



# KNOWLEDGE PARTNERSHIP WEEK

Partnership Forum:  
**Innovation for Resilient and  
Smart Communities**  
19-20 MAY 2015

Third Asia Think Tank Summit:  
**Inclusive Knowledge Partnerships  
for Development**  
20-22 MAY 2015

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**ADB**



# TABLE OF CONTENTS

Abbreviations .....	4
Acknowledgments .....	6
Advancing Knowledge Partnerships for Solutions .....	7
Knowledge Partnership Forum: Innovation for Resilient and Smart Communities .....	9
1. A Snapshot .....	10
2. Special Opening Session: Partnerships for Solution—Innovative Ideas, Technical Excellence, and Better Results .....	11
3. Plenary Session: Role of Innovative Technologies and Solutions to Develop Resilient and Smart Communities .....	13
4. Parallel Sessions .....	14
5. Wrap-Up Session .....	22
Third Asia Think Tank Summit: Inclusive Knowledge Partnership for Development .....	24
1. Why Knowledge Partnerships with Centers of Excellence? .....	25
2. Thought Leaders Panel: Engaging with Knowledge Partners .....	26
3. Partnering for Knowledge: Roundtable Discussions of COEs and ADB Sector Groups and Thematic Groups .....	29
4. Wrap-Up Session .....	32
Way Forward .....	34

# ABBREVIATIONS

ADB	Asian Development Bank
ADBI	Asian Development Bank Institute
ATTS	Asia Think Tank Summit
BCDA	Bases Conversion and Development Authority
BGC	Bonifacio Global City
BRT	Bus Rapid Transport System
CIIE	Centre for Innovation, Incubation and Entrepreneurship
CMS	Consultant Management System
COE	Center of Excellence
CTFC	Climate Technology Finance Centre
DMC	developing member country
DOE	Department of Energy
DRM	disaster risk management
EARD	East Asia Department
ERCD	Economic Research and Regional Cooperation Department
GIS	geographic information system
GIV	grid integrated vehicles
GMS	Greater Mekong Subregion
ICT	information and communication technology
IDRM	Integrated Disaster Risk Management
IDC	indefinite delivery contract
ISGF	India Smart Grid Forum
ITDP	Institute for Transportation and Development Policy
JBP	Japan Bosai Platform
JFJCM	Japan Fund for Joint Crediting Mechanism
KMAP	Knowledge Management Directions and Action Plan
KORM	Knowledge Operations Review Meeting
KPA	knowledge partnership agreement
KPW	Knowledge Partnership Week
KSSC	Knowledge Sharing and Services Center
Maynilad	Maynilad Water Services
Meralco	Manila Electric Company
MOU	memorandum of understanding
MTR	Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and the Pacific
NMT	non-motorized transport
OPH	ADB's Operational Plan for Health
OSFMD	Operations Services and Financial Management Department
PHI	Philippines
PPP	public-private partnership
PRC	People's Republic of China
PWC	Pricewaterhouse Coopers

# ABBREVIATIONS

RESTEC	Remote Sensing Technology Center of Japan
RETA	regional technical assistance
RCI	regional cooperation and integration
RSDD	Regional and Sustainable Development Department (renamed as SDCC)
RTD	roundtable discussion
SARD	South Asia Department
SDCC	Sustainable Development and Climate Change Department
SEZ	Special Economic Zone
SUT	sustainable urban transport
TA	technical assistance
TASF	Technical Assistance Special Fund
TEPCO	Tokyo Electric Power Company
TTCSP	Think Tanks and Civil Societies Program, University of Pennsylvania
UMIC	upper-middle-income country
UNESCO-IHE	United Nations Educational, Scientific and Cultural Organization - Institute for Water Education
UNISDR	United Nations International Strategy for Disaster Reduction
US	the United States
WOP	Water Operators Partnerships

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# ADVANCING KNOWLEDGE PARTNERSHIPS FOR SOLUTIONS



Across the Asian Development Bank, many regard knowledge partners as sources of practical development knowledge, new ways of engaging in knowledge, and of introducing innovation.

“Working with an upper-middle-income country such as the PRC, knowledge is our raison d’être. Development challenges facing these countries are becoming more complex and they need to get more international experience, up-to-date information and innovation. For us to propose innovation, we have to be on top of knowledge.

For us, our operation is knowledge ++. The knowledge drives our agenda in working with UMIC. The challenge is for us to find out what is happening everywhere, in the industry where research institutions and Centers of Excellence also create knowledge.

We need to develop very focused and deep partnerships including with the private sector who knows how to apply knowledge.”

**Ayumi Konishi**, Director General, East Asia Department, ADB | Watch the [video](#).

“Countries in South Asia share similar challenges with other countries in the Asia and Pacific Region. India can learn from the People’s Republic of China (PRC) on broadening employment opportunities, Bhutan can be guided by how Lao People’s Democratic Republic (Lao PDR) uses export revenues to generate investments and the rebuilding of Nepal after the recent earthquake can draw from reconstruction experiences in Sichuan in the PRC and from the Philippines after it was struck by Typhoon Yolanda.

As ADB staff, we need to fully appreciate how knowledge partnerships with other countries can help address the needs of our DMCs. We just need to be pro-active in reaching out to development partners and become partners with them.”

**Hun Kim**, Director General, South Asia Department, ADB | Watch the [video](#).

“In strategic knowledge partnerships, nothing has changed much. Our present procurement policy on consulting services allows us to engage knowledge partners. People think everything has to go through the Consultant Management System, but we are flexible in that we can write any contract to reflect what we agreed with our knowledge partners. And we have piloted this in partnering with publicly-funded knowledge partners.

You bring all your ideas to Operations Services and Financial Management Department and we are willing to find a way to engage with knowledge partners and to find a way to do so.”

**Sean O’ Sullivan**, Director General, Central and West Asia Department, ADB | Watch the [video](#).

## What is the Knowledge Partnership Week

Knowledge Partnership Week aimed to promote innovation in the operations of the Asian Development Bank (ADB) by strengthening knowledge partnerships with think tanks and private sector technology and solution providers. The week promoted collaboration and built long-term relationships with strategic knowledge partners from whom ADB can tap innovations to improve the way it does business now, and in the future. These partnerships will also be used to cocreate knowledge solutions that address the priority needs of ADB members.

Divided into two events, the week was organized by KSSC in coordination with the ADB Institute (ADBI) and Lauder Institute. ADB's Sector and Thematic Groups and the Operations Services and Financial Management Department (OSFMD) were also key collaborators.

Please click on the links below for further information of the two events.

19–20 May

### [Partnership Forum: Innovation for Resilient and Smart Communities](#)

#### Who

- i. DMC officials, including high-level managers of executing agencies for ADB's current and future projects
- ii. Private sector technology and solution providers as potential knowledge partners
- iii. ADB's operations departments (management, project team leaders, and members) interested in incorporating innovation in projects in the energy, transport, urban, and water sectors
- iv. Other ADB staff interested in developing and implementing innovative projects, including members of Energy, Transport, Urban, and Water Sector Groups

#### What

- i. Potential knowledge partners shared with ADB staff concept papers and supplementary information on specific innovative technologies and solutions.
- ii. ADB staff and developing member country (DMC) officials explained their specific needs for technologies and solutions and listened to the ideas of technology and solution providers.
- iii. A list of potential candidates for knowledge partnerships in the areas covered by the Forum was developed. Knowledge partnerships are to be pursued after the forum if found relevant and mutually satisfactory to ADB, ADB members, and technology providers.

20–22 May

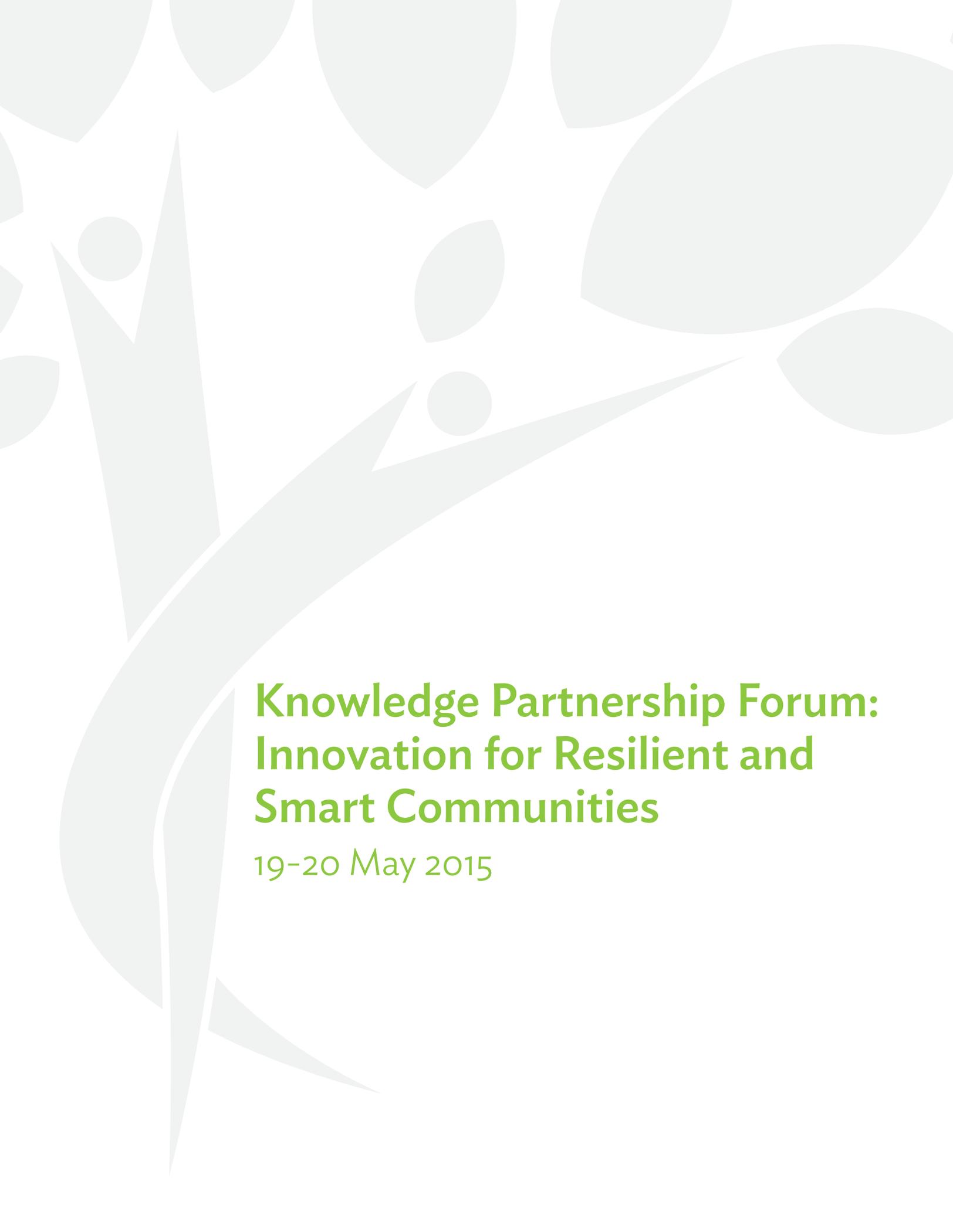
### [3rd Asia Think Tank Summit: Inclusive Knowledge Partnerships for Development](#)

