Summit yesterday that a half billion people in Asia live in the slums and this is not something we can ignore. In 1950s and 1960s, Japan put priority in economic growth by the heavy industry and left the pollution problems behind, and later they had to take very expensive solutions. With such experiences, Japan is now promoting environmental measures in emerging countries. Japan began to invest in poorer areas after their economy became stable, and poorer areas have grown rich. In the case of a city, investment into poorer areas and creation of opportunities will enable the residents to receive the benefits of the rich city.

Vallop Suwandee (Chairman of Advisers to Governor of Bangkok)

Regarding sustainable development, we should have additional focus on social development. For example, we need to pay attention to the domestic and international migration. I think that all the cities should take some countermeasures to this issue.

Vijay Jagannathan (Secretary General, CITYNET / Senior Fellow, World Resources Institute)

Social environment is important for a city. 70 to 80 percent of employees work in the informal sector. Many of them cannot enter into the formal sector. This indicates that when evaluating the level of social development, we should review the level of access to education as well as affordable housing and mobility. Following a successful case in Bangladesh, the point is to use ICT and microfinance and other support programs. This is also a factor that determines whether we can create smart cities.

Moderator Hideyuki Mori (President, IGES)

Finally, we would like to propose the establishment of an Asia Smart City Alliance. This aims to strengthen the network built through this forum where various strategic stakeholders including the existing city networks (C40, ICLEI, CITYNET, LoCARNet, etc.), international financing organizations (ADB, JBIC, JICA, World Bank) and other organizations (WRI, IGES, private enterprises, ministries and agencies) share knowledge, and to develop it into an alliance. Furthermore, we should provide messages from our discussions to international forums on urban development such as HABITAT III. I hope that we will be able to create innovative solutions by fostering city-to-city collaboration and discussing a wide range of cooperative activities at this conference.

Michael L. Rama (Mayor of Cebu)

I approve the creation of the Asia Smart City Alliance (ASCA) today here in Yokohama. (Applause from the floor)

Special Presentation

Maria Carmela Dinglasan Locsin (Director General, Sustainable Development and Climate Change, Asian Development Bank)

The accumulative investment of the ADB in urban development programs exceeded 24 billion dollars in 2014. It is constantly growing, expecting about 2 to 3.5 billion dollars per annum by 2017. In a climate change project called “Green Resilient Cities”, together with the CDIA, we have catalyzed over 5 billion dollars of urban investment from its funding base of 93 million dollars, and have supported 75 Asian cities over seven years. Moreover, the ADB has recently pledged to double its annual investment for climate change measures by 2020. As a nation or a region, it is important to shift the mindset and change the culture, to adopt a holistic approach, and to collaborate across the boundaries for smart urban development.

The most important key to smart city development is leadership, in other words, all of you here today. I hope that you will show us a political will so that you can promote sustainable and competitive urban growth and transform the future of your cities.

Declaration of the 4th Asia Smart City Conference (Yokohama Declaration)

Ms. Fumiko Hayashi (Mayor of Yokohama) and The Honorable Maimunah Mohd Sharif (Mayor of Seberang Perai) announced "Yokohama Declaration" which we wrapped up the discussion at the conference and the declaration was adopted by the participants. (Please refer to the next page for the declaration statement.)

Closing Remarks

Hironori Hamanaka (Chair, Board of Directors, IGES)

The IGES made a partnership agreement with the Yokohama City Government this March, and the Y-PORT Center was launched this May in cooperation among the Yokohama City Government, private companies and research institutions like the IGES. Such cooperative relationship, as well as other collaboration among cities and its partners, is expected to be further strengthened through this conference.

Now the Yokohama Declaration of the fourth Asia Smart City Conference has been adopted. This declaration indicates the importance of your role as a city leader and the significance of smart city management in cooperation with various stakeholders towards development of an inclusive, competitive and livable city. In addition, the Asia Smart City Alliance was declared to be formed. I am looking forward to seeing this alliance not only foster cooperation between cities but also trigger discussions on an international level. Actions taken by cities are also recognized as important in the international process, and cities will be requested to expand its actions at the COP21 to be held in Paris in December. I also expect further collaborations with one another and contribute to the development of low-carbon and resilient cities.

4th Asia Smart City Conference "Yokohama Declaration"

For the past 4 years, we have held the Asia Smart City Conference with an aim to enhance city to city collaboration and partnership among cities and related international institutions with the purpose of achieving sustainable growth in Asia.

In order to reinforce the outcomes of the past three conferences and based on the spirit of the 1st Asia Smart City Conference Declaration, we have agreed upon the following:

1. At the 4th Asia Smart City Conference, 21 cities, international institutions and specialized institutions came together, bringing various issues and expertise to the table, and held practical discussions aimed at realizing livable and sustainable society.

Specifically, opinions from various specialized and technical points of view were exchanged on the following four themes:

1) City to city cooperation towards sustainable urban development
2) Roles of city leaders to attract high quality involvement of private sector
3) Co-create urban solutions through smart technology
4) Indices to facilitate sustainable urban development

2. The conclusion that emerged from these discussions was that for each city to righteously evolve further, it is essential for each city leader to exhibit strong leadership, in cooperation with citizens and business entities, to ensure its sustainability through smart city management.

3. The cities and the other supporting agencies in this Asia Smart City Conference declare to form an Asia Smart City Alliance. This alliance will enable members to link with one another to play active roles in contributing to smart sustainable development in Asia.

4. We would like to propose this declaration to the Chair's Summary of the 6th Asia Pacific Urban Forum of the United Nations Economic and Social Commission for Asia and the Pacific, which will be convened in Jakarta, Indonesia on the 21st of October 2015.

5. Conference Photos

Thematic Meeting No. 1

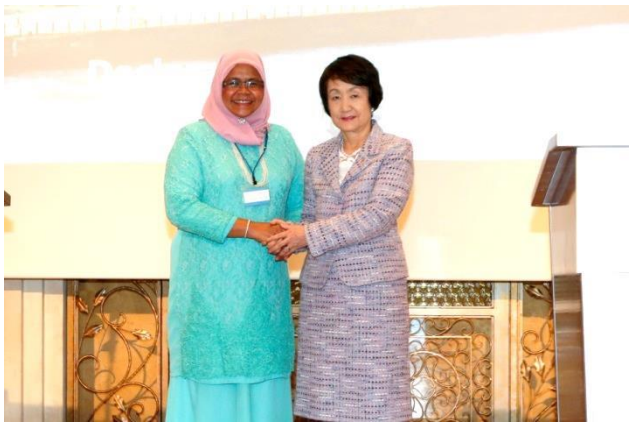
Thematic Meeting No. 2

Thematic Meeting No. 3

Thematic Meeting No. 4

Lunch & Business Matching

Plenary Meeting



Networking Break

Cocktail Party

Site Visit

Group Photo

The 4th Asia Smart City Conference in Yokohama

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