

CITIES AND CLIMATE DIPLOMACY IN THE ASIA PACIFIC

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Diplomacy surrounding climate change happens on numerous levels. The current definition of climate diplomacy largely centres on the negotiations by state parties at the UNFCCC does not capture the full extent of current global trends and developments. Cities have become important actors in climate change discussions, formulating and implementing adaptation policies, and setting mitigation goals and targets. Using the case studies of Bangkok, Singapore and ICLEI (a network representing cities and local governments), this paper explores some examples and practices of climate diplomacy conducted by cities in Asia Pacific. From the case studies, it becomes clear that cities are important actors in the field of climate and environment, sustainability and green growth. These are highly important and critical issues for each city and their development; there is also a sense of initiative and pro-activity towards working on these issues with other cities and metropolitan regions through various platforms. In the scope of climate diplomacy, as defined in this paper, the role of cities seems clear on three different levels: (1) through a collective position; (2) through interaction and engagement with each other and; (3) through advocacy at a national and local level. Other than making a case for the need to broaden the conception of climate diplomacy, this paper concludes with recommendations on how cities can better engage and participate in climate diplomacy across various levels, and how their specific advantages and capabilities are best used to support international processes and ambitious climate action. It is clear that enhancing the role of cities is going to be a critical factor in addressing climate change and hence there is an urgent need to bring them into the fold of climate action as well as diplomacy.

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Introduction

For the last two decades, climate diplomacy has largely been understood as the negotiations by parties surrounding and within the context of UN Framework Convention on Climate Change (UNFCCC). Due to the nature of the structure under which UNFCCC is governed, this came to primarily mean the negotiations and diplomacy conducted by member states as they tried to come to a consensus on greenhouse gas (GHG) emissions and mitigation targets. However, taking stock of all the activities and initiatives that have taken place on an international scale, outside the framework of nation states and UNFCCC, it suggests that climate issues and “diplomacy” surrounding it go beyond this narrow perspective or framing.

There are a number of examples where UN member states work with one another on a government-to-government (G-to-G) or bilateral basis on issues surrounding climate and the environment that go beyond the UNFCCC. Such collaborations can range from sustainable/green technology transfer, technical assistance in planning and developing adaptation and mitigation measures, to climate finance to help in climate disaster response. Thus, from a slightly expansive perspective, climate diplomacy in recent years has also come to encompass the diplomacy or inter-state relations with regards to climate and environment. As climate change and issues surrounding it increasingly become a priority in national agendas, some states have started to proactively engage others in climate-related matters. The landmark China-US bilateral agreement on climate in 2014 is one recent example. Such bilateral agreements, of which there are likely to be more in the future¹, represent an additional platform for dialogue and outreach to build on and potentially accelerate climate action, not only at the various Conference Of Parties (COP), but also at other levels of international climate governance.

While the slow progress in reaching a consensus at the global level continues, it is evident that states are becoming acutely aware of the risks and threats posed by the advent of climate change on two levels. The first is in terms of the impacts, which are likely to be faced by nation states and their populations, and, secondly, in terms of what climate change could mean in terms of the bigger geopolitical landscape in the medium to long-term. Thus, it is safe to argue that adaptation and resilience, as well as mitigation efforts conducted by countries in cooperation, or with the help of one another, can also fall within the umbrella of what constitutes climate diplomacy.

This paper argues that even this expanded state-centric approach, which goes beyond the UNFCCC, is still a limited view in understanding the full nature of climate diplomacy taking place at present. Actors other than national governments are also increasingly involved in issues surrounding climate change and they too have been engaging across political boundaries to cooperate, learn, and assist one another on an international scale. In fact, looking at the sheer number of initiatives and projects related to climate and environment taking place around the world, bilateral or G-to-G examples constitute but a small proportion. A large percentage of climate initiatives are being carried out by non-governmental organisations (NGOs) and increasingly by local governments and cities on their own, independent of, and/or complementary to the national and regional levels.

It therefore becomes necessary to incorporate these non-state actors, in order to fully capture the nature and extent of climate diplomacy. In addition, it is also essential to take into account the initiatives of these actors in climate governance² as critical stakeholders. Indeed, this is important in order to fully appreciate, as well as to make use of the advantages, capabilities, and opportunities such an expansion of climate diplomacy would allow for. Local governments and cities have specific

¹ Negotiations for other bilateral climate agreements are already on-going between US-India, India-China and China- EU.

² Climate governance or climate change governance is described as a broad range of forms of coordination concerning climate change adaptation and mitigation', including a 'wide spectrum of steering mechanisms,' and the 'cooperation of different institutions and actors in addition to hierarchical forms of regulation and describes the development of self-organising structures.' (Frohlich and Knieling 2013 :21)

advantages and capabilities that offer opportunities that can be harnessed to further the objectives of climate action through avenues for climate diplomacy. First, there is a need to establish the theoretical grounds of what would constitute climate diplomacy within the suggested expansion of the concept as well as the conditions under which an actor could be considered a 'climate diplomat'.

Expansion of the definition and conditions

With growing interdependence and globalisation, diplomacy today can be defined as the peaceful conduct of relations, by and among international actors (Cooper, Heine and Thakur 2013). Diplomacy then encompasses not only states, but also international organisations, non-state actors and sub-national governments, including cities and local governments.

Having established the gaps which currently exist in the literature and understanding of climate diplomacy, we recommend that a set of criteria be used and adopted when assessing climate diplomacy as a process, as well as in establishing an actor as a "climate diplomat". The box below summarises what we consider as necessary and sufficient conditions for climate diplomacy and for potential climate diplomats. This summary will be used as the basis for discussion in this paper.

Box 1.
Conceptual framework for climate diplomacy and climate diplomats

Conditions for climate diplomacy to have been conducted

- i. There is a relation or interaction between actors on climate issues across political boundaries (basis)
- ii. Actors have interests in securing advantage or deriving a favourable position based on the relation or interaction (self-interest)
- iii. Interest in deriving an advantageous and favourable position among other actors in climate governance (influence)

Conditions for an actor to be considered a climate diplomat

- i. Official capacity to represent an entity or a community of actors
- ii. Accomplish goals on the basis of shared interests in terms of climate governance

Based on the conditions set out above, climate diplomacy can be understood as an act which can be undertaken by a multitude of actors and not just confined to nation states. In this expanded framework and definition of climate diplomacy, cities and sub-national governments can become important participants or "diplomats" in terms of negotiations, building relations, setting targets as well as adopting and implementing mitigation and adaptation strategies.

Using the above framework, this paper aims to look into the role of cities and how climate issues have become part of their greater para-diplomacy. By looking at the case studies of two cities in the Asia Pacific (Bangkok and Singapore) and a city/local government network (ICLEI) which represents a number of cities in the Asia Pacific region, we hope to highlight how cities in Asia Pacific are getting involved in climate diplomacy, both in conventional terms (i.e. how they work within the state-centric and UNFCCC perspective) and in newer forms (amongst each other) on a regional and global level.

Cities and Climate Diplomacy

City (para, or parallel) diplomacy has been practiced since the early city-states of Ancient Greece, long before the traditional inter-state diplomacy of today. City diplomacy is defined by van der Pluijm and Melissen (2007) as the “institutions and processes by which cities or local governments in general, engage in relations with actors on an international political stage with the aim of representing themselves and their interests to one another.” From this definition, cities, despite being sub-national governments, are recognised as international actors and, have the capacity and authority to represent their interests against, along or beyond that of their national governments. Cities, according to van der Pluijm and Melissen (2007) have a defined foreign policy, particularly in terms of security, development, economy, culture, cooperation (networks) and representation.

Looking within the realm of climate change, cities have been acutely aware of their position as the major source of GHG emissions as well their disproportional vulnerability in the face of global warming and climate change impacts. Cities, along with other actors like local governments, NGOs, environment groups and the scientific community, have thus been part of discussions surrounding climate change from the very start. It was in recognition of this fact that the preamble of the UNFCCC drafted in 1992 calls for “the widest possible cooperation by all countries and their participation in an effective and appropriate international response”, which is deemed necessary in tackling the “global nature of climate change” (UNFCCC 1992).

Similarly bodies and organisations representing cities, other local governments and municipalities have been part of the UNFCCC mechanism since COP 1. The inherent structure and mechanism of the United Nations, under which UNFCCC had to adhere to, however ended prioritising only nation states and national governments. Any other parties, be it sub-national, local or city governments, NGOs or advocacy groups, have all been relegated to observer status with limited avenues for inputs and without any direct or meaningful influence.

Despite this reality, the diplomatic activities of cities for combatting global warming are noteworthy. By working with one another, cities have started to address and tackle some of the climate-related challenges at the local level. This is also because land-use planning, waste management, transportation issues and energy consumption are local in nature and have to be addressed from this level (Acuto 2013, 49).

There are however a number of caveats to the participation of cities in international relations. One simple and political caveat is that in the process of decentralization and devolution, the primary responsibility of city or local leaders to their constituents may tend to be neglected when city leaders are more involved in international relations. This partly explains why the cities most engaged in climate diplomacy are what have been termed global cities. These global cities have enough resources to establish the city’s reputation as an actor in the international arena. In the Asia Pacific however, there are still more developing cities than global cities. The status of a city however should not be the measure by which it can engage in climate diplomacy.

Cities practice diplomacy with regards to climate governance in four different mechanisms on two different levels (vertical and horizontal) and on two layers of interaction (exogenous and endogenous). The four mechanisms are thus (i) through networks (horizontal, exogenous), (ii) bilateral relations (horizontal, endogenous), (iii) local-national (vertical, endogenous) and, (iv) city-global multilateral mechanism (vertical, exogenous). The last mechanism (vertical, exogenous) is not a mechanism for most cities and only applies to city-states who have a direct representative and diplomatic role in terms of participating in the global climate governance regime. This includes the UNFCCC and the UNCSO.

Table 1 illustrates the matrix which captures these mechanisms and tries to capture the full picture of climate diplomacy conducted by cities across multiple levels and layers.

	Endogenous	Exogenous
Horizontal diplomacy	<p>Bilateral relations</p> <ul style="list-style-type: none"> • Sister cities • twin towns • friendship cities • Examples: Sister Cities International; Council of Local Authorities for International Relations 	<p>City networks</p> <ul style="list-style-type: none"> • ICLEI – Local Governments for Sustainability • C40 Climate Leadership Group • United Cities and Local Governments • Council of Local Authorities for International Relations.
Vertical diplomacy	<p>Local-national climate governance mechanisms</p> <ul style="list-style-type: none"> • Nationally Appropriate Mitigation Actions • National Adaptation Programme of Action • Intended Nationally Determined Contributions 	<p>City-state - global climate governance mechanism</p> <ul style="list-style-type: none"> • Singapore, Brunei, Bahrain, Kuwait, Malta, San Marino, Qatar at the UNFCCC and UNCSD Conference of Parties

Table 1. Climate diplomacy mechanisms of cities

Source: Authors 2015

Cities are flexible enough to underscore the co-benefits of local environmental policies that can be more challenging to embark on at a global scale (Toly in Amen et al. 2011: 144). These initiatives, which van der Pluijm and Melissen (2007:27) have highlighted, not only develop local environmentally sustainable economic policies, but also lobby national governments and international organizations and increase awareness in communities globally. Cities and local governments can bolster dialogue that can leverage the influence of cities globally not only in environmental governance but also in promoting best practices and norms in local environmental governance – a global policy culture shared among networked cities (Toly in Amen et al. 2011: 144-146). Sister Cities International and the Council of Local Authorities for International Relations which facilitate sister city relations on a regional and global scale are examples of this.

Climate diplomacy by cities through networks

Networks of cities and local governments, such as the International Council for Local Environmental Initiatives (ICLEI) – Local Governments for Sustainability and the C40 Climate Leadership Group, have been spurred on by, what seems to them as, an inactive and unproductive international platform on climate change (See Table 2. for a more extensive list of city networks contributing to climate diplomacy for and by cities operating in the Asia Pacific). For example, while deadlock continuously afflicts international climate negotiations, members (city mayors) of the C40 Climate Leadership Group decided in 2012 to reduce a combined 1.3 gigatons of carbon emissions in their cities collectively by 2030. Bolstered by the Clinton Climate Initiative, C40 cities made the strong case for city leadership on

climate change action based on three tenets: (1) cities are the main consumers of energy and emitter of greenhouse gases; (2) cities house more than half of the world's population and; (3) cities are vulnerable to climate change (C40 2013).

City Networks	Year Established	No. of members	Nature of Climate action and initiatives
ICLEI	1990	1,000 + cities, municipalities and local governments <ul style="list-style-type: none"> • Southeast Asia (47) • South Asia (59) • East Asia (88) 	<ul style="list-style-type: none"> • Advocacy and lobbying • technical support • knowledge sharing
C40	2005	75 megacities <ul style="list-style-type: none"> • East Asia (9) • South and West Asia (6) • Southeast Asia and Oceania (7) 	<ul style="list-style-type: none"> • Technical assistance • peer-to-peer exchange • research • knowledge management and communications • advocacy to national governments
CITYNET (Asia Pacific)	1987	87 full members (cities)	<ul style="list-style-type: none"> • Cooperative links and partnerships • Program clusters on climate change, disaster, infrastructure and MDGs
UCLG	2004	1000 cities 155 national associations	<ul style="list-style-type: none"> • International cooperation between cities and their associations • International advocacy on climate change and sustainable urban development
METROPOLIS	1985	141 metropolises (25 in Asia Pacific)	<ul style="list-style-type: none"> • cooperation • knowledge exchange • interaction and negotiations with international and non-state actors
Council of Local Authorities for International Relations	1988	67 domestic branches in 47 prefectures in Japan and 20 designated cities	<ul style="list-style-type: none"> • Promote and provide support for local internationalization
Asian Network of Major Cities 21	2001	13 cities	<ul style="list-style-type: none"> • Networking and joint projects on environment (global warming, urban greening, water services, waste management, air pollution, health and sanitation)
ASEAN Environmentally Sustainable Cities (ESC)	2011	Japan-ASEAN Integration Fund: 14 cities in 8 ASEAN countries (Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Viet Nam)	<ul style="list-style-type: none"> • National and local capacity building for environmentally sustainable cities (solid waste management, water and sanitation, urban greenery and low-carbon city development)
Asia-Europe Meeting Mayors and Governors (ASEM-MGM)	2010	45 ASEM partners	<ul style="list-style-type: none"> • Provide a forum for city and local government leaders from Asia and Europe

Asia Africa Smart City Alliance	2015	20 city mayors from Asia and Africa (signatories to the Bandung Declaration on Smart Cities)	<ul style="list-style-type: none"> • Collaborative partnerships • Advocacy for smart cities (disaster and environment, energy, transport, health)
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Table 2. Selected City Networks contributing to Climate Diplomacy

Sources: <http://www.iclei.org/iclei-members/iclei-members.html?memberlistRegion=Show%2BICLEI%2BRegions>; <http://www.c40.org/cities>; <http://citynet-ap.org/category/members-and-partners/members/>; <http://www.metropolis.org/map?>; <http://www.clair.or.jp/e/whats/profile.html>; <http://www.anmc21.org/english/summary/index.html>; <http://www.anmc21.org/english/bestpractice/index.html>; [http://modelcities.hls-esc.org/Documents/Overview%20of%20Year%201%20ASEAN%20ESC%20Model%20Cities%20Programme%20-%20for%20website%20\(2%20Oct%202013\)v2.pdf](http://modelcities.hls-esc.org/Documents/Overview%20of%20Year%201%20ASEAN%20ESC%20Model%20Cities%20Programme%20-%20for%20website%20(2%20Oct%202013)v2.pdf); <http://www.aacc2015.id/?p=detberita&id=378>

Armed with more than five thousand projects within cities aimed at emission reduction and building resilience, these city leaders seem to be more committed than their counterparts at the national level. ICLEI - Local Governments for Sustainability led the first Cities Day at the 19th UN Framework Convention on Climate Change (UNFCCC) Conference of Parties in Warsaw. ICLEI's Secretary General Gino Van Begin promoted how 'cities offer their ambitions, capacities and achievements as governmental stakeholders which should be tapped in the new climate regime (ICLEI 8 November 2013).'