#### Who

- i. Officials of ADB member countries involved in selected current and pipeline ADB projects
- ii. Representatives from Think Tanks and Centers of Excellence (including universities, research institutes, research arms of selected institutions, research foundations etc.) in the Asia and Pacific region
- iii. ADB staff, particularly mission leaders and Sector Group and Thematic Group members

#### What

- i. Global thought leaders shared their perspectives on how international organizations can engage in knowledge partnerships.
- ii. Roundtable, tripartite discussions took place on successful policy impacts of think tanks, productive partnerships between institutions and centers of excellence (COEs), and initiating institutional partnerships between ADB and COEs to tackle development challenges in building economic corridors and smart cities, and other topics.
- iii. Think tanks gave advice on how they could help improve ADB's interventions to solve developing problems by creating and sustaining smart communities.
- iv. On a selective basis, joint work programs could be established for knowledge partnerships.

A large, light green, stylized tree graphic is positioned on the left side of the page. The tree has a thick, curved trunk and several large, rounded leaves of varying sizes. The background is white with faint, light green leaf shapes scattered throughout.

# **Knowledge Partnership Forum: Innovation for Resilient and Smart Communities**

19-20 May 2015

## A Snapshot

Knowledge solutions and partnerships are two of five key drivers of change identified in Strategy 2020, the long-term strategic framework that helps the ADB play a more relevant role in shaping the future of Asia and the Pacific. These must be enriched through internal learning from operational practice and external learning from knowledge partnerships. ADB recognizes that knowledge and technology solutions from the private sector can help infuse its development programs. The Knowledge Partnership Forum promoted knowledge exchange and built collaboration and synergistic relationships with technology/solutions providers as a strategy for strengthening the capacity of ADB developing member countries (DMCs).

### Participants

The Forum attracted 307 participants, the breakdown of which is as follows:

- i. DMC participants—27 representatives from 12 countries
- ii. private sector technology providers—176 participants representing 75 companies from 14 countries
- iii. Development Partners—57 participants
- iv. ADB Staff—42

Download the [list of participants](#).

### Agenda

For full details of the agenda and to download the materials presented during the forum, visit

<http://k-learn.org/learning-events/knowledge-partnership-forum-innovation-resilient-and-smart-communities>

19 May 2015			
9 a.m.–9:45 a.m.	<a href="#">Special Session on Partnerships for Solutions – Innovative Ideas, Technical Excellence &amp; Better Results</a>		
10a.m.–12:30 p.m.	<a href="#">Plenary Sessions on the Role of Innovative Technologies and Solutions to Develop Resilient and Smart Communities</a> i) Integrated City Planning, ii) Urban Transport, iii) Smart Grid		
	<b>Parallel Sessions</b>		
1:30 p.m.–3 p.m.	<a href="#">Energy Session 1: Urban Smart Grids</a>	<a href="#">Transport Session 1: Sustainable Urban Transport Marketplace</a>	<a href="#">Water Session 1: Twinning Utilities for Better Service</a>
3 p.m.–4:30 p.m.	<a href="#">Energy Session 2: Rural Smart Grids</a>	<a href="#">Transport Session 2: Improving Mobility, Improving Resilience</a>	<a href="#">Water Session 2: Water Resources Management: Water, Energy, and Food</a>
4:30 p.m.–5:30 p.m.	<a href="#">Energy Session 3: Resilient Energy: Generation- Transmission-Distribution</a>	<a href="#">Field Visit: Bonifacio Global City</a>	
20 May 2015			
9 a.m.–10:40 a.m.	<a href="#">Energy Session 4: ICT Component for Smartgrid</a>	<a href="#">Transport Session 4: Resilient + Smart Transport Projects- Part 1</a>	<a href="#">Disaster Risk Management Session 1: Technology Showcases and Networking for Disaster Risk Management</a>
11 a.m.–12:20 p.m.	<a href="#">Energy Session 5: Wrap-up for Smart Grid</a>	<a href="#">Transport Session 4: Resilient + Smart Transport Projects- Part 2</a>	<a href="#">Disaster Risk Management Session 2: Technology Showcases and Networking for Disaster Risk Management</a>
2 p.m.–3:40 p.m.	<a href="#">Accelerating Commercialization of Smart Technologies</a>		<a href="#">Showcase of Electric Vehicle Projects</a>
4 p.m.–4:30 p.m.	<a href="#">Wrap Up Session</a>		

## Special Opening Session: Partnerships for Solutions – Innovative Ideas, Technical Excellence, & Better Results

ADB must be better. ADB should provide better knowledge services and innovative solutions to its client countries through cross-sector collaboration and partnership with the external knowledge providers, e.g., the private sector and think tanks. Resilient and Smart Community Development is one of the main thrusts of the internal and external collaboration as a “one ADB” approach. In order to make innovation happen, ADB Board and Management shared their views and future directions working with its knowledge partners and sounded a call for strategic and concrete collaboration for empowering client countries to make innovation happen.



“ADB’s approach is to combine knowledge plus finance plus capacity. Combining loans with knowledge and partnering with the private sector will potentially yield even more impact. It is also important that ADB’s sector and thematic groups seriously share knowledge with the member countries and other partners to come up with breakthrough ideas to address the challenges posed by climate change.”

### Special Remarks

**Takehiko Nakao**, President, Asian Development Bank

“We need to face the realities of rapid urbanization, an expanding population, and of responding to the needs of a growing segment of elderly citizens in Asia amidst the challenges of dealing with climate change. ... ADB is creating smart successes by focusing on aspects of smart city development in urban, energy, transport, and water sectors with strong partnerships with governments and the private sector.”

### Smart Community Development through Innovation and Partnership

**Stephen P. Groff**, Vice-President (Operations 2), ADB



“ADB should harness its convening power to forge partnerships for the specific purpose of sharing knowledge, experience, resources, and connections especially with centers of excellence and the private sector.... The Partnership Forum itself will serve as a venue for generating innovative cross-cutting solutions for resilient and smart community development not only to help boost ADB’s operations but also change how ADB does business.”

### Pursuing Partnerships to Deliver Better Knowledge Solutions

**Ma. Carmela D. Locsin**, Director General, Sustainable Development and Climate Change Department, ADB



“...it is imperative to have a concerted effort for prompt and comprehensive steps to ensure that disaster management systems reflect the very latest thinking and the very latest technology... we must focus on mitigating the negative impacts of rapid urbanization, which translates to urbanization of poverty, which can undermine ADB’s mission. Hence, helping member countries develop “smart cities” with integrated and sophisticated strategies for water supply, wastewater management, and transport will go a long way toward advancing our goals.... Partnering with experts from the public and private sectors, including U.S. companies with their know-how in project management and their sophisticated technologies, will enable us to share ideas and best practices on the latest innovations and trends for smart, resilient, and sustainable technologies leading to new ideas, approaches, and commitments to collaborate. “

[Welcome Remarks](#)

**Robert Orr**, Ambassador and Executive Director (the US), ADB

“Increasing trends in urbanization poses opportunities as well as multidimensional challenges and policy issues, even for Japan which is no stranger to disasters. Hence, the need for building resilience to reduce the physical and human costs through disaster risk management, including sharing of disaster information with the general public, and mobilizing financial resources, among others. Japan’s public sector can share lessons learned, while the private sector can share its innovative technologies and solutions.”

[Welcome Remarks](#)

**Kazuhiko Koguchi**, Executive Director(Japan), ADB



“Direct physical losses from climate-related disasters in the region are outgrowing its economic growth. But this can be managed through investments in resilience, as reflected in ADB policies and its Integrated Disaster Risk Management Operational Plan, 2014-2020, with its 4 cross-cutting actions on stakeholder engagement and strengthening partnerships; engaging the private sector; leveraging financial resources, and providing knowledge solutions to support the development of regional and national public goods and services. Hence, the importance of understanding needs, sharing source ideas/solutions around disaster resilience and fostering long term sustainable partnerships.”

