Can city-to-city cooperation facilitate sustainable development governance in the Global South? Lessons gleaned from seven North-South partnerships in Latin America

Luara Mayer & Le Anh Nguyen Long

Published online: 08 Dec 2020.

Submit your article to this journal

Article views: 570

View related articles

View Crossmark data

Taylor & Francis
Taylor & Francis Group

ARTICLE

∂ OPEN ACCESS   Check for updates

Can city-to-city cooperation facilitate sustainable development governance in the Global South? Lessons gleaned from seven North-South partnerships in Latin America

Luara Mayer[a] and Le Anh Nguyen Long ![ORCID][b]

aChair for International Relations and Sustainable Development, Institute for Political Science, University of Münster, Münster, Germany; bUniversity of Twente Faculty of Behavioral Management and Social Sciences, Department of Public Administration, Enschede, The Netherlands

ABSTRACT

The search for mechanisms that can bolster sustainable development governance is underway. Bilateral city-to-city partnerships (C2C) have been put forward as platform through which cities can strengthen sustainable development in urban landscapes. Here, we critically examine claims about the capacity of these international cooperative arrangements, originally designed and deployed as development aid delivery mechanisms, to promote sustainable development. Our systematic examination of the extant literature on bilateral North-South C2C in Latin America fails to provide sufficient evidence that C2C can deliver on its promise to promote robust governance, both generally and in the specific context of sustainable development. Instead, it seems that C2C is more likely to support than challenge entrenched practices which can weaken sustainable development governance. Identifying these tendencies is a first step in formulating strategies that may enhance C2Cs and other transnational partnerships aimed at improving urban sustainable development in the Global South.

Introduction

There is overwhelming evidence that unsustainable practices are propelling us beyond the earth's planetary boundaries (Rockström et al. 2009; Steffen et al. 2015; IPCC 2019). And yet few nation-states have shown a necessary commitment to sustainability (Sneddon et al. 2006; Quental et al. 2011; Smeds and Acuto 2018; Le Nguyen Long and Krause 2020) generating a policy vacuum, which various political actors have tried to fill with a patchwork of sustainable development instruments. Cities are becoming increasingly prominent actors in this policy space (Bulkeley 2010; Krause 2012; Watts 2017; Johnson 2018; Haupt et al. 2020). Some of these cities have attempted to tackle sustainability challenges by leveraging peer-to-peer cooperation with cities across borders.

City-to-city cooperation (hereafter C2C) has been named by policymakers and scholars as a promising urban sustainability governance instrument (Hakelberg 2014; Johnson 2018; Smeds and Acuto 2018; Shefer 2019). In its current use, however, the term C2C lacks specificity. C2C is a 'portmanteau term to cover all possible forms of relationship between local authorities at any level in two or more countries which are collaborating together over matters of mutual interest' (UN Habitat 2001). Among the various forms it can take, bilateral C2C has been celebrated as a promising policy instrument for promoting sustainability governance (Kurniawan et al. 2013; Yu et al. 2016; Fraundorfer 2017). Robust sustainability governance addresses environmental challenges by cultivating, sustaining, and leveraging responsibility and resource sharing relationships between state, market, and civil society (Kooiman 2003; Meadowcroft 2007; McGuire and Agranoff 2011). Therefore, C2C has become a target of institutional support, e.g., through the European Union's International Urban Cooperation

CONTACT Le Anh Nguyen Long ✉ l.a.n.long@utwente.nl 🌐 Professor of Public Administration, Faculty of Behavioural Management and Social Sciences Enschede, The Netherlands

programme. However, empirical evidence on the efficacy of sustainability governance in C2C is scant. Moreover, most of the existing evidence comes from the extant literature on Transnational Municipal Networks (TMNs), one of the forms C2C can take.

Studies focusing on TMNs suggest that while they can promote policy innovation (Keiner and Kim 2007; Krause 2012; Bansard et al. 2017; Johnson 2018), city networks tend to be driven primarily by elite governance mechanisms that mainly benefit already well-resourced cities (Haupt and Coppola 2019), and can even heighten inequalities among cities (Kern and Bulkeley 2009; Fünfgeld 2015; Mocca 2018). When it comes to sustainability focused bilateral C2C, a few studies have examined outputs like learning, knowledge transfer, and institutional strengthening (Feiner et al. 2002; Kurniawan et al. 2013; Yu et al. 2016; Beermann 2017; Shefer 2019) but neglect the wider question of governance. We address this knowledge gap by focusing specifically on bilateral C2Cs involving Latin American cities and partners in the global North. We contribute by critically assessing their potential as effective mechanisms for promoting sustainability in the Global South. We are interested in addressing the open question of whether C2Cs can dually handle sustainability governance and international cooperation, two objectives which can conflict (George and Reed 2017). To that end, we employ a qualitative content analysis of seven published case studies of bilateral C2Cs that link cities from Northern countries to cities in Latin America.

Latin America is pivotal for urban sustainability transitions (Irazábal and Angotti 2017; Nagendra et al. 2018). It is the second most urbanised region in the globe with 81% of population living in cities (United Nations 2018). Sustainability governance in Latin American cities is highly sensitive to the influence of international peers and donor priorities (Kim and Grafakos 2019). However, evidence is mounting that the replication of Northern cities' models in Latin America without adequate adaptation is prone to failure (e.g., Marchetti et al. (2019)). Indeed, the practices and outcomes documented in the seven cases that we examine suggest that the gains from bilateral C2C oftentimes befall a small, and specialised segment of the population, and can come at cost to inclusive and participatory decision-making.

In what follows, we place C2C within the context of urban sustainability governance before proceeding to describe our analytical approach. We proceed to discuss the seven published cases that we examine in this article before outlining our main observations. In our conclusion, we summarise our observations and suggestions for future research.

C2C for sustainability governance?

