

**ISAP 2016**

Sub-plenary Session 3



## City Champions:

Scaling-up Transformative Sustainability Innovations

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## 1. Harnessing the dynamism of cities for broader sustainability transformations in Asia and the Pacific

The operationalisation of Sustainable Development Goal 11 (September 2015), the signing of the Paris Agreement (December 2015) and the formulation of a New Urban Agenda under Habitat III (October 2016) are helping to place urban sustainability centre stage in 2016. High rates of urbanisation as well as financial stresses and human resource constraints are amongst the major challenges that cities in the Asia-Pacific region face. On the other hand, the decentralisation of government functions is empowering a new generation of city leaders to access creative finance, emulate good practices and achieve leapfrog development by means of low-carbon technology. 2016 may indeed represent a turning point for urban sustainability transformations in the region and beyond. It is therefore with a sense of great urgency, commitment and hope that the Institute for Global Environmental Strategies (IGES), collaborating national and city governments as well as partner institutions are devising programmes and projects to overcome the remaining barriers to the lasting transformation of our urban systems.

This short discussion paper complements the presentations by ISAP 2016 Sub-plenary Session 3 speakers, by integrating the individual thematic foci into an overarching narrative and by highlighting how IGES functions as an “Agent of Change” in the domain of urban sustainability in Asia and the Pacific. The discussion paper is structured with Chapter 1 providing a brief overview of the challenges and opportunities. Chapter 2 then describes the need for identifying and replicating good practices in cities, Chapters 3 and 4 respectively emphasise the important role of city partnerships and capacity building, and Chapter 5 highlights what is needed to scale-up transformative sustainability innovations.



Figure 1: Preliminary schematic of the IGES approach to enable sustainability transitions.

A wide array of programmes and projects at the IGES headquarters in Hayama, the **Kitakyushu Urban Centre (KUC)**, and the **Regional Centre in Bangkok (BRC)** showcases the institute's leading role as a change agent in cities of Asia and the Pacific. Since 2013, research and project implementation on urban sustainability issues has been scaled up even further across the multiple IGES Areas and offices. In June 2015 the institute established a cross-sectoral "**IGES City Taskforce (CTF)**" to coordinate and identify synergies in relation to subnational policy research, capacity building and project implementation. The IGES City Taskforce, formalised under the institute's Programme Management Office since April 2016, will play an important role in the Seventh Integrated Strategic Research Programme of the institute (2017 – 2020). Recognising and harnessing the growing international focus on urban sustainability, the IGES City Taskforce aims to:

- (1) **Spearhead the development of a comprehensive strategy for supporting cities**, to include the identification of urban potentials, priorities and barriers, planning support, as well as offering a portfolio of tailored services to facilitate the operationalisation of climate-smart and sustainable urban development strategies (see Figure 1 for a preliminary schematic).
- (2) **Increase the number and strength of partnerships between cities** in Japan and the Global South to scale up the dissemination of knowledge on – and transfer of technologies for – achieving greater urban sustainability.
- (3) **Enhance the international visibility of IGES expertise** related to sustainable urban development in Asia and the Pacific through greater involvement in relevant international and regional policy processes, the creation of information materials to communicate better the achieved and planned impacts and stronger networks with key stakeholders in the international (urban) development community.
- (4) **Translate policy research and project experience into capacity building activities** to support the formulation of national policy frameworks that catalyse urban sustainability transitions, as well as to provide subnational actors with the technical knowledge, tools and methods needed for local planning and action.
- (5) **Function as a coordination hub for funds and project acquisition** related to sustainable cities in Asia and the Pacific.

## 2. Disseminating good practices to inspire city leaders

Local governments today do not necessarily have to re-invent the wheel, with vast amounts of good practices having been compiled into guidebooks<sup>1</sup> and databases<sup>2</sup> over the past decade that are now accessible online. The fact that the ubiquity of good or leading practices, now at the fingertips of local government decision-makers, has not resulted in broad replication to date raises the question of what stands in the way. Drawing from IGES contacts to local governments in Asia and the Pacific, reasons for the slow adoption of good practices include:

<sup>1</sup> A recent notable contribution in this regard are the eleven Good Practice Guides published by the C40 megacities network, available via the URL [http://www.c40.org/custom\\_pages/good\\_practice\\_guides](http://www.c40.org/custom_pages/good_practice_guides) (Accessed on: 01/06/2016)

<sup>2</sup> The CTCN Climate Technology Library<sup>1</sup>, scheduled to be operationalised within 2016, will cover a broad range of hard and soft technological solutions to mitigate and adapt to climate change effects: <https://www.ctc-n.org/technology-library-0> (Accessed on: 01/06/2016)

- **Unique development challenges:** Socio-economic, environmental and political realities faced by cities in the region stand in the way of introducing carbon copies of good practice approaches.
- **Good Practices are not always particularly good:** Whilst many programmes and projects employ strict quality criteria for the selection of good practices, this is not always the case. Local governments often lack capacities to distinguish good from bad.
- **Too many case studies, too little time:** Local governments are responsible for managing their cities with limited human and financial resources at hand. Administrations often lack the time to trawl through publications or the worldwide web to identify suitable case studies.