[Innovation to Strengthen Disaster Resilience](#)

**Preeti Bhandari**, Director, Climate Change and Disaster Risk Management Division, concurrently Technical Advisor, ADB

# Plenary Session: Role of Innovative Technologies and Solutions to Develop Resilient and Smart Communities

## Integrated City Planning

Smart city development requires integrated city planning with innovation and technologies.

Yumiko Noda, former Deputy Mayor of Yokohama City, [shared](#) the vision and approach of the Leaders of the Japan-based Global Cities Infrastructure Solution Centre and underscored the need for city planners to shift to solutions-oriented perspectives, create value for citizens, and strengthen cross-sector partnerships.

Srikantha Herath, Academic Director of the Institute for the Advanced Study of Sustainability at the United Nations University, [lamented](#) the lack of local capacity to translate science-based knowledge to practice, such as for controlling urban flood inundation. He advocated the adoption of multi/inter/trans-disciplinary approaches in field projects, and argued that the success of projects are best measured against whether they actually improve the quality of people's lives. He also advocated for an increase in investments for enabling research into implementation in developing countries.

Yasuo Tanabe, Hitachi Vice-President, [discussed](#) social innovation at Hitachi and the company's participation in smart city development projects worldwide such as low-carbon society systems demonstration projects, water and sewerage operations, energy management, and railways/road transport systems. Among the challenges he posed were how to measure performance, implement public-private partnerships (PPP) for financing, engage community stakeholders, and manage risks. In response to a query from the audience, he said that risk-sharing by government is key. He also admitted that Hitachi itself is still struggling to find the balance between a successful business model and a genuine social approach, noting that it takes time to build up a sustainable social infrastructure.

## Urban Transport

To make cities smarter and more resilient, they must become more energy and resource efficient through promotion of low carbon development and smart use of land and water. They need to invest more in mass public transport systems. Transport systems need to be better integrated. For example, in the PRC, the Lao PDR, and Mongolia, ADB is supporting mass public transport systems including Bus Rapid Transit (BRT) linked to cycle and pedestrian pathways.

In this session, ADB Technical Advisor for Transport, Tyrrell Duncan, engaged Karl Fjellstrom, East/Southeast Asia Regional Director of the Institute for Transportation and Development Policy (ITDP), in a lively exchange of what is needed to make sustainable transport work; how ADB and ITDP began their collaboration on Bus Rapid Transport systems in the region; the challenges faced and the lessons learned by both parties and the implementing government agencies to ensure long-term benefits from sustainable transport investments.



ADB Technical Advisor for Transport Tyrrell Duncan and Karl Fjellstrom of Institute for Transportation and Development Policy discuss urban transport

## Smart Grid

Smart grid would be the centerpiece of a smart city. Smart grid is expected to (i) enhance energy efficiency, (ii) integrate renewable energies based power generation, (iii) enhance sector governance, and (iv) promote community participation.

Zhang Xiliang, from the Institute of Energy, Environment and Economy at Tsinghua University in Beijing, [shared](#) his observations on the PRC's increasing energy consumption trends, such as an increase in energy demand for non-productive purposes, for food production, for the service industry and for residential purposes—all of which point to the need for policies toward creating a low carbon society (i.e., not just targeting industry). He also gave an overview of the PRC's National Low Carbon Community Pilot Program, in which the smart grid is a key technical pillar.

Reji Kumar Pillai, President of the India Smart Grid Forum (ISGF), [described](#) how India is at the forefront of a revolutionary shift from the traditional grid to the integrated grid model and from centralized to decentralized power generation, to meet its growing energy demands. He gave an overview of India's Smart Grid Vision, Roadmap, and Mission and cited the need for international collaboration. He also shared activities undertaken by ISGF in this regard, including the creation of the Smart Utility Group to promote knowledge sharing among the energy utilities.

Toshihiko Fuji, Deputy Commissioner for International Affairs of the Government of Japan, [described](#) his country's experience—beginning with structural changes in the electricity market, policies, and smart community demonstrations in partnership with private companies from 2011–2014, with corresponding positive impacts on price-based and incentive-based demand to promote smart energy use. He ended his presentation with a discussion of policy measures needed for them to achieve their goal of 17% energy savings and 22% renewable energy sources by 2030.

Gerald Hane, presenting on behalf of the Global Research Alliance, National Renewable Energy Laboratory and Battelle–Japan, [traced](#) the development of smart grid in the United States by the Department of Energy (DOE), and emphasized that institutional issues/ solutions must be considered in conjunction with technology needs. He described how the DOE Smart Grid Implementation Plan, Smart Grid Investment Grant, and demonstration projects helped to deploy technologies for immediate commercial use through the manufacturing, purchase, and installation of smart grid technologies. He also explained how the use of microgrids helped to build grid resilience, especially for critical and vulnerable facilities. He further cited other ongoing efforts such as the Renewable and Distributed Systems Integration projects, the Energy Surety Microgrid Projects, the SPIDERS / Smart Power Infrastructure Demonstration project for Energy, Reliability and Security, and USDOE microgrid research, development and system design programs.

## Parallel Sessions on Energy

### Session 1: Urban Smart Grids

This session covered the [grid situation](#) in different countries, trends in global smart grid spending, drivers for smart grid deployment in Southeast Asia, and the evolution of smart substation development. It also focused on how growing power demand is driving investment in transmission and distribution and how the growth of renewable and distributed generation calls for end-to-end energy management.

Specific cases discussed were those of ADB ([Advanced Electricity Metering Program](#) in Uzbekistan which addressed the problem of high aggregate technical, commercial and collection losses through smart metering and tamper–proofing); Siemens' (microgrid technology, robust substations technology, and how the convergence of physical infrastructure/operations technology, and information technology enables [smart grid development](#)); and the Tokyo Electric Power Company's (large–scale [field test](#) of an Island Micro Grid model, of incentivized demand response system, and joint ventures with Hitachi and Toshiba to deliver smart power systems and solutions to developing countries.



Participants at the energy session

### Session 2: Microgrid in Rural Areas

This session covered the significance of [microgrids](#), both isolated microgrids and on–grids, especially for islands and remote areas. Xu Honghua from the Chinese Academy of Sciences highlighted challenges that need to be addressed through a combination of research and development, policy formulation and implementation, and supporting system construction. The generation, distribution/ transmission, and demand sides of various types of smart grids were also highlighted, together with ADB's approaches to [finance mobilization](#), namely: deploying concessional resources, maximizing market mechanisms, and catalyzing private capital.

Among the projects showcased were those of ADB ([advanced metering infrastructure](#) and ICT component in the Puducherry

Smart Grid project in India, and the microgrid projects in the Maldives, Nepal and Sri Lanka); GE (resilient, reliable, and efficient [electric grid](#) through strengthening of grid infrastructure, improving the end users ability to withstand outages, and use of an incremental approach); and GS Yuasa (Akari World Project and how it overcame difficulties in the Asian market, combined smart lighting design and quality and affordable price for its Akari LED light units).

### Session 3: Generation–Transmission–Distribution

This session covered [India’s power sector](#) needs and initiatives, [Viet Nam’s power sector](#) outlook, and ADB’s two-track energy sector strategy, which combines support to state utilities with support for low-carbon initiatives. University of Tokyo talked about spatial technologies, how they were being applied to city infrastructure development, and how ADB can use such technologies to improve the planning and performance monitoring of its projects. Alstom Grid China Technology Center highlighted their active smart grid projects—smart solar energy demonstration project in Nice, France; microgrid projects in Singapore for multi-renewable sources, mutli-loads and multi-storage integration; smart grid pilot in India; and asserted that advanced technologies and smart grid solutions are able to help cities/ utilities to integrate more distributed renewable generation, improve network operating efficiency, prevent power outages, and defer network construction while able to supply growing demand.

### Session 4: ICT Component for Smart Grids

The session discussed how biometrics technology can be used in disaster risk management, e.g., community-led biometrics enrollment for disaster preparedness, support to relief aid distribution, mobile fingerprint identification, and community alerts. For post-disaster situations, governments can leverage available demographic information in their database for fraud prevention and more effective aid distribution. Oracle showcased its initiative to help localities incorporate the whole grid under one control system and provide advance analytics/ cloud services for predictive maintenance, and Battelle Memorial Institute [explained](#) the nature of its work as a non-profit research organization that applies science and technology to real-world problems through, among others, its network of Battelle-managed laboratories in the US, which offers solutions and builds capacity of their partners using a combination of hardware and software.

### Discussion Highlights: Energy

- i. *Demand driven smart technologies:* Gaps were noted between the needs of DMCs, which mostly require lower level technology, and the technologies provided by the private sector, which are often of the high-end type. Investments are needed not only to promote smart grids but also to maximize existing DMC assets, especially in areas where the network is not well developed and/ or government barriers exist.
- ii. *A platform for knowledge sharing and networking:* The Partnership Forum’s Parallel Sessions on Energy served as a good venue for sharing/gaining information on ADB projects in Pakistan, Sri Lanka, Viet Nam, and other Asian countries, and the value of microgrids for rural electrification. Featured case studies can help convince future clients to invest in Smart Grid; impart lessons on how to transcend barriers through private sector partnerships to bring down losses; and promote knowledge sharing on latest technologies which can challenge ADB staff to find what is most applicable for different countries/ localities within one country.
- iii. *Innovation as key:* Imported technology’s cost is high, which deters its adoption. It is important to develop local capacity and attract investments to make technologies more affordable and offset high costs.
- iv. *Opportunities to collaborate with ADB:* ADB is open to working with other partners not just for procurement but also in the design of projects with the best technology for better impact. Companies like BNEF, for example, can provide research support to help ADB identify potential opportunities. Other suggestions for ADB are: to pilot new Smart Grid technologies in the regions and build capacity of utilities; to continue to promote energy efficiency, especially in areas where smart grid remains a dream; to include Smart Grid in the technical specifications for ADB projects despite the tendency of existing procurement system to prioritize lowest cost-based selection; revise conditions of contract to encourage system integrators to come in (since no single technology provider can provide all solutions), allot 5-10% of project budget to capacity building, or revise the “unlimited liability “ and “intellectual property right” clauses.