Bilateral city climate diplomacy

Bilateral city relations are direct city-to-city interaction or engagement through sister cities or town twinning mechanisms. Learning from the experience of other cities is not new; such exchange of knowledge and technical support has been institutionalized and on-going through programmes like the sister city network which began in the aftermath of the Second World War. Since the 1990s, however, such exchanges have expanded and occur between scores of cities on a global scale. Any city can have a number of sister cities with inter-community relations facilitated by volunteers, sister city organisations composed of representatives from non-profit organisations, municipal governments, the private sector and other civic organisations (Sister Cities International 2012). Although primarily aimed to promote citizen or public diplomacy, sister city relations are increasingly becoming conduits of sharing, promoting, learning and adapting best practices from other cities' climate initiatives through community development programs. Bangkok, for example, has twenty-two sister cities in about sixteen countries. Some examples of Bangkok's climate related activities with its sister cities, within the Asia Pacific region, include environmental training cooperation programmes with Vientiane and training workshops on environmental management with Seoul.

Local-national climate diplomacy

Local-national climate governance involves climate diplomacy from different fronts: whether through attempts at promoting mitigation and adaptation strategies pioneered from local governments or through national climate strategies that local governments have to integrate into their own local climate policies. This is evident in the example of ICLEI's Solar City initiative that was piloted in select cities in India and was later elevated to become a national programme under the Indian Ministry of New and Renewable Energy, covering 60 Indian cities (Kandt 2012). Central or national governments are expected to provide the enabling environment for local governments to effectively implement climate mitigation and adaptation strategies through Nationally Appropriate Mitigation Actions (NAMAs) or National Adaptation Programmes of Action (NAPAs) or the more recent Intended Nationally Determined Contributions (INDCs). In this regard cities have the avenue to lobby and negotiate certain aspects of their climate policies directly with their national governments. There is also the notion that networks of cities and local governments within national boundaries can 'offer alternative mechanisms

of coordination in foreign and international policy' not necessarily predicated on centralised policymaking but on 'horizontal coordination' mechanisms as well (Ahdieh 2008; Resnik 2008).

City-state climate diplomacy

While the three levels listed above would capture the avenues of climate diplomacy for most cities, it would not capture the full extent for some exceptions. These are essentially city-states, which straddle an interesting space by being both a city and a state with a seat in international climate negotiations. This unique position correspondingly gives city-states a unique climate diplomacy advantage.

By having an avenue for climate diplomacy on both the national as well as the city level, city-states can leverage on dealing/negotiating on two levels concurrently with the possibility to interchange its position depending on whichever could/would be more advantageous for its own interests. Singapore serves as a good example from the Asia Pacific region which has this unique position and it has to a large extent managed to use this advantage effectively.

The following sections aim to look into three cases to explore and highlight the different avenues of the conduct of climate diplomacy by Asia Pacific cities. First, it looks into the case of ICLEI – Local Governments for Sustainability, the largest and one of the oldest operating networks of cities and local governments globally. It examines how cities, from Asia Pacific as well as beyond, are practicing climate diplomacy within and through this network. Secondly the paper will turn to the practice of climate diplomacy by the city of Bangkok, and lastly the city-state of Singapore. Bangkok's case study will briefly examine the profiles of some of its major actors and institutions involved in climate diplomacy. This will be followed by a look into Singapore's experience as a Southeast Asian city-state and some of its climate diplomacy initiatives and practices.

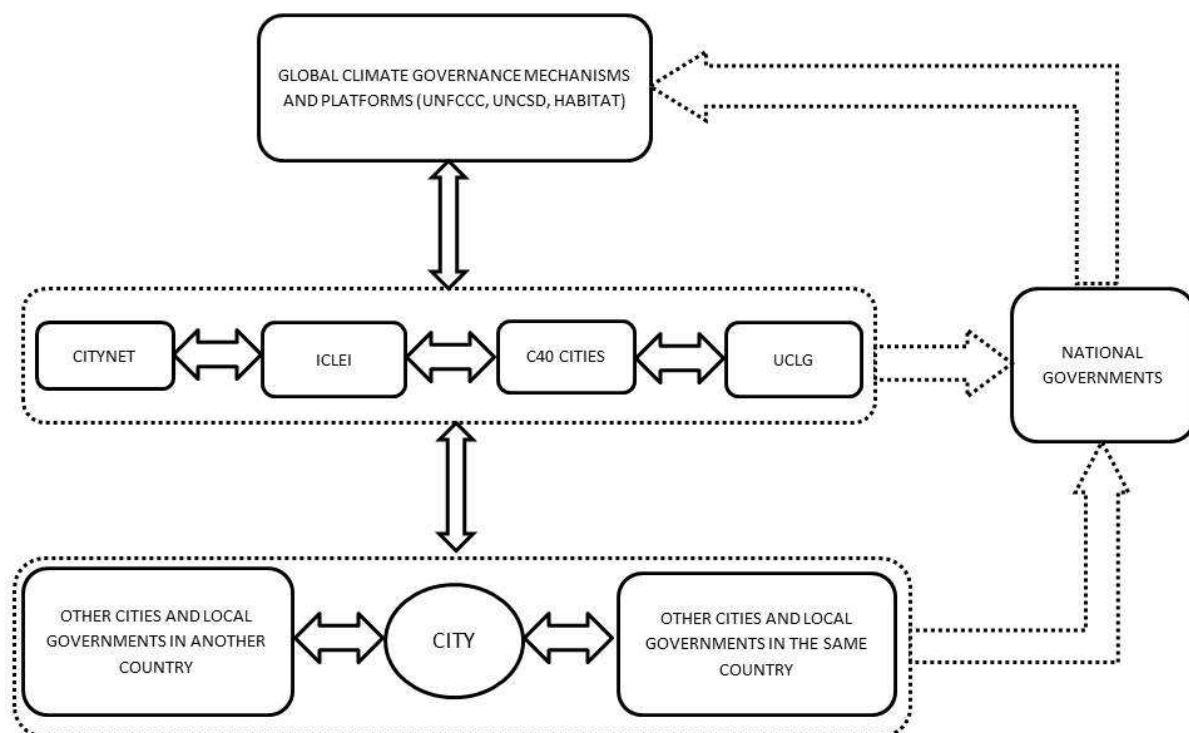


Figure 1 Conceptual Framework of Cities and Climate Diplomacy (Authors, 2015)

Practice of climate diplomacy among cities in the Asia Pacific: Case Studies

ICLEI–Local governments for Sustainability

City networks have often served as important platforms for cities to come together to share, learn and get the necessary support (financial as well as moral) to start or expand their capabilities and projects. City networks like International Council for Local Environmental Initiatives (ICLEI) – Local Governments for Sustainability and C40 Climate Leadership Group (C40) have also been presenting the collective positions of hundreds of cities, municipalities and local governments and advocating for a local agenda at international forums like UN Conference on Sustainable Development (UCSD) and the UN Framework Convention on Climate Change (UNFCCC). It contributes to the preparatory processes for various UN conferences and regional meetings and is an accredited member of the UN Economic and Social Council.

The following section focuses on the practice of climate diplomacy in ICLEI on three levels: (1) diplomacy among member cities within the network; (2) ICLEI as a collective of cities and its diplomacy in global multilateral platforms and; (3) ICLEI's diplomacy with other similar city networks also involved in climate change action.

Diplomacy within the network

ICLEI is a global network of about 1,000 cities and local governments committed to sustainable development. ICLEI also describes itself as a 'movement working with national, regional and international networks', and 'a sustainable and environmental agency' strengthening and enabling local governments in implementing local and global climate action (ICLEI, n.d). ICLEI was established by 200 local governments from 43 countries in the aftermath of the 1990 World Congress of Local Governments for a Sustainable Future held at the UN headquarters in New York. World Secretariat operations began in 1991 in Toronto, Canada which was then moved to Bonn, Germany in 2010. It is governed by a Global Council based on nine regions with a three year term of office and composed of all voting members³ of the Regional Executive Committees. The Global Executive Committee is elected from each Regional Executive Committee whose members are also elected by members of the Global Council.

ICLEI's activities are organised around 10 agendas: (1) sustainable city; (2) resilient city; (3) biodiversity; (4) low carbon city; (5) resource-efficient and productive city; (6) smart city; (7) sustainable local economy and procurement; (8) happy, healthy and inclusive communities; (9) ecomobile city and; (10) sustainable regions. These agendas form part of the recent Seoul Declaration and form the core of ICLEI's programmes for its member cities.

Among these, the most robust is its low carbon city and resilient city agenda (See Figure 2). Through this low carbon agenda, ICLEI provides a gamut of mitigation tools and platforms for local/city governments including the self-reporting carbon/n Cities Climate Registry (with C40 and UCLG), the *GreenClimateCities* network, and the Urban-LEDS (low emission development strategies) project. ICLEI's global programmes on mitigation include the Local Agenda 21 Initiative after the UN Conference on Environment and Development (Earth Summit) in Rio de Janeiro (1992) and the Cities for Climate Protection (CCP) Campaign at the first Municipal Leaders' Summit on Climate Change in 1993. By 2009, more than 1000 local governments have passed resolutions pledging greenhouse gas emission reductions from local government operations and throughout their communities.⁴

³ICLEI members pay an annual due based on population size and country GNI per capita.

⁴The campaign has five milestones: (1) conducting baseline emissions inventory and forecast; (2) adopting a emission reduction target; (3) developing a local action plan; (4) implementing policies and measures and; (5) monitoring and verifying results. The CCP campaign became the backbone of the current GreenClimateCities program which utilises a number of tools and

In terms of mitigation initiatives such as the URBANLEDS programme, four of ICLEI's member cities are considered model cities: Thane and Rajkot in India; Bogor and Balikpapan in Indonesia. In addition to these model cities, there are six satellite cities in India and four satellite cities in Indonesia. The programme, jointly implemented by UN Habitat and ICLEI also offers networking opportunities through South-South-North exchanges among project cities and eight European cities.⁵ The European Commission has been supporting the programme through EuropeAid since 2012 with a USD 9million (EUR6.7million) budget.⁶

ICLEI also enabled for South-South cooperation between cities in India, Indonesia and South Africa. This was under ICLEI's Local Renewables initiative to develop two model local renewable projects in Yogyakarta (Indonesia) and Ekurhuleni (South Africa). The programme aimed at integrating increased energy efficiency and renewable energy generation in city activities and showcasing pilot projects to observer cities in country workshops. The city of Coimbatore in India served as the resource city for these two model initiatives that ran from 2011 to 2013 with support from the Renewable Energy and Energy Efficiency Partnership (REEEP), jointly funded by the UK and Norway. The city of Coimbatore is considered to be an advanced local renewable city/ solar city after its participation in the ICLEI Renewables project from 2008 to 2010.⁷ ICLEI was able to develop country-specific Solar City guidebooks for both South Africa and Indonesia providing a guideline to develop a solar city programme, including case studies and best practices.⁸

ICLEI's resilient city agenda provides sharing platforms not only for local governments but also for practitioners, the private sector, funding agencies and international organisations. Such platforms include the Resilient Cities Congress, held annually in Bonn since 2010 and the Asian Cities Climate Change Resilience Network. The Resilient Cities Congress is now being adapted at the regional level, with the inaugural Resilient Cities Asia Pacific Congress, held February 2015 in Bangkok.

As part of the Resilient City agenda, AsianCitiesAdapt, engaged eight cities in India and the Philippines from 2010 to 2013. ICLEI supported the development of local adaptation strategies with a 'cyclical adaptation management process.'⁹ ICLEI also organised a number of workshops to disseminate lessons learned and insights from the eight cities. For example, in one of its learning workshops in 2013, ICLEI hosted about a hundred politicians, local government representatives, practitioners, bilateral agencies, researchers and concerned citizens from India, Nepal, Sri Lanka, Bhutan, Maldives, Bangladesh and the Philippines (AsianCitiesAdapt 2013). AsianCitiesAdapt offered not only a practical and operational adaptation strategy but also contributed to evidence-based implementation research on adaptation. The programme was supported by the German Ministry for Environment, Natural Conservation and Nuclear Safety.

It is with these same principles that the Asian Cities Climate Change Resilience Network (ACCCRN) was started in 2008 by one of ICLEI's partners, the Rockefeller Foundation. The Rockefeller Foundation's involvement in urban resilience building in a way complements the Clinton Foundation's commitments for low-carbon economies through C40.

resources for local governments that aim to achieve low emissions development and also integrate climate change adaptation. These tools include ICLEI's own HEAT+, a greenhouse gas quantification software with GHG inventory and action planning functions and collaborative projects such as the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) with C40 and the World Resources Institute and the Solutions Gateway that offers low emission development solutions for cities with the EU and UN-Habitat, under the Urban-LEDS project.

⁵ ICLEI. 'Benefits to project cities.' *About the Project*, Urban Low Emission Development Strategies. <http://urbanleds.iclei.org/index.php?id=112>

⁶ ICLEI. 'At a glance' *About the Project*, Urban Low Emission Development Strategies. <http://urbanleds.iclei.org/index.php?id=108>

⁷ ICLEI. 'Local Renewables and Model Communities Network: South-South Cooperation between India, Indonesia and South Africa.' *Programs, ICLEI Southeast Asia*. Accessed 10 June 2015. <http://archive.iclei.org/index.php?id=12629>

⁸ ICLEI. *Indonesia Solar City Guidebook*. Quezon City; ICLEI Southeast Asia Secretariat. Accessed 10 June 2015. http://southasia.iclei.org/fileadmin/user_upload/documents/LR_Indonesia_Solar_City_Guide_Book.pdf

⁹ 'About AsianCitiesAdapt.' *AsianCitiesAdapt*. Accessed 15 June 2015. <http://www.asian-cities-adapt.org/about-asiancitiesadapt/>.