Sustainability's complexity is well documented in the literature. Sustainability closely touches on environmental, social, and economic concerns, thereby it involves tensions and trade-offs between difficult to harmonise objectives (Connelly 2007; George 2007; Gupta and Vegelin 2016). Furthermore, its causes and consequences are often spatially and temporally separated (Elliott 2006), which has at least two implications. First, unsustainable development patterns' causes, and effects span numerous local, national, and transnational layers (Meuleman and Niestroy 2015), requiring action across all of these levels and sectors. Additionally, sustainability politics is subject to the interplay between short term and long-term change and encompass yet unknown socio-ecological conditions (Avelino and Rotmans 2011). One overarching implication of this complexity is that sustainability cannot be governed with conventional, top-down, governing approaches (Kemp and Martens 2007; van Zeijl-rozema et al. 2008; Meuleman and Niestroy 2015). It instead needs to be addressed collectively by actors who are motivated by diverse, and at times conflicting, preferences, interests, and resources (Sørensen and Torfing 2005).

Cities are at the frontline of sustainability governance. The causes, subjects of, and solutions to sustainability problems are largely situated in cities (Ernstson et al. 2010; Loorbach et al. 2016). Not only is urbanisation a key driver of most sustainability challenges, but cities are also particularly vulnerable to ecological, socioeconomic, and political crises (Elmqvist 2013). Furthermore, cities are favourable places for innovation and experimentation (Ernstson et al. 2010; Loorbach et al. 2016). Scholars have argued that cities have relative advantages, compared to nation-states, when dealing with complex transnational problems such as climate change and sustainability transitions, including their ability to move more nimbly than national governments and to be closer to citizens' needs and provide vigilance (Bansard et al. 2017; Johnson 2018). Cities' experimentation with bilateral and networked transnational collaborative initiatives is often presented as meaningful examples of this claimed advantage (Keiner and Kim 2007; Krause 2012; Bansard et al. 2017; Johnson 2018).

Regarding bilateral C2C, empirical findings are mixed. On the one hand, C2C seems to be effective at institutional strengthening and policy innovation (Kurniawan et al. 2013; Yu et al. 2016). On the other, the benefits of policy learning in those arrangements seem to be minute: Shefer (2019) finds that despite learning in the context of C2C, actual policy making, at least in the short run, seems to be unaffected. Furthermore, the extant literature neglects the question of whether flexibility and high levels of democratic responsiveness are sustained in C2C, particularly the context of bilateral international cooperation. It is important to tackle these claims critically.

Bilateral C2C cooperation tends to be structured as formal, long-term arrangements (Hafteck 2003; Fünfgeld 2015), involving a long-standing partnership that is gradually deepened and extended (van Lindert 2009; Bontenbal 2009a). Bilateral, North-South C2Cs typically involve the transfer of monetary resources from the Northern cities' budgets and by non-public fundraising in Northern partner cities, or international donor-funded programs (Bontenbal 2009a). Until very recently, its main leitmotiv was oriented towards development aid (De Villiers et al. 2007; Tjandradewi and Marcotullio 2009; Berse et al. 2011). However, cities are increasingly including sustainability as a core goal of their international partnerships (Beermann 2017; Shefer 2019).

C2C stands on two pillars: city governments and the urban constituencies (Bontenbal and van Lindert 2008; Bontenbal 2009a). In the first pillar, leading public sector actors (e.g. mayors, councillors, and technical personnel) with similar responsibilities and tasks interact directly to exchange know-how and learn with each other (Tjandradewi and Marcotullio 2009; Berse et al. 2011). The second pillar includes city residents, civil society actors, the non-profit and private sectors in the municipality where action is being oriented. Actors situated in the second pillar are expected to actively participate and contribute to C2C projects (Hafteck 2003; van Lindert 2009; Bontenbal 2009c). In the context of sustainability, the main question becomes whether participating governments have the institutional capacity to successfully bridge actors in both pillars locally and internationally.

A number of factors may weaken one or both of these pillars. First, it can be difficult to mobilise citizen interest and action around sustainability priorities. Because sustainability challenges are not always immediately perceptible, especially when the causes and impacts of unsustainable development are geographically decoupled, it can be difficult to raise support for programs especially if sustainability is perceived as competing directly with other priorities. Additionally, in collective decision-making forums bias is oftentimes mobilised to favour actors with more power (Schattschneider 1960). Not only do technocrats and local elected officials have the upper hand in formal, decision-making settings where routines and rules are more familiar and set in their favour, it is often the case that the concerns of important but marginalised societal sectors are overlooked, co-opted, or excluded (Hamilton 1995; Cooke and Kothari 2001). This at least partially explains the observation that C2C tends to prioritise urban elites or private interests (Beermann 2017), or the preference of donor cities in the North (Atkinson 2001; Wilson and Johnson 2007). One solution often proposed is to get 'all of the right players seats at the table' (Fung 2006; Reed 2008). Verba et al. (1995) find that those who abstain from civic and political life do so because 'they can't, they don't want to, or no one asked them.' Thus, to become more inclusive, C2Cs should set strategies for lowering barriers to entry (e.g. by providing childcare, scheduling meetings on the weekend or evenings, or ensuring the presence of translators at discussions), or for targeted recruitment that might raise awareness among key actors who may otherwise feel disengaged or be unaware of C2C initiatives and their impacts (Fung 2006).

Relatedly, sustainability governance in C2C must acknowledge and account for the challenges inherent to transnational rulemaking, or the 'process in which non-state actors from more than one country generate behavioural prescriptions that are intended to apply across national borders' (Dingwerth and Pattberg 2009, p. 711). Establishing such rulemaking requires at the very least, that C2C partners arrive at a *shared definition of the problems they tackle*. A key challenge is prioritising just, fair and equitable outcomes (Esquivel 2016). This is a clear juxtaposition from the priorities of past developmental projects that expected social justice outcomes to 'trickle down' from investment in development and growth priorities. Empirical evidence belies these expectations: scholars have documented multiple cases where social and environmental justice have suffered and not benefitted from the prioritisation of economy over other social concerns (Esquivel 2016; Gupta and Vegelin 2016). It is becoming increasingly clear that prioritising justice over development is what paves the way for sustainability transitions that are not at constant risk of crisis.

