



**ACT GLOBAL, THINK URBAN:
ASIAN CITIES IN TRANSNATIONAL
NETWORKS ON CLIMATE CHANGE
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Abstract. This paper explores the experiences of two iconic Asian cities – Singapore and Hong Kong – as members of transnational urban networks on climate change. It sets their activities within the C40 and SEANCC networks in the context of existing knowledge on transnational urban networks of climate change and provides thereby a pioneering study of Asian cities in these networks. More specifically, the paper investigates how far these two cities, by ‘acting global’ through transnational networks, are ‘thinking urban’ in terms of advancing their own particular climate policy agendas within their own distinctive political and geographical contexts. This inquiry entails a three-pronged analysis, addressing firstly the purpose, structure, activities and impacts of the two networks C40 and SEANCC; secondly, the engagement of Singapore and Hong Kong in their respective networks – in terms of their motives for joining, networking practices and effects of membership – and; thirdly, the nature of urban agency in transnational networks, drawn from a comparative interpretation of the findings. The paper draws conclusions on the similarities and differences between the two networks as well as between the two cities working in them. More generally, it points to the multiple ways in which the local and the global interact in urban networks and explains how this can raise our understanding of the ‘urban’ in climate mitigation.

Key Words: transnational climate networks; climate change governance; cities; Singapore; Hong Kong

1. INTRODUCTION

Cities occupy two per cent of the planet's landmass, house over 50 per cent of its population but are responsible for about 80 per cent of all greenhouse gas emissions. More than 75 per cent of global energy consumption occurs in cities and urban areas. At the same time, cities and their local authorities possess tremendous influence, leverage and resources to mitigate against climate change and advance solutions for climate protection. Following the failure of nation states to reach an effective post-Kyoto agreement at the COP15 meeting to the United Nations Framework Convention on Climate Change (UNFCCC) in Copenhagen in December 2009, attention turned increasingly to cities as potential pioneers of global climate change action. The thinking behind this was – and still is – that cities keen to promote mitigation and adaptation to climate change should not wait for nation states to provide a lead for all subordinate territories to follow, but should take the initiative themselves and demonstrate to the world how climate change can be addressed on a global scale in cities. The role of cities as catalysts of climate mitigation was reinforced at the Durban Platform on Enhanced Action in 2011 and, more emphatically still, at the COP21 in Paris in 2015.

Transnational urban networks are important intermediary organisations in this venture. Formed by pioneering cities from the late 1990s onwards, these networks have gained additional global visibility and significance since the failure of the Copenhagen summit.

They have also attracted growing attention in research on urban responses to climate change (Betsill & Bulkeley 2004; Bulkeley 2005; Andonova et al 2009; Roman 2010; Bulkeley *et al* 2014; Lee & Koski 2014). The work of Bulkeley et al (2014) is particularly valuable for its analysis of a database of 60 transnational climate change governance initiatives worldwide, addressing their emergence and functioning, sources of legitimacy and modes of authority. However, as yet there have been relatively few studies of individual transnational urban networks addressing climate change (but see Acuto 2013 on C40), although there is research on how individual cities work in such organisations to advance their own agendas (see Lee 2015: 93). For this reason, we know little, as yet, about the nature and effectiveness of these networks and how they promote local efforts to tackle climate change.

This dearth of understanding is most evident in cities of the Global South. It is particularly poignant in Asian cosmopolitan cities that are not only growing in terms of population and economic activity, thus contributing to larger carbon footprints, but also constitute key locales for climate change research, technology, business models and policy frameworks (Hamilton-Hart 2006; Zhao 2011; Ha & Dhakal 2013; Francesch-Huidobro *et al* 2014; Francesch-Huidobro 2014 a&b; Doshi 2015; Moss & Francesch-Huidobro 2016). This existing research indicates that Asian cities are not only rapidly catching up in terms of knowledge transfer, mostly, but not exclusively, through their participation in climate change networks, but are also becoming increasingly proactive in seeking

to translate knowledge into effective policy responses. We know, however, very little about how they work in these transnational networks and to what effect, despite the active participation of several East and Southeast Asian cities in the C40 network and in the UNEP Southeast Asian Network of Climate Change (SEANCC).

This paper explores the experiences of two leading Asian cities – Singapore and Hong Kong – as members of transnational urban networks on climate change. It aspires to set their activities there in the context of existing knowledge on transnational urban networks of climate change and to provide a pioneering study of Asian cities in these networks. More specifically, the paper investigates how far these two cities, by ‘acting global’ through transnational networks, are ‘thinking urban’ in terms of advancing their own particular policy agendas. Three sets of core questions guide our research:

- Firstly, what were, and are, the motives for the two cities to join their respective networks? What aspirations do urban actors have in working in and through these networks and – conversely – what did the networks hope to gain from enrolling such iconic cities as Singapore and Hong Kong?
- Secondly, how does each city work within its networks in practice? Who is involved (and who is not)? Through what organisational structures are the networks’ activities advocated? How does transnational learning take place?
- Thirdly, what impacts has membership

of these networks had so far? What difference has it made in terms of transfer of good practices, learning processes, urban policy on climate change, governance practices, the cities’ international reputation, business opportunities or local power relations?

These questions are addressed in an in-depth comparative case study of two cities (Singapore and Hong Kong) and the two transnational climate networks in which these cities participate: C40 (Singapore and Hong Kong) and SEANCC (Singapore). Singapore and Hong Kong have been selected for this study for several reasons. Firstly, they are major emitters of greenhouse gases by virtue of their large and growing populations, energy-intensive economies and global significance as financial and trade hubs. Secondly, they are climatologically comparable, being both subtropical/tropical coastal cities. Thirdly, they see themselves – and are seen by many others – as pioneers of advanced climate change policies in Asia. Singapore has already drawn up wide-ranging climate-related policies and enacted legislation that include promoting energy efficiency, not subsidizing energy costs, setting energy and carbon targets and investing in energy R&D (Schulz 2010; National Climate Change Secretariat 2008, 2012). Hong Kong managed to achieve 82.5% and 97.6% decreases in energy use per GDP and in CO₂ emissions per GDP respectively during China’s 12th five-year plan of 2011-2015 (Environment Bureau 2015a & b).

The paper begins by reflecting on the state-of-the-art literature on transnational urban networks of climate change, identifying

relevant research gaps and useful approaches for analysing these networks (Sections 2 & 3). It then introduces the two networks – SEANCC and C40 – in terms of their objectives, memberships, structures and ways of working (Section 4). The core of the paper describes and analyses how Hong Kong and Singapore each work within and through their respective transnational networks, and to what effect (Section 5). These empirical findings are subsequently interpreted in a comparative synthesis in terms of key issues raised in the literature reviewed earlier (Section 6). In the conclusion (Section 7), we summarize the principal findings and reflect on their significance for broader debates on the dynamic relationships between cities and transnational networks of climate change.

2. TRANSNATIONAL URBAN NETWORKS OF CLIMATE CHANGE: STATE-OF-THE-ART LITERATURE AND RESEARCH GAPS

From the literature, we identified three scholarly debates that are relevant to the role of cities as climate leaders and to our specific research questions on transnational urban networks.