Quantifying resilience, however, is more difficult than quantifying carbon emissions, making resilience projects less palatable to national governments since numbers can signify success, progress and failure in their initiatives (Bansard, Pattberg and Widerberg 2014). However, long-term stakeholders have greater appreciation of less tangible benefits from resilience building programmes such as deepening systems knowledge and understanding, 'collaboration and network building', 'information generation and sharing', 'experimentation and learning-by-doing', 'deliberation, public dialogues and advocacy' and climate science-informed decision making (Reed 2014). For example, an urban systems approach enabled the cities of Hat Yai and Chiang Rai to 'build partnerships with surrounding municipalities that represent functional urban conglomerates (Reed 2014).' This represents another form of horizontal climate diplomacy where cities within the same country engage each other to address issues of coordination among local government units sharing common problems.

Resilience building and adaptation practices will necessarily have longer-term monitoring and evaluation measures than mitigation. Within this paper's framework, the ICLEI ACCCRN process can be considered as a mode of horizontal climate diplomacy among cities. An initial evaluation of the ACCCRN process before it became integrated into ICLEI's initiatives asserts that resilience building is considered more successful as experiments of 'learning and reorganizing' rather than 'projects' for 'implementation and mainstreaming' by stakeholders and practitioners (Reed 2014). The ACCCRN's initial programme began in 2008 in two cities in Thailand, two cities in Indonesia, three cities in Vietnam and three cities in India. As of writing, the Rockefeller Foundation's support has already amounted to about USD33 million with the programme expanding to cities in Bangladesh and the Philippines (Rockefeller Foundation, n.d.).

In the Asia Pacific, there are four regional secretariats responsible for managing ICLEI activities: East Asia (88), Southeast Asia (52), South Asia (60) and Oceania (55). With more than 250 members in the Asia Pacific, ICLEI is still expanding its outreach for a wider membership in Southeast Asia and South Asia (See Figure 2 for networking and advocacy activities led by ICLEI). In 2013, four cities from the region (Melbourne, Surat, Bangkok and Semarang) were selected in the 100 Resilient Cities Challenge along with 17 other ICLEI member cities from all over the world.

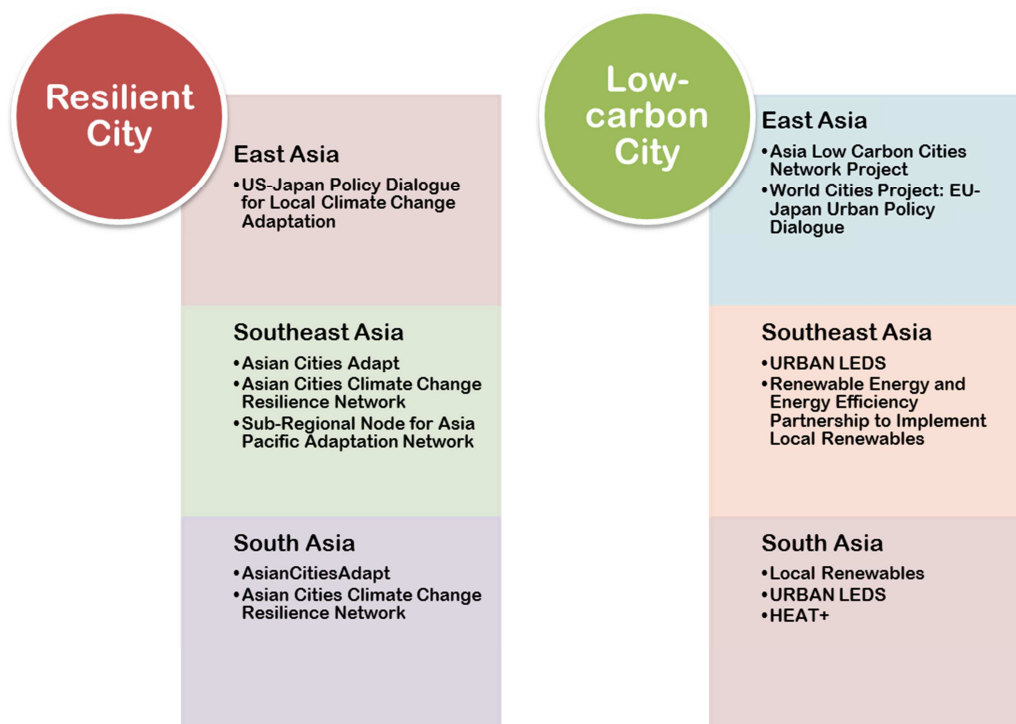


Figure 2. City climate diplomacy activities and programmes for ICLEI member cities under the Resilient City (adaptation) and Low-Carbon City (mitigation) agendas

Source: www.iclei.org

As part of ICLEI, cities in Asia Pacific come together to share, learn, and build relations with other cities. While the challenges of urbanisation, environment and climate can be considered similar for most cities, there are certain unique characteristics and problems to distinguish them. For example, some cities might have urgent priorities in terms of water and sanitation, solid waste management others with air pollution, for some the threat of sea level rise and degradation of coastlines. These are some of the issues that cities have identified as the most relevant for city-to-city cooperation (Tjandradewi and Marcotullio 2009). Such networks allow for cities to seek out and find others who might be facing similar situations or have experience in dealing with these situations successfully.

The avenue to engage and work with others on common issues is offered by networks like ICLEI. There is also an element of jostling within the members to become successful examples, or showcase cities for others to emulate and learn from. Influence, leadership, and to some extent competition, are thus implicit yet central to the engagement among cities in ICLEI.

ICLEI at the UNFCCC

At official intergovernmental platforms, cities are stepping up. ICLEI is recognised as an observer party categorised as a non-governmental organisation in the UNFCCC negotiations, along with other city networks such as the United Cities and Local Governments (UCLG) and C40. ICLEI serves as the UNFCCC Constituency Focal Point for local governments and municipal authorities.

At the Bali COP13 in 2007, ICLEI launched its Local Government Climate Roadmap in parallel with the UN Climate Change Roadmap to encourage its members to contribute to the post-2012 global action plan on climate change and advocate for local government-friendly legal and financial frameworks for

climate action. ICLEI provides a yearly comprehensive calendar for advocacy events related to the annual UNFCCC COP/CMP. ICLEI has adopted a new Strategic Plan 2015-2021 at the 2015 ICLEI World Congress in Seoul.

ICLEI has been regularly submitting its inputs, views and proposals to the UNFCCC on issues including: (1) options and ways to further increasing the level of ambition; (2) ways to enhance the engagement of observer organizations and; (3) on the Long-Term Cooperative Action (Bali Action Plan). As the constituency focal point, ICLEI's submission for the Bali Action Plan was a collection of inputs from other city networks such as the UCLG, World Mayors Council on Climate Change, C40 and Metropolis as well.

ICLEI has also been holding side events at the UNFCCC to further bolster cities' climate action. For example, the Ministerial-Mayoral dialogues initiated at the COP20 in Warsaw by ICLEI, C40 and EURO CITIES opened up avenues for linking local governments to national and regional counterparts and to contribute towards advocacy goals of cities on matters like pre-2020 emission targets (City of Warsaw, 23 January 2014). In Lima, the Nazca Climate Action Portal incorporated the cities-led carbonn Climate Registry to form part of the call to demonstrate and represent climate action from non-state entities, including cities, regions, companies and investors.

Similarly in 2014, ICLEI led the Climate Summit 2014 which produced a number of 'action statements' with the engagement of local and subnational governments, including the Compact of Mayors, City Climate Finance Alliance, Climate and Clean Air Coalition – Municipal Solid Waste Initiative, Resilient Cities Accelerator Initiative, among others (ICLEI 2014). Even with these initiatives, the UNFCCC Lima Call for Climate Action fell short of recognising the role of local governments. It only reflected weak reference to local and subnational governments and did not even refer to the Climate Summit 2014 nor to ICLEI's recommendations in the Technical Paper for the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) (ICLEI, 3 February 2015).

It can be argued that ICLEI's influence at the global negotiations has been limited. Despite their efforts, the degree of recognition and acceptance of the role of cities has been short of what they would like to see. Nonetheless, the resolve and ambition to have the voice of cities and local governments heard in global climate negotiations remains strong and is unlikely to abate any time soon.

ICLEI and other city networks

Despite current limitations in setting the global agenda, ICLEI and other city networks are actively convening and organising their own global bodies and summits, such as the World Mayors Council on Climate Change (WMCCC) and the World Mayors Summit on Climate. The World Mayors Council on Climate Change is composed of about 80 members, including both incumbent and former local leaders, 25 per cent of which are from the Asia Pacific (See Table 3). Such summits have helped launch the Global Cities Covenant on Climate (also known as the Mexico City Pact), as well as the Compact of Mayors which commits cities to self-report their actions and inventories in the carbonn Climate Registry. The Global Protocol for Community-Scale GHG Emissions (GPC) which allows for benchmarking, accounting and reporting of city-wide emissions is still another important milestone attributed to the work and effectiveness of cities and their diplomacy. In addition to mitigation efforts, cities are also increasingly cognisant of their role in adaptation and building urban climate resilience. This is evident from various city-led initiatives such as the Durban Adaptation Charter (2011) and the Bangkok Call for Action towards Urban Resilience in the Asia Pacific (2015).

It is observable that in such initiatives, most of the cities sign on and become parties to charters and declarations during major events hosted by the network. Some non-ICLEI members who have been invited to observe in these events and become signatories also commit to ICLEI membership in the

process. Understandably, major ICLEI events not only serve as networking opportunities for members but also a recruitment process for climate action as well.

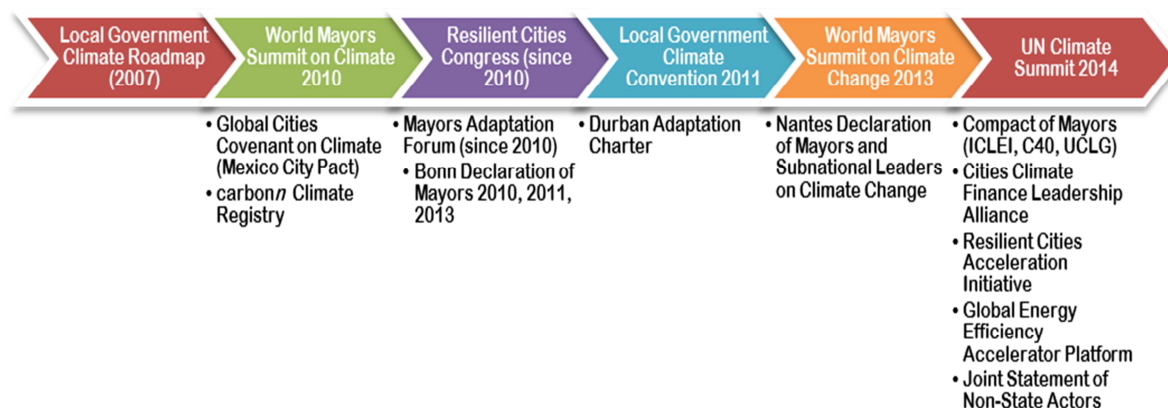


Figure 3. Advocacy initiatives and events by the World Mayors Council on Climate Change

Sources: www.worldmayorscouncil.org/initiatives; www.iclei.org/climate-roadmap/home.html

Region	Country	City	Membership
East Asia	Chinese Taipei	Taipei	Former Governor (1)
		New Taipei	Mayor (1)
		Kaohsiung	Mayor (1)
	Japan	Kyoto	Former Mayor and Mayor (2)
	South Korea	Seoul	Former Vice Mayor, Mayor (2)
		Mungyeong City	Mayor (1)
		Suncheon City	Former Mayor (1)
Southeast Asia	Philippines	Suwon	Mayor (1)
		Makati City	Former Mayor (1)
		Quezon City	Mayor (1)
		Baguio City	City Councilor (1)
South Asia	India	San Fernando, La Union	Former Mayor (1)
		Delhi	Former Mayor (1)
		Gwalior	Secretary (1)
		Sangli Miraj and Kupwad City	Former Mayor (1)
		Bhavnagar City	Former Mayor (1)
		Chennai	Mayor (1)
		Rajpur	Mayor (1)
		<i>Total</i>	<i>20</i>

Table 3: Asia Pacific members of the World Mayors Council on Climate Change

Source: <http://www.worldmayorscouncil.org/members/members-list.html>

Region	Country	City
South Asia	Bangladesh	Barisal
		Mongla Port
	Bhutan	Phuentsholing, Thromde
		Samdrup Jongkhar
		Thimpu
	India	Cochin
		Coimbatore
Delhi		

		Guntur
		Kurseong
		Nagpur
		Shimla
East Asia	Chinese Taipei	Kaohsiung
		Tainan
		Taipei
	South Korea	Gimpo
		Dobong, Seoul
Southeast Asia	Indonesia	Pekalongan
		Sukabumi
		Tanjung Pinang
	Malaysia	Malaka Historic City
	Philippines (Iloilo)	League of Municipalities, Iloilo Chapter (42 members)
	Philippines (Pangasinan)	Dagupan
	Philippines (Laguna)	Santa Rosa
		La Trinidad
	Philippines (Benguet)	Tublay
		Naga
	Philippines (Camarines Sur)	Catbalogan
	Philippines (Samar)	Bangkok
		Chiang Mai
	<i>Total</i>	<i>71</i>

Table 4. Asia Pacific signatories to the Durban Adaptation Charter

Source: <http://www.durbanadaptationcharter.org/signatories>

ICLEI usually collaborates with other city networks such as C40 and UCLG, often complementing each other's activities. Issues like an overlap of city membership often offer opportunities for both networks to work together rather than hinder or duplicate the activities of both networks. ICLEI has a broader urban agenda and membership than most of the other city networks like C40. C40, for example caters to a niche agenda – one that caters to the needs of megacities and is centred on the mayoral powers of its members, which has grown from the initial 40 to 75 to date.¹⁰

ICLEI is also part of the Global Taskforce of Local and Regional Governments for Post-2015 Development Agenda towards Habitat III (Global Taskforce), an initiative led by the World Organization of United Cities and Local Governments (UCLG). The Global Taskforce is composed of 20 local and regional government networks that aim to have a joint strategy to engage and contribute to international policy making debates for the post-2015 agenda, and in the follow-up to the Rio+20 and Habitat III.

For COP21, ICLEI in partnership with host city Paris plans to put together events like a Cities and Local Governments Summit at Paris City Hall, Sustainable Innovation Forum 2015, and set up a pavilion showcasing some of the most progressive climate actions undertaken by cities outside the main negotiations venue. It is hoped that such initiatives will further boost the recognition of cities as important partners in climate mitigation and adaptation.