It is clear that cities require expert and unbiased support by the UN, national government agencies, city networks, NGOs, development banks, as well as think tanks such as IGES.

**The ASEAN ESC Model Cities Programme** was developed as a result of the 2008 East Asia Summit Environment Ministers Meeting (EAS EMM), at which ‘Environmentally Sustainable Cities’ (ESC) were identified as a priority area for regional collaboration. Following the first High Level Seminar on Environmentally Sustainable Cities (1st HLS ESC), the ASEAN Secretariat endorsed one proposal in particular: the “ASEAN ESC Model Cities Programme”.

The Model Cities Programme<sup>3</sup> was launched in 2011, together with the ASEAN Secretariat, the IGES Kitakyushu Urban Centre - and now the IGES Regional Centre in Bangkok – and adopted a bottom-up approach to encourage countries and selected Model Cities to implement initiatives that reflect local sustainability visions, priorities and goals<sup>4</sup> (Figure2).

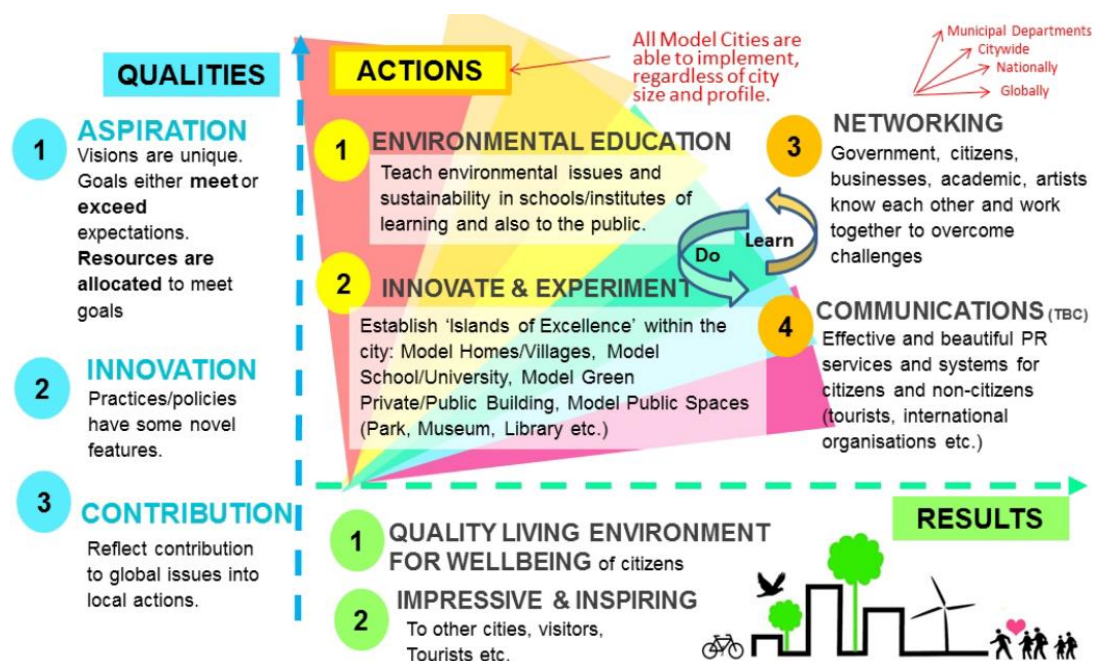


Figure2: Framework of Shared Qualities, Joint Actions and Desired Results of ASEAN ESC Model Cities (© IGES Bangkok Regional Centre, July 2015)

<sup>3</sup> For further details, please visit the Programme’s website: <http://modelcities.hls-esc.org/> (Accessed on: 01/06/2016)

<sup>4</sup> [http://modelcities.hls-esc.org/wp-content/uploads/2015/11/ModelCities\\_ProgramBrochure-Nov-2015.pdf](http://modelcities.hls-esc.org/wp-content/uploads/2015/11/ModelCities_ProgramBrochure-Nov-2015.pdf) (Accessed on: 01/06/2016)

### 3. City partnerships and networks to scale up sustainable urban development practices

“**City-to-city (C2C) partnerships**” has witnessed a proliferation of city networks as well as partnerships. Climate change is naturally a complex and dynamic problem. The past decade has seen a marked increase in the development of equally dynamic low-carbon strategies. Many of these strategies benefited from the proliferation of networks; networks not only help connect diverse stakeholders, they facilitate experience and information sharing in rapidly changing policy environments. They are hence critical to making low-carbon development mainstream in Asia.