First, international relations scholarship both in theory (international relations) and practice (world politics), relates to arguments around how cities are essential elements of world politics (Alger 1990; Rosenau 1995; Sassen 2005b), how and why cities are places *for* politics but also actors *in* politics (Acuto 2013), what agency cities have in relation to the structures that define their geography (Magnusson 1994), how global cities influence the evolution

of global governance and diplomacy (Fry 1990; Hobbs 1994) and how cities are dichotomously positioned either as sites for international relations, or subsumed as lower-level governmental entities with limited reach (Amen *et al* 2011). More recently, this stream of the literature has focused on how and why cities acquire strategic potential when it comes to non-traditional challenges such as global environmental governance, climate change being a case in point (Roman 2010; Bouteligier 2013; Curtis 2014; Lee 2015). This literature, while recognising that cities are hubs where political influence is gathered (Calder & Freytas 2009: 79; Lee & Van de Meene 2012; Lee 2013) comes to the conclusion that cities are recognised as being at the crossroads of contemporary worldwide processes without defining exactly what influence they may be exerting. Acuto (2013: 5) argues that cities play ‘an essential role in formulating a new human geography by adding to the complexity of the global landscape of political, economic and cultural interactions and connecting micro (local) political processes with macro (global) trends and relations’.

Following these arguments, Bouteligier’s (2013) framework on the role of cities and networks in global environmental governance is informative in explaining how city networks’ internal and external dimensions for global governance may be identified (see also Acuto 2013: 107 Fig. 6.1). A network’s composition (structure) may be explained by identifying exchanges, that is, the ideas, best practices and information that is deliberately exchanged (flows), but also the people and places

it links up (nodes), that is, the cities, city authorities, steering committees, etc involved. What characterises the structure of networks, Buteliger argues, is their flexibility and adaptability (2013: 54). A network's dynamics (logic), on the other hand, may be assessed by identifying the connection between exchanges, people/ places, and the network's performance, that is, its effectiveness (in terms of changing institutions, behaviour and practices) and its efficiency (in terms of a positive relationship between inputs and outputs). Besides, a network's dynamics may also be assessed through its power, that is, its ability to empower the places and people involved. A network's external dimension, on the other hand, is defined by its global agency and authority; that is, its ability to set global rules and standards emanating from constitutional sources (e.g. the authority vested in mayors), professional sources (e.g. experts' and investors' advice), or moral sources (e.g. non-governmental organizations lobbying for a cause that is supported by citizens). Externally, networks are also defined by their local best practices (2013:61).

Second, the very limited literature coming from diplomatic studies defines the concept of 'paradiplomacy' (Butler 1961) as the potential for several, parallel tracks running contemporaneously such as those of federal and state executives or central and local authorities and the role that these sub-state actors (including cities) play in external relations in areas of policy that include the environment and climate change. Revisited two decades later in the 1980s, paradiplomacy has been recognised as a form of political agency by subnational actors (Duchacek et al 1988).

These researchers argue that, through cross-boundary, trans-regional and global connections subnational actors are able to bypass and/or collaborate with the federal/ national state to pursue their interests. Yet, this strand of the literature does not go far enough to recognise the sources of such agency or the impacts for global governance these interactions may have. In the two literatures described here, Acuto (2013: 9) points out three significant omissions, relating to, firstly, consideration of the scalar and positional geographies at play in these networks, secondly, shifts in world politics and its implications for global urban governance and, thirdly, the diplomatic capacity of cities in this shifting global context.

The third body of literature studied seeks to address all three of these research gaps. Scholars of human geography and urban studies have over the past ten years made a substantive contribution to our knowledge on the growing significance of cities for global governance in general and climate governance in particular (Bulkeley & Betsill 2003; Bulkeley 2005; Betsill & Bulkeley 2005, 2006, 2007; Bulkeley 2006; Stone 2008; Kern & Bulkeley 2009; Allen 2010). This literature has redefined the meaning of the city in the global, transnational context as both a *space* for transnational interaction and an *agent* of this interaction (Davidson & Gleeson 2015). It has also criticized neoliberal approaches to the urban governance of climate change for being overly technocratic and 'econocratic' (Ibid 2015: 21).

One core theme of this literature relates to the politics of multilevel governance and

the distribution of authority and legitimacy in transnational urban networks for climate change (Betsill & Bulkeley 2004; Bulkeley 2012: 2428). The salient argument of this literature is that transnational networks have been formed to assist local governments to tackle climate change but little is understood about how these networks may give a new dimension to governance by bypassing national and intergovernmental policymaking processes (Backstrand 2008; Andonova et al 2009; Arup 2011; Bulkeley *et al* 2014; Levy et al 2012; Niederhafner 2013; Hakelberg 2014; Hale & Roger 2014). Networks, nevertheless, open a public space where authority is diffused, decision making is dispersed, and sovereignty is muddled by recognition of joint responsibility and collective action (Stone 2008: 34-35). This literature builds on other work arguing for the reconfiguration of environmental governance based on the premise that the authority and territoriality of the state are being rearticulated and rescaled through transnational networks (Pierre & Peters 2000; Bulkeley 2005: 875-902; Betsill & Bulkeley 2007; Torfing *et al* 2012).

These literatures, together with their empirical analyses of specific networks, suggest that transnational initiatives and efforts by local governments to mitigate against climate change are increasingly evident. However, most studies have been limited to European, American and Australian cities and their networks, neglecting East and Southeast Asian global cities. The few studies focusing on the two Asian cities we investigate relate to the governance of climate change, not to transnational climate governance (e.g. Qi

et al 2008; Chu & Schroeder 2010; Loh, Stevenson & Tay 2008). For instance, some studies (e.g. Francesch-Huidobro 2012; Mai & Francesch-Huidobro 2015) have identified the challenges that climate change pose to the governance of Hong Kong, Guangdong and Shenzhen, while others (Zhao 2011) have analysed the legal obligations for Hong Kong to mitigate GHG emissions and its potential to contribute to China's reduction targets. Finally, Lee (2015) and Lee & Koski (2014) have queried why cities (Korean and non-Asian cities) choose to join transnational climate networks. None of these studies apply the analytical categories we have identified in the literature, nor do they consider these categories in specific political and geographical contexts. In this paper, we target these deficits by asking:

- Whether cities acquire strategic potential in global climate change governance through transnational networks: i.e. **understanding the networks;**
- How the cities under study are using their membership of such networks to advance their own notions of climate change governance internationally and domestically: i.e. **understanding the cities;**
- What a comparative interpretation of the findings can tell us about the urban, as both a space for transnational interaction and an agent of this interaction: i.e. **understanding the urban.**

Each of these three themes – the networks, the cities, the urban – are addressed in the subsequent sections. After an introduction

to data sources and methods (Section 3), and a review of the literature (Section 4), we begin our empirical analysis with a critical discussion of what each of these two networks (SEANNCC and C40) has set out to achieve and how, as evidenced by their respective mission statements, organisational structure and activities on the one hand and what they have achieved for climate governance, as evidenced by the existing literature, our field interviews and the networks' self-evaluation and monitoring on the other. The purpose of this analysis is, ultimately, to understand whether and how transnational networks put cities in a strategic position in global climate governance.

3. DATA SOURCES AND METHODS

Our investigation was conducted within the context of the research *project 'Transnational Climate Change Networks: New Forms of Authority or Mobilisation Mechanisms to Secure Consent?'* and draws, for its empirical evidence, on three data sources. These comprise, firstly, a documentary analysis of the three strands of the literature mentioned in Section 2 as well as of the two networks' vision, mission statements, organisational structure, history, policies and action plans, as well as of the two cities' activities in the networks found in the grey literature; secondly, *statistical records* on the networks' outputs and activities in the two cities and, thirdly, *semi-structured, open-ended, in-depth interviews* with key actors in the transnational networks' headquarters and their contact offices in the two cities, as well as with key actors of the public, private and civil society sectors that regularly interact

with the transnational networks or with policies the networks champion. Altogether, 24 face-to-face interviews were conducted between January (Singapore) and February (Hong Kong) 2016, with additional use made of 2 other interviews conducted in 2010 and 2013 (see Appendix 1). All the interviews were undertaken by the authors according to a standardised interview guide and following a framework focusing on cognitive, normative and regulative aspects of cities participation in global networks of a transnational nature. Interviews' transcripts were analysed shortly after the interactions took place. The interviews' findings show no sign of bias towards any official position, and one can reasonably conclude that the responses represent the true opinions of the respondents.