¹⁰ Interview with ICLEI Regional Director for Southeast Asia and Oceania Milag San Jose-Ballesteros, 1 April 2015, Singapore

ICLEI is also aware that, even with a breakthrough in COP21, the agreement would not kick in before 2020. This, according to them, is late and, hence, would like to continue to put pressure on governments to start tackling climate change as early as possible. Going forward, ICLEI hope to continue to make a difference by continuing to host networking events, further develop commitment instruments (like adaptation charters) and help its members with projects which address climate change and sustainable development.¹¹

Region	Country	City/Local Government
East Asia	Chinese Taipei (4)	<ul style="list-style-type: none"> • Chiayi • Kaohsiung • Yilan • Taipei
	Japan (8)	<ul style="list-style-type: none"> • Tokyo • Iida • Itabashi • Kyoto • Nagoya • Fujisawa • Okayama • Yamanashi
	South Korea (16)	<ul style="list-style-type: none"> • Anyang • Dobonggu • Gimposi • Seoul • Gyeonggi • Gwangju • Jeju • Jongnogu • Osan • Seodaemungu • Seongbukgu • Suncheon • Suwon • Wanjugun • Yeonsu-Gu • Yeosu
Southeast Asia	Indonesia (1)	<ul style="list-style-type: none"> • Jakarta
	Philippines (5)	<ul style="list-style-type: none"> • Albay • Baguio City • Dagupan City • Ligao City • Quezon City
	Thailand (1)	<ul style="list-style-type: none"> • Bangkok
South Asia	Bangladesh (1)	<ul style="list-style-type: none"> • Rajshahi
	Bhutan (1)	<ul style="list-style-type: none"> • Thimpu
	India (4)	<ul style="list-style-type: none"> • Bhavnagar • Coimbatore • Nagpur • Rajkot
	Sri Lanka (1)	<ul style="list-style-type: none"> • Kurunegala
	<i>Total</i>	<i>42</i>

Table 5. Asia Pacific Signatory Cities to the Mexico City Pact

Source: 'Ciudades y sus reportes,' Pacto Climático, Global de Ciudades, Pacto de la Ciudad de México, accessed 11 June 2015, <http://www.mexicocitypact.org/docs/ciudades-y-sus-reportes.php>

¹¹ Interview with ICLEI General Secretary Gino Van Begin, 12 February 2015, Bangkok, Thailand.

Bangkok

Bangkok, the capital city of Thailand, is known for its tourism and has been awarded almost annually as one of the “World’s Best Cities” from 2005 to 2013 (Travel+Leisure 2015).¹² According to some city indexes, it was the top city destination in Asia Pacific in the years 2010 to 2014 (Hedrick-Wong and Choong 2014).

Situated on the Chao Praya River delta and the Gulf of Thailand, Bangkok is promoted as a cosmopolitan economic, cultural and transportation hub, housing central government offices and a number of regional headquarters of about 28 UN offices and other international and regional non-government organisations (United Nations in Thailand 2015).



Figure 4. UN agencies based in Bangkok

Source: www.un.or.th

Bangkok’s development plan (2009-2020) to be a ‘Sustainable Metropolis’ is focused on three dimensions for the city to be: (1) “a **gateway** serving as a regional centre of economic and social infrastructure development and be the prototype of public service in a megacity level; (2) **green** and environment-friendly with a self-sufficient economy and transparent urban management system and; (3) a city of **good life**, happiness and learning society that participates in urban development (Bangkok State of Environment 2012).” It has developed its own climate change action plans with the support of the Japan International Cooperation Agency (JICA). Its initial climate change action plan from 2007 to 2012 was focused on global warming mitigation.

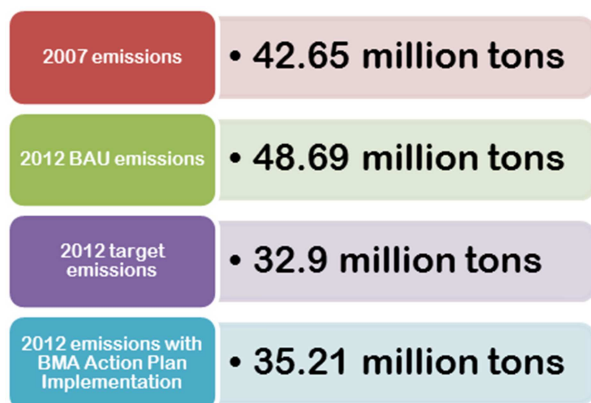


Figure 5. Bangkok’s target emission reduction

Source: Bangkok State of Environment 2012

In its original plan, Bangkok focused on initiatives that included transportation, renewable energy, electricity consumption, solid waste and wastewater management, and parks expansion. Its target was to reduce carbon emissions by at least 15 per cent below business-as-usual (BAU) projections by 2012. In 2012, the Bangkok Metropolitan Authority (BMA) reported that it was able to reduce emissions by 14 per cent below BAU projections (Bangkok State of Environment 2012). The BMA has since developed a Master Plan on Climate Change 2013-2023 with the help of JICA and the city of Yokohama.

Bangkok’s city climate report notes that Bangkok allocates local funds for its climate actions,

¹² It was ranked No. 1 in Asia except for 2009 and 2014 (Travel + Leisure, 2015).

including low carbon school networks, 60+ Earth Hour, the BMA Existing Building Retrofits for Energy-Saving Buildings for mitigation, as well as coastal erosion protection, drainage tunnels and flood barriers for adaptation (Carbott Climate Registry 2014).

Local Government Offices involved in Climate Diplomacy

The Bangkok Metropolitan Administration (BMA) conducts its own city-level diplomacy independent of Thailand national foreign policies in relation to climate change, urbanisation and sustainable development. The main office in charge of Bangkok’s city and climate diplomacy is the International Affairs Division (IAD) of BMA. The IAD evolved from a Foreign Affairs Section under the Public Relations Division of the BMA to become the agency to streamline the policymaking process for Bangkok’s international relations in 2004 (IAD 2012). The IAD has two International Affairs sections, one solely responsible for formal and welcome ceremonies for royal guests and state visits, and the other responsible for welcoming international delegations, organising international conferences, participating in international organisations’ meetings, and hosting events to promote Bangkok (IAD 2012).

The main strategic thrust of the BMA in its international affairs is centred on city planning and urban development as well as urban economy and tourism promotion. The BMA aims to increase its role through collaboration with other cities and by participating at both bilateral and multilateral levels. In addition, it also aims to ‘create collaborative city development’, in order to enable Bangkok to become a ‘sustainable liveable metropolitan city and the centre of the region.’ This has meant Bangkok focuses on important urban issues including climate change mitigation and adaptation.

The IAD also aims to promote its relations with other cities membership in international organisations and networks of cities. In 2009, the IAD was tasked by Governor MR Sukhumbhand Paribatra to be more ‘proactive’ particularly to: (1) review Bangkok’s membership in international organizations and cooperation programs; (2) offer recommendations in terms of continuing membership in such organisations; (3) analyse further cooperation and partnership with UN agencies and ASEAN and; (4) analyse the expansion of sister city relationships with cities in the Middle East and South Asia (IAD 2012).

In addition to the IAD, the Department of Environment is also heavily involved in collaborating and coordinating the BMA’s hosting of climate change or environment-related international events, conferences and summits with the IAD. The Department of Environment operates under the Permanent Secretary for the BMA. Moreover, the department usually represents the BMA in international conferences and meetings to share Bangkok’s policies and strategies on climate change and environmental sustainability.

Bangkok’s Sister City Relations

Bangkok has sister-city relations with twenty-seven cities in sixteen countries through mutual agreements on cooperation, friendship agreements, and memorandum of understanding (MoUs). Bangkok’s first sister city was Washington DC (started in 1962). It took thirty years for Bangkok to sign its second sister-city agreement with Beijing in 1993. In 1997, then Governor Bichit Rattakul signed



Figure 6. BMA Offices involved in Climate Diplomacy

sister-city agreements with five more cities – Budapest, Brisbane, Moscow, St. Petersburg and Manila. This was followed by four sister city agreements with Hanoi, Jakarta, Vientiane and Astana in 2004 signed by then governor Samak Sundaravej. Shortly after, then Governor Apirak Kosayodhin signed agreements with Teochiu (2005), Fukuoka and Seoul (2006). Under Governor MR Sukhumbhand, ten more sister city relations were established with Guangzhou and Lausanne in 2009, Busan and Chongqing in 2011, Tianjin, Ankara, Penang, Aichi, Tehran and Shanghai in 2012 and Phnom Penh in 2013 (Wancharoen, 12 January 2013). Sister-city affairs are the responsibility of the Permanent Secretary of the BMA. Through the Japan Council of Local Authorities for International Relations (CLAIR), Bangkok has sister city relations with Fukuouka and Yachiyo City (Chiba, Japan).

In addition, Bangkok has bilateral relations with the city of Yokohama under the Thai-Japan Comprehensive Partnership Agreement implemented by the Japan International Cooperation Agency (JICA). Yokohama's Partnership of Resources and Technologies (Y-PORT) with Bangkok since 2013 has trained more than 200 BMA delegates on climate change, flood management, disaster management and sustainable development. Yokohama supports BMA's low carbon economy initiatives through public-private partnerships and supported the drafting of and capacity development for the Bangkok Master Plan on Climate Change 2013-2023. The cooperation between Bangkok and Yokohama covered a number of mitigation and adaptation sectors including: environmentally sustainable transport, energy efficiency and alternative energy, efficient solid waste management and waste water treatment, green urban planning and adaptation planning (Memorandum of Understanding, 21 October 2013).

For geographic reasons, Bangkok's engagement with its sister cities in the Asia Pacific are more pronounced. For example, the BMA, along with the UN Environment Programme hosted the ASEAN Plus Six City Forum on Climate Change in 2008 where four of its sister cities: Jakarta, Phnom Penh, Vientiane and Fukuoka participated. The forum provided a platform for sharing experiences and best practices for climate mitigation and adaptation and an opportunity to foster cooperation among cities from ASEAN Plus Six¹³ countries (Bangkok Assessment Report on Climate Change 2009). In addition, it has also been active in engaging with its Chinese sister cities, Beijing, Tianjin and Shanghai. For example, in Tianjin, Mr Supachai Tantikom, advisor to the Bangkok governor, shared Bangkok's experience in "Building Liveable Cities" at the 2nd Roundtable Conference on China Tianjin's International Sister Cities in 2012 (IAD, 12 September 2012). It has city-to-city agreement of environmental cooperation with Fukuoka through their respective environment departments.

The BMA has been hosting the Bangkok Sister Cities Week since 2008. At the Bangkok Sister Cities Week 2012, BMA hosted a Mayors Roundtable Discussion on Urban Rehabilitation and Renewal, where mayors and city executives from Busan, Budapest, Fukuoka, Chaozhou, Guangzhou, Jakarta and Manila exchanged views on their experiences in disaster recovery and rehabilitation. The roundtable highlighted the importance of the close cooperation between local and national governments, the strict enforcement of land-use regulations, increasing green zones and raising awareness on disaster preparedness and recovery through education (Intathep, 12 February 2012; Thai News Service, 1 February 2012).

Membership in City Networks

Bangkok is a member city of about seven international organisations that are involved in climate change mitigation and adaptation, sustainable urban development and environmental sustainability, including the C40 Cities Climate Leadership Group, CityNet, International Council of Local Environmental Initiatives (ICLEI), Asian Network of Major Cities 21 (ANMC21), Metropolis: World Association of the Major Metropolises, Global Design Cities Organization (GDCO) and ASEM Governors and Mayors (IAD 2012).

¹³ ASEAN Plus Six refers to the ten ASEAN member states plus Australia, China, India, Japan, New Zealand, and South Korea

Bangkok also belongs to the ASEAN Initiative on Environmentally Sustainable Cities network, a programme that promotes environmentally sustainable practices in participating cities. In the same vein, ASEAN also initiated the Environmentally Sustainable City (ESC) Award programme which recognises exemplary efforts and shares best indigenous practices to make cities clean, green and liveable.¹⁴

Bangkok is among the first recipients of the 1st ASEAN ESC Awards in 2008 (See Box 2 for further discussion on the ASEAN ESC Initiative). Figure 7 shows a timeline of Bangkok’s participation in city networking and advocacy since 2010.

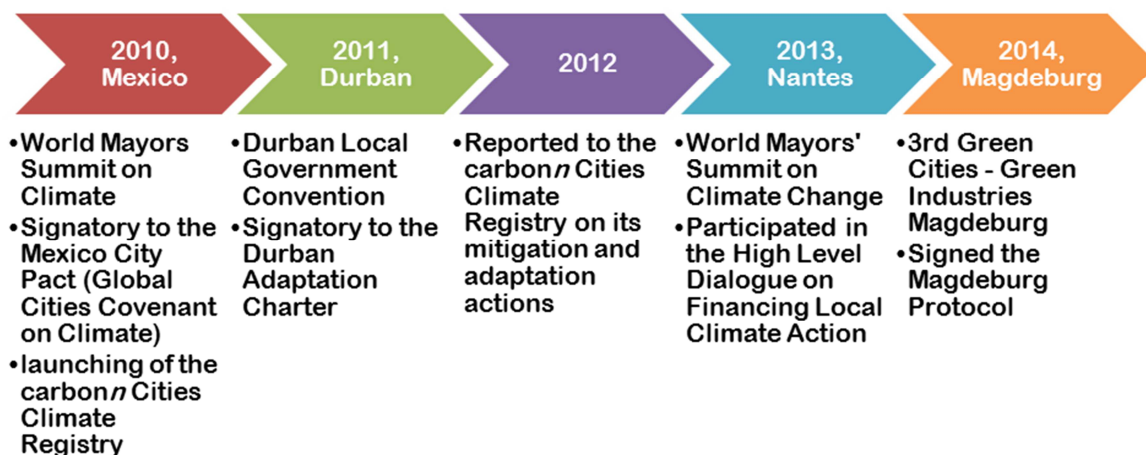


Figure 7. Basic Timeline of Bangkok’s participation in climate diplomacy activities from 2010

Bangkok is a regular host of regional and international events, as it is a major transportation hub in the region and the base of most regional UN offices. With the political situation stabilising in Thailand, Bangkok remains a preferred venue for international events. Organizers of these international events usually approach the BMA to co-host and co-organize such events, facilitated by BMA’s engagement and cooperation with these international organizations and entities.¹⁵ UNESCAP for example, the coordinating body for UN activities in the Asia Pacific, is based in Bangkok. UNESCAP hosted a number of informal preparatory meetings known as the Bangkok Climate Change Conference in 2008, 2009, 2011 and 2012 that generated inputs for the UNFCCC COPs during those years.