It is an open question whether what is essentially a rather circumscribed formal agreement between negotiating technocrats has the necessary flexibility to operate in communities where the dominant institutions are informal and place-based (George and Reed 2017). For example, while some scholars who study C2C cooperation identify inadequate expertise in one city as one of the barriers which the partner city can address through knowledge transfer (De Villiers et al. 2007; Tjandradewi and Marcotullio 2009), more critical voices observe that public administrators in the South already tend to have a lot of the knowledge that is being transferred but they oftentimes do not act on this knowledge because, 'they had few, if any powers, to determine what to do' (Atkinson 2001, p. 275). In the face of these countervailing forces, a key challenge is to raise the legitimacy of sustainability action while providing sufficiently inclusive and collaborative participatory environments. No small feat, especially for resource strapped cities in the Global South.

Material and methods

This study examines seven cases as they are documented in published work on C2C programs involving Global North and Latin America. First, we performed keyword searches on different databases (Web of Science; Scopus; Google Scholar), using the following search stream: ('city-to-city cooperation' OR 'international municipal cooperation' OR 'decentralized cooperation' OR 'town twinning') AND ('case study' OR 'study case' OR 'case analysis' OR 'case review'). We complemented our keyword searches with searches on reference lists. This yielded a sample with 57 articles. Articles that failed to meet pre-set criteria were discarded, leaving 35 papers in our sample. The criteria for inclusion are: a. C2C is the main phenomenon of interest; b. the C2C under study is bilateral and involves a North-South partnership; c. the publication contains an in-depth case study; d. the text content is available.

Following Gerring (2009), we selected 'most-similar' cases' that matched along control variables (bilateral, North-South, in the same geographic region) any yet demonstrated different outcomes. To maximise representativeness, we decided to focus on the region with the greater number of scholarly coverage: Latin America (16 of the 35 articles). The seven case studies that we included in this review were studied by Ted Hewitt, Marike Bontenbal and Paul van Lindert. Our sample covers the following cases:

- Toronto (Canada) – São Paulo (Brazil) (Hewitt 1996, 1998, 1999a, 1999b, 2001)
- Charlesbourg (Canada) – Ovalle (Chile) (Hewitt 2002, 2004)
- Kitmat (Canada) – Riobamba (Ecuador) (Hewitt 2002)
- Utrecht (Netherlands) – León (Nicaragua) (Bontenbal and van Lindert 2008; van Lindert 2009; Bontenbal 2009b, 2013)
- Treptow-Köpenick (Germany) – Cajamarca (Peru) (Bontenbal 2009c)
- Lethbridge (Canada) – Ica (Peru) (Hewitt 1999b)
- Amstelveen (Netherlands) – Villa El Salvador (Peru) (Bontenbal 2009c, 2013)

The seven cases included in our study were launched between 1983 – 1998, and focused their cooperation around a number of areas (see Figure 1). The main focus of these partnerships was on urban development and planning. Although it was not yet in vogue, three of our seven cases had partnerships oriented around sustainability adjacent issues like Environmental Management (Cajamarca – Treptow-Köpenick, São Paulo – Toronto, Villa El Salvador – Amstelveen), Water Management (Cajamarca – Treptow-Köpenick, São Paulo – Toronto), and Waste Management (São Paulo – Toronto, Villa El Salvador – Amstelveen).

C2C governance in Latin America: a view from seven case studies (1983–1998)

Over the last 60 years, urbanisation has rapidly, sometimes violently, swept through Latin America, leaving environmental deterioration and social inequality in its wake (Rodgers et al. 2011; UN Habitat 2012). Many cities in the region initiated C2Cs to bolster their efforts to overcome these urbanisation challenges (Carrión 2016). Overall, the C2Cs cases under investigation share two goals: first, to raise institutional capacity through the transfer and exchange of resources. Their secondary aim is to promote 'good urban governance' by bridging the gap between these institutions and the people that they serve (Bontenbal and van Lindert 2008), also known as the second pillar of C2C. With regard to the first aim, the studies suggest that international partners engaging in knowledge exchange and transfer did not always manage to adapt information to local needs and priorities (Hewitt 1999b, 2002). When engaging in a 'policy tailoring process,' competing priorities and trade-offs need to be accounted for and managed. Bontenbal
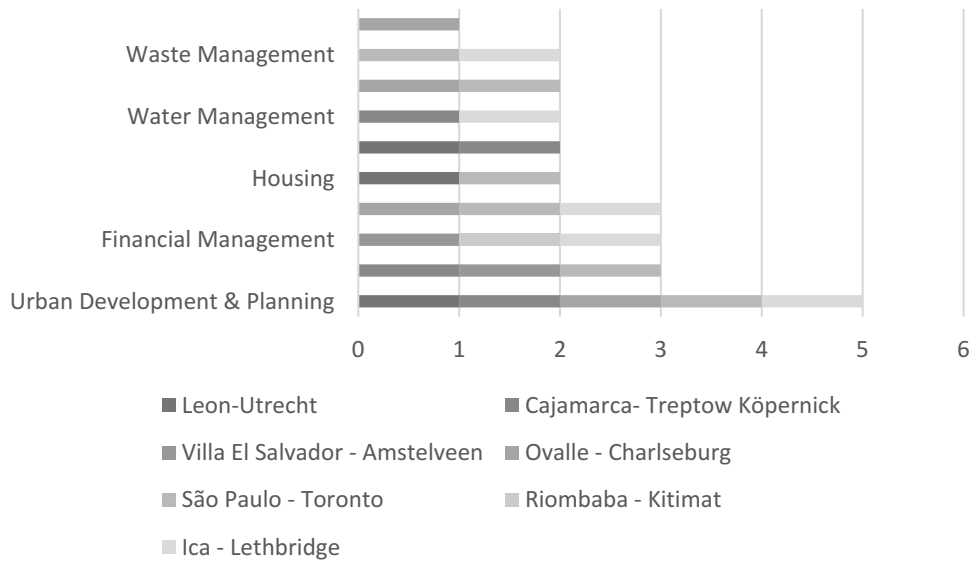
Figure 1. C2C Focus Areas

2009a, Bontenbal 2009b, and Bontenbal 2013 observes that for the C2C between Villa El Salvador and Amstelveen, the partners needed to balance their cooperation between local administrative affairs and community-oriented initiatives. The C2C handled this by focusing primarily on technical exchanges (Bontenbal 2009b, 2013) even though a purely technocratic approach poorly handles the notorious wickedness or urban environmental management (Termeer et al. 2015).