4. THE TRANSNATIONAL NETWORKS OF CLIMATE CHANGE

Formed by and for cities to exchange climate information among local authorities, SEANCC and C40 are two examples of global city agency, of the global-urban intersecting with world politics and of modes of governance being promoted through networked diplomacy and public-private partnership (Bulkeley 2005: 876; Acuto 2013: 99). Whilst both networks are spaces overlapping national borders they exhibit significant differences, with SEANCC being a network of 8 Southeast Asian capital cities and C40 one of 80 global cities.

4.1. SEANCC: ITS VISION, MISSION, STRUCTURE, ACTIVITIES AND IMPACT

With the vision of increasing policy and

technical capacity, the United Nations Environment Programme (UNEP) established in 2009 the SEANCC knowledge network through the “Supporting Action on Climate Change through A Network of Climate Change Focal Points in Southeast Asia” project (SEANCC Formation 2009). SEANCC’s *mission* is to provide technical support to meet its members’ UNFCCC commitments through policy and technology transfer. SEANCC’s priorities are jointly defined with the cities’ representatives (focal points) during bi-annual meetings which also assess network activities. On the basis of these priorities, the SEANCC Secretariat, served by the UNEP Bangkok office, plans network activities, holds meetings with partners, and prioritizes support services. The key mission of SEANCC is, in compliance with the Climate Change Offices Networking approach advocated by the UNEP, to connect the UNFCCC international regime to domestic policy (SEANCC Formation 2009; Interview 1, Interview 4, Interview 24). Financially, SEANCC is supported by the governments of Finland, Denmark and South Korea through their regional assistance projects (Interview 1², Interview 4; SEANCC Organization 2016).

Served by a Secretariat, SEANCC’s structure comprises the capital cities of Brunei, Cambodia, Indonesia, Lao, Malaysia, Myanmar, the Philippines and Singapore in partnership with 15 organizations including the Asian Development Bank (ADB), the International Institute for Climate Economics (I4CE) – France, the Gesellschaft für Internationale Zusammenarbeit, GIZ – Germany and the National Environment Agency (NEA) – Singapore. Each of these

contributes funding, capacity building and paradiplomacy according to their partnership commitments (SEANCC Database 2016; Interview 4; Interview 27).

Significantly, SEANCC takes a 3-pronged approach to its provision of services: strengthening capacity and governance, enhancing negotiating capacity and providing a platform for knowledge exchange (SEANCC Themes 2016; Interview 4, Interview 24). SEANCC’s *activities* are demonstrative of this approach. First, with regards capacity, SEANCC has held training sessions on energy-efficient technologies, workshops on the International Panel on Climate Change (IPCC) methodologies and evaluating sessions to assess capacity gaps in climate governance (SEANCC Database 2016). Second, in relation to enhancing negotiation capacity, SEANCC provides technical assistance to local negotiators through experts’ forums, pre- and post-COP workshops and seminars on the role of SEANCC within the ASEAN Working Group on Climate Change (AWGCC) (SEANCC Database 2016; Interview 4, Interview 24). Finally, in relation to its knowledge platform approach, SEANCC organises annual meetings on databases of GHG emissions and awareness seminars on the value of regional networks (SEANCC Database 2016; Interview 4, Interview 24).

But how does SEANCC work in practice? The above suggests that this is an organization in which authority is deployed in an associational manner through *consensus*, that is, by generating a commonality of purpose through exchange of best practices (see also Bulkeley 2006). The voluntarism of this consensual approach offers all the

² All Interviewees are chronologically listed in Appendix 1.

advantages of flexibility and adaptability by recognising that each capital city may share a common but differentiated responsibility when cooperating and contributing to global climate governance (Interview 2). This view was corroborated by another interviewee: *"Networks are expressions of civil society. Although SEANCC is very UNFCCC-/COP-orientated, SEANCC is there to exchange best mitigation practices and develop a regional position, no matter how informal"* (Interview 1). *As the person who acts as Singapore's focal point to SEANCC explained: "SEANCC is a true network, not part of the formalised ASEAN process or of the AWGCC. Since it is not a decision-making entity the work title of the country/city representative is not important, what really matters is his/her expertise."* (Interview 4).

With regards *impact*, that is, whether SEANCC helps cities become strategic in their climate governance role, informants suggested this is dependent on favourable contexts: *"The impact of SEANCC in individual cities depends on the climate mitigation priorities in their respective countries. Is it targets or technology or capacity building that they have set as a priority? Do they want to strengthen their climate change policy under the formal UNFCCC context (for example, by promoting carbon markets) or on their own? It is crucial to know the national policy direction"* (Interview 4). Providing fora to mediate between cities seems also essential in advancing SEANCC's impact on cities' strategic climate role. As one informant argued: *"There are [SEANCC] workshops to build convergence among participating cities, to understand each other better as*

there is still divergence on, for example, establishing an ASEAN-wide emissions trading system (ETS)." (Interview 4). Other interviewees stress the importance of SEANCC in helping cities acquire strategic capacity, for instance in enrolling youth organisations in climate change initiatives (Interview 24, see also ASEAN Power Shift 2015; Singapore Youth for Climate Action 2016).

To summarize in terms of the first analytical point distilled from the literature – whether transnational networks put cities in a strategic position in global climate governance – we can observe how SEANCC's role as a transnational regional network aims to be regionally focused while having a global reach. This is done not only via the participation of its members in the UNFCCC but also through its partnership with international players and its ability to help capital cities of its member countries to respond to global mitigation goals. How one if its member cities – Singapore – is contributing to, and benefiting from, SEANCC will be explored in the following section.

4.2. C40: ITS VISION, MISSION, STRUCTURE, ACTIVITIES AND IMPACT

As a network created and led by cities to connect, inspire, advise and influence, C40 was founded in 2005 by the then Mayor of London Ken Livingstone and 18 cities with the vision to discuss collaborative measures to tackle climate change (C40 2016). At a time when national governments were failing to reach an agreement on climate change, C40 was designed to advance policy delivery at the local level through

institutionalized modes of inter-city collaboration. As one interviewee closely involved commented: "*Ken [...] recognised that a lot of cities were already delivering programmes and policies that were reducing GHG emissions, but what they were not doing was sharing the information with each other.*" (Interview 25).

C40's *mission* has been to formulate procurement policies for climate-friendly technologies to reduce GHG emissions. Thus, shortly after its founding, C40 partnered with the Clinton Foundation and tasked the Clinton Climate Initiative (CCI) as its procurement and implementation partner (Clinton Foundation 2016). Through CCI, C40 offers financial incentives to access climate-friendly technology but also methodologies to measure GHGs and promote best-in-class practices (Roman 2010: 4). The rationale behind this is that if 40 (now 85) of the world's largest cities act together – for instance over procurement of climate-friendly technologies – then the effect will be far greater than if each city acted separately (Interview 25). C40's mission has, notably, evolved through the years. A change of leadership has meant a change of political orientation (from Livingstone's Labour to Bloomberg's Republican ideologies) but also a more frequent uptake of market tools and data-driven methodologies. This is evident in C40 partnering with the World Bank (WB) to set up a common protocol to measure GHG and allowing access to the Climate Investment Fund (C40 2016).