Bangkok is the oldest member of ICLEI in the Asia Pacific, having joined in 1995. ICLEI recognises Bangkok’s potential as an inclusive “metropolis of the future” that has set out to reduce its emissions by “maximising efficiencies in resource utilization and reducing energy consumptions in transportation, electricity consumptions, renewable energies, waste management and green areas” with various sectors and stakeholders (ICLEI, n.d.). With ICLEI and the World Mayors’ Council on Climate Change, Bangkok hosted representatives of 65 local governments from about 30 countries in the first Resilient Cities Asia Pacific (RCAP) Congress in February 2015. The RCAP is an expansion of ICLEI’s annual Resilient Cities Congress. The RCAP aims to be a region-specific platform for dialogues, partnership and solutions toward urban resilience and adaptation (Resilient Cities Asia-Pacific 2015). One of Bangkok’s resilience challenges has been in terms of managing floods, with the 2011 floods being the worst for Bangkok in recent history. It was selected to be part of the 100 Resilient Cities Challenge by the Rockefeller Foundation in 2013 (along with 20 other ICLEI members) to support Bangkok’s

¹⁴ Other participating cities in Thailand include Chiang Mai, Krabi and Phuket.

¹⁵ Interview with BMA Department of Environment official, Bangkok, Thailand, 12 February 2015.

implementation of climate mitigation and adaptation measures (ICLEI Southeast Asia, 4 December 2013).

Bangkok is also a member of the C40, a 10-year old network of megacities that aims to reduce GHG emissions. C40 was founded and led by internationally recognised public figures, including Ken Livingstone (former Mayor of London), David Miller (former Mayor of Toronto) and Michael Bloomberg (former Mayor of New York and UN Secretary General Ban Ki Moon's Special Envoy for Cities and Climate Change). Bangkok regularly participates in the Climate Action in Megacities (CAM) project and Bangkok's governor is usually present in C40 events, including the C40 Mayors Summit and C40 networks (initiative areas) workshops. The CAM project offers a look into the capacities of leaders of megacities in terms of powers to own and operate critical sectors, set and enforce policy, control the local budget and set vision to address emissions reductions and reduce risks at the local level (ARUP and C40, 2014). Bangkok is part of the C40 Clinton Climate Initiative project on improving energy efficiency in buildings (Bangkok State of Environment 2012). The city was also a finalist in the inaugural C40 and Siemens City Climate Leadership Awards in 2013.

The Bangkok Governor holds executive positions in a number of city networks which also focus on climate issues, including CityNet and the UCLG World Council. On one hand, CityNet is an association not only of cities and municipalities, but also includes a number of urban stakeholders, NGOs, private companies and research centres with a focus on sustainable development and resilience in the Asia Pacific. It was established with the support of UNESCAP, UNDP and UN-Habitat. Bangkok is a full member of CityNet and part of the climate change and disaster clusters. The Bangkok Governor was also elected as the First Vice President for the CityNet 2014-2017 Executive Committee. As part of the disaster cluster, Bangkok contributed to the introductory online course on CityNet's Platform for Disaster Resiliency (CPDR) Disaster Risk Reduction in Urban Setting in 2014.

The UCLG on the other hand, represents local government interests in global governance and supports inter-local cooperation, networking and partnerships as well as local government capacity building (UCLG 2014). The Bangkok Governor is part of the Metropolitan Section of the UCLG World Council 2013-2016. With the UCLG, Bangkok will co-host of the First Regional Policy Forum on Development for the Asia Pacific in June 2015.

As part of ANMC21, the BMA participates in the urban and global environmental problems joint projects to deal with climate change, among others. Since 2011, it has been holding joint workshops with the Tokyo Metropolitan Government on 3R and waste management, as well as air quality and noise management. Under the ANMC21, Bangkok and Tokyo engaged in cooperation on climate change, particularly on energy efficiency and energy efficient buildings to reduce GHG emissions (Bangkok State of Environment 2012).

In March 2015, the BMA also hosted the 3rd Asia-Europe Meeting (ASEM) Mayors and Governors' Meeting (ASEM-MGM) where Governor Sukhumband Paribatra as the chair proposed bilateral frameworks between Asian cities and European cities for future cooperation (ASEM Infoboard, 2015). The ASEM-MGM provides a platform for all 48 ASEM member countries and international city networks. Held every two years, the ASEM-MGM offers opportunity for dialogue and cooperation between Asian and European partners on the local level. The 3rd ASEM-MGM raised issues of concern and shared best practices and innovative approaches on urban regeneration in response to the impact of environmental issues such as sustainable environmental quality, green growth, renewable energy and green technology among others. The outcomes of this meeting will feed into the next ASEM Summit in Ulaanbaatar in July 2016 (Declaration of the 3rd ASEM- MGM, 12 March 2015). The Bangkok Governor has also participated in the first and second ASEM-MGM, sharing experiences about green city roadmaps, local urban governance and e-governance, respectively (ASEM Infoboard, 2010).

According to BMA officials, Bangkok's active participation in city networks is based on two factors.¹⁶ On one hand is the learning incentive – the benefits of learning about other cities' climate and sustainability initiatives – which allows the BMA to learn how to adapt and tailor mitigation and adaptation actions to Bangkok's context. On the other hand, the recognition advantages of sharing its own experiences where other cities can learn from, moves the BMA to share its own best practices and challenges in urban climate and environmental governance in any avenue or platform possible. This incentive for recognition has elevated Bangkok to being recognised and awarded regionally and globally for its various environmental and climate mitigation and adaptation initiatives. This adds to Bangkok's conscious effort to make a brand for itself, not only in tourism, but also in sustainable development, disaster resilience and environmental protection. In sum, the case of Bangkok illustrates how leadership and city branding clearly provides incentive and influences a city's active participation in sister-city relations and city networks.

Box 2.

Environmentally Sustainable Cities (ESCs) in ASEAN

Among the ASEAN Socio-cultural Community Blueprint's strategic objectives (D5) is 'promoting quality living standards in ASEAN cities and urban areas' under 'Ensuring Environmental Sustainability.' The following sub-objectives are under the purview of the ASEAN Working Group on ESC (AWGESC):

- a. Expand on the existing work under the ASEAN Initiative on Environmentally Sustainable Cities;
- b. Intensify individual and collective efforts to improve the quality of air and water within ASEAN through regional or national initiatives to reduce industrial and transportation pollutions;
- c. Share experiences, expertise and technology in areas such as urban planning including transportation, green building, water management, urban greenery and urban biodiversity conservation, sanitation and waste management, 3Rs (Reduce, Reuse and Recycle) and air, noise, water and land pollution control, through among others twinning cities programme;
- d. Work towards initiatives such as "Low Carbon Society", "Compact Cities", "Eco-Cities" and "Environmentally Sustainable Transport";
- e. Develop internationally comparable measures for environmental sustainability for major cities in ASEAN by 2015;
- f. Introduce and implement an ASEAN Environmentally Sustainable Cities (ESC) Award by 2008 as an incentive to promote ESC practices.

As of writing, the AWGESC has been supporting the implementation of the following:

- the [ASEAN Initiative on ESC \(AIESC\)](#). The AIESC serves to assist ASEAN cities, especially the smaller and rapidly-growing, to pursue environmental sustainability. The programme, endorsed in 2005, covers 25 participating ASEAN cities. These cities pilot tested the revised ESC Key Indicators for Clean Air, Clean Land and Clean Water.;
- the [ASEAN ESC Award Programme](#). The programme aims to 'stimulate, benchmark and recognize exemplary efforts on environmental sustainability' among cities, townships, municipalities and local districts in ASEAN. Awards have been presented in 2008, 2011 and 2014. By 2011, selected small cities (20,000 – 750,000 in population) and big cities (750,000- 1.5 million in population) are also given recognition for initiatives under categories of Clean Air, Clean Land and Clean Water. Some cities in ASEAN member countries are constant ESC Awardees such as Puerto Princesa, Phnom Penh, Palembang, Luang Prabang and North Kuching.

¹⁶ Interview with BMA Department of Environment official, Bangkok, Thailand, 12 February 2015.

- the [ASEAN ESC Model Cities Programme](#). Funded by the Japan-ASEAN Integration Fund since 2011, the programme supports ASEAN countries to develop “model cities to serve as examples of how local governments can take the lead in pursuing sustainable development at the local level.” It serves as a local capacity development and city-to-city collaboration platform enabling not only “replication and scaling up of good practices and policies” but also “matching ASEAN cities” with the appropriate resource partners.
- the annual [High Level Seminar on ESC \(HLS-ESC\)](#); An offshoot of the East Asia Summit Environment Ministers’ Meeting in 2008, the HLS-ESC was first held in 2010 “to promote information exchange and foster concrete collaborative actions on ESC among EAS countries.” One of the practical projects and outcomes of the HLS-ESC is the ASEAN ESC Model Cities Programme. It was at the First HLS-ESC that common principles of an ESC, stating that: “cities should deliver urban environmental services which are pro-poor, low-carbon, environmentally sound, resource efficient and recovery oriented.”
- the [ASEAN-Germany Clean Air for Smaller Cities Project](#). Supporting smaller and medium sized cities in ASEAN vital for national development, EUR5 million has been allotted for the development of Clean Air Plans (CAPs) in 12 cities from 2009 to 2015. As of writing, ten emission inventories have been implemented, six CAPs have been developed and five training courses have been delivered. During the World Cities Summit in June 2014 and under the regional training program ‘Train-for-Clean-Air (T4CA),’ a regional workshop on ‘How to Improve Air Quality in your City: Strategic Framework for Air Quality Management’ was co-organised by the ASEAN Secretariat and German International Cooperation (GIZ).
- the [ASEAN-US CityLinks Pilot Partnership](#). Part of the initiatives to build on the successes of the ASEAN ESC Model Cities Programme, the technical exchange programme under this partnership aims to focus on urban climate resilience and adaptation in selected cities in ASEAN member cities through pairing ASEAN cities with US cities “to share best practices and provide practitioner-to-practitioner assistance on innovative approaches, technologies, and good governance tools to support planning and implementation for adverse climate change impacts.” After an eligibility survey and screening, Legazpi City (Philippines) was paired with Fort Lauderdale, Florida while Chiang Rai (Thailand) was paired with Cambridge, Massachusetts.

These initiatives are gaining recognition through their successes, leading to donors becoming more willing to boost funding. Nevertheless, ASEAN member states often have to prioritise existing initiatives to avoid diversifying funds to similar projects and to avoid overlaps. Some of the climate mitigation efforts in ASEAN cities such as the *Cool ASEAN, Green Capitals* initiative have to be eventually integrated into other existing programmes dedicated for ASEAN cities. Another observable trend within ASEAN ESC initiatives is the greater focus on secondary cities. Table 6 rounds up some of these secondary cities which have been involved in ESC programmes, especially in developing countries in ASEAN.

Sources: ASEAN Socio-Cultural Community Blueprint. Jakarta: ASEAN Secretariat, 2009; ‘ASEAN Cooperation on Environmentally Sustainable Cities’ *ASEAN Cooperation on Environment*, accessed 19 June 2015. <http://environment.asean.org/asean-working-group-on-environmentally-sustainable-cities/>; Overview of the ASEAN ESC Model Cities Programme Year 1 (2011/2012), ASEAN ESC Model Cities Programme, May 2012,

[http://modelcities.hls_esc.org/Documents/Overview%20of%20Year%201%20ASEAN%20ESC%20Model%20Cities%20Programme%20-%20for%20website%20\(2%20Oct%202013\)v2.pdf](http://modelcities.hls_esc.org/Documents/Overview%20of%20Year%201%20ASEAN%20ESC%20Model%20Cities%20Programme%20-%20for%20website%20(2%20Oct%202013)v2.pdf);
 How to Improve Air Quality in your City: Strategic Framework for Air Quality Management Train-for-Clean-Air 1 (T4CA1), *ASEAN Cooperation on Environment*, Media Release, 12 June 2014. Accessed 19 June 2015.
<http://environment.asean.org/how-to-improve-air-quality-in-your-city-strategic-framework-for-air-quality-management-train-for-clean-air-1-t4ca1/> ;
 Interview with Dr Raman Letchumanan, Former Head of the Environment Division, ASEAN Secretariat, 19 June 2015.

Country	AIESC Participating Cities	ASEAN ESC Awardees			ESC Model Cities	Clean Air for Smaller Cities
		2008	2011	2014		
Brunei Darussalam	Bandar Seri Begawan	Temburong	Rimba	Bandar Seri Begawan	-	-
Cambodia	Phnom Penh; Siem Reap	Phnom Penh	Phnom Penh	Battambang; Phnom Penh (Clean Water for Big Cities)	Phnom Penh; Siem Reap	Phnom Penh
Indonesia	Padang; Palembang; Pekanbaru	Palembang	Surabaya; Makassar (Clean Air for Big Cities); Banjarmasin (Clean Water for Big Cities); Palembang (Clean Land for Big Cities)	Balikpapan; Tangerang (Clean Air for Big Cities)	Surabaya; Palembang	Palembang; Surakarta
Lao PDR	Luang Prabang; Vientiane; Xayabouri	Luang Prabang	Xamneua	Luang Prabang	Xamneua	Vientiane
Malaysia	Kuantan; Putrajaya; North Kuching	North Kuching	Perbadan Putrajaya; North Kuching (Clean Air for Small Cities); Kuantan (Clean Water for Small Cities)	Melaka	Kuching North	Melaka
Myanmar	Mandalay; Yangon	Taungyi	Pyin Oo Lwin	Yangon	Yangon	Yangon
Philippines	Cagayan de Oro; Iloilo; Quezon	Puerto Princesa	Puerto Princesa	San Carlos; Davao City (Clean Land for Big Cities)	Puerto Princesa; Palo	Iloilo; Cagayan de Oro
Singapore	Singapore	South West District	South West District	North West District	-	-
Thailand	Bangkok; Chiang Mai; Krabi; Phuket	Bangkok	Phuket; Phitsanulok (Clean Land for Small Cities)	Chiang Rai City; Nakhon Sawan (Clean Water for Small Cities); Roi-et (Clean Land for Small)	Maehongson ; Muangklang; Phitsanulok	Chiang Mai; Nakhon Ratchasima

				Cities)		
Vietnam	Ha Noi; Ha Long; Da Nang	Ha Long	Danang	Hue City; Da Lat City (Clean Air for Small Cities)	Cao Lanh; Da Nang	Bac Ninh; Can Tho

Table 6. Cities in ASEAN Participating in ESC Initiatives and Programmes

Source: 'ASEAN Cooperation on Environmentally Sustainable Cities' ASEAN Cooperation on Environment, accessed 19 June 2015. <http://environment.asean.org/asean-working-group-on-environmentally-sustainable-cities/>;

Singapore

Global cities like Singapore have the unique opportunity to contribute in the learning from and sharing best practices in urban sustainability and liveability. As a city-state that considers itself a living laboratory for greener and cleaner urban living, Singapore has been making strides in developing itself into a model for a green urban economy. Singapore already claims to be an important test-bed for various environmental and urban development technology and innovation and it is likely to become one for climate change adaptation and mitigation strategies as well. Singapore is recognized by Siemens and the Economist Intelligence Unit as being Asia's Greenest City.