## Parallel Sessions on Transport

### Session 1: Sustainable Urban Transport Marketplace

During the session, transport experts in the realm of urban and non-motorized transport presented to participants a mix of specific solutions, such as modern [pedicabs](#), [bicycle sharing systems](#), [bicycle distribution](#), [urban greenways](#), [parking management](#), and [bus rapid transit](#) for their consideration.

Highlighted were proposed improvements in the Asian rickshaw's aesthetics, functionality, customer and driver comfort, and the application of a control center to manage and monitor the rickshaw fleets, as developed in an ADB project for Dhaka; the public bicycle sharing system being undertaken in the People's Republic of China and how it could be integrated with other sustainable transport solutions, such as the BRT and urban greenways; the bicycle distribution programs in developing countries, some of which have improved literacy and dropout rates, used in times of flooding and other disasters, or to reach patients in inaccessible areas. The benefits of greenways—which could include drastic improvements in the quality of life of residents and increased land values, the on-street parking experiences of Indonesia and Viet Nam, and the returns of the BRT in the PRC and the Lao PDR—were also covered.



Sharing by transport experts during the transport session

### Session 2: Improving Mobility, Improving Resilience

This shone the spotlight on the different aspects of building climate resilience in the urban context. Panelists presented in rapid “PechaKucha” style. The Chair then led the audience through an interactive discussion, which featured e-balloting on key questions.

Discussed were the [devastation of New York City](#) when it was hit by Hurricane Sandy, and how preparation + response, system redundancy, infrastructure + equipment design, and planning + finance became key to being able to adapt to the disaster. Also [presented](#) was the Shanghai Houtan Park, which has set a new benchmark for flood control, habitat rehabilitation and urban park design. The need to find sustainable

ways to promote smooth cross-sectoral coordination, especially in disaster-prone countries such as the Philippines, and the challenges of coordinating data and efforts of various government agencies were also discussed, ending with a discussion of the [OpenStreetMap](#), which was instrumental in supporting aid and relief efforts in the aftermath of Typhoon Haiyan in the Philippines.

The later part of the session was dedicated to the launch of the publication, “[Climate Proofing ADB Investment in the Transport Sector: Initial Experience](#),” a review of the approaches and experiences in climate risk management in ADB transport operations.



Site visit at the Bonifacio Global City

### Session 3: Site Visit—Implementing a Resilient + Smart Community: Bonifacio Global City

Participants joined a [field visit](#) to the Bonifacio Global City (BGC) in Taguig City to observe some best practices in smart urban mobility and resilience. Participants were taken on a site tour of the development, where they learned about BGC's different resiliency features, such as water capture and storage.

### Session 4: Resilient + Smart Transport Projects

The last session was an opportunity for ADB staff and participants to work together to develop project proposals on how to enhance their respective cities' transport initiatives with the knowledge that they gained from previous sessions.

Participants were given a bit more inspiration by Arnel Casanova, CEO of the Philippines' Bases Conversion and Development

Authority, who highlighted the resilience and sustainability aspects of the Clark Green City Project, an ambitious undertaking to create a new city on the former Clark Air Base. After the keynote presentation, groups settled into the final part of the session, where they presented their proposals to a panel of ADB staff and trust fund managers (composed of Tyrrell Duncan for the Transport Sector Group, Tetsuya Kanai for the Japan Fund for Poverty Reduction, Alexandra Vogl for the Urban Resilience Trust Fund, and Christian Ellermann for the Green Climate Fund), who gave feedback and indicated which aspects of the groups' proposals interested them the most.



Participants' group discussion during the transport session

## Discussion Highlights: Transport

- i. *Improvements of existing systems in developing countries*, such as modernizing pedicabs, can greatly help to improve public transport systems.
- ii. *Integrated transport approach*: For sustainable urban transport projects, the most important partnerships are with the government, especially because the various transport options presented—such as BRT, pedestrian walkways, and bike paths—are most effective if they are part of a larger planned transport improvement effort.
- iii. *Weighing the costs*: Low cost options are sometimes the better options: A lot of the options presented provided more cost effective solutions (e.g., parking solutions, bicycles and bicycle paths as opposed to building new roads). However, consensus building is often a challenge; what is more important is a change of mindset by the government and the public.

## Parallel Sessions on Urban/ Water

### Session 1: Twinning Utilities for Better Service

The [Water Operators Partnership \(WOP\)](#) Program is one of ADB's efforts to address the lack of efficient water services in Asia. The WOP brings together water utilities with best practices and utilities the Bank works with that need to improve their own operations. ADB has 28 such partnerships, which it hopes to expand to 32, spread across 21 member countries. WOP's relevance to bank operations cover a wide range, from promoting efficiency at any stage of the project cycle to protecting bank investments and ensuring financial and operational sustainability.



TED-talk style session in urban/water session

Ranhill Utilities (Malaysia) and Manila Water Company (Philippines) reflected on their role as WOPs mentors for specific interventions. [Maynilad Water Services](#) (Philippines) and Vitens Evides Intl (Netherlands) underscored the importance of rapport and highlighted the key role of ADB as a facilitator to make the partnership happen, ensure follow-up, and assist with a long term change agenda for utilities that may also have institutional and organizational issues.

## Discussion Highlights: Urban/ Water

- i. *Sustaining the WOP*: Given its demonstrated success and benefits to both mentors and mentored water companies, more WOPs should be established, even as smaller WOPs with more focused interventions should continue to quickly spread.
- ii. *Scaling up the WOP*: ADB affirmed the importance of WOPs for the bank and suggested a need to scale up and assist utilities with long term operations and business planning.

### Session 2: Water Resources Management—Water, Energy, and Food

Agriculture is the major consumer of water. With an ever-increasing population, food production (net of food used for biofuels)

must increase by 70% by 2050 to meet demand. Estimates for Asia predict a 65% increase in industrial water use, a 30% increase in domestic use, and a 5% increase in agriculture use by 2030. This illustrates the growing and acute competition among the principal water consumers—it also indicates the limits on supply options for agriculture.

ADB's project officers and their counterparts in DMCs discussed advancements and gaps in the technology and financing models utilized by projects for irrigated agriculture—specifically for solar irrigation. Highlighted were the [business model for solar irrigation in Bangladesh and India](#); the [features and advantages of solar pumping](#), as demonstrated by a case study on irrigation in a farm in Occidental Mindoro; how [SEBAL/ Surface Energy Balance Algorithm for Land technology](#) was used to increase land and water productivity at the community level using remote sensing; how remote sensing helped improve irrigation in Central Asia; and how irrigation monitoring technology was used to address frequent water monitoring-related problem in irrigation facilities in farms in the Philippines, resulting in significant benefits for the beneficiaries.

## Discussion Highlights: Water Resources

- i. *Technology costs*: Comparative costs of the technologies presented (e.g., solar pumps, or data access) either on a per unit/ per acreage or per cubic meter of water basis would be useful to, among others, make informed judgment as to whether long term savings on maintenance, fuel, and fuel transport for conventional diesel pumps could offset the higher costs for solar pumps.
- ii. *Possible perverse incentives from solar irrigation*: Because of low operational costs from solar irrigation, farmers may be tempted to pump as much water as they could. Among the ways to address this would be to introduce net metering for the system for grid-connected solar pumps (which feeds electricity back into the system); or to collect the electricity from non-grid connected pumps, which can then be consumed by the farmer households directly for other purposes, such as lighting.
- iii. The session's presentations focused on the water pumping side through the use of solar technology, as one way of addressing the water-energy nexus, and the challenges of dealing with water efficiency and productivity through the use of GIS and remote sensing technology. The applicability and potential contributions of these technology innovations to ADB's work in the water sector are significant. In fact, there will soon be a \$3M partnership agreement between ADB and UNESCO-IHE for the adoption of the SEBAL technology in a project.

## Parallel Sessions on Disaster Risk Management

### Session 1: Understanding Disaster Risk Management

This session covered the scope of disaster risk assessment and how it must be managed on an ongoing basis. The tools for risk modeling, visualization, and communication were also discussed, together with the need for stakeholder ownership of the risk process, interdisciplinary and multisectoral collaboration, well targeted education and communication of risk information, and the generation of open data.

Cases highlighted included ADB's project on [applying space-based technology and information and communication technology to strengthen disaster resilience](#), specifically the innovative partnership approaches it has taken to strengthen disaster resilience; and the [Pacific Disaster Center's DisasterAWARE](#), an integrated emergency operations platform that provides situational awareness, decision support, and information exchange capabilities to disaster management decision makers.

### Session 2: Reducing Disaster Risk

This session included presentations on solutions for reducing disaster risk across different sectors of development. The discussion started with ADB's [Greater Mekong Subregion \(GMS\) Flood and Drought Risk Management and Mitigation Project in Viet Nam](#), which aims to improve local capacity and preparedness to manage and mitigate the impacts of flood and drought



Panelists at the disaster risk management session

events. This will be achieved through the upgrading and operation of 46,000 hectares of irrigation and drainage to reduce average annual economic losses in project areas by 50% by 2020. Tokyo University touted the benefits of spatial and geospatial technology for monitoring people mobility, global mapping of precipitation, monitoring earth crust movement, and tsunamis. Finally, the Environment Bureau of Kitakyushu City shared the [different types of disaster-prevention measures employed by the city](#), which had frequently suffered from severe flooding. These measures included infrastructure improvement, river improvement, and improving local disaster prevention capacity with the cooperation of the government and community through community disaster drills and disaster prevention education.