Structurally, C40 deploys its vision and mission through 85 cities and sixteen funders and partners. It elects a rotating

chair every 3 years. To date there have been 5 chairs, with the Mayor of Paris, Anne Hidalgo, taking over in August 2016. C40 counts also on an 8-member board of directors overseeing its day-to-day operations, a steering committee made up of 13 mayors, 85 staff (many of which are city advisors rather than secretariat staff) responsible for governance, research management and city intelligence, and 16 funders and partners including the Climate Disclosure Project (CDP) and ICLEI. As indicated by a Singapore C40 focal point (Interview 4), the C40 regional director for Asia-Pacific (Interview 9) and the Hong Kong C40 focal point (Interview 20), the steering committee's role is particularly significant. It is composed of either mayors or senior officials who are advisors to mayors or directors of environmental/ climate departments (Interview 25).

In terms of its *activities*, C40 pursues its objectives in essentially three ways. First, it strengthens knowledge capacity by means of biannual mayors' summits, regional fora and workshops of its subject subnetworks, as well as procurement alliances and pilot projects (Interview 1, Interview 12 and Interview 22). One prominent example was the July 2016 World Cities Summit (WCS), hosted by Singapore, which highlighted the critical role of capacity-building to enable cities to deliver on the Paris Agreement. Second, unlike SEANCC, where enhancing the negotiating capacity of participating cities' climate negotiators is its key approach, C40 partners with the private sector not only to provide technical assistance to address capacity gaps, but also to fulfil its data-driven, market-based approach to the

policies it wants to pursue and the projects it undertakes. This neoliberal approach to solving environmental problems, criticised by many from environmental and grassroots organizations (Interviews 17 and 6), seems legitimised by its success in closing the gap between the 'talk' at the national level and the 'walk' at the city level (Interview 6). Third, supporting network-building activities is a means by which C40 develops its knowledge platform to serve the needs of members.

C40's *impact* can be gauged in terms of how the network relates to and influences state and non-state actors. Our interviewees, when asked to provide an assessment of C40's performance as a network, pointed to a number of different dimensions of interactive performance. C40 has, firstly, proved important in strengthening dialogue between cities and national governments, which have through C40's activities come to acknowledge the role of cities as climate leaders (Interview 25). C40 has, secondly, also smoothed the path for more intensive cooperation between cities as, in the words of one interviewee, "*from a communication point of view, it's a lot easier to work with mayors of large cities*" (Interview 9). Thirdly, mayors in C40 are seen as critical figures in leveraging change and making these more accessible to municipal authorities (ibid.). A fourth impact has been on improving cooperation between non-state actors, such as environmental NGOs, in the slipstream of C40 (Interview 1). Finally, C40's impact on climate governance can be gauged in terms of its involvement with other related networks. A good example is how C40 has joined forces with the UN Compact of Mayors (Compact

of Mayors 2016), for instance providing it with technical assistance in developing a standardized measurement of emissions for cities (Interview 9).

In sum, C40 seems to be able to help its member cities govern climate change by deploying market and planning instruments as key tools to circumvent state-centric hierarchies (Acuto 2013: 96; Aust 2015: 260). Its effectiveness is, however, hugely dependent on the way each individual city participates in and is impacted by the network. The fact that C40 is able to accommodate diverse local contexts, political systems and leadership styles is an acknowledgement that cities have common but differentiated responsibilities when cooperating at the global scale (Bouteligier 2013: 84; Interview 9). Like SEANCC, this suggests that C40 deploys its authority in an associational way through *consensus*, that is, by generating a unity of purpose through the exchange of best practices at all levels of governance. But unlike SEANCC, which appears to be focusing almost exclusively on cities' capacity towards the UNFCCC process, C40 strengthens cities' strategic capacity through the authority of mayors represented in its steering committee. Yet, not all authority rests wholly in mayors' hands. Contrary to its original design of a small, advisory Secretariat with limited power, C40's Secretariat has acquired significant powers over time and is today driven by a 7-member board of directors that includes its 'champion', Michael Bloomberg, 2 city managers and 4 representatives of its funding/partnering institutions. In the eyes of some involved closely, C40 runs the risk of becoming an aim in itself (Interview 11).

5. THE CITIES IN THE TRANSNATIONAL NETWORKS

Having examined the function and performance of SEANCC and C40, we now turn to the experiences of Singapore and Hong Kong operating in these transnational networks. In conducting our analysis, we focus on the following: motives and expectations for joining; activities and practices within and through the networks; and impacts of the networks within and for each city. The purpose of this analysis is to understand how far the two cities play an active role in their respective networks and whether they use their membership to strengthen their diplomatic capacity in transnational climate governance.

5.1. SINGAPORE

Background. Singapore is a small, highly developed, ethnically mixed city-state.

Since independence its objectives have been political survival and nation building (1960s & 70s), political stability articulated through proactive strategic planning (1980s & 90s) and effective 'disciplined governance' from the 1990s onwards (see Francesch-Huidobro 2008: 7). The city's economy is dependent on international trade and investments, exporting primarily electronics, telecommunications equipment, pharmaceuticals, chemicals and refined petroleum. The city-state has the reputation of reinventing itself to stay at the forefront (Smart Cities Council 2016). From education to technology and biomedical sciences, Singapore wants to be a 'hub' of the latest technology and innovation (Liow 2011; Table 1; Commonwealth Nations 2016).

Policy Context. In 2008 and again in 2012 the National Climate Change Secretariat (NCCS), published a National Climate Change Strategy setting a climate agenda

TABLE 1. SINGAPORE FACTSHEET

Location	Southern tip of the Malay Peninsula in Southeast Asia
Area (km ²)	718.3
Population (million)	5.399 (2013)
Economy (GDP US\$ billion)	297.9 billion (2013)
Energy use (kg of oil equivalent per capita)	4,716 (2012)
CO ₂ Emissions (Mt CO ₂ equivalent)/ t per capita	40,377 MtCO ₂ eq (2011)/ 8.7 t
Urbanization	100%

Source: (UN World Urbanization Prospects Review 2014; World Bank Data Singapore 2016; Department of Statistics Singapore 2016).

and action plan including measures to reduce emissions, resilience plans, opportunities for green growth and cooperation through partnerships. The strategy is firmly grounded in the city's quest for continuing economic growth while protecting the environment (NCCS 2012: 8-37). At the same time, Singapore has positioned its strategy within the context of its physical and socio-economic geography and limited access to non-fossil fuels (NCCS 2012: 37). The mitigation aspect of the strategy rests on the improvement of energy efficiency, promotion of investment in R&D on low carbon technologies, energy conservation and citizens using public transportation. These are areas of knowledge and practice that are also being promoted by transnational networks, as we discuss below. In fact, one of the approaches of Singapore's climate strategy is to forge partnerships, which include not only international organisations with climate-related remits (i.e. WTO, WIPO, IMO ICAO) but also regional platforms such as APEC, ASEAN, C40 Cities and SEANCC (NCCS 2012: 14).