Greater participation in this second pillar can improve sustainability governance, for example, by increasing the pool of knowledge resources available for problem solving. It can also lead to collective learning, which in turn may raise the capacity for collective problem solving especially among diverse groups (Gerlak and Heikkila 2011). The emphasis given to the second pillar – citizens, civil society, and other public and private actors – in the literature on C2C assumes that they create opportunities for citizen access to decisional processes. However, Table 1 shows that not all C2Cs actively sought public and civil society participation. Three C2Cs (Riombaba – Kitamat, São Paulo – Toronto, and Ica – Lethbridge) only involved municipal government actors. It is also worth noting that these are the three C2Cs that were plagued by issues of capacity, transparency, and corruption. Persistent power imbalances, poorly designed recruitment mechanisms, and long-standing conflicts can upend inclusive processes in C2C (Cooke and

Kothari 2001; Fung 2006; van Zeijl-rozema et al. 2008). This is especially a concern when and where the opaqueness of urban governance enable manipulation by elites. These and other factors may explain why C2Cs have been found to be useful for bolstering administrative capacity but often fails to achieve adequate public participation and representation in these processes (Bontenbal and van Lindert 2008).

We cannot find sufficient evidence to back up the claim that bilateral C2C has a 'people-to-people' approach, with the potential of including a broader and more influential civil-society participation compared to international cooperation initiatives backed by nation states (Zelinsky 1991; Hafteck 2003; De Villiers et al. 2007; Tjandradewi and Marcotullio 2009). Across all seven cases, it was observed that actors from the public sphere rarely participated in the initial negotiations which form the basis of the formal agreements on which C2C is founded. Hewitt's work on C2C involving Canadian cities reveals how even well-implemented initiatives can suffer when they are not sufficiently inclusive. In one example, Hewitt describes how the partnership between Toronto (Canada) and São Paulo (Brazil) was driven largely by dynamics between Canadian and Brazilian politicians, managers, and technocrats. Little space was left for citizen participation which may have helped this largely successful partnership[1] to avoid taking controversial and much criticised decisions related to its urban housing projects (Hewitt 1998, p. 423).

Table 1. Case overviews.

Southern city	Northern city	Time-range	Cooperation activities in the Global South	Active partners (identified by respective authors)	Outcomes/conclusions (according to respective authors)
León (Nicaragua)	Utrecht (Netherlands)	1983 – unknown but program has closed.	• Strategic development planning; • Community building for municipal representatives and citizens; • Training on leadership, time management, and decision-making; • Establishment of a rotating fund.	• Officials and administrative staff from both municipalities; • Civil society partners, e.g. *Asociacion Communitaria de Poetas* (ACOPOE); • Neighbourhood committees; • Auditing organisations, e.g. the Municipal Development Committee (CDM).[2]	*Only positive observations*: • Stronger organisational capacity; • Enhanced civil society capacity; • Enhanced participatory systems.
Cajamarca (Peru)	Treptow-Köpenick (Germany)	1998 – unknown but program has closed.	• Workshops and internships (e.g. courses on urban environmental management); • Capacity building on water and waste management.	• Officials and administrative staff from both municipalities; • The Cajamarca water company (SEDACAJ)[3]; • Berlin's Water Treatment Plant; • Local NGOs.	*Only positive observations*: • Strengthened local officials' capacity for urban environmental management. • Improved capacity for ecological efficiency, public participation, and consensus building.
Villa El Salvador (Peru)	Amstelveen (Netherlands)	2004–2007	• Administrative reforms; • Updating municipal financial regulations; • Technical training; • Environmental management and planning; • Launched waste recycling and separation incentive program.	• Officials and administrative staff from both municipalities; • Villa El Salvador's Environmental Services Department; • Neighbourhood committees; • Private waste collectors in Villa El Salvador.	*Positive observations*: • Stronger local officials' organisational capacity. *Negative observations*: • Lack of funding and of professional knowledge
Ovalle (Chile)	Charlesbourg (Canada)	1994 –	• Pilot projects on transportation, urban planning, welfare programmes, and administrative procedures; • Creation of a Charlesbourg/Ovalle citizens' association; • Housing; • Strategic development planning.	• Officials and administrative staff from both municipalities; • Local actors like a social worker from Ovalle and an architect from Charlesbourg; • Neighbourhood Centres	*Positive observations*: • Created an urban master plan while accounting for public sensibilities and concerns. *Negative observations*: • Lack of financial resources.

(Continued)

Table 1. (Continued).

Southern city	Northern city	Time-range	Cooperation activities in the Global South	Active partners (identified by respective authors)	Outcomes/conclusions (according to respective authors)
São Paulo (Brazil)	Toronto (Canada)	1987–2000	• Property information and mapping systems; • Public health (e.g. campaign against communicable disease, ambulance response strategy); • Parks and recreation facilities; • Trade intensification between the cities; • Decentralisation of power and public participation in government; • Access to international financing for infrastructural projects; • Other specific pilot projects (in transportation, public services, public shelters, libraries, garbage collection, policing, human resources, and culture).	• Exclusively officials and administrative staff from both municipalities.	*Positive observations:* • Knowledge transfer; • Enhanced civic participation; • Improved services. *Negative observations:* • Lack of transparency; • Corruption; • Use of program for political ends.
Riobamba (Ecuador)	Kitimat (Canada)	1995–1996	• Developing a new purchasing records system; • Training on a software to track the purchasing and dispensation of municipal supplies and equipment.	• Exclusively officials and administrative staff from both municipalities.	*Only negative observations:* • Limited scope.
Ica (Peru)	Lethbridge (Canada)	1990–1995	• Re-designing the tax billing system; • Management of waste, transportation and water systems.	• Exclusively partner municipality's administrative staff from both municipalities.	*Only negative observations:* • Mismanagement and implementation failure: • Poor conflict management; • Corruption scandals.