Singapore promotes the role of cities in terms of sustainable development through the World Cities Summit which it has hosted and organised since 2008. It also encourages innovation from the city level with initiatives like the Lee Kuan Yew World City Prize which recognises cities' efforts to create liveable, vibrant and sustainable urban communities. Through the Centre for Liveable Cities and the Urban Redevelopment Authority, Singapore has already started sharing its experiences and best practices with aims to make the 'little red dot' a model in climate change mitigation, adaptation and sustainable development.

With its small geographical size but dense population, Singapore's per capita carbon emissions is ranked 27th globally in 2011 at 39 metric tons. Its total carbon emissions increased by more than 50 million metric tons in five 5 years, reaching 207 million metric tons in 2012 (US Energy Information Administration 2012). Despite this however, in the realm of energy efficiency, Singapore is often regarded as a leading example in Southeast Asia.

Singapore's core strategy to cut emissions has been through improving energy efficiency, since its geography severely limits its access and potential to renewable energies.¹⁷ To a large degree Singapore's emissions are much higher due to the fact that it is one of Asia's main petrochemical hubs, as well as one of the world's top three oil trading and refining centres. The refining and petrochemical sector has been a large source of carbon emissions in Singapore. It is an on-going effort of the city-state to improve levels of energy efficiency in this sector and beyond, while focusing on the target to achieve a 35% improvement in energy intensity by 2030 (from 2005 levels).¹⁸

Singapore at the UNFCCC

Since Singapore ratified the UNFCCC in 1997 and acceded to the Kyoto Protocol in 2006, it has been active in reducing its emissions and in promoting international cooperation on climate change. It is an active supporter and firmly believes in the multilateral system under the UNFCCC and has been part of the global negotiations since its ratification of the convention. Singapore's delegation to the UNFCCC

¹⁷ Interview with Centre for Livable Cities (CLC), 16 April and 13 May 2015, Singapore

¹⁸ Interview with National Climate Change Secretariat (NCCS), 11 May 2015, Singapore.

consists of a number of specialized agencies which are listed and discussed in greater detail in the following section.

While all negotiations that Singapore partakes in is in the capacity of a state, it also projects its interests as a global city. Since there is no grouping or constituency which represents the particular interests of cities (or city-states even), there is no existing official channel. However, Singapore does articulate the concerns and unique challenges faced by cities where and when relevant.¹⁹

Singapore has been proactive in highlighting common vulnerabilities it shares with other cities (especially coastal) and has been an active member of the small island nations groupings. It has consistently raised concerns over sea level rise, warming of surface temperatures, increased rainfall (flood risks) and risk from extreme weather events. All of these are extremely pertinent issues for other cities as well.

One particular challenge faced by cities, particularly city-states, is high population density, which necessitates a fine balance between housing, recreation, industry, infrastructure, water catchment etc. However, due to geographical constraints, it severely limits options to access alternative sources of energy such as nuclear, hydro, geothermal and/or wind. Singapore highlights such circumstances and difficulties faced by many city administrations in the negotiations.²⁰

Singapore also promotes the importance of cities at the UNFCCC. For example, in the Second Inter-Sessional meeting on Rio+20, Singapore along with the US and Turkey referred to the contribution of cities to the outcome document of Rio+20. Singapore and Turkey both highlighted the need to include sustainable cities as a critical issue in the sustainable development agenda (Singapore Statement, 15-16 December 2011).

Agencies involved in Climate Diplomacy

There are numerous agencies involved in climate issues and climate diplomacy in Singapore. In terms of the official negotiations at the UNFCCC most representatives are from the national level, Ministry of Foreign Affairs, Ministry of Trade, Ministry of Environment and Water Resources for example. There are however a handful of other institutions which are de facto on the national level, yet have the capacity to work and collaborate outside of the state-centric framework. Below is a list of some that have been involved and partaken in climate diplomacy on a city level in the past.

- *National Climate Change Secretariat (NCCS)*

The NCCS is the primary government body in Singapore tasked to develop and implement Singapore's domestic and international policies on climate change. It is focused on four main areas: mitigation, adaptation, harnessing green growth opportunities and encouraging public awareness and action on climate change (NCCS 2015). It was established in 2010 under the Prime Minister's Office. Through the NCCS, Singapore offers a number of 'green growth opportunities' including incentives for clean technology, test-bedding, green information and communication technologies, carbon services and climate finance, and climate risk management (NCCS 2013). In terms of climate diplomacy, the Policy and Planning Division of the NCCS coordinates the working groups under the Inter-Ministerial Committee on Climate Change (IMCCC), including the International Negotiations Working Group. The IMCCC is composed of ministers from finance, trade and industry, national development, environment and water resources, foreign affairs, law and transport, national security and home affairs (NCCS 2015).

¹⁹ Interview with NCCS

²⁰ Interview with NCCS.

The NCCS is also responsible for the Sustainable Singapore Blueprint which includes a host of climate mitigation and adaptation measures, based on principles of liveability and green growth. For example, Singapore aims to increase the number of buildings with a Building and Construction Authority (BCA) Green Mark Certified rating, from 21.9% in 2013 to 80% by 2030.

- *Centre for Liveable Cities (CLC)*

The mandated role of the Centre for Liveable Cities, which was established in 2008 is centred on 'distilling, creating and sharing knowledge on liveable and sustainable cities'. Aside from the World Cities Summit, the Centre for Liveable Cities with the support of the Temasek Foundation is also involved in training city leaders from all over the world to learn from Singapore's best practices in urban planning, development and governance through the international arm of the Leaders in Urban Governance Programme (LUGP) and the City Executive Leaders Programme (City EXCEL).

Similarly under the Singapore Cooperation Programme, a customised programme on Sustainable Development and Climate Change (SDCC) shares Singapore's experiences in addressing climate change. To date, 10,700 officials from developing countries (both central and local government) have benefitted from such courses related to climate change.²¹

- *Urban Redevelopment Authority (URA)*

The URA is Singapore's land use planning and conservation authority. It aims to make Singapore a 'vibrant and sustainable city of distinction (URA 2015)'. The URA has been internationally recognised for its excellence in urban planning, design, and management. As one of the most sought after institutions to learn from, the URA also provides consultancy services for overseas bilateral projects and shares its planning experience through professional training programmes (URA 2014).

Though not directly working on issues surrounding climate change and environment per se, it is very much part of the URA's mission and objective to focus on these issues while planning for Singapore's future as a global successful city. Some of the places where URA has shared its urban planning experience has been in cities in China, Myanmar, Vietnam, and the Middle East (URA 2014). It jointly organises the World Cities Summit and the LKY World City Prize with the CLC.

- *Buildings and Construction Authority (BCA)*

BCA is the national agency tasked with overseeing the development of built environment in Singapore. This includes buildings, infrastructure and other structures which provide the setting for any community activities. One of the main focus and thrusts of the BCA has been in promoting green buildings standards in the Asia Pacific region as well as "raising the international profile of Singapore's built environment sector (BCA 2013)."

BCA advances the profile of Singapore on two fronts. Firstly by conducting various training programs for international delegates (national and local government officials) in Singapore itself where they can showcase various landmarks and give visitors first-hand experience on how it is done. Secondly BCA also provides consultancy services to other cities like Tianjin, Guangzhou, 'to help them develop standards system for green buildings and green districts. Another example is the BCA's Green Mark scheme serving as the model for Manila's *Building for Ecologically Responsive Design Excellence* (BERDE) rating scheme for buildings' energy, water and waste management (Siemens and Economist

²¹ Interview with NCCS

Intelligence Unit 2011). The BCA also conducts seminars and conferences overseas regularly. Some of the recent ones have been in India, Middle East and Sri Lanka (Siemens and Economist Intelligence Unit 2011).

Engagement with City Networks

Singapore currently is an observer city of C40 and more often than not a partner of ICLEI. CLC for example was a resource organisation at the 2015 ICLEI World Congress in Seoul.

As an observer city, Singapore is not party to C40 communiqués. Its MOU with C40 underscores the collaborative nature of Singapore’s membership in C40. The MOU entails that C40 and Singapore will work towards reducing GHG emissions and supporting adaptation measures. This entails Singapore to participate in C40 initiatives and develop case studies from the city-state for knowledge exchange with other cities.

Singapore’s engagement with C40 is based on the premise of it being a global city that has made inroads toward sustainable development. Singapore’s vision to be a “climate change resilient global city that is well-positioned for green growth” was the impetus for it to be involved with C40, with the aim of not only sharing its experiences in sustainable development but also to learn and engage other climate change-conscious global cities (NCCS, 23 March 2012). In 2013, C40 and Siemens recognised Singapore’s smart transportation technologies with a City Climate Leadership Award for “Intelligent City Infrastructure (NCCS, 17 July 2014).”

Southeast Asia & Oceania	East Asia	South Asia & West Asia
Bangkok, Thailand Hanoi, Vietnam Ho Chi Minh City, Vietnam Jakarta, Indonesia Melbourne, Australia Singapore Sydney, Australia	Beijing, China Changwon, R.O.K Hong Kong, China Seoul, R.O.K Shanghai, China Shenzhen, China Tokyo, Japan Wuhan, China Yokohama, Japan	Amman, Jordan Delhi, India Dhaka, Bangladesh Jaipur, India Karachi, Pakistan Mumbai, India

Table 5. Asia Pacific member cities of C40

Source: www.c40.org

Singapore’s CLC is also a partner entity²² of CityNet. Through CityNet, CLC along with about thirty young Singapore government officials, were hosted by the Incheon Metropolitan City to visit Songdo, the first Korean city that implements ubiquitous information technology (U-City). During this visit, Songdo city government shared its urban sustainability practices, including the use of advanced information technology systems, green energy efforts and solid waste management (CityNet 2014).

Since 1990, Singapore also houses one of the overseas offices of CLAIR to conduct activities in ASEAN and India. Under CLAIR, Singapore participated in exchange programmes with Jakarta in 2012, and in local government exchange and cooperation seminars since 2011. There is also a dedicated Japan-Singapore Study Program which recognises Singapore’s advanced policies in terms of urban

²² Singapore, through the CLC, was also the first partner city for the 2014 Moscow Urban Forum. The forum facilitated further discussions on cooperation on city infrastructure development between Singapore and Moscow. At the forum, Singapore shared its development model that led to its global city status (Moscow Urban Forum, 11 December 2014).

infrastructure and national strategies. CLAIR also facilitates urban policy-relevant visits of Japanese local government officials to Singapore, particularly from Okayama and Kagoshima Prefecture and Fukuoka (CLAIR Singapore 2015).

Singapore is also a member city of the ANMC21 and hosted the Eleventh Plenary Meeting in 2012, held just before the 2012 World Cities Summit. The policy dialogue for the meeting focused on 'Balancing Cities' Economic Growth with Social and Environmental Needs' and adopted the Singapore Declaration 'reaffirming member cities' agreement to share knowledge, experiences and technology for the development of sustainable cities (ANMC21 2012).'

World Cities Summit (WCS)

Through the Ministry of National Development, Singapore's Urban Redevelopment Authority (URA) and the Centre for Liveable Cities, has hosted the WCS since 2008. The WCS, not only serves as a useful platform for knowledge exchange but also helps Singapore assume a leadership role in promoting a green, sustainable and liveable city agenda. By hosting and engaging other cities, Singapore has positioned itself as one of the major players in urban sustainability and city networking.

The WCS is marketed differently from existing annual sharing and learning platforms of city networks in the region. At WCS, Singapore not only engages cities, the private sector and international organisations but also organises the Singapore International Water Week and the Clean Enviro Summit Singapore. These summits held concurrently further facilitate integrated urban planning that incorporates sustainable water and environmental solutions.²³

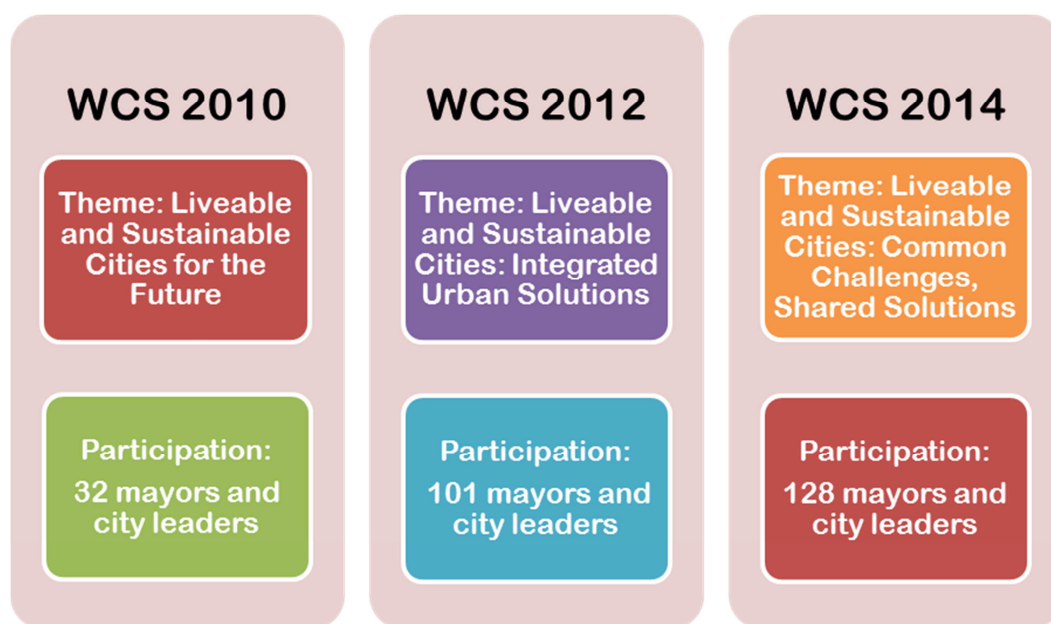


Figure 7. World Cities Summit: Themes and Participation

Source: Adapted from www.worldcitysummit.com.sg

The WCS biennial program includes the WCS Mayors Forum as well as the awarding of the Lee Kuan Yew (LKY) World City Prize. The WCS Mayors Forum is focused on urban leadership and governance,

²³ Interview with CLC

offering a platform for mayors and city leaders to 'shorten the learning curve'²⁴ on building liveable and sustainable cities through sharing challenges, solutions and new insights relevant to many global and developing cities. The LKY World City Prize on the other hand is given to cities with outstanding achievements and contributions towards the development of 'liveable, vibrant and sustainable urban communities'. Past winners include the cities of Bilbao (2010), New York (2012), and Suzhou (2014). LKY World City Prize Laureates are presented with an award certificate, a gold medallion and a SGD300 thousand cash prize sponsored by the Keppel Corporation.

The LKY World City Prize is first and foremost, a tribute to the first Prime Minister of Singapore's exemplary leadership in paving the way for Singapore's urban development (URA 2012). It is an international award that not only recognises city leaders but also other relevant local organisations that demonstrate critical foresight, good governance and innovation in addressing urban challenges and bringing social, economic and environmental benefits for communities. With the LKY World City Prize, Singapore aims to further promote innovation on sustainable urban development with thought leaders and to provide another useful avenue for the exchange of ideas (URA 2012). By 2014, Keppel Corporation had committed SGD3.5 million for the LKY World City Prize that will be allocated for five more award cycles from 2020 to 2028 (Keppel Corporation, 24 March 2014). CLC, URA and Keppel Corporation's partnership offers a good template of a public-private partnership on promoting solutions for sustainable urbanisation.