Mitigation Policies. Although Singapore's CO₂ emissions account for less than 0.2 per cent of global GHG emissions, it ranks 27th in the world for carbon emissions per capita (2009), ahead of Hong Kong that ranks 42nd and China 56th (NCCS Climate Change & Singapore 2012: 27). In 2009 the Singapore government announced a target to reduce national emissions 7-11 per cent below the 2020 Business-As-Usual (BAU) level, and to achieve a 16 per cent below BAU (approximately 12 million tonnes CO₂) if the post-Kyoto 2012 global negotiations were to result in a legally binding

agreement. In July 2015, the government submitted its Intended Nationally Determined Contribution (INDC) to the UNFCCC, committing to reduce its emissions intensity (the ratio of GHG emitted per unit of GDP) to 36 per cent below the 2005 level by 2030 (Li 2015: 13). Recently, Singapore has launched a *Climate Action Plan* outlining Singapore's key strategies to reduce its GHG emissions to 2030 (NCCS 2016). This was also highlighted at the July 2016 World Cities Summit, where Koh Poh Koon, Singapore's minister of state, praised the plan for addressing how cities can work together to maintain the momentum generated at COP21 in Paris.

Motives & Expectations. The principal driver for Singapore to join climate networks where best practices are exchanged appears to be an awareness of its climate vulnerability and a sense of global responsibility. First, as a coastal, highly urbanised city, Singapore is threatened by sea level rise, continuous coastal erosion and potentially disrupted food supply. Second, although a non-Annex I country, Singapore wants to contribute to global commitments while protecting "what is in the best interest for Singapore" (Interview 4), which in the context of climate change means acknowledging that 'going it alone' is not a wise option. Third, as an export-orientated, refinery-based economy, Singapore is concerned about how it may be negatively affected by other countries imposing border-carbon-adjustments (BCA) on products from countries without comparable emissions-reduction commitments (Cosbey 2008: iv; Li 2015: 13). For these reasons, Singapore has sought to engage transnationally

over climate change, establishing in 2010 a climate agency, the NCCS, as well as joining transnational networks (Interview 1; Interview 9). While internally NCCS together with the Inter-Ministerial Committee on Climate Change (IMCCC) coordinate climate related work (NCCS 2015; Jindal, Low & Tso 2014; Jindal, Low & Kua 2014), externally Singapore has ventured into climate cooperation not only through the UNFCCC but by joining networks such as SEANCC and the C40 (NCCS 2012: 126; C40 Singapore 2016). At the 2016 World Cities Summit the minister of state claimed that international partnerships of this kind have allowed Singapore to share best practices and gain knowledge from partners on climate and green growth issues. As one interviewee put it, *"we are motivated to attend SEANCC meetings because we are privy to many reference materials, pilot studies done by other cities, and we can study those to see if there is a possibility to adopt them"* (Interview 4).

The motives for joining SEANCC have also to do with its particular style of working. The open format and trust in regional partners allows Singapore to choose when it engages and when it does not: *"We attend on a value basis, i.e. if the issues are useful to us, something that we are keeping an eye on or monitoring then we will definitely attend."* (Interview 4). Moreover, he added: *"The discussions are honest and between negotiators [who are members of ASEAN but are not presenting ASEAN officially in these occasions]. We have focal points and within the network they maintain a database of members and workshop participants. We attend on a value basis, i.e. if the issues are useful to us, something*

that we are keeping an eye on or monitoring then we will definitely attend. We've been participating actively in the SEANCC network. Most recently, we collaborated with them to organize a markets workshop in October 2015. It was just after another markets workshop held in the Philippines organized by the Asian Development Bank (ADB) and just before the October ADB session. Last year, there was a saturation of workshops on but despite that there was meaningful participation" (ibid.). To the question on what they expect from the SEANCC network Interviewee 4 affirmed: *"Singapore is happy to partner SEAN-CC Network to understand other countries views on the global climate governance architecture. ASEAN does not have a common position because we have very diverse circumstances and interests. This is why ASEAN does not negotiate as a bloc under the UNFCCC. All the joint statements that have been announced so far have been fairly broad and high-level but we do not negotiate as a bloc. What this network [SEANCC] does is it provides a platform to discuss divergent views and see whether there are commonalities and common tracks and see how we can understand each other better"* (Interview 4).

Singapore's motivation to join C40 was quite different. Beyond access to information C40 offered focused expertise through its subnetworks: *"when we joined, a stock-take was conducted and all the various [C40] participants were assigned to subnetworks by initiatives (delta cities, low emissions vehicles, etc). This is a very different model than SEANCC. Much more focused on expertise and delivery"* (Interview 4). The emphasis here is more on gaining expertise

from other partner cities: "When we joined, a stock-take was conducted on all the various [C40] sub-networks and agencies were assigned to each network. This is a very different model than SEAN-CC. NCCS is in-charge of the Green Growth [C40 sub-network]. The first step is identifying agencies' buy-in to participate in the network. For example, we managed to get the Land Transport Authority to join the Low-Emissions Vehicle Network, Bus-Rapid-Transit Network and Mobility Management Network which talks about mobility planning within transport planning. That was not an easy task to get agencies' buy-in, around 1 year. Eventually, we got quite a few agencies' buy-in, such as the Building and Construction Authority (BCA) and the Building Efficiency Network for the Green Mark Scheme and sharing best practices. It is a very different, outsourced model. Our C40 membership is 2 years to align with the C40 Chair tenure, because we do not know if the next Chair of C40 is going to swing around and impose targets on cities. We are therefore protecting ourselves. The current Chair [Mayor Paes 2016] is very open and focused on a knowledge sharing platform, much like Mayor Bloomberg. Other than Steering Committee meetings, there are very few meetings" (Interview 4).

Nevertheless, as an observer city, Singapore is cautious: "Singapore decided to join the C40 Network to profile our achievements, share best practices, share publications online and win awards. Singapore won Smart Transport Management award and LTA represented us to go to London. Productive profiling. We are the vanguards and frontrunners in the network but we also chip in and are very active [in learning].

Cities get to decide on their own what to showcase as achievements on the C40 website. However, Singapore tends to be cautious when C40 tries to use indicators. There's a recurrent survey – the Carbon Disclosure Project survey. When Singapore joined in 2013, they fleshed out all the targets in one snapshot and Singapore felt it was unfair. As an Observer City with C40, Singapore can choose not to disclose indicator targets. Within the C40 Network, there are many cities which are mega-cities and service industry dominated, seeing that they have a hinterland to generate and supply their power source. There tends to be no industry in these cities as well, so the measurements of indicators can be rather lopsided. Transport and industry takes up a lot of emissions percentages in such cities, up to 80%. However, for Singapore, buildings is around 30-40%. This is quite different" (Interview 4).

Views from a C40 regional director based in and overseeing Singapore's C40 activity are that: "As far as Singapore is concerned, they have been a lot of exchanges but one key is that Singapore is one of the leading cities. I had this discussion with NCCS as well, if a city is located in a developing country with less resources and just establishing its data, it would be easier to say cut your energy consumption by say 50%, but Singapore is already developed and has this level of emissions so it may be that all its buildings are operating at its optimum in terms of energy efficiency so where is the room to make reductions? That doesn't mean that in Singapore there is no room for improvement. So we do capture these nuances and one of our key research is climate action for megacities. Looking

at back to 2011 till today we [C40] have identified about 10,000 specific climate actions and then we try to understand our role and actions where we can progress and we have identified that many of these actions are the result of partnerships or city to city collaborations! And of those 80% came from platforms provided by C40. This is a key [evaluative] measure. Each of our networks are also trying to capture initiatives that have resulted from their activity although there is a lot of overlap with other policies outside climate change like for example urban sustainability. But for example, we have a network on BRT or Connecting Delta Cities and HK is part of it... they have a scope and focus depending on the priorities of the cities involved it is not usual to have all 83 cities involved in the sub-networks" (Interview 9).