Climate change policymaking has moved away from the domain of a single government agency dedicated to addressing sector-specific priorities towards more holistic approaches that integrate a variety of governmental and non-governmental stakeholders. It is increasingly understood that one single institution or even individuals often lack the capacity to solve problems. Local government practitioners therefore must learn to build and manage networks to engage a diverse set of actors in problem-solving processes. One of the simplest definitions describes a network as “a group of individuals from different institutions choosing to work together towards a common goal” (Creech, 2008). Experiences from networks addressing climate change (and other problems) suggest that there are several design features contribute to success. These include:

1. A strong and clear thematic focus helps to bring together diverse views on a single theme. There is a danger that without a shared focal point, the diverse views result in a lack of focus and limits on action. A network will struggle to gain momentum without a clear target driving activities.
2. Flexibility to connect stakeholders across a variety of boundaries - the other side of a clear thematic focus is the ability to draw together stakeholders that might not typically interact due to organisational boundaries. Also similar to a clear focus, without the flexibility to build bridges across different stakeholders, a network may struggle to demonstrate value added and attract members.
3. Continuous and forward-looking leadership – to simultaneously achieve thematic focus and organisational flexibility, networks must have strong leadership. Leaders act as an anchor for networks keeping them focused on a shared objective while drawing together the diverse areas of knowledge to address problems.
4. Trust is a key precondition for networks to function properly – if actors are reluctant to share information or question other network members’ motives, it will be impossible to engage in effective problem-solving. The term ‘social capital’ is often used to describe the connection individuals feel from having levels of trust and shared values.
5. Technical capacity of individual members influences the quality of outputs that a network is likely to produce.

IGES has supported C2C partnerships in many ways: **Kitakyushu City** and Surabaya City, Hai Phong City, Iskandar Malaysia Region, Rayong Region, Mandalay City/ **Yokohama City** and Da Nang City, Bangkok Metropolitan Administration, Seberang Perai City/ **Kawasaki City** and Bandung City/ **Osaka City** and Ho Chi Minh City, etc.

Feasibility studies for two areas were conducted in **Bandung City**, Indonesia in collaboration with **Kawasaki City**, to seek ways to reduce greenhouse gas (GHGs) emissions as Joint-Crediting Mechanism (JCM) projects: one for conducting energy savings; the other for generating energy from waste. In the first area, three types of technologies were considered: efficient water-cooled chillers as a replacement to conventional air-cooled chillers; LED lighting inside buildings as a replacement of conventional sodium and mercury bulbs; and LED lighting for street lighting. Monitoring equipment was installed into the building to gather data, which were useful in understanding the trends and volume of electricity consumption offering proposals for energy savings. For waste to energy, biodigesters were considered and four possible locations near the city centre were identified by the Bandung City Government. Methane and CO<sub>2</sub> were the two main GHGs that could be reduced as a result of this technology implementation.

#### 4. Overcoming capacity shortfalls: training on policy development, tools and methods

With many countries in the region having embraced political decentralisation, to give cities and regions greater administrative remits, many local leaders are in an exciting position to guide their cities into a sustainable future. Oftentimes, a key barrier to translating ambitious sustainable development strategies into reality, however, is the lack of local governments' technical capacity to adequately plan, finance, implement and monitor complex projects.

Since 2013, which marked the beginning of the institute's Sixth Integrated Strategic Research Programme (2013-2017), IGES has increased capacity building activities in Asia and the Pacific. Scaling up such actions was and remains justified due to the importance of *capacity development operations* to supporting the effective implementation of evidence-based policy recommendations. Practical approaches led to the establishment of greater coordination across the institute through the establishment of our **Capacity Development and Knowledge Management team**. In addition to physical workshops and training seminars, IGES also produced a number of e-learning videos to reach a wider audience. The following non-exhaustive list of activities highlights the breadth of fields in which IGES experts continue to train local government stakeholders in the region:

- In 2013, IGES staff from the **Kitakyushu Urban Centre (KUC)** and the **Integrated Policies for Sustainable Societies (IPSS) Area** at Hayama headquarters trained local government staff of the City of Phitsanulok, Thailand on GHG inventory-making as well as green building.
- Also in 2013 and in cooperation with the World Bank Long Distance Learning, the **IPSS Area** of IGES developed an e-learning module on low-carbon transport in Asian cities. The online training module consists of short videos to introduce stakeholders to: (1) international climate negotiations and the important role of monitoring, reporting and verifying actions in the field of transport; (2) the particular challenges and opportunities for sustainable transport solutions in Asia; (3) methods used to quantify environmental impacts of transport projects and how the Transport Emissions Evaluation Model (TEEMP) tool supports users in developing projects in the transport sector; (4) the TEEMP tool's

functions and application in calculating GHG reduction potentials resulting from Bus Rapid Transport (BRT) projects.

- In 2014 **Low Carbon Society (CS)/Climate and Energy(CE)** team carried out Training Course Development with the Climate Change International Technical and Training Center (CITC) in cooperation with the Japan International Cooperation Agency (JICA) and the Thailand Greenhouse Gas Management Organization (TGO); including courses on: Low-Carbon City Development;
- In 2015 **the Natural Resources and Ecosystems Area** – with support from Making Land-Use Planning Climate Sensitive – demonstrated a set of practical tools and models to incorporate adaptation measures into development planning through an integrated watershed approach;
- In 2015 and 2016, **IPSS Area** has brought policymakers in Bandung and Semarang, Indonesia, into research on co-benefits of sustainable transport interventions; this has helped to make sure that policymakers and other stakeholders are willing to support possible interventions for reasons other than their estimated benefits. The co-benefit approach involves designing projects and policies in a way that mitigates climate change while reducing air pollution. Much of the research on co-benefits involves quantifying the global climate and local air quality benefits to convince policymakers to take actions consistent with estimated savings.
- From 2012 to 2014, **KUC** had conducted 3 weeks JICA Training for NAMA/MRV (low-carbon city planning) capacity building in Kitakyushu inviting several local governments (e.g. Surabaya, Indonesia; Ho Chi Minh, Viet Nam; Hai Phong, Viet Nam; Nonthaburi, Thailand; and Mandalay, Myanmar). The training course as well as the follow-up activities include a capacity building support for the local governments in measuring GHG emissions and formulating mitigation action plans. Besides, IGES has provided technical supports for Ho Chi Minh city to develop a city-wide GHG inventory as a pilot case.

## 5. The role of sustainable development actors as change agents

The importance of international organisations, think tanks, academia and NGOs in supporting urban sustainability transformations was recognised in recent events such as the 2015 Asia-Pacific Urban Forum held in Jakarta, Indonesia, as well as the more recent 2016 G7 Environment Ministers' Meeting Parallel Session on 'The Role of Cities' in Toyama, Japan. Moreover, there is a growing consensus that *"urban' governance of climate protection involves relations between levels of the state and new network spheres of authority which challenge traditional distinctions between local, national and global environmental politics."* (Bulkeley and Betsill, 2006) As a rule of thumb, the more complex the problem, the more diversified the required actors are likely to be. In the case of sustainable and low-carbon urban strategy making, the challenge tends to be formidable and a wide range of actors must be involved.

In the period between 2013 to 2016 alone, IGES has engaged with over fifty cities in Asia and the Pacific, to promote sustainable development practices (see Figures 3&4). In addition to collaborating with local governments directly, the institute has also formed partnerships with an array of international, national and local actors to catalyse urban sustainability transitions.

At international level collaborators included: the United Nations Environment Program; the United Nations Educational, Scientific and Cultural Organization; the ASEAN Secretariat; the Asian Development Bank; ICLEI- Local Governments for Sustainability; and the Rockefeller Foundation. Regional and international institutional partners have included the Asian Institute of Technology, the World Resources Institute and the Institut Teknologi Bandung. At the local level, IGES project implementation and research would not have been possible without the commitment and active engagement of government agencies as well as universities in the host countries.

With regard to the foci of projects in the 2013 -2016 period, 59% of projects involved quantitative and 47% included qualitative research. Furthermore, 47% of projects revolved around city-to-city partnership building. Other common project activities included capacity building, the development or application of tools as well as event and network coordination (35% of total). 30% of city-level projects also included support for local strategy and plan making or methodology development.

Selected impacts:

- The ESC Model Cities Programme has helped to create a single ASEAN ESC Community, bringing together 31 cities from 8 countries, engaging over 50,000 people and facilitating more than 200 activities.
- After waiting for more than 17 years, in 2016 Bandung city received the ADIPURA award from the National Government for its efforts in addressing environmental issues such as solid waste management and air pollution. IGES has played an active role in Bandung since 2014.
- The other information from Battambang-Cambodia: Battambang city won the first prize in a clean city contest in Cambodia.

In this way IGES has conducted variety of research and activities in Asian cities. CTF will conduct coordinating role to: 1) mainstream our city activities into global arena; 2) support city stakeholders to enhance their capacity; and 3) develop tools/materials to support cities to be sustainable. This discussion paper is our first step. We would like to continue upgrading this document too.



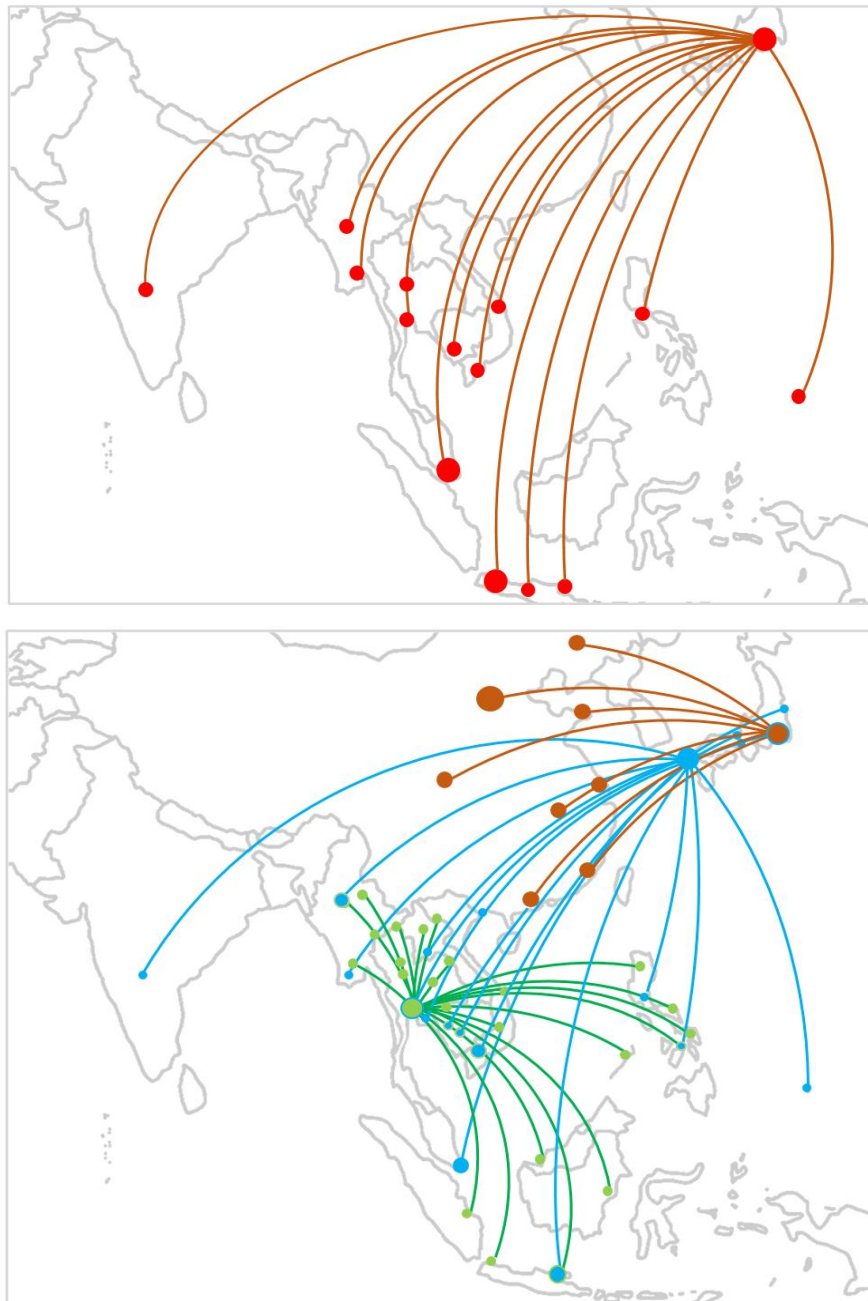


Figure 3 & 4: City-level projects conducted in 2013-2016 (larger dots = multiple projects / cities).

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