Events like the WCS are very much part of Singapore's efforts in being part of the larger city-to-city diplomacy and cooperation. It has long championed itself as a model city for others to follow and learn from, and such efforts constitute its continuous exercise in branding itself as a city for the future.

Singapore is well placed to be a leader on integrated urban solutions not only because of its whole-of-government approach to urban planning and sustainability but also because of the success of its high-liveability-and-high-density model which are especially relevant to many densely populated developing cities.²⁵

²⁴ Interview with CLC

²⁵ Interview with CLC

Observations and Analysis

From the case studies presented above, it is clear that cities are important actors for diplomacy in the field of climate and environment, sustainability and green growth. Other than the fact that these are highly important and critical issues for each city and its development, there is also a sense of initiative and pro-activity towards working on these issues with other cities and metropolitan regions through various platforms. In the scope of climate diplomacy as defined in this paper, the role of cities seems clear on three different levels.

Climate diplomacy through a collective position

This form of climate diplomacy has been done through the various city networks like C40 and ICLEI. While most major cities probably do contribute and give inputs to the national authorities who are parties to the climate negotiations at the UNFCCC, their voice or agenda is limited by a number of factors. Primarily, the national agenda will always take precedence and hence particular issues faced by cities within the country are likely to take a backseat. Secondly, even if the issue of cities is to be tabled and given precedence by the respective national representatives, the extent to which this is likely to be addressed or even heard depends strongly on the clout of the national government at the negotiating table. It is thus fair to say that these are considerable challenges that an agenda for cities and local governments have to overcome.

By being part of a city network, cities band together to push for a common agenda. There is certainly strength in numbers, however such groupings and networks do not have a seat at the table. Networks like ICLEI and C40 work on the sidelines of the UNFCCC, in the capacity of an NGO, with avenues for inputs to the main proceeding, but very little guarantee in its impact or uptake.

The numerous declarations, pacts, and the resolve demonstrated in networks of cities often serve as a reminder that a consensus and willingness to seriously address and tackle climate related issues is possible. Without the constraints of sovereignty issues and broader foreign policy agendas which national government representatives are often bound by, the acceptance of challenge posed by climate change and the urgent need to address it is clear.

Perhaps the greatest contribution and benefit of climate diplomacy by cities in networks, is the strength and encouragement it provides member cities to start working on some of the climate challenges in its own capacity with the help of one another. There is a sense of empowerment where cities do not have to wait for something to happen on the national level before acting or addressing present and future risks. The act of climate diplomacy by cities, through networks, has allowed them to become positive and proactive on such issues.

Climate diplomacy through interaction and engagement with each other

The role of cities in contributing to GHG and climate change as well as the disproportional burden of the brunt of climate change impacts is well known and appreciated by now. This knowledge certainly makes climate issues more urgent for cities. There is also an understanding that the urbanisation of cities, especially global cities (and aspiring global cities) follow a similar trajectory, often facing similar challenges and issues in different stages of its development.²⁶

These commonalities and understanding creates the necessary space for diplomacy between cities. Climate change and sustainable development issues are but one aspect of the broader diplomacy

²⁶ Barber, Benjamin. *If mayors ruled the world: dysfunctional nations, rising cities*. New Haven and London: Yale University Press, 2013; Lee, Taedong. 'Global cities and transnational climate change networks.' *Global Environmental Politics* 13 (2013) 1: 108-127

between cities, but it is slowly becoming an important one to consider, reflected in the agenda of many city advocacy and networking events. Cities, therefore, are often open and keen to engage with one another to learn or share their experiences.

Diplomacy in terms of climate change between cities happens when two cities see mutual benefits from their relations. Most bilateral city diplomacy happens between cities that are on different stage of economic development or differing local government implementing capacity. One serves as a resource city, seeking recognition while the other city serves as a recipient or experiment city, seeking models or best practices to tailor to its own local context. However, it is in this unbalanced reality among the parties where climate diplomacy seems to work best. The example of Bangkok and Yokohama's city-to-city cooperation on sustainable urban development shows how Yokohama's Y-PORT initiative serves as a brand to promote and utilize Yokohama's environmental technologies to other cities.

For a more developed city, for example Singapore, such an engagement helps it assume a role of leadership as well as help in its branding. For a relatively less developed city, for example Bangkok, engaging and learning from a city like Yokohama helps in its development and to learn from Yokohama's experience and expertise. This learning experience is likely to further Bangkok's own interests in developing a better, more environmentally friendly city for the future and, hence, further its own identity and standing vis-a-vis others.

Climate diplomacy within national borders

Capital cities are the site of all major arms of national governments, in terms of legislature, judiciary and the executive, especially the bureaucracy. This, therefore, puts primary/host cities, in a unique position to be able to directly engage and work with state governments on certain issues. Climate change and sustainable development are areas that overlap both city and national administrations' agendas.

Diplomacy on this level happens, therefore, when city officials and administrations push for certain agendas with regards to climate change and environment. This kind of diplomacy is reflected in terms of trying to persuade national counterparts to speak on their behalf on international platforms like the UNFCCC, or even in influencing national governments to enact certain climate-sensitive laws, resilience-building regulations or norms. It could even be as simple as just lobbying for a greater share of the national budget towards adaptation and mitigation strategies for the city.

Another dimension of climate diplomacy by cities within the national context could be with other secondary cities within the country. Bangkok serves as a good example in this regard. The BMA is known to have good relations with other Thai cities like Chiang Mai and Chiang Rai, whom it engages on various platforms with regards to climate change and urban development issues. Once again, such engagements can be beneficial for the secondary cities to learn from the experiences of an established primary city, while on the other hand it adds to the clout of Bangkok as a leader in urban climate and environmental governance within the country.

Taken altogether, the act of climate diplomacy conducted by cities has been a step in the right direction in terms of addressing both mitigation and adaptation efforts. Collectively, they have lobbied and pushed for changes on the international level. Increasingly the voices of mayors and city officials are being given greater attention.

Cities have clearly demonstrated through their own diplomacy that they can be far more progressive and agree on far more broad sweeping goals and targets than their national counterparts. In this regard they can serve as role models in terms of leadership, diplomacy, imitative and proactive approach to address threats from climate change. Cities' efforts and climate diplomacy also reveals

that they are more nimble and more focused on the issue at hand than their national counterparts who have other considerations that take precedence.

Although cities do not have any major say or voice at the global negotiating table, which to a large degree is where it matters most when it comes to setting climate governance matters, local and sub-national climate initiatives through cities' bilateral relations or through city networks all contribute to the overall goal of achieving green growth especially when the populations and emissions they represent are considered (Widerberg and Pattberg 2015). Cities need to strengthen advocacy initiatives such as the *Local Government Climate Roadmap* in case COP21 does not satisfactorily achieve its own goals of agreeing on a new climate protocol. This is a major obstacle that cities will need to overcome or find ways to work around should they want to have a greater say in global matters and its governance.

Conclusions/Way forward

Cities' climate diplomacy often seems to be based on sharing and learning from best practices and models, often leading to a healthy competition among cities to create their own brand and strategy for climate diplomacy. This fuels the need for cities to not only address local issues, but also to utilise mechanisms and network to engage other cities and other stakeholders in mitigation and resilience initiatives. This kind of competition in no way hinders collaboration between and among cities.

Cities, even developing ones, recognise the value of learning and sharing about local climate governance and elevating such initiatives to multilateral platforms. They often do this through their own climate change networks where goals and objectives influence and overlap with their local climate policies. It is however clear, that there are certain areas where cities working in their own capacity and through their diplomacy are more successful in certain aspects, while their position sometimes limits them in other domains or restricts them from being even more successful.

What cities and city networks can do better?

- **Setting more ambitious goals.** The experience of city networks has shown that cities can often work together and come to a consensus on setting more ambitious goals for themselves in terms of mitigation and resilience building.

- **Act on and implement climate action.** Given the appreciation of the risks involved, cities have proven to be more proactive and willing to work on climate action (mitigation and adaptation) with a greater sense of urgency. One of the reasons for this is also the relatively little administrative and bureaucratic red tape and hurdles faced by city administrations as compared to the ones on the national level.

- **Serve as role models for local and international levels.** The effectiveness and success of cities in setting and implementing climate action through their own diplomacy can serve as an example and for other local governments and the international community to showcase how cooperation based on mutual benefit is possible and should be pursued and emulated.

One critical aspect where climate diplomacy through city networks or even bilateral relations is highly advantageous for cities is the opportunity for capacity building – one that benefits not only local climate governance but also national climate governance, whether in terms of shifting towards a green or low-carbon economy or in terms of developing adaptation-sensitive policies at the local levels.

Where cities and city networks are/can be limited

- **Scaling-up climate action.** Cities and metropolitan regions have political boundaries in terms of jurisdiction. Climate actions, initiatives and programmes which can be enacted are thus limited by these physical limits. Expanding some of these initiatives to surrounding regions, which might be the source of numerous problems for cities, can become problematic and hence reduce the level of effectiveness or realising full potential. This hurdle can often be solved when transboundary issues such as pollution are elevated as impetus and common ground for cities to collaborate on.

- **Governance structure limitations.** While it is clear that cities can and have been operating in their own capacity on climate issues with others, the national governance system and structure in terms of the political and administrative boundaries where cities and local governments can operate varies between countries. As a result, local governments could be limited in what they are able to do or undertake based on the level of autonomy they have. Some cities in the same country may even have differing local administrative powers – whether legally defined or constrained by local resources.

- **Limited influence.** Other than the fact that cities are yet to be represented with official negotiating capacities, cities also have relatively less access to multilateral funding mechanisms as compared to preferred access given to national governments and agencies. The state-centric system of climate governance and diplomacy in general makes it difficult for cities to influence donor and global policy agenda. The different climate finance options for cities often only become familiar to cities and local governments through their participation in city networks.

While cities have made the initiative to tackle the issue of climate on their own and have started engaging in climate diplomacy, there is still a long way to go in order to take it to the next level or improve on it. Some potential avenues to sharpen their effectiveness and to be better practitioners of climate diplomacy are listed below.

For City Mayors and City Officials

- **City officials should institutionalise a city climate diplomacy agenda or an international relations policy on climate change.** An official plan focusing on long-term urban development and climate change would help cities plan and provide direction. There is always difficulty when term limits constrain local government leaders in establishing a vision for the city's brand in terms of climate action. City leaders should maximise the opportunities to publicise the city government's best practices to other local governments, either through external research, assessments and international nominations or awards. Green growth opportunities and incentives can bolster the use of climate change as inroads toward a climate resilient or sustainable development- conscious city diplomacy agenda.

- **Cities should train their representative agencies and officials to tap on international climate finance.** Funding can often be a constraint in implementing new plans and policies. There are however numerous funding opportunities for building capacities which have gone untapped for the mere reason that city administration are unaware of the procedures and application mechanisms.

- **Cities' implementing agencies, honed through years of experience and expertise, should also be trained to double up as climate diplomats for cities.** The Singapore Cooperation Programme and the CLC and BCA's training programmes are good examples of how cities can leverage on their climate action to further brand themselves and garner influence among their peers. A programme which can train city officials in the art of diplomacy could yield benefits from the short to the long run.

For City Networks

- City networks can strengthen the system of matching or grouping cities and local governments in terms of their strengths and weaknesses. Concrete agendas and plans can make the appeal of networks greater for cities and local administrations. To add to this if networks can help cities make a plan, preferably with ranked priorities, in terms of climate change adaptation and mitigation needs, based on urgency, this could prove to be a great boost in terms of membership. Such a plan could have the added benefit of serving as a basis for identifying potential partner cities within the network. City networks should also equip city leaders and implementing agencies to focus not only on sharing best practices but also the challenges and the lessons from less successful but progressive initiatives. Such initiatives could not have worked in their context but can work elsewhere with the appropriate political and economic environment.

For National Governments

- Ministries concerned with climate change issues, departments of foreign affairs, and other relevant national agencies should work more closely and potentially train city officials and local leaders. Cities have already proven their capabilities and at times even leadership in working internationally on issues like climate change independently. Rather than letting cities conduct their diplomacy entirely on their own capacity, some form of aligning of agendas and interests might help both the cities and national governments in the international sphere. There is potential that city diplomacy could possibly open doors to national level engagements and bilateral relations, or vice versa. The versatility of being able to switch between national and local/city diplomacy (as can be seen in the case of Singapore) could offer numerous new opportunities and avenues for climate diplomacy. Another example that can be translated towards cities climate diplomacy is the 2014 climate change negotiation workshop with a negotiation simulation co-organised by the ASEAN Secretariat, the Asia-Europe Foundation and the French Regional Delegation for Cooperation in ASEAN. This has aimed to consolidate contributions to the Asia-Europe dialogue on climate change issues in preparation for the Lima and Paris COPs in 2014 and 2015.

Avenues for further research

Due to time and space limitations, the scope of this paper is limited to one city network – ICLEI, one Asia Pacific megacity – Bangkok and one city-state – Singapore. The case studies presented in this paper cannot offer generalizations about climate diplomacy in the Asia Pacific per se. They can only offer a rudimentary analysis of how the cities in question, intentionally or unintentionally conduct climate diplomacy.

While these three examples were chosen to show the breadth of climate diplomacy in the Asia Pacific region, in no way can it be said to be representative of the climate diplomacy landscape. Despite the interviews conducted with various city officials, agencies, and city networks the exploration of the role of cities in climate change diplomacy has barely scratched the surface. Also over time it is likely that cities are going to be more engaged in such activities which would then serve to give a better understanding in terms of the motivations and resolve of cities in how they engage with others on issues surrounding climate change.

Currently, the framework used to chart the various levels of climate diplomacy conducted by cities and their networks does not capture regional institutions and bodies like the ASEAN for example. One of the reasons for this is because such regional multilateral bodies are primarily organisations of nation states within a region. However, there are some examples as has been mentioned in this paper, where there is some interest to engage with cities and local governments directly. How regional organisations

like ASEAN or even the EU can fit into the bigger climate diplomacy conducted by cities could be an interesting avenue to further explore.

To understand the full extent of climate diplomacy practiced by cities a much bigger study that can look into the various types of cities (in terms of economic development, size, type, and geographic characteristics) that engage in climate action is recommended. It is hoped future research on climate diplomacy by cities in the Asia Pacific, or any other region, can build on the findings and frameworks used in this narrative paper.