Activities & Practices. Singapore has played a prominent role in hosting high-profile events for both transnational networks. In October 2015 Singapore held the SEANCC event "Enhancing Climate Action Through Innovative Market-Based Mechanisms and Mobilising Private Sector Financing". On this occasion, the NCCS and the National Environment Agency (NEA) co-hosted a workshop on setting up an emissions trading scheme (ETS) at both domestic and regional levels (SEANCC Themes 2016). For C40, Singapore co-hosted the 2016 World Cities Summit. There it organised not only the event "From Ambition to Action: The Vital Role of Cities in Achieving the Paris Agreement" but also three panel discussions on low carbon development and how cities are leading on innovative actions, on resilient cities of the future, and on the importance of cities engaging

with partners for a safe future (Low notes 2016; C40 blog 2016). Singapore has also been actively involved in a number of C40 subnetworks, such as the private sector Building Energy Efficiency Network, the BRT Network and the Connecting Delta Cities Network (CDC), as well as leading the Green Growth Network (C40 Singapore 2016). This active role in C40 is corroborated by a C40 regional director: "As far as Singapore is concerned there have been a lot of exchanges but one key point is that Singapore is one of the leading cities" (Interview 9).

Impacts. In terms of what effect membership of the networks is having on climate governance in Singapore, those directly responsible agree these are significant. As one put it, "it [what we learned] does inform our domestic process and how we approach the issues at the international negotiations and how we work together with other countries. [...] These dialogues that take place at informal platforms like SEANCC do feed back into our overall approach" (Interview 4). Conversely Singapore appears to be impacting the networks too, especially their capacity building. Whilst pursuing its own agenda, Singapore sees itself fulfilling an intermediary role in SEANCC. In the words of one key participant "We try to come across as a bridge builder, a broker" (Interview 4). With regards C40, a regional director points to the various initiatives Singapore has launched in the context of the C40 subnetworks it is involved in, whether on "flooding in delta cities, energy efficiency in the commercial sector or avoiding the heat island effect" (Interview 9).

In sum, over and beyond its state-level formal participation in the global UNFCCC process, Singapore plays an active role and strengthens its diplomatic capacity through its participation in transnational urban networks. While retaining a critical role as a state, as a city, Singapore's capacity for collective climate action is enhanced through networks that complement the role of the state rather than supplant it. These networked activities appear to be firmly anchored in state organisations (through its agencies such as NCCS), yet enable Singapore to extend its radius of influence without running the risk of challenging the state or compromising its foreign policy (see also Aust 2015: 268; Yeung & Olds 2001).

5.2. HONG KONG

Background. In 1997 Hong Kong became a Special Administrative Region (HKSAR) of the People's Republic of China (PRC)

in accordance with the 1991 Basic Law (Basic Law 1991; Gittings 2013). The city is a small, highly developed, ethnically homogeneous yet cosmopolitan territory whose executive-led government follows the principles of rule of law, an executive, legislative and independent judiciary, freedom of expression and association and a capitalist economic system. Its government takes a *laissez faire*, non-interventionist approach to governing (free market, small government). The city's economy rests on the export of goods and services, private and government consumption, gross domestic fixed capital formation and assets markets of local stocks and residential property ownership. Hong Kong is a resilient city continuously on the lookout for new market niches, although currently challenged by global economic sluggishness, competition from other Chinese cities and a protracted political reform process (Hong Kong Economy 2016).

TABLE 2. HONG KONG FACTSHEET

Location	Southeast of mainland China, adjoining to province of Guangdong.
Area (<i>km²</i>)	1105.7
Population (<i>million</i>)	7.324.3
Economy (<i>GDP US\$ billion</i>)	309.929 billion (2014)
Energy use (<i>kg of oil equivalent per capita</i>)	2,045.3 (2012)
CO ₂ Emissions (<i>Mt CO₂ equivalent</i>)/ <i>t per capita</i>	43.1 million tonnes of CO ₂ -e/ 5 to 7.4 t per capita
Urbanization (%)	60% (40% protected country parks)

Source: (Environment Bureau Climate Change Report 2015; Census & Statistics Department HKSAR 2016; World Bank Database 2016).

Policy Context. Given China's involvement in the UNFCCC Hong Kong was required to support the national climate policy in accordance with Article 153 of the Basic Law (Basic Law 1991). The Kyoto Protocol and its obligations were extended to Hong Kong on 5 May 2003. In 2009 the Chinese government introduced a voluntary national target of 40 – 45 per cent reduction in carbon dioxide (CO₂) emissions from 2005 – 2020. Hong Kong raised that target to 50 – 60 per cent by 2020. At the 2016 G20 Summit China committed to cutting emissions by 60-65 per cent of 2005 levels by 2030. In 2015, the Hong Kong government published a *Climate Change Report* summarising the results of public consultations on a climate strategy without announcing a climate strategy (Environment Bureau 2015). The report set out Hong Kong's decarbonising priorities: use of cleaner fuels, low energy buildings, low carbon transport and waste-to-energy generation. Unlike Singapore, Hong Kong does not have a dedicated authority to coordinate climate-related policies. So far, the Secretary for Environment (minister) has been the focal point at C40 and a member of its steering committee. Unlike Singapore, too, Hong Kong has yet to formulate a climate strategy and action plan (Interview 11; Interview 17).

Mitigation Policies. Hong Kong's GHG emissions have been increasing annually by 1 – 2 per cent since 1990, from 33.3 (1990) to 43.1 (2012) million tons. The key local emission sources are electricity generation and town gas production at 68 per cent (Environment Bureau 2014). Key mitigation policies focus on reconfiguring the fuel mix for electricity generation by

reducing coal, increasing natural gas and developing renewables, setting energy intensity targets of 40 per cent reduction by 2030 from 2005 levels, conserving energy in buildings, promoting the use of energy-efficient electrical appliances, expanding the rail network, promoting energy efficient vehicles and pedestrianization and generating energy from waste (Environment Bureau Climate Change Report 2015: 7).

Motives & Expectations. Hong Kong became a member of C40 in 2007. According to the 2015 Climate Report (p. 87) Hong Kong joined C40 to exchange experiences on specific topics by participating in subnetworks such as those on Connecting Delta Cities, Private Buildings Efficiency and Low Emissions Vehicles. The voluntary and flexible nature of the network made it attractive for Hong Kong to "go and look at what other people are doing", then "come back and ask people questions" (Interview 20). Moreover, she added: "Networks are useful if we allow people to achieve and co-learn. There is a lot of networking [going on in Hong Kong] both within C40 and outside C40 and because it is flexible and voluntary you learn quite fast. And then you say gee! They are doing a good job on buildings in that city and you say, I am interested to know more and then you can go and do your homework. So networks are interesting in this respect and useful and not much more" (Ibid.). C40 is attractive to Hong Kong because it is, according to our interviewees, mindful of the very different geographies and political systems it encompasses (Interview 11). Moreover, its market-oriented policies – for instance on procurement – are generally in line with the city's own mode of governance. As one

observer puts it, "*the role of business in policy making [at C40] resonates well with Hong Kong*" (Interview 11). Nevertheless, Hong Kong's enthusiasm for C40 would appear to have cooled recently, following changes to the C40 leadership and the increased importance of US-based funding. In the words of a chief representative, though, C40 remains "*a voluntary, easy, flexible way for us to engage with cities and absorb and showcase what we have*" (Interview 20).

Activities & Practices. Despite the multiple activities and actors involved in climate change policy in Hong Kong, the city has been rather inactive in participating in C40 since 2010 (Interview 17). The C40 website lists only 3 entries for Hong Kong on the C40 blog, including its participation at the 2014 Mayors Summit (C40 Hong Kong 2016). Only 5 Hong Kong case studies are posted on the website, relating to a buildings energy efficiency ordinance (BEEO), retrofitting of plumbing in government buildings and schools, use of landfill gas, LED traffic lights retrofitting and combined heat and power (C40 Case Studies 2016). The paucity of more visible activity supports the view that there has been a cooling of relations between Hong Kong and C40, as indicated above, and, by default, less reliance on transnational networks (Interview 12; Interview 17).