The involvement of residents and civil society seems to encourage a deepening of the C2C partnership. As Table 1 shows, with the exception of São Paulo – Toronto, the involvement of residents and civil society seems to encourage deepening relations in terms of number of activities pursued and duration of partnership, both signs of commitment and trust. Regarding the attainment of commitment and trust, participatory platforms where deliberation, aggregation, and negotiating are integrated into the discursive process can cultivate internal and external support. Three features have been linked to deliberation, aggregation, and negotiating: frequent and routine contact, face-to-face communication, and clarity on desired outcomes of collaboration (Ansell and Gash 2007; Bryson et al. 2013). In C2C partnerships, strong relationship ties based in regular and reliable communication between stakeholders (De Villiers et al. 2007; Tjandradewi and Marcotullio 2009). Generally, the governance structure which C2C adopts, peer-to-peer agreements, may not be appropriate for building these commitments as the core problems may be dominated by place-based dynamics and require a stronger 'self-governance' approach (Driessen et al. 2012; George and Reed 2017) and a higher level of inclusiveness that C2C has thus far been able to provide (Bontenbal and van Lindert 2008).

Operating in the transnational context also raises questions around the issue of accountability (Beisheim and Simon 2016; Bowen et al. 2017). Accountability concerns the extent to which governments openly provide information on their decision-making and can be held to task for their actions and choices (Lebel et al. 2006). Governance mechanisms, such as C2Cs, achieve strong accountability to the extent that they have *answerability* – such that affected people can demand answers because they have access to clear, reliable, and timely information – and can impose *sanctions* (Fox 2007). Accountability safeguards the legitimacy of public good provision by placing checks on client politics and corruption (Sobol 2008; Aidt 2011; Güney 2017). Partnerships between geographically dispersed cities can create impenetrable and difficult to observe procedures and institutions. For example, how can residents in partner city A stay informed (and make meaningful evaluations) about how their resources are being invested in faraway partner city B?

While it has been argued that C2Cs may have an advantage – compared to national governments – in addressing problems related to transparency and responsiveness because they are smaller, more manageable entities and, in theory, closer to the people (Hafteck 2003), the dynamics documented in Latin America reveals none, or at most weak versions of accountability. The Kimitat-Riombaba C2C lacked mechanisms to monitor and evaluate how partners were performing (Hewitt 2004). Likewise, in Lethbridge–Ica partnership neither answerability nor sanction was evident, as demonstrated by the lack of action taken in response to Ica's Mayor practice of using the C2C favour private interests (Hewitt 1999b). It is true that some C2Cs took some steps towards raising answerability. However, even in these cases, a persistent lack of transparency combined with inadequate sanction mechanisms created challenges in terms of accountability. For instance, even if the Toronto-São Paulo Operações Interligadas program employed evaluation procedures, the information disclosure practices were insufficient and unclear. As a result, Hewitt (1998) claims that the program was sometimes used to further political benefits at the cost of meeting the needs of the city's most vulnerable residents (Hewitt 2001). Furthermore, the C2C cases that did yield advancements in terms of answerability – e.g. the Amstelveen and Villa El Salvador partnership instituted more transparent systems for reporting of financial transactions (Bontenbal 2009b, 2013) – lacked mechanisms for imposing sanctions. Indeed, while the case studies do document accountability in and by Southern cities, none provide any insight into accountability mechanisms in Northern cities.

It is worth noting that many of the fundamental disagreements about sustainability are based on problematic social inequalities within cities and between urban partners (Wilson and Johnson 2007; Bontenbal 2013; Beermann 2017). Powerful cities from Northern states may leverage material and reputational resources to impose their preferences on Southern partners, sometimes encouraging to take actions which are not appropriate given realities on the ground. Additionally, Northern partners may encourage action by Southern city partners without taking equally necessary steps. Indeed, Northern partners can use their C2C investments to deflect responsibility for setting more stringent sustainability targets at home.

Discussion

Based on our observations, some key areas of concern can be identified in order to inform future praxis. While

strategies to lower participation barriers and institutionalise platforms for citizen participation are pivotal, participation is a necessary but insufficient condition for inclusivity. Even in participatory platforms, the design of institutions can dis-empower citizen stakeholders, especially those who are the most marginalised (Fung 2006; Reed 2008). Furthermore, C2Cs generally have weak mechanisms of accountability. Citizens in both partner cities require more reliable information so that they can keep abreast of C2C activities and to hold both partner cities accountable for negative impacts that C2Cs may have on local neighbourhoods. Last, but not least, to set a strong policy base for SD governance, C2C partners should design clear and solid institutions to uphold social justice.

There has been inadequate participation by key partners like residents, civil society, and even local businesses. The consequences of this lack of inclusiveness are manifold. First, C2Cs might reinforce inequalities between (Mocca 2018; Geldin 2019) and within cities (Fastenrath et al. 2019). They may support an elite-centric governance (Haupt et al. 2020) while requiring the most vulnerable and marginalised urban residents to bear a disproportionate share of the burden for sustainability. This in turn may lead to 'lock-ins' (e.g. maintenance of path dependencies of practices and institutions) that support the status quo (Acuto and Rayner 2016). Second, without alternative voices, C2Cs may be ill-equipped to promote environment and environmental justice. This mirrors what has been found in North-North C2C partnerships. In examining cooperation between French and British cities under the EU water framework directive, Gambert (2010) finds that while these C2Cs helped partners to overcome difficult conflicts, the initiatives made negligible gains in terms of their desired environmental impact. Another important issue pertinent to North-South C2Cs concerns how inequalities between the partners play out in the course of these agreements. North-South partnerships are known to reinforce problematic power dynamics (Atkinson 2001). For example, Mocca's (2018) study of TMNs reveals that more well-resourced cities are able to dominate and steer learning in city networks and partnerships. In our review of the literature, we find little evidence that bilateral C2C is any different.