### Session 3: Post Disaster Response

This session included presentations on [innovative solutions for improving postdisaster response](#). Highlighted was the [Community-Driven Development Program of the Department of Social Welfare and Development in the Philippines](#), which works to improve community disaster response and resilience through the use of technologies. Technological challenges were faced during the emergency response and recovery and rehabilitation phases after Typhoon Yolanda (Haiyan) hit the Philippines in 2014 and the communities participated in geo-tagging community projects and critical facilities, creating base and hazard maps, and forging knowledge partnerships with various institutions that proved useful in the disaster recovery and rehabilitation efforts. Motorola Solutions also discussed the [interoperability challenges during times of crisis and disaster](#) and highlighted its project Wave, Motorola's innovation that is able to provide effective communication and collaboration through secure, reliable, and real-time voice and data, thus enhancing the reach, choice and productivity of the emergency and disaster response workforce.

### Session 4: Partnerships for Strengthening Disaster Resilience

This session introduced examples of innovative partnerships for strengthening disaster resilience. Japan Bosai Platform (JBP) presented "[Resilient Cities Connect](#)," a partnership between the United Nations Office for Disaster Risk Reduction, JBP, and the Government of the Netherlands, which aims to link suppliers of resilience building tools and services with cities, and connect cities with development partners and businesses to substantially reduce risk and disaster losses. JBP outlined 10 essentials addressed by the partnership for making cities disaster resilient, and elaborated on the "discover –connect- implement" process used, citing the experience in Nepal. Pricewaterhouse Consulting, the Philippines introduced [RISE](#), an alliance launched on 26 Feb 2015 between six collaborating communities/ sectors, with the goal to unlock public/private disaster risk management (DRM) potential. The initiative was created based on results of a survey seeking to understand why the private sector has not engaged with or invested more in DRM activities.

### Discussion Highlights: Disaster Risk Management

- i. *Technology supply and demand:* Technology solutions need not only be innovative but also multidisciplinary and cross-sectoral. Customization of decision-support is important because each local context is different, and solutions need to be tailor-made. There are challenges with the interoperationability of systems, for which solutions are available to bridge systems together. However, it was also emphasized that technology innovation should be accompanied by capacity building, not merely through training but also through strong and sustained institutional arrangements, which ADB can help facilitate, such as through this Partnership workshop.
- ii. *Community involvement in risk reduction and post disaster response:* There are opportunities in national government programs which target community development to promote informed local decision making, to scale up use of technologies, and ensure that these benefit those who need them most. Community involvement in post-disaster response was also demonstrated through open source mapping, which gives communities the confidence to participate in the response process.
- iii. *Solutions from the private sector for reducing disaster impact:* Partnerships between government, private sector, and development organizations also occur for predisaster investment activities to reduce disaster impact. These activities include policy planning, communication/ ICT, and infrastructure. However, there are practical implications, including financing constraints, which present some challenges especially at a regional level, hence the need for strong collaboration with the scientific community. Overall, a stronger process for engaging the private sector should be pursued.
- iv. *Disaster-related resilience solutions unlock potential opportunities for development.* Successful flood control programs, for example, drive development in cities. Solutions need to go beyond administrative boundaries and geographical terrain.
- v. *Risk assessment methodologies aid in understanding risks:* There is general agreement around disaster frameworks.

However, they start to diversify once one looks at the purpose, scope, and level of detail, and can become more modified as a function of the data available on vulnerability in different countries, either at national or local levels. In ASEAN, there is an effort to have cross-border risk and vulnerability assessments guided by a common methodology.

- vi. *Improving predictability*: Real time data and sophisticated numerical models available today are being translated into more accurate assessment of disaster risks, especially in the US. The Pacific Disaster Awareness Centre benefits from advances made by the US military to help reduce uncertainties, and enables it to support disaster risk management globally, noting that there will always be differences in capacities across the regions and economies

## Other Parallel Sessions

### Session: From Lab to Market—Accelerating Commercialization of Innovations

This panel session [discussed](#) experiences and learning in accelerating the commercialization of new “smart” technologies, focused on the role of technology start-up accelerators and how they facilitate collaboration between innovators, entrepreneurs, investors, and industry.

The panel consisted of leading technology start-up accelerators and companies from across Asia. Each of them emphasized the importance of developing solutions that are market and user-driven, and the critical role of entrepreneurs in bridging the gap between the lab and the market.



Panelists share experiences in accelerating smart technologies

Battelle Asia [shared](#) its experience with the two largest US DOE smart grid demonstration projects and performance outcomes and talked about the challenges and approaches in working with communities in “making the unfamiliar familiar, getting the incentives right, allowing the market to work, and adopting interoperable protocols... with built-in cybersecurity and privacy guidelines.” Meralco shared how innovative planning has been incorporated into its electricity distribution business. [DNVGL Clean Technology Centre](#) explained its role and portfolio as an energy technology provider assisting companies to solve the energy “trilemma” of affordability, reliability, and sustainability, emphasizing DNVGL’s ability to combine utility experience with technical expertise across the entire utility and power system value chain in its more than 40 projects on smart green cities worldwide.

## Discussion Highlights

- i. *Entrepreneurship*: Looking out for all possible opportunities and moving very quickly are important traits for entrepreneurs in the technology innovation sector. The concept of “users as co-creators” has started to become a trend in new innovations with the proliferation of the internet, cloud computing, data analytics, and mobile technologies. However, corporate backing of entrepreneurs can substantially boost the successful adoption of new and innovative technologies. The depth of corporate partners matched with the network of entrepreneurs is valuable to product commercialization. As such, finding the right fit between the two is one of the roles of technology accelerators.
- ii. *Role of the market*: Clean technologies or “cleantech” are relatively more expensive to develop than other technology innovations, mainly because most cleantech requires hardware, as compared to mobile-technology and software-based innovations. However, if the value of cleantech products is articulated properly, there is a higher chance of success for commercialization. An important aspect of this is understanding the consumers—there has to be a clear demand or a market pull to scale-up the cleantech products. To complement the market pull, the utility of cleantech products has to be well advocated not only to consumers but also to regulators.
- iii. *Role of government*: Regulatory support from the government is significant in the adoption of technology innovations. While subsidies have assisted in the deployment of new technologies in some countries, subsidies can also result to unintended consequences such as failure to diversify into other more competitive products. As in the case of solar photovoltaics production in the PRC, companies became too dependent on government subsidies but in the long term the cost of production did not go down because of the nature of the technology itself. It was clear from the discussion that technology innovations have to be self-sustaining and should be aligned to institutional requirements and priorities.

One suggestion was for development banks such as ADB to create a “risk guarantee fund” to cover the cost of first loss of cleantech companies developing new cleantech products.

- iv. *Going beyond pilots:* There is a risk that many smart technology projects end up as one-off expensive (and usually grant-funded) pilots. Projects need to be designed bottom-up, driven by clear market and user needs, and not designed top-down, driven by a desire to showcase technology. Similarly, pilots need to consider behavior aspects and business models; otherwise they will not be effective nor be able to scale.

## Session: Showcase of Electric Vehicle Projects

This session discussed the technical and historical background of [Grid Integrated Vehicles](#) (GIV) against the backdrop of an Asian transport sector where mobility still remains largely dependent on oil, climate change concerns are driving countries to consider low-carbon development paths, and vulnerability to disaster is driving investments in resiliency. GIVs are electric-drive vehicles that can communicate with the power grid operator and thus contribute to system optimization. Integrated as part of a smart grid system, the stored energy can be tapped during power disruptions and for providing peak load capacity, contributing to higher share of intermittent renewable sources. Pilot projects can be found in Hong Kong, China and the United States.

Cases highlighted ADB’s [Lumbini Clean Public Transport Project](#) in Nepal which is introducing advanced Lithium-ion battery-powered electric vehicles, which has long-term cost, O&M, and environmental advantages over the current Kathmandu electric vehicle minibuses, and would bring the electric vehicle-based public transport services in Nepal to the next stage. Finance/ operating lease arrangements of electric vehicles with existing local transport service providers are also explored. In India, there are opportunities arising from policy progression, increasing manufacture of hybrid and electric vehicles, and the National Electric Mobility Plan (NEMMP) 2020 that targets deployment of 5 to 7 million electric vehicles in the country and provides numerous incentives. The business model for introducing/ scaling up e-rickshaws in India, and the encouraging electric vehicle initiatives by local authorities in Bangalore, Mumbai and New Delhi were also [discussed](#).

## Discussion Highlights

- i. *Technological aspects of electric vehicles:* Several questions from the audience focused on technological aspects (e.g., percentage losses of charging and recharging GIVs; base and peak load limitations; cost per torque; and warranties), as these were important for determining cost effectiveness
- ii. *On the question of subsidies / incentives,* it was felt that a better strategy would be to create a critical mass to drive costs down.

## Wrap-Up Session: Knowledge Partnership Forum

**Yongping Zhai**, Technical Advisor for Energy

For government /DMC officials, the Forum was a good opportunity to become updated. Gaps can be noted between the advanced technologies the companies presented and the needs of developing countries, where the bigger challenges are overcoming power outages and rehabilitating substations. ADB can bridge this gap.