Impact. The decline in enthusiasm for C40 in Hong Kong in recent years is coloring assessments of the network's contribution to the city's climate agenda. Whilst key climate change actors in Hong Kong do not deny that C40 has provided an important platform for exchanging ideas and

experiences, they are quick to emphasize that it is bilateral cooperation with individual member cities, such as Tokyo, rather than with C40 as a group from which Hong Kong derives most benefit (Interview 20). At the same time C40 offers a global forum for Hong Kong to showcase and share its own good practices of climate mitigation. For example, the city is particularly proud of having implemented a system by which vessels entering the harbor have to switch fuel at berth to lower emissions and has been keen to promote this practice in other C40 cities, to good effect (Interview 20).

To summarize, Hong Kong was enthusiastic in joining C40 and still retains a position in its steering committee. However, a combination of changes to the leadership of C40 and to Hong Kong's, new priorities in Hong Kong's political agenda in the past 5 years and the largely unsuccessful articulation of the co-benefits of climate mitigation in the city have weakened Hong Kong's active role and diplomatic capacity in this transnational urban network (Interview 11). Searching for a role in the Chinese state, Hong Kong, as a city, has failed to increase its capacity for collective climate action significantly by working through C40. Moreover, with city networks not legally recognised as entities in international law (Aust 2015: 277), Hong Kong finds itself torn between a city with a local government that has the authority (but not the political will) to implement climate mitigation policies and a city that could (but is hesitant to) use its membership of a transnational urban network to lobby for stronger climate governance across multiple scales and actors.

6. THE URBAN IN THE GLOBAL GOVERNANCE OF CLIMATE CHANGE: AN INTERPRETATION

Having investigated firstly how the two transnational networks – SEANCC and C40 – are promoting new modes of climate governance and secondly how the two cities of Singapore and Hong Kong are each operating through these networks, we address here the third analytical dimension of the paper: how these experiences can raise our understanding of the ‘urban’ in global climate governance. Following our earlier literature analysis, we interpret the empirical findings comparatively in terms of two categories relating to the role of cities in global climate change policy: firstly, how and why cities interact in the transnational space created by urban networks and, secondly, how urban networks act as agents of that space.

6.1. CITIES’ INTERACTION IN THE TRANSNATIONAL SPACE

Institutionally, Hong Kong and Singapore have both recognized the need for a whole-of-government approach to tackling climate change. Despite being non-Annex I UNFCCC Parties, and thereby having no legally-binding obligations to reduce GHG, both Hong Kong and Singapore have taken voluntary steps to reduce the rate of growth of their emissions. Both cities are recognizing the desirability of institutional leadership on climate change. Both created special bodies to address climate change – the IWGCC in Hong Kong (now an interdepartmental taskforce) and IMCC in Singapore – in 2007, two years after the Kyoto Protocol became legally binding on

its 128 Parties in 2005. Singapore further established the NCCS in 2009 to help coordinate international climate change collaboration and help translate Singapore’s environmental commitments into domestic policies and actions. Hong Kong established in 2016 a high-level coordinating taskforce on climate change which has yet to make an impact.

Singapore, our analysis suggests, appears to have greater institutional legitimacy and authority than Hong Kong as an urban actor of global significance. Any tension between its mundane role as an administrator of day-to-day government operations and its aspiration to be at the forefront of global climate governance is not apparent, perhaps due to it being both a city and a state. As Olds and Yeung 2011 explain: ‘the urban/local/national spaces are effectively juxtaposed in city-states in Pacific Asia allowing direct access to the global economy’ (p. 14). Singapore, cautiously but consistently, is interacting in the transnational space created by SEANCC and C40 with skill. It systematically draws on its long-term strategies and short-term climate action plans to influence this space. It sends its best people to negotiate at the global UNFCCC table, follows global mitigation trends, adopts best practices, yet discards what it finds politically unviable. Its participation in the C40 and SEANCC networks is active and responsible, though it readily admits this is primarily for its own benefit than for that of the world at large. Singapore picks what it deems advantageous to its own agendas, avoiding full affiliation to the networks and emphasizing its ‘observer’ role when this is expedient, especially in

C40. This strategy of selective engagement reflects the discourses of 'vulnerability' and 'exceptionalism' that underpin the city-state's polity (see Rodan 2016). Nevertheless, Singapore's commitment both domestically and internationally to advancing the climate mitigation agenda is likely to have a significant impact on climate governance in Southeast Asia and beyond. Its recent hosting of the World Cities Summit demonstrates this commitment.

Hong Kong, by contrast, is struggling to develop and consolidate its climate policy action under the large shadow of China which, in the case of carbon reduction, surpasses the city's formulated reduction targets which have not yet taken effect. Despite the large number of private and civil society climate initiatives and actions in Hong Kong, the city lacks a climate mitigation strategy and its action plans remain currently piecemeal and uncoordinated. Its participation in C40, although originally robust and enthusiastic, has effectively diminished over the years and, with it, Hong Kong's influence over this transnational space. Recent shifts in the way the C40 network is organized, led and funded have been perceived amongst key actors in Hong Kong as being less in tune with the city's own mode of governance and, perhaps, too strongly influenced by US-based organizations. The tension between Hong Kong's role as a city that has to administer day-to-day operations and its aspiration to be at the forefront of global governance is ever present.

6.2. URBAN NETWORKS AS AGENTS OF TRANSNATIONAL SPACE

The ability and willingness of the two cities to engage in their respective transnational networks is, of course, dependent to a significant extent on how the networks are structured, how they facilitate knowledge exchange, and how they develop over time. Structurally, C40 stands out as a network that, on paper at least, is conducive to enabling a high degree of agency for its member cities. It provides numerous and varied platforms for the free flow of ideas and the active involvement of people who are well connected with local stakeholders. Yet, in practice, and despite its inclusive profile and multi-ethnic staff, C40 has over time become more exclusive and increasingly influenced by its powerful private sector partners and funders from the Global North. This is making C40, in the eyes of some of our interviewees, potentially insensitive to local contexts and undermining the climate governance agency of its member cities from the Global South. Thus, in practice, our case study cities are not only using the networks to very different degree (high in Singapore, low in Hong Kong) as a means to achieve their mitigation goals and to mobilize the consent of their urban populations, but also as a new form of authority bridging spaces of climate thought and action.

Moreover, C40's power to purport agency to its participating cities also rests in the coordinating role of its Secretariat, the agenda-setting role of the Steering Committee and its ability to actually contribute to climate mitigation. C40 also enables urban agency in transnational

space by tapping on the power of collective action through high visibility, leverage opportunities (e.g. Copenhagen 2009, Paris 2015) and leadership (choosing high-profile, global leaders). Intriguingly, C40 is promoting a particular view of the urban in its activities, a view that values innovation and the global role of cities in world politics as catalysts of an emergent discourse on why cities matter to the world. The effectiveness of this distinctive approach will depend not only on the strength of its new leadership and organizational structure, but also on how it deals with the laggards and sceptics within and on the socio-economic and political crises without.