Conclusion

In recent years, cities have been increasing their engagement in bilateral North-South sustainability-focused C2C as a means to raise sustainability in the global South. With a few exceptions (see Atkinson 2001), the claims about C2Cs which may have in part motivated these investments have received much less attention. We make a first step towards filling this gap by conducting a qualitative enquiry into past cases-studies of C2Cs' between Northern and Latin American cities. Our critical review indicates that processes in C2C were largely hierarchical, with decisions mainly made by partner governments with post hoc civil society consultations, to whom very limited decision-making power is delegated. Still, the institutionalisation of participation was positively associated with the deployment of other strategies to lower participation barriers and with more satisfactory governance outcomes. Our analysis of these case studies further suggested that accountability systems (e.g. systematic collection, reporting, and sharing of information as well as monitoring and sanctioning mechanisms) can be built into the C2C by design and can strengthen its performance.

While this present study provided insights into conditions which hinder sustainability governance in the context of C2Cs, its critical limitations should be acknowledged. The study was based on tertiary sources that look at development and not sustainability. Thus, further empirical work is needed to examine the validity of claims that C2C partnerships are suitable mechanisms to cope with sustainability governance challenges, especially in terms of how C2Cs can safeguard democratic institutions while dealing with difficult trade-offs. However, this work does reveal the systematic neglect of core dimensions associated with 'good governance' (Gaventa 2002) in the extant literature which can be validated by future work in the field. Future research could shed light on another issue beyond the scope of this current work, namely: the democratic quality of international governance arrangements (Sørensen and Torfing 2005). Clearly, governing transnationally adds a layer of opacity to governance. Such opacity coupled with the geographic disarticulation of decision-making stand to threaten the transparency, accountability, and responsiveness of public officials and jeopardise the legitimacy of these governance tools. Moreover, in transnational multi-stakeholder-based initiatives, accountability is not ensured by an electoral system (Bäckstrand 2006). These concerns are especially robust in the case of North-South partnerships where asymmetries in material, knowledge, and relational resources can give rise to problematic power dynamics.

Today, unsustainable practices continue to push us outside our 'safe operating space' (Rockström et al. 2009). To minimise the impact that the consequences of these behaviours on our built and natural environment as well as current and future generations, we need to invest heavily in sustainability governance instruments. Efforts in this direction can benefit from systematic assessments of these instruments' potentialities. As C2C continues to gain a reputation as a useful policy instrument for sustainability, it is important to be sensitive to these concerns. In ignoring them the instigators of C2C run the risk of (un)knowingly stifling social justice and democratic legitimacy (Sørensen and Torfing 2005). To what extent can C2Cs for sustainability be democratically implemented? What factors make C2Cs for SD more or less participatory, accountable and transparent? These are just a few of the questions that remain open.

Notes

1. For example, this project successfully set up a city-wide school nutrition program in São Paulo (Hewitt (Hewitt 1998, 1999a, 2001).
2. Established through Nicaragua's administrative decentralisation law, CDM provides external advise on matters related to municipal development planning.
3. https://www.bnamericas.com/en/company-profile/agua syresiduos/eps-sedacaj-sa-sedacaj.

Acknowledgements

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Luara Mayer is a PhD Candidate at the Chair for International Relations and Sustainable Development, University of Münster, in Germany. Her thesis work focuses on the democratic functioning of North-South C2Cs for sustainability. Luara's main lines of research are in international political economy, development cooperation and glocal dynamics in the areas of sustainability, transportation, and energy.

Le Anh Nguyen Long is an Assistant Professor of Public Administration at the University of Twente, Netherlands. She studies policy emergence, learning, and innovation in the areas of environmental policy and politics, immigration, and cyber security. Her most recent publications have appeared in *Public Administration, Global Environmental Politics*, *Policy Sciences*, and *Public Administration Review*.

ORCID

Le Anh Nguyen Long 🔟 http://orcid.org/0000-0002-6188-9646

References

Acuto M, Rayner S. 2016. City networks. Breaking Gridlocks or Forging (New) Lock-ins? International Affairs. 92:1147–1166. doi:10.1111/1468-2346.12700

Aidt TS. 2011. Corruption and sustainable development. In: Rose-Ackerman S, Søreide T, editors. International handbook on the economics of corruption: volume two (pp. 3–51). Cheltenham (U.K): Edward Elgar.

Ansell C, Gash A. 2007. Collaborative governance in theory and practice. Journal of Public Administration Research and Theory. 18(4):543–571. doi:10.1093/jopart/mum032

Atkinson A. 2001. International cooperation in pursuit of sustainable cities. Dev Pract. 11(2–3):273–291. doi:10.1080/0961452012 0056414

Avelino F, Rotmans J. 2011. A dynamic conceptualization of power for sustainability research. J Clean Prod. 19(8):796–804. doi:10.1016/j.jclepro.2010.11.012

Bäckstrand K. 2006. Multi-stakeholder partnerships for sustainable development: rethinking legitimacy, accountability and effectiveness. Eur Env. 16(5):290–306. doi:10.1002/eet.425

Bansard JS, Pattberg PH, Widerberg O. 2017. Cities to the rescue? Assessing the performance of transnational municipal networks in global climate governance. Int Envir Agreem Polit Law Econ. 17:229–246. English. doi:.. doi:10.1007/s10784-016-9318-9

Beermann J 2017. Urban cooperation and climate governance. Wiesbaden: Springer Fachmedien Wiesbaden. ISBN: 978-3-658-17145-2.

Beisheim M, Simon N 2016. Multi-stakeholder partnerships for implementing the 2030 agenda: improving accountability and transparency. Analytical Paper for the 2016 ECOSOC Partnership Forum. SSRN Journal. doi:10.2139/ssrn.2767464.

Berse K, Asami Y, Tjandradewi BI 2011. Building local disaster resilience through international municipal cooperation: experience from selected asian cities. In: International Institute for Infrastructure, Renewal and Reconstruction, editor. Annual International Conference - International Conference on Building Resilience. Heritance Kandalama, Sri Lanka: IIIRR.

Bontenbal M 2009a. Cities as partners: the challenge to strengthen urban governance through North-South city partnerships/ Marike Bontenbal. Delft: Eburon. 324 p. ISBN: 978-90-5972-313-9.

Bontenbal M. 2009b. Strengthening urban governance in the South through city-to-city cooperation: towards an analytical framework. Habitat Int. 33(2):181–189. doi:10.1016/j.habita tint.2008.10.016

Bontenbal M. 2009c. Understanding North-South municipal partnership conditions for capacity development: A

Dutch-Peruvian example. Habitat Int. 33(1):100–105. doi:10.1016/j.habitatint.2008.05.003

Bontenbal M. 2013. Differences in learning practices and values in north-south city partnerships: towards a broader understanding of mutuality. Public Admin Dev. 33(2):85–100. doi:10.1002/pad.1622

Bontenbal M, van Lindert P. 2008. Bridging local institutions and civil society in Latin America: can city-to-city cooperation make a difference?. Environment and Urbanization. 20:465–481.English. doi:. 10.1177/0956247808096123

Bowen KJ, Cradock-Henry NA, Koch F, Patterson J, Häyhä T, Vogt J, Barbi F. 2017. Implementing the "Sustainable development goals": towards addressing three key governance challenges—collective action, trade-offs, and accountability. Current Opinion in Environmental Sustainability. 26-27:90–96. doi:10.1016/j.cosust.2017.05.002

Bryson JM, Quick KS, Slotterback CS, Crosby BC. 2013. Designing public participation processes. Public Admin Rev. 73(1):23–34. doi:10.1111/j.1540-6210.2012.02678.x

Bulkeley H. 2010. Cities and the governing of climate change. Annu Rev Environ Resour. 35(1):229–253. doi:10.1146/annurev-environ-072809-101747

Carrión F. 2016. La ciudad y su gobierno en América Latina. In: Abramo P, Rodríguez Mancilla M, Erazo Espinosa J, editors. Procesos urbanos en acción. III. Buenos Aires: CLACSO; p. 45–80.

Connelly S. 2007. Mapping sustainable development as a contested concept. Local Environment. 12(3):259–278. doi:10.1080/13549830601183289

Cooke B, Kothari U. 2001. Participation, the new tyranny? London:Zed. ISBN:9781856497947.

De Villiers JC, De Coning TJ, Smit EVDM. Villiers JC de, Coning TJ de, Smit EVDM. 2007. Towards an understanding of the success factors in international twinning and sister-city relationships. South African Journal of Business Management. 38(1):1–10. doi:10.4102/sajbm.v38i1.573

Dingwerth K, Pattberg P. 2009. World politics and organizational fields: the case of transnational sustainability governance. European Journal of International Relations. 15(4):707–743. doi:10.1177/1354066109345056

Driessen PPJ, Dieperink C, Laerhoven F, Runhaar HAC, Vermeulen WJV. 2012. Towards a conceptual framework for the study of shifts in modes of environmental governance - experiences from the netherlands. Env Pol Gov. 22 (3):143–160. doi:10.1002/eet.1580

Elliott JA. 2006. An introduction to sustainable development. 3rd ed.. London: Routledge (Routledge perspectives on development series. ISBN:0-415-33559-0.

Elmqvist T. 2013. Urbanization, biodiversity and ecosystem services: challenges and opportunities: a global assessment: a part of the Cities and Biodiversity Outlook Project/Thomas Elmqvist [and ten others], editors. Dordrecht:Springer. ISBN:9789400770881.

Ernstson H, van der Leeuw SE, Redman CL, Meffert DJ, Davis G, Alfsen C, Elmqvist T. 2010. Urban transitions: on urban resilience and human-dominated ecosystems. Ambio. 39 (8):531–545. eng. doi:. DOI: 10.1007/s13280-010-0081-9

Esquivel V. 2016. Power and the sustainable development goals: a feminist analysis. Gend Dev. 24(1):9–23. doi:10.1080/13552074.2016.1147872

Fastenrath S, Coenen L, Davidson K. 2019. Urban resilience in action: the resilient melbourne strategy as transformative urban innovation policy? Sustainability. 11(693):693. doi:10.3390/su11030693

Feiner JP, Salmerón D, Joos E, Schmid WA. 2002. Priming sustainability: the kunming urban region development project. DISP. 151:59–67.

Fox J. 2007. The uncertain relationship between transparency and accountability. Dev Pract. 17(4–5):663–671. doi:10.1080/09614520701469955

Fraundorfer M. 2017. The role of cities in shaping transnational law in climate governance. Global Policy. 8(1):23–31. doi:10.1111/1758-5899.12365

Fünfgeld H. 2015. Facilitating local climate change adaptation through transnational municipal networks. Current Opinion in Environmental Sustainability. 12:67–73. doi:10.1016/j.cosust.2014.10.011

Fung A. 2006. Varieties of participation in complex governance. Public Adm Rev. 66(s1):66–75. doi:10.1111/j.1540-6210.2006.00667.x

Gambert S. 2010. Territorial politics and the success of collaborative environmental governance: local and regional partnerships compared. Local Environment. 15(5):467–480. doi:10.1080/13549831003745865

Gaventa J. 2002. Towards participatory local governance: six propositions for discussion. Currents. 28:29–35.

Geldin S. 2019. Advancing urban adaptation where it counts: reshaping unequal knowledge and resource diffusion in networked Indonesian cities. Environ Urban. 31(1):13–32. doi:10.1177/0956247818776532

George C. 2007. Sustainable development and global governance. The Journal of Environment & Development. 16(1):102–125. doi:10.1177/1070496506298147

George C, Reed MG. 2017. Operationalising just sustainability: towards a model for place-based governance. Local Environment. 22(9):1105–1123. doi:10.1080/13549839.2015.1101059

Gerlak AK, Heikkila T. 2011. Building a theory of learning in collaboratives: evidence from the everglades restoration program. Environ Sci Policy. 21:619–644. doi:10.1093/jopart/muq089

Gerring J. 2009. Case selection for case-study analysis. In: Box-Steffensmeier JM, Brady HE, Collier D, Gerring J editors. The oxford handbook of political methodology (pp. 645–684). Published Online. New York, NY: Oxford University Press (vol. 1).

Güney T. 2017. Governance and sustainable development. How Effective Is Governance? The Journal of International Trade & Economic Development. 26(3):316–335. doi:10.1080/09638199.2016.1249391

Gupta J, Vegelin C. 2016. Sustainable development goals and inclusive development. Int Environ Agreements. 16 (3):433–448. doi:10.1007/s10784-016-9323-z

Hafteck P. 2003. An introduction to decentralized cooperation: definitions, origins and conceptual mapping. Public Admin Dev. 23(4):333–345. doi:10.1002/pad.286

Hakelberg L. 2014. Governance by diffusion: transnational municipal networks and the spread of local climate strategies in europe. Global Environmental Politics. 14:107–129. doi:10.1162/GLEP_a_00216

Hamilton JT. 1995. Testing for environmental racism: prejudice, profits, political power? J. Pol Anal Manage. 14(1):107. doi:10.2307/3325435

Haupt W, Chelleri L, van Herk S, Zevenbergen C. 2020. City-to-city learning within climate city networks: definition, significance, and challenges from a global perspective. International Journal of Urban Sustainable Development. 12:143–159. doi:10.1080/19463138.2019.1691007

Haupt W, Coppola A. 2019. Climate governance in transnational municipal networks: advancing a potential agenda for analysis and typology. International Journal of Urban Sustainable Development. 11(2):123–140. doi:10.1080/19463138.2019.1583235

Hewitt WE. 1996. International municipal exchange as a catalyst for south-north technology and information transfer: a case study from the Americas. Can J Dev Stud. 17(2):293–311. English. doi:. DOI: 10.1080/02255189.1996.9669656

Hewitt WE. 1998. The role of international municipal cooperation in housing the developing world's urban poor: the toronto-sao paulo example. Habitat Int. 22(4):411–427. doi:10.1016/S0197-3975(98)00017-4

Hewitt WE. 1999a. Cities working together to improve urban services in developing areas: the Toronto-Sao Paulo example. Stud Comp Int Dev. 34(1):27–44. English. doi:10.1007/BF02687603

Hewitt WE. 1999b. The administrative impact of international municipal cooperation on Canadian cities and towns: an assessment. Canadian Public Administration. 42(3):312–330. English. doi:10.1111/j.1754-7121.1999.tb01553.x

Hewitt WE. 2001. Confronting the challenges of urban development in Sao Paulo: the Operacoes Interligadas/Urbanas. Public Administration & Development. 21(3):233–243. doi:10.1002/pad.177

Hewitt WE. 2002. Partnership as Process: Municipal Co-operation for International Development. Canadian Journal of Development Studies. 23:225–247. doi:10.1080/02255189.2002.9668864.

Hewitt WE. 2004. Improving citizen participation in local government in Latin America through international cooperation: A case study. Dev Pract. 14(5):619–632. English. doi:. DOI: 10.1080/0961452042000239779

IPCC. 2019. Global Warming of 1.5℃.: an IPCC Special Report on the impacts of global warming of 1.5℃ above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Geneva, Switzerland: Intergovernmental Panel on Climate Change. https://www.ipcc.ch/sr15/.

Irazábal C, Angotti T. 2017. Planning latin american cities: housing and citizenship. Lat Am Perspect. 44(3):4–8. doi:10.1177/0094582X16689558

Johnson CA 2018. The power of cities in global climate politics. London: Palgrave Macmillan UK. 178 p. ISBN: 978-1-137-59468-6.

Keiner M, Kim A. 2007. Transnational City Networks for Sustainability. European Planning Studies. 15(10):1369–1395. doi:10.1080/09654310701550843

Kemp R, Martens P. 2007. Sustainable development: how to manage something that is subjective and never can be achieved? Sustainability: Science, Practice, & Policy. 3:5–15. http://ejournal.nbii.org/.

Kern K, Bulkeley H. 2009. Cities, europeanization and multi-level governance: governing climate change through transnational municipal networks. JCMS: Journal of Common Market Studies. 47:309–332. doi:10.1111/j.1468-5965.2009.00806.x

Kim H, Grafakos S. 2019. Which are the factors influencing the integration of mitigation and adaptation in climate change plans in Latin American cities?. Environmental Research Letters. 14(105008). doi:10.1088/1748-9326/ab2f4c

Kooiman J. 2003. Governing As Governance. London: Sage Publications. 1 online resource. ISBN:978-0761940364.

Krause RM. 2012. An assessment of the impact that participation in local climate networks has on cities' implementation of climate, energy, and transportation policies. Review of Policy Research. 29(5):585–604. doi:10.1111/j.1541-1338.2012.00582.x

Kurniawan TA, Puppim de Oliveira J, Premakumara DGJ, Nagaishi M. 2013. City-to-city level cooperation for generating urban co-benefits: the case of technological cooperation in the waste sector between Surabaya (Indonesia) and Kitakyushu (Japan). J Clean Prod. 58:43–50. doi:10.1016/j.jclepro.2013.08.002

Lebel L, Anderies JM, Campbell B, Folke C, Hatfield-Dodds S, Hughes TP, Wilson J. 2006. Governance and the capacity to manage resilience in regional social-ecological systems. Ecology and Society. 11(1): 19. [online] http://www.ecologyandsociety.org/vol11/iss1/art19/

Loorbach D, Wittmayer JM, Shiroyama H, Fujino J, Mizuguchi S. editors. 2016. Governance of urban sustainability transitions. Tokyo:Springer Japan (Theory and Practice of Urban Sustainability Transitions). ISBN: 978-4-431-55425-7

Marchetti D, Oliveira R, Figueira AR. 2019. Are global north smart city models capable to assess Latin American cities? A model and indicators for a new context. Cities. 92:197–207. doi:10.1016/j.cities.2019.04.001

McGuire M, Agranoff R. 2011. Networking in the Shadow of Bureaucracy. In: Durant RF, editor. The oxford handbook of american bureaucracy. III. New York: Oxford University Press; p. 372–395.

Meadowcroft J. 2007. Who is in charge here?: governance for sustainable development in a complex world*. Journal of Environmental Policy & Planning. 9(3–4):299–314. doi:10.1080/15239080701631544

Meuleman L, Niestroy I. 2015. Common but differentiated governance: a metagovernance approach to make the SDGs work. Sustainability. 