ADB staff viewed the Forum as a good source of information on success stories that they can use to convince DMCs to invest in smart grid technology. Simultaneously, they must consider—even at the early design stage of a project—what is most appropriate for a specific country.

For the private sector, it enabled them to understand better the needs of the DMCs and how to work with ADB.

I will ensure that innovation is incorporated in all projects and that this is adapted to the needs of the client government. Moving forward, we can explore microgrids in small islands and demand response/ management to achieve greater energy efficiency.

**Tyrell Duncan**, Technical Advisor for Transport | View the [presentation](#)

The sustainable transport marketplace session provided an opportunity to connect technology partners with DMCs. Among the options presented were the BRT, non- motorized transport (NMT), and parking/ traffic management systems. These options will hopefully find their way into ADB's technical assistance.

For the transport resilience session, key takeaways on the resilience planning process were (i) preparation and response, (ii) system redundancy, (iii) infrastructure and equipment design, and (iv) planning and finance. This session also included a launching of the ADB publication on “Climate Proofing ADB Investment in the Transport Sector.”

In the final transport session, common among the “graduation proposals” presented by the DMCs to a panel of would-be funders are the following: (i) DMCs want ADB to finance sustainable urban transport (SUT); (ii) SUT is vital for resilient, smart cities, (iii) proposal features includes mass transit, NMT transit, integration, and (iv) specialized expertise, methods, technologies needed to do new/ innovative types of loan projects.

Moving forward, the fields to focus on are: BRT, NMT, parking management, IT/Intelligent Transport systems and integrated approaches for transport and urban/ transport and energy development. Our next steps will include (i) having BRT as the strategic platform for the Transport Sector; (ii) expanding BRT and NMT operations across the region; (iii) tapping more external experts as knowledge partners to support concept development, design and implementation; and (iv) steadily adjusting ADB staffing to support BRT and NMT work.

**Vijay Padmanabhan**, Technical Advisor for Urban and Water

Based on the sharing and discussions in our sector, there are three areas for moving forward, namely: (i) technologies and approaches, including water operator partnerships/ WOPs, for better services ; (ii) IT-based technologies for improving water resources planning and management for agricultural productivity; and (iii) ways to leverage capacity of ADB, through its WOPs, to involve and build capacity of water utilities in its DMCs. ADB can thus focus on developing a Future Cities Program, to include the conduct of a flagship study involving Centers of Excellence/ Knowledge partners; expanding sanitation programs; and scaling up irrigation efficiency.



Discussion highlights being presented at the wrap-up session

**Arghya Sinha Roy**, ADB Disaster Risk Management Specialist | View the [presentation](#)

Throughout the presentations and discussions, there was agreement that because DRM is a cross-cutting issue, disaster resilient solutions should be multistakeholder, multi-disciplinary, reflect system-wide thinking, be customized to local needs, ensure interoperability between systems, and unlock development potentials. Potential partnerships with the private sector can focus on using knowledge and networks; new technology (space-based, ICT, construction), updating and standardizing methodology (Disaster Risk Assessment), systems-based understanding, and existing platforms to create new knowledge and long-term partnerships. A lot of data was presented on technologies in the context of the challenges brought about by climate change, but there is a need to understand the risks, customize solutions, and identify financing solutions at the local level.

The potential roles for ADB are to develop cross-sector projects to strengthen overall resilience, and to use its convening power to facilitate discussions with client governments on use of cutting-edge tools and technology developed by the private sector.

**Ryu Fukui**, Head of the Knowledge Sharing and Services Center, ADB

The President is fully supportive of the partnership objectives and is already contemplating how to move things forward. The two days of the Forum proved to be an effective exchange of knowledge—current demands and needs of DMCs were communicated and good starting points were identified (such as the BRT and NMT focus areas for the transport sector). Any impact from the Forum should ideally be reflected in substantial improvements in innovation in ADB projects. More cross-sector discussion is needed, and ADB will continue trying to break internal and external silos to bring forth more effective solutions for the DMCs.

The forum provided a good opportunity to explore potential partnerships and actionable activities. Some may be more “ready to go” than others. For ADB, it is important to examine and clarify conditions for those who wish to become Knowledge Partners, to review our procurement guidelines, and to look into financial arrangements for Partnership Agreements.

A large, light gray, stylized graphic of a tree with several leaves and a trunk, positioned on the left side of the page. The leaves are simple, rounded shapes, and the trunk is a thick, curved line. The overall style is minimalist and modern.

# **Third Asia Think Tank Summit: Inclusive Knowledge Partnership for Development**

20-22 May 2015

## Why Knowledge Partnership with Centers of Excellence?

ADB's sector and thematic groups (STGs) represent ADB's collective knowledge and expertise in specific development sectors and themes. While they have become the heart and soul of knowledge sharing in ADB by promoting greater and better informed dialogue and maximizing individual and collective contributions, they face the continuing challenge of helping ADB operate smarter for greater development effectiveness. Partnering with centers of excellence and think tanks who have worked within and outside the region on various development challenges, tapping their knowledge and expertise, will enable the STGs to harness innovative ideas that can help further improve the design of ADB investments.

### Participants

The Forum was attended by 112 participants from 27 countries which included

- i. Officials of ADB member countries involved in selected current and pipeline ADB projects
- ii. Representatives from think tanks and Centers of Excellence (including universities, research institutes, research arms of selected institutions, research foundations etc.) in the Asia and Pacific region
- iii. ADB staff, particularly mission leaders and Sector Group and Thematic Group

Download the [list of participants](#).

### Agenda

For full details of the agenda and to download the materials presented during the forum, visit

<http://www.k-learn.org/learning-events/third-asia-think-tank-summit-inclusive-knowledge-partnerships-development>

20 May 2015	
6 p.m.–6:40 p.m.	<a href="#">Welcome dinner and reception</a>
21 May 2015	
8 a.m.–10 a.m.	<a href="#">Opening Session</a>
10 a.m.–12 noon	<a href="#">Session 1: Role of Think Tanks in Shaping Asia and the Pacific's Future</a>
2 p.m.–3:30 p.m.	<a href="#">Session 2: Knowledge Partnerships that Increase Capacity and Deliver the Public Goods</a>
22 May 2015	
8:30 a.m.–11 a.m.	<b>Parallel Sessions</b>
	<div style="display: flex; justify-content: space-around;"> <div style="background-color: #f9a825; padding: 10px; text-align: center;"> <a href="#">Special Economic Zones, Cluster and Economic Corridor Development</a> </div> <div style="background-color: #3a5a8c; padding: 10px; text-align: center;"> <a href="#">Smart Cities Development</a> </div> <div style="background-color: #e85c33; padding: 10px; text-align: center;"> <a href="#">From Response to Recovery to Resilience - Leadership, Change Management, and Enhancing Public</a> </div> <div style="background-color: #0072bc; padding: 10px; text-align: center;"> <a href="#">Health Economics, System and Financing</a> </div> </div>
11:15 a.m.–12:30 p.m.	<a href="#">Wrap-Up Session</a>

## Thought Leaders Panel

### Engaging with Knowledge Partners

Around the world, hundreds of country institutions are striving to engage in Knowledge Sharing (KS) in a systematic way, reaching out to partners at home and abroad. Over the past years, KS has been recognized as a third leg of development cooperation, along with technical assistance and financial aid, for example through the G20, the Global Partnership for Effective Development Cooperation and the emerging post-2015 development agenda. However, today's KS is often small scale and on-off, facing numerous operational constraints when it comes to preparing and sharing relevant development solutions. In particular, sector institutions with strong thematic background could make wider use of KS if the right arrangements were in place.

Globalization has created truly universal issues that require a unified, multilateral, not unilateral approach to their resolution. Global think tanks with their ability to function as international idea managers and brokers, find themselves in a prime position to affect policy. The majority of today's think tanks choose not to specialize in one single field, but rather cover a large number of different topics in their research into two sections. A small portion of think tanks do not fit into the single-topics or multi-topic research categories because the work that they do is in some way unique or innovative (McGann and Sabatini, 2011).

At the Thought Leaders Panel, President Nakao affirmed that Asia has extensive development knowledge but needs to better harness it to provide real-time solutions. United Nations Undersecretary General Noeleen Heyzer called knowledge partnerships critical given the MDGs' unfinished agenda, and the need for people- and planet-centered development. Chair Professor Hyun Oh Seouk of the Korea National Diplomatic Academy emphasized the role of knowledge sharing to influence policy.

If you look back to the successful development history of Korea and People's Republic of China, I'm so impressed by the role the think tanks played in having the right choice of policies. They had the strong academic capacity that was linked to the policies more directly than many other countries. The challenge is how we can nurture this kind of culture in Asia and Pacific as a whole, together with partners in the region and beyond.



ADB can play the role of hosting this kind of meetings, but the important thing is not just the meeting among ADB, think tanks, and universities; but more so the building of networks and interactions between interested groups. With 15 sector and thematic groups, ADB needs a very strong partnership with think tanks and universities, otherwise, it cannot keep up with the quality of knowledge within its staff. If ADB does not have knowledge, then government officials will not pay attention to ADB work or advice. So to keep the ADB knowledge a certain level of quality, a partnership with think tanks is really important.

***“...the important thing is not just the meeting among ADB, think tanks, and universities; but more so the building of networks and interactions between interested groups.”***

**Takehiko Nakao**, President, Asian Development Bank

Knowledge sharing has a catalytic function. But I think it's quite obvious that policy advice should be country specific, and there are no one-size-fits-all solution policies. However, there's some kind of commonality in knowledge sharing. I think knowledge sharing provides very important function at the policy level, for example in inspiring some leaders, in improving the ownership, in encouraging reforms, and in improving the technical level.

Policy reforms may not always do the miracles. However, they can increase some kind of gross output. Given the costs associated with policy reforms, I think the challenge will be to choose properly among the kinds of policies. Think tanks can respond to the challenge of shaping government policy by enhancing their capacities in several ways.

***“Think tanks can respond to the challenge of shaping government policy by enhancing their capacities in several ways.”***



Hyun Oh Seok, Chair Professor, Korea National Diplomatic Academy

First is mindset change. If we would really like to make a difference we need to change our mindsets and not think that any one player in today's complex world will have the answer. Second are champions. We really need leadership and we need political will to drive a multistakeholder integrated solution to our increasingly challenging world. Third is bridging. How do we actually bridge knowledge into policy and into action; and how do we make sure that there is some kind of an accountability framework that allows that?

We want to change people's lives, and we want to make the world a more inclusive sustainable place not just for ourselves but also for our children, and it means that we need to make sure that we have the right knowledge given to the right people at the right time to make that difference.

***“...we want to make the world a more inclusive sustainable place not just for ourselves but also for our children, and it means that we need to make sure that we have the right knowledge given to the right people at the right time to make that difference.”***

Noeleen Heyzer, Under-Secretary-General, United Nations

Think tanks try to understand the nature of various problems from different perspectives, exchange ideas among themselves and after that offer inclusive dissemination among various sectors, and raise public awareness.

One of the biggest challenges facing the think tanks currently is how to disseminate information findings in a credible way to gain trust from multiple stakeholders.

***“One of the biggest challenges facing the think tanks currently is how to disseminate information and findings in a credible way to gain trust from multiple stakeholders.”***



Manoj Panda, Director, Institute of Economic Growth, India

The University of the Philippines (UP) recognizes and embraces partnerships as being crucial to development. And because knowledge is equally crucial, the UP must embrace knowledge partnership. The UP is able to provide the basis for government policy making.



The university has the advantage of being able to offer a wide range of disciplines. We should not limit the experts to those who do economic analysis or do scientific experiments but also to other disciplines like marketing experts and psychologists. So the University of the Philippines is ready to be a knowledge partner at the institutional level; and the more you use the university, the better it gets.

***“The University of the Philippines recognizes and embraces partnerships as being crucial to development. It has the advantage of being able to offer a wide range of disciplines.”***

**Alfredo Pascual**, President, University of the Philippines

We need a collaborative correlation of poverty alleviation policy and renewable energy policy at the national level. It is extremely and fundamentally important to have better understanding of the interests and the responsibilities of stakeholders: local beneficiaries, renewable energy companies, financial institutions, local government, and the central government. Think tanks, particularly the academia in China can play several roles in terms of assisting the government in formulating climate policies and changing their views.

I hope that international financial institutions like the Asian Development Bank can play more role in new innovative ideas, in promoting knowledge creation, and in promoting the integrated poverty alleviation and low carbon community initiative.

***“It is extremely and fundamentally important to have better understanding of the interests and the responsibilities of stakeholders.”***

**Zhang Xiliang**, Professor, Tsinghua University, People’s Republic of China



## Partnering for Knowledge

### Roundtable Discussions of Centers of Excellence and ADB Sector Groups and Thematic Groups

#### Session 1: Special Economic Zones, Cluster and Economic Corridor Development Session Lead

In Asia, special economic zones (SEZs) have assumed importance as a development strategy to boost living standards, markets, and integration. ADB has a significant stake in the successful application of integrating domestic markets into the global economy through regional cooperation and integration (RCI) initiatives. The question is whether an SEZ approach in urban centers along transport corridors can be one such RCI initiative expanding opportunities alongside infrastructure connectivity through trade, foreign direct investment, tourism, and regional and global value chain production. The Session discussed, among others, if [SEZs](#) truly help a country to elevate export competitiveness, raise the country's exports/GDP ratio, and improve its firms' participation in the global value chains; what underlying factors lead to successful and less successful SEZs; whether the economic benefits of SEZs generally outweigh the cost of establishing SEZs; and how SEZs can become an engine of economic corridor development.



Selected panelists were asked to present in a roundtable discussion their research work and key findings that attempted to address the abovementioned questions, while others were asked to comment and share their views. Issues discussed include economic impacts of special economic zones, their success and failure factors, and how they could be better linked to economic corridor development.

#### Discussion Highlights

- i. There are numerous successful stories that show how SEZs are used as policy tools to increase employment and export, attract foreign direct investments, and improve economic growth supported by various factors (i.e., fiscal incentives, skills upgrading, access to infrastructure, location, etc.). However, debates among researchers and policymakers continue as not all SEZs succeeded and that no tangible results have been established with regard to job creation, spillovers, and productivity enhancement in some of the countries.
- ii. ADB's Regional Cooperation and Integration Division will conduct a research on SEZs as an instrument for economic development and regional integration as the theme chapter of the Asian Economic Integration Report, its annual publication. Panelists are expected to participate in this research project to work on in-depth country case studies based on the conceptual framework discussed.

#### Session 2: Smart Cities Development

Cities have driven economic growth in Asia and the Pacific—now producing about 80% of GDP—and have lifted tens of million out of poverty, especially in the last two decades. Asia and the Pacific is the most rapidly urbanizing region in the world. More than half of the world's largest cities are in Asia. However, rapid urbanization also means the urbanization of poverty. Of a total of about 1.6 billion urban people in Asia and the Pacific, more than 500 million live in high density, degraded slums. Asia accounts for about 60% of the world's slum dwellers. Large disparities have emerged in urban areas, and the poor are the most vulnerable to economic and environmental shocks. Environmental sustainability remains a major concern.

As cities swell in size and number, they are under increasing environmental stress. Cities struggle with air and water pollution, traffic congestion, inadequate solid waste management, and wastewater treatment. Vulnerability to climate change should also be addressed. Rapid and often poorly managed urbanization intensifies climate change risks and amplifies its impacts on infrastructure.

Asian cities are especially vulnerable to the hazards caused by climate change: 238 million Asian urban poor are expected to be hit first and hardest by the effects of climate change. Natural disasters routinely erase 1% to 5% of GDP each year and this figure is increasing. Several Asian cities, including Bangkok, Dhaka, Kolkata, Manila, Mumbai, Shanghai, and Yangon are at risk of coastal flooding as sea levels rise.



With the cost of natural disasters set to rise in the near future, cities will become a major battleground in the region’s fight against climate change. To combat these challenges, adopting innovative technology and intelligent systems – “Smart City Approach”— is expected to improve urban services for the poor. Innovation in finance and technologies brings great opportunities to create cross-sector smart urban systems addressing challenges. Smart grid would be a centerpiece of smart city.

The round table discussed the urban–energy interlinks, and the possible knowledge collaboration aiming to promote innovation in ADB’s sector operations with focus on smart grid development.

### Discussion Highlights

- i. Integrated city planning is needed to ensure rationale mobility and dwelling. Commercially viable business models need to be developed for financing by public and private sector investors.
- ii. The concepts of solar energy for poverty reduction in rural areas and [smart microgrid for demand response in urban areas](#) were highlighted.
- iii. There was a suggestion to maintain a platform to ensure effective networking of the COEs. More importantly, the sound concepts should be tested and implemented through pilot projects for scaling up through South–South learning and partnerships in DMCs.

### Session 3: From Response to Recovery to Resilience – Leadership, Change Management, and Enhancing Public Sector Capability

The devastating earthquake of 25 April 2015, and the consequent mammoth public sector undertaking to manage the emergency and provide relief, has thrown new light on the issue of capacity enhancement in the context of emergencies. In the aftermath of the disaster, the government was not able to be physically present at the Summit but it requested that its proposal for capacity enhancement be considered by the summit’s panel of experts, including with respect to how it can, and should be, reoriented to respond to the new development challenge.

The objective of the session was to generate concrete proposals for a pilot delivery of a public sector capacity building program for the government. The focus was on ascertaining how the public sector can simultaneously deliver the government’s short-term goals of managing emergencies and disasters and long-term goals of inclusive economic development. Moving from response to recovery to resilience highlights issues of leadership, change management, and capacity enhancement. This means public sector leaders will have to navigate a changing environment that requires new skills and strategies. These influences add complexity to the adaptive challenges that already exist and require new tools and strategies from public managers, who are called to be leaders at all levels of government.

The session covered the following topics: concepts, tools and strategies needed to improve the effectiveness of leaders and help them transition their organizations during unfamiliar times; principles of management and governance that governments should adhere to in strengthening its public sector capacity in the changed environment; competencies, skills, and expertise needed in the public sector of Nepal to deal with the changing environment and to steer the course back to stability and inclusive growth and development.

## Discussion Highlights

- i. A holistic and multistakeholder approach is needed in designing the capacity development program. This includes, among others, consideration of political commitment of the government, and consideration of issues of federalism, public financial management.
- ii. A good diagnosis of the existing situation is essential in order to come up with a useful program.
- iii. The private sector needs to be engaged thoroughly, and be given space to participate actively in program design, delivery, and follow-up.
- iv. There is a need to concentrate more on institutional capacity than at the individual level.
- v. Some important areas of capacity building, in the context of the disasters, include: procurement, budgeting, and project management.
- vi. There is utility in convening a high level retreat with key decision makers in Government to identify potential entry points that could lead to meaningful reforms and create space for change.
- vii. The Government of Nepal should clarify further its needs and vision for the program. Its engagement on the pilot delivery of the capability building program is also expected.
- viii. A request for proposal will be developed, to be shared with all the knowledge partner institutions that participated in the roundtable discussion. EOIs are expected from each of the partner institutions.



## Session 4: Health Economics, Systems and Financing

This session identified concrete topics of collaboration to support the analytical work in the 2–3-year period required to implement ADB's Operational Plan for Health (OPH; still under embargo). The OPH describes the following analytical work streams:

- i. Within health infrastructure, ADB will develop integrated urban health models to improve urban health and produce health workforce planning models to address emerging needs such as elderly health care. ADB will study the use of ICT as a tool to improve the efficiency and quality of services as well as health information for evidence-based decision making. ADB will also pilot autonomous hospital governance models. Studies on the role of social franchises for health and other innovative nongovernment service delivery models will be conducted.
- ii. Under health governance, ADB will develop capacity for policy analysis and development; study health regulations for pharmaceuticals, accreditation, and licensing to foster regional economic integration; and support strengthening of institutions to address health aspects of climate change. This will also require a strong focus on regional cooperation and integration, and continued analytical work and capacity development for regional public goods.
- iii. Within health finance, ADB will study public-private partnership and private sector investment models for health service infrastructure financing and provide payment mechanisms to modernize public purchasing systems backed by ICT. The effect of taxation (e.g., sin taxes) and other nonhealth interventions to address noncommunicable diseases financing will be explored.
- iv. Capacity in health economic analysis will be developed in-house or through partnering with centers of excellence. Health economics evidence is in high demand from developing member countries and is crucial in the context of increasing investment in the health sector (UHC, e-Health, health security, prevention of noncommunicable diseases, etc.).

The COEs presented in a roundtable discussion what they see as key analytical activities where they can offer support to implement the OPH. In addition, they shared their views on key health sector specific analytical needs for the Asia and the Pacific region to be taken up by ADB in the future.

## Discussion Highlights

- i. Key Asia Pacific health issues include migrant health, noncommunicable diseases/aging, universal health coverage in limited health service supply environment, large informal sector, and weak governance.
- ii. The session discussed the following recommendations:
  - a, providing country and regional knowledge and best practices;
  - b, facilitating regional knowledge platforms;
  - c, supporting public-private dialogue;
  - d, operationalizing innovations;
  - e, enabling environment for good governance;
  - and f) providing broader health perspectives.
- iii. ADB is on the right track as it plans to undertake the following: conduct country specific health sector assessments; develop Flagship Programs (combination of loans and operational knowledge); increase visibility through Health Flagship Events (2015- social health insurance: from design to implementation); invest in partnerships; support countries to develop evidence (ADB/WHO UHC Dashboard); develop easy to use guides (e.g., e-Health policy brief); and facilitate private sector investments (PPP training, PSOD investments).



## Wrap-Up Session: Third Asia Think Tank Summit

The thought leaders panel shared views on how international organizations can engage in knowledge partnerships, and identified the priorities, challenges, and opportunities for future knowledge partnership initiatives in specific areas. Session 1 discussed key initiatives that think tanks have implemented to produce successful policy impacts nationally as well as across the Asia and Pacific region. Session 2 illustrated how institutions have used think tanks in policy relevant research to leverage their knowledge and finance to increase the public goods produced. Session 3 convened ADB sector and thematic groups with the support of ADB's operations departments for roundtable discussions on areas critical to Asia and the Pacific's continued development. It sought inputs and support from participating key stakeholders in establishing joint work programs with think tanks for successful knowledge partnerships.

The closing remarks reflected on the session discussions and the way forward.

“One importance of think tanks is that they provide a bridge between knowledge and policy, between governments and the public, and that is the essential role that they have play.

No single discipline can understand the problems we face and, more importantly, no single discipline can solve them.

In terms of the future, there's a clear consensus from the participants that I spoke to that the think tank network should go forward and that these meetings on an annual basis with enhanced elements should continue.”

**Jim McGann**, Director, Think Tanks and Civil Societies Program, University of Pennsylvania

“We should utilize politicians to address the people in a very easy way.

I think Asian people should look at very important journals in Asia, not only in Western countries but also in the region. Various topics are important from Asia. I hope lots of academics would come into policy-oriented research.

The role of think tanks are very important to initiate a very good topic that can be applied all around Asia.”

**Naoyuki Yoshino**, Dean, ADB Institute

“This Summit has started to identify specific activities with each of you...between ADB and the leaders of the sector and thematic groups...and also other collaborators...to identify in which way we can jointly work together and how to make a difference. Be a partner with us. Try to establish a long term relationship with us. And let's tackle issues and development challenges in our developing countries in a collaborative way. That is our purpose.

To do it, ADB should be more crystal clear about what this arrangement should be like. As ADB, we do our best effort to facilitate this kind of knowledge partnerships. Let's begin.”

**Ryu Fukui**, Advisor, SDCC and Head, Knowledge Sharing and Services Center, ADB

# WAY FORWARD

## Knowledge Partnership with the Private Sector

The Forum proved to be an effective exchange of knowledge, in as much as current demands and priority needs (of DMCs) were communicated; good starting points for knowledge partnerships were identified and/ or explored; and ADB thematic and sector groups gained ideas on how to infuse /expand their work plans with more opportunities for collaboration. Several actionable activities have been suggested, although more cross-sector discussion can be aggressively pursued. In general, several outcomes have been realized, as follows:

- i. A clarified mutual understanding of partnership expectations, conditions and potential arrangements between ADB, its members, technology providers, and development partners
- ii. An initial internal database of technology solutions/ technology providers available to ADB operations staff
- iii. Potential candidates for knowledge partners from the private sector earmarked for engagement on innovative knowledge solutions for smart communities along sectors and themes, and/or cross cutting areas
- iv. Expanded personal and professional networks for each participant
- v. An informal network of learners/ experts/ professionals committed to smart community development, with the opportunity to engage in continuing discussion, information exchange and broader interaction as an online community through the following:

<http://knowledgesolution.org>

LinkedIn Community on Smart Cities

<https://ph.linkedin.com/pub/smart-cities/b6/ba6/2b7>

ADBSmartCitiesTalk on Twitter

<https://twitter.com/SmartCitiesTalk>

## Knowledge Partnership with Centers of Excellence

The summit successfully identified knowledge partners across the Asia and Pacific region in areas where ADB's knowledge can be complemented particularly on smart city development, health, governance and regional cooperation and integration. Important steps toward identifying joint work programs were explored and flexible modes for cooperating were discussed. ADB sector and thematic groups gained appreciation of new knowledge partners. Other groups can be encouraged to partner with COEs.

On various fronts, other outcomes were:

- i. Expanded work plans developed with selected COEs for 2015-2017 by identifying potential areas for collaboration and areas that cut across sectors and themes.
- ii. Flexible arrangements for more efficient collaboration with knowledge partners explored.
- iii. Collaboration explored with nontraditional knowledge partners or centers of excellence and think tanks outside the region based on priority opportunity identified by ADB staff and DMCs.
- iv. Expanded personal and professional networks for each participant.
- v. An online community launched to provide information on existing and potential knowledge or private sector partners

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Group: Knowledge Partnerships for Inclusive Development

To date, four proposals for subproject financial support have been submitted for review. Work programs are being eyed jointly with COEs in the areas of health to identify ICT-based solutions that expand universal health coverage; and energy to support poverty alleviation programs through solar PV installations. Knowledge partnerships will be further explored in the areas of capacity building as well as on broader economic issues in Indonesia and on macroeconomic monitoring in Myanmar. A template and checklist on knowledge partnerships has been drafted. A knowledge partnership agreement with the World Resources Institute has been signed on 24 August 2015, providing a flexible framework to accelerate such knowledge partnerships.

## Next Steps

ADB seeks to strengthen its partnerships with numerous entities in its efforts to provide knowledge solutions to the development challenges of Asia and the Pacific region. These partnerships have three broad objectives:

- i. Tap technology-leading solutions with potential for application or scaling up in developing countries;
- ii. Harness world-class, top-notch policy advice for developing member countries; and
- iii. Encourage peer learning among countries, either between or among countries in the South or a blending of countries in the South and North, to improve their capacity or policies.

These knowledge partnerships look to the following in order to become realities:

- i. Private sector technology providers;
- ii. Centers of excellence, including think tanks, research organizations, academic institutions and universities, and more; and
- iii. Government institutions or officials.

While the Knowledge Partnership Week was a promising start toward this end, ADB is committed to moving this agenda forward in order to harness more relevant knowledge solutions. Toward this end, ADB intends to

- i. Explore the application of knowledge partnership agreements in initiatives with the private sector and COEs as initiated during the Knowledge Partnership Week.
- ii. Facilitate south-south and north-south knowledge sharing among countries, which will allow ADB to engage more easily with government entities willing to share their experiences with other countries.
- iii. Assist the Thematic and Sector Groups to pursue and organize knowledge partnerships with various potential partners, and focus on developing joint work programs.
- iv. Work with relevant ADB departments to develop and mainstream flexible arrangements for more efficient collaboration with knowledge partners.
- v. Produce a set of standard guides and templates on developing, legitimizing, managing, and monitoring knowledge partnerships that all designed to be suitable for internal and external use.
- vi. Promote, manage, and monitor the social media accounts for the online community.

## For More Information

### Knowledge Partnership Forum: Innovation for Resilient and Smart Communities

<http://k-learn.org/learning-events/knowledge-partnership-forum-innovation-resilient-and-smart-communities>

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Knowledge Partnership Forum

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Group: Smart Cities Talk

### Third Asia Think Tank Summit: Inclusive Knowledge Partnerships for Development

<http://k-learn.org/learning-events/third-asia-think-tank-summit-inclusive-knowledge-partnerships-development>

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Group: Knowledge Partnerships for Inclusive Development

ADB recognizes "China" as the People's Republic of China, and "Korea" as the Republic of Korea.



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