SEANCC, a much more modest and regionally-orientated transnational network, is more attune to local contexts and to the 'way of doing things' around ASEAN. Its style is flatter and less 'glossy' than C40's approach of purporting high agency to its participating cities and influencing social dynamics, yet SEANCC brings member cities and their actors to be on par with global standards of climate negotiation and technical know-how. Singapore, in its decisive yet unassuming way, plays a very significant agency role in SEANCC by hosting workshops and facilitating training sessions of the network. Highly distinct from the other SEANCC capital cities in terms of economic development, Singapore, though rather skeptical, remains committed to participating and using its leverage to increase its agency in this particular transnational space.

7. CONCLUSIONS

Our interest in researching this topic was inspired by the observation that, despite all the research conducted on transnational urban networks, we know relatively little about how climate change networks work in practice and virtually nothing about how Asian cities use their membership of such networks to advance their climate mitigation policies at home and abroad. To redress this knowledge deficit, we selected for study two Asian cities – Singapore and Hong Kong – that are perceived in the region to be pioneers of climate mitigation and the two transnational climate policy networks – C40 and SEANCC – to which one or the other belongs. Turning the famous adage on its head, we were intrigued to discover whether these two cities, by 'acting global' through transnational networks, are 'thinking local' in terms of advancing their own policy agendas. In other words, how far has engagement with transnational networks been more about domestic, urban issues than about international collaboration? This inquiry entailed a three-pronged analysis, addressing first the two networks themselves, then the two cities in their respective networks and, finally, a comparative interpretation of the findings in terms of urban agency.

Our empirical analysis revealed, regarding the first point, important differences between SEANCC and C40 in terms not only of their geographical scope, but also of their organisational structure, operational modus and forms of agency. SEANCC is firmly rooted in the spatial context of ASEAN and the political remit of the UNFCCC process. Its strengths derive from being sensitive to the former and targeted to the latter. It has generated a flexible, consensual approach whereby capital cities of its

member states can gain a strategic advantage by exchanging knowledge on urban climate policy, strengthening capacity and showcasing best practices to a regional audience. C40 also deploys its authority in an associational way through consensus, based on the voluntary engagement of its member cities, for instance in its thematic sub-networks. But in contrast to SEANCC, C40 draws its legitimation and power primarily from the mayors representing its members and the global leaders at its helm. This alliance of mayors has provided the political leverage to engage effectively with national governments on a global scale. A further distinctive feature of C40 is its predilection for partnerships with the private sector, notably over procurement, funding and data collection. In combination with recent changes in leadership, this has contributed, however, to a certain estrangement of, amongst others, Chinese member cities.

How each city is working within its respective transnational networks – the second issue of our analysis – is influenced less by the network itself than by urban policy contexts and agendas. ‘Acting global’ within SEANCC and C40 is, for both Singapore and Hong Kong, very much about ‘thinking urban’. The motives for Singapore to join both networks are grounded in its own vulnerability to climate change, its limited ability to achieve much alone and its concern over the negative impacts of restrictive emissions-trading policies. The city-state has used the transnational networks to showcase its best practices, but also to inform domestic policy. In the case of SEANCC it is positioning itself effectively as an intermediary, brokering innovations in climate governance between highly heterogeneous member states. Hong Kong’s engagement with C40 is also framed powerfully by its local

climate policy, but the impacts of membership have been modest, by all accounts, and the city’s involvement in this global platform has declined recently. Despite strong affinities with the market-oriented policies of C40, Hong Kong appears to have lost some of its original enthusiasm and is today less active in the network than a few years ago. This is a reflection partly of changes to the governance of C40 itself, but partly also of Hong Kong’s lethargic domestic agenda for climate mitigation, as evidenced by difficulties in developing a climate change strategy for the city.

The tale of two cities (and two networks) related here reveals thirdly, on a more generic level, insights into the urban dimensions of transnational climate governance. Particularly striking is the interplay between the local and the global in the urban networks studied. Very context-specific urban vulnerabilities, policies and governance styles can, we have observed, play a huge part in framing the motives of cities to join global networks, the kinds of activities they enroll in and the impacts likely to emerge from the networking experience. Conversely, the transnational nature of these climate networks enables cities to showcase their best practices to a global audience, draw inspiration from innovations elsewhere and derive legitimation for more concerted climate mitigation measures at home. The agency of cities in transnational urban networks should be understood, in other words, not as a series of activities delegated from the urban to the global scale, but very much as a range of scalar interactions, from the local to the global – and back. Unpacking these relations with studies of other cities would appear to be a most fruitful avenue for future research.

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APPENDIX 1: 26 INTERVIEWS' LOGBOOK (CHRONOLOGICAL ORDER)

IDENTIFIER	DATE	SECTOR	ORGANISATION
Interview25	2010	People	C40 UK (NGO, climate leadership, policy research & advocacy)
Interview26	2013	Public	NCCS Singapore (government, local climate policy coordination, international collaboration C40, SEANCC)
Interview1	11 Jan 2016	People	ECO Singapore (NGO, policy research & advocacy)
Interview2	12 Jan 2016	People	S. Rajaratnam School of International Studies, RSIS Singapore (academia, policy research & analysis)
Interview3	13 Jan 2016	People	Asia Europe Foundation, ASEF Singapore (NGO, policy research)
Interview4	14 Jan 2016	Public	National Climate Change Secretariat, NCCS Singapore (government, local policy coordination, international collaboration C40 SEAN CC)
Interview5	14 Jan 2016	Public	British High Commission, BHC Singapore (government, policy research & advocacy)
Interview6	18 Jan 2016	Private	Private consultant Singapore (policy research)
Interview7	18 Jan 2016	People	APCEL-NUS Singapore (academia, policy & legal research)
Interview8	19 Jan 2016	People	Singapore Institute International Affairs (SIIA) (NGO, policy research & analysis)
Interview9	20 Jan 2016	People	C40 Southeast Asia & Oceania (membership organisation, climate leadership, policy research & advocacy)
Interview10	18 Feb 2016	Private	Pricewaterhousecoopers (PwC) Hong Kong (business, risk assurance practice; sustainability & climate change practice)
Interview11	18 Feb 2016	People	The Kadoorie Institute (KI) Hong Kong (academia, policy research, analysis & consulting)
Interview12	22 Feb 2016	People	The Climate Group (CG) Greater China (NGO, climate and energy policies & advocacy)
Interview13	22 Feb 2016	Private	Hong Kong Electric Company Ltd (HK Electric) Hong Kong (business, power utility)
Interview14	23 Feb 2016	People	Asian Energy Studies Centre (AESC) Hong Kong (academia, policy research & analysis)
Interview15	24 Feb 2016	Private	Hong Kong and China Gas Company Ltd (Towngas) (business, public utility, sustainability & environment)

IDENTIFIER	DATE	SECTOR	ORGANISATION
Interview16	24 Feb 2016	Private	AECOM Greater China (business, technical & management support services, environment)
Interview17	25 Feb 2016	People	WWF Hong Kong (NGO, climate policy & public engagement)
Interview18	29 Feb 2016	Private-people	Asian Business Council Hong Kong (membership organisation, economic development & competitiveness)
Interview19	29 Feb 2016	Private	Mott Macdonald Hong Kong (business, consulting services, urbanisation)
Interview20	1 Mar 2016	Public	Environment Bureau, Environmental Protection Department Hong Kong (government, climate & energy policy, international collaboration)
Interview21	7 Mar 2016	Private	China Light & Power (CLP) Hong Kong (business, power utility, sustainability & environment)
Interview22	2016	Private (no transcript)	ARUP Hong Kong (business, consulting services, policy & sustainability)
Interview23	2016	People (no transcript)	Chinese University of Hong Kong (academia, innovation energy & environment)
Interview24	2016	People (no transcript)	Power Shift Singapore Youth for Climate Action (NGO, policy advocacy)

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