References

- Acuto, Michele. 2013. *Global Cities, Governance and Diplomacy: The urban link*. London and New York: Routledge
- Ahdieh, Robert. 2008. 'Introduction: When subnational meets international: The politics and place of cities, states and provinces in the world.' *American Society of International Law Proceedings of the 101st Annual Meeting* Vol 102 (9-12 April 2008): 339-345
- ANMC21. 2012. 'The Eleventh Plenary Meeting in Singapore' http://www.anmc21.org/english/meeting/11_singapore/index.html
- ARUP and C40. 2014. *Climate Action in Megacities: C40 Cities Baseline and Opportunities* Vol.2. 2014. http://www.c40.org/blog_posts/CAM2
- ASEM Infoboard. 2010. ASEM Goes Local: Challenges and Solutions, The 1st ASEM Governors and Mayors Meeting, 28-29 October 2010, Jakarta, Indonesia. http://www.aseminfoboard.org/sites/default/files/documents/2010_-_1st_ASEM_MGM_-_Declaration.pdf
- ASEM Infoboard. 2015. 'Summary of the 3rd ASEM Meeting for Governors and Mayors: ASEM Goes Local - Innovation and Regeneration', 11-13 March 2015, Bangkok, <http://www.aseminfoboard.org/sites/default/files/documents/2015%20-%20ASEM%20MGM3%20-%20Summary%20%28Draft%29.pdf>, accessed 21 April 2015.
- ASEM Infoboard. 2015. Declaration of the 3rd ASEM Meeting for Governors and Mayors in Bangkok in 2015: ASEM Goes Local: Innovation and Regeneration, Bangkok, 12 March 2015. <http://www.aseminfoboard.org/sites/default/files/documents/2015%20-%20ASEM%20MGM3%20-%20Bangkok%20Declaration.pdf>, accessed 21 April 2015.
- AsianCitiesAdapt. 'About AsianCitiesAdapt.' *AsianCitiesAdapt*. Accessed 15 June 2015. <http://www.asian-cities-adapt.org/about-asiancitiesadapt/>.
- AsianCitiesAdapt. 2013. 'Impacts of Climate Change in Target Cities in India and Philippines and Local Adaptation Strategies, Learning Exchange' 30-31 October 2013, Cochin, India. http://southasia.iclei.org/fileadmin/user_upload/documents/ACA_Learning_Exchange_Main_outcomes.pdf
- Bangkok State of Environment 2012*. Bangkok: Bangkok Metropolitan Administration, Department of Environment. <http://203.155.220.174/pdf/BangkokStateOfEnvironment2012RevisedEdition.pdf>, accessed 17 February 2015.
- Bangkok Metropolitan Administration, Green Leaf Foundation and United Nations Environment Programme. 2009. *Bangkok Assessment Report on Climate Change 2009*. Bangkok: BMA, GLF and UNEP
- 'Bangkok to host Sister Cities Week 2012', *Thai News Service*, 1 February 2012
- Bansard, Jennifer S., Philipp H. Pattberg and Oscar Widerberg. 2014. 'Subnational climate networks, who they are and what they do.' Paper presented at the *2014 Amsterdam Conference "Beyond 2015:*

Exploring the Future of Global Climate Governance". Accessed 18 December 2014. http://www.indiaeu-climategovernance.org/Reports/Subnational-networks_Bansard.pdf?1416406704

Barber, Benjamin. 2013. *If mayors ruled the world: dysfunctional nations, rising cities*. New Haven and London: Yale University Press.

BCA. 2013. *BCA Annual Report 2013*. http://www.bca.gov.sg/AboutUs/annual_report.html

C40. 2013. 'Fact Sheet: Why Cities' *C40 Cities Climate Leadership Group* (C40). http://c40-production-images.s3.amazonaws.com/fact_sheets/images/5_Fact_20Sheet_20Why_20Cities_203.1.12.original.pdf?1390370461

carbonn Climate Registry. 2014. 'City Climate Report: Bangkok' http://carbonn.org/index.php?id=312&tx_datareport_pi1%5Buid%5D=443, accessed 17 February 2015.

City of Warsaw. 23 January 2014. 'Warsaw Dialogue on Scaling-Up Local and Subnational Climate Action.' *City of Warsaw*.

CityNet. 2014. 'Singapore officials visit the Incheon Free Economic Zone.' <http://citynet-ap.org/singapore-officials-visit-incheon-free-economic-zone/>

CLAIR Singapore. 2015. 'Our Activities 2015.' CLAIR Singapore. Singapore : The Japan Council of Local Authorities for International Relations, Singapore. http://www.clair.org.sg/about/actitives_english.pdf.

Cooper, Andrew, Jorge Heine and Ramesh Thakur. 2013. 'Introduction: The Challenges of 21st-century Diplomacy,' in Andrew Cooper, Jorge Heine and Ramesh Thakur (eds.), *The Oxford Handbook of Modern Diplomacy*. New York: Oxford University Press

Fröhlich, Jannes and Jörg Knieling. 2013. 'Conceptualising climate change governance' in Jorg Knieling and Walter Leal Filho (eds.) *Climate Change Governance*. Springer-Verlag Berlin Heidelberg

Hedrick-Wong, Yuwa and Desmond Choong. 2014. Mastercard 2014 Global Destination Cities Index. http://newsroom.mastercard.com/wp-content/uploads/2014/07/Mastercard_GDCI_2014_Letter_Final_70814.pdf

IAD. 2012. 'History,' About Us, International Affairs Division (IAD), Bangkok Metropolitan Administration. <http://iad.bangkok.go.th/en/node/256>, accessed 17 February 2015.

IAD. 2012. 'Mission of International Affairs Section 1'/'Mission of International Affairs Section 2,' About Us, International Affairs Division, Bangkok Metropolitan Administration <http://iad.bangkok.go.th/en/foriegn2-mission>, accessed 17 February 2015.

IAD. 2012. 'Bangkok Governor Give Policy Guidelines on Foreign Affairs.' International Affairs Division, Bangkok Metropolitan Administration. <http://iad.bangkok.go.th/en/node/34>, accessed 17 February 2015.

IAD. 12 September 2012. 'The 2nd Roundtable Conference of China Tianjin's International Sister Cities', International Affairs Division, Bangkok Metropolitan Administration. <http://iad.bangkok.go.th/en/node/827> , accessed 17 February 2015.

IAD. 2012. 'Cooperation with International Organizations.' International Affairs Division, Bangkok Metropolitan Administration. http://iad.bangkok.go.th/en/inter_cooperation, accessed 17 February 2015.

ICLEI, n.d. 'Connecting Leaders, Global Local Leaders' http://www.iclei.org/fileadmin/PUBLICATIONS/Brochures/ICLEI_Brochure_Connecting_Leaders_Global_Local_Leaders.pdf

ICLEI. n.d. 'Who we are', *ICLEI Local Governments for Sustainability*. <http://www.iclei.org/iclei-global/who-is-iclei.html>, accessed 13 January 2015.

ICLEI. n.d. 'Benefits to project cities.' About the Project, Urban Low Emission Development Strategies. <http://urbanleds.iclei.org/index.php?id=112>

ICLEI. n.d. 'At a glance' About the Project, Urban Low Emission Development Strategies. <http://urbanleds.iclei.org/index.php?id=108>

ICLEI. 'Local Renewables and Model Communities Network: South-South Cooperation between India, Indonesia and South Africa.' Programs, *ICLEI Southeast Asia*. Accessed 10 June 2015. <http://archive.iclei.org/index.php?id=12629>

ICLEI. *Indonesia Solar City Guidebook*. Quezon City: ICLEI Southeast Asia Secretariat. Accessed 10 June 2015. http://southasia.iclei.org/fileadmin/user_upload/documents/LR_Indonesia_Solar_City_Guide_Book.pdf

ICLEI. 8 November 2013. 'Leading cities network ICLEI spurs dialogues to scale up local action in Warsaw,' *ICLEI Local Governments for Sustainability* (ICLEI). <http://www.iclei.org/details/article/leading-cities-network-iclei-spurs-dialogues-to-scale-up-local-action-in-warsaw.html>

ICLEI. 2014. 'Highlights of the Climate Summit 2014 for local and subnational climate action and progress on global climate advocacy.' http://iclei.org/fileadmin/user_upload/ICLEI_WS/Documents/advocacy/Climate_Summit_2014/Highlights_of_Climate_Summit_2014-for_local_and_subnational_climate_action_FINAL_Compatibility_Mode_.pdf

ICLEI. 3 February 2015. 'Webinar: Outcomes of the Lima Dialogues and Vision toward Paris.' http://iclei.org/fileadmin/user_upload/ICLEI_WS/Documents/advocacy/LGRoadmap/Lima_COP20/ICLEI_LimatoParis.pdf

ICLEI Southeast Asia. 4 December 2013. '21 ICLEI members selected to join 100 Resilient Cities Centennial Challenge.' <http://www.iclei.org/details/article/21-iclei-members-selected-to-join-100-resilient-cities-centennial-challenge.html>, accessed 21 April 2015.

Intathep, Lamphai. 12 February 2012. 'BMA shares disaster planning ideas with sister cities', *Bangkok Post*

Kandt, Alicen. 2012. 'Indian Solar Cities Programme: An Overview of Major Activities and Accomplishments.' Paper presented at the *2012 World Renewable Energy Forum*, 13-17 May 2012, Denver, Colorado. Accessed 10 June 2015. <http://www.nrel.gov/docs/fy12osti/54705.pdf>

Keppel Corporation. 24 March 2014. 'Keppel extends sponsorship of the Lee Kuan Yew World City Prize with another \$1.75 million.' Keppel Corporation. http://www.keppcorp.com/en/news_item.aspx?sid=4434

Lee, Taedong. 2013. 'Global cities and transnational climate change networks.' *Global Environmental Politics* 13(1): 108-127

Memorandum of Understanding on Technical Cooperation for Sustainable Urban Development between the Bangkok Metropolitan Administration and the City of Yokohama. 21 October 2013. <http://www.city.yokohama.lg.jp/kokusai/yport/en/partners/>

Moscow Urban Forum. 11 December 2014. 'Press Release: Opening Plenary Session: Megacity and Nation: A Reciprocal Relationship for Development' Moscow Urban Forum. http://www.mosurbanforum.com/pressroom/press_releases/

NCCS. 23 March 2012. 'Singapore to participate in the C40 Cities Climate Leadership Group as Observer City,' *National Climate Change Secretariat*. <https://www.nccs.gov.sg/news/singapore-participate-c40-cities-climate-leadership-group-observer-city>, accessed 9 April 2015.

NCCS. 2013. 'Green Growth Opportunities.' National Climate Change Secretariat, Last updated June 2013, <https://www.nccs.gov.sg/what-we-can-do/organisation/green-growth-opportunities>

NCCS. 17 July 2014. 'Singapore renews participation in the C40 Cities Climate Leadership Group as an Observer City,' *National Climate Change Secretariat*. <https://www.nccs.gov.sg/news/singapore-renews-participation-c40-cities-climate-leadership-group-observer-city>, accessed 9 April 2015.

NCCS. 2015. 'About NCCS.' National Climate Change Secretariat (NCCS). <https://www.nccs.gov.sg/about-nccs>

NCCS. 2015. 'Inter-Ministerial Committee on Climate Change.' National Climate Change Secretariat, Last updated 13 April 2015. <https://www.nccs.gov.sg/about-nccs/inter-ministerial-committee-climate-change>. Accessed 15 April 2015.

Reed, Sarah et al. 2014. 'Resilience projects as experiments: implementing climate change resilience in Asian cities.' *Climate and Development*. <http://dx.doi.org/10.1080/17565529.2014.989190>

Resilient Cities Asia Pacific. 2015. 'About the Congress', *Resilient Cities Asia-Pacific 2015*, <http://resilientcitiesasiapacific.iclei.org/about-the-congress.html>, accessed 21 April 2015

Resnik, Judith. 2008. 'Translocal transnationalism: Foreign and domestic affairs.' *American Society of International Law Proceedings of the 101st Annual Meeting* Vol 102 (9-12 April 2008): 339-345

Rockefeller Foundation. 2015. 'Asian Cities Climate Change Resilience Network.' Our Work/Initiatives, Rockefeller Foundation, <https://www.rockefellerfoundation.org/our-work/initiatives/asian-cities-climate-change-resilience-network/>

Siemens and Economist Intelligence Unit. 2011. 'Manila.' Asian Green City Index. Munich: Siemens AG. <http://www.siemens.com/press/pool/de/events/2011/corporate/2011-02-asia/asian-gci-report-e.pdf>

Singapore Statement at 2nd Intersessional Meeting for UNCSD, New York, 15-16 December 2011. <http://www.uncsd2012.org/content/documents/559singapore.pdf>

Sister Cities International. 2012. 'What is a Sister City,' *Sister Cities International*. <http://www.sister-cities.org/what-sister-city>, accessed 15 March 2015.

Tjandradewi, Bernardia Irawati and Peter J. Marcotullio. 2009. 'City-to-city networks: Asian perspectives on key elements and areas for success.' *Habitat International* Vol 33: 165-172, doi: 10.1016/j.habitatint.2008.10.021

Toly, Noah. 2011. 'Cities, the environment and global governance: A political ecological perspective' in Mark Amen, Noah J. Toly, Patricia L. McCarney and Klaus Segbers (eds.) *Cities and Global Governance: New Sites for International Relations*. London: Ashgate

Travel + Leisure. 2015. 'World's Best Awards.' <http://www.travelandleisure.com/worlds-best-cities-2014-winners-list>. Accessed 15 March 2015.

UCLG. 2014. 'About us.' <http://www.uclg.org/en/organisation/about>

Urban Redevelopment Authority. 2012. 'About the Prize.' Lee Kuan Yew World City Prize. http://www.leekuanyewworldcityprize.com.sg/about_prize.htm

URA. 2014. *Urban Development Authority Annual Report 2013/14*. https://www.ura.gov.sg/uol/publications/corporate/ar/ar14_main.aspx

URA. 2015. 'About us'. Urban Redevelopment Authority (URA). Last updated 11 May 2015. <https://www.ura.gov.sg/uol/about-us/our-organisation/mission.aspx>

US Energy Information Administration. 2012. 'International Energy Statistics.' <http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=90&pid=44&aid=8&cid=SN,&syid=2008&eyid=2012&unit=MMTCD> , accessed 21 April 2015.

United Nations in Thailand. 2015. 'UN Agencies,' *United Nations in Thailand*. <http://www.un.or.th/department/un-agencies/>, accessed 17 February 2015.

van der Pluijm, Rogier with Jan Melissen. 2007. 'City Diplomacy: The expanding role of cities in international politics' *Clingendael Diplomacy Papers No. 10*. The Hague: Netherlands Institute of International Relations Clingendael

Wancharoen, Supoj. 12 January 2013. 'Phnom Penh is welcomed into the family', *Bangkok Post*. <http://www.bangkokpost.com/print/330444/>, accessed 13 April 2015.

Widerberg, Oscar and Philipp Pattberg. 2015. 'Non-state actors in a Paris Agreement : Are cities and companies bridging the ambition gap?' *Policy Brief. IVM Institute for Environmental Studies and FORES Reference Group on International Climate Policy*. http://www.fores.se/wp-content/uploads/2015/05/NSA_Policy_brief_Bonn2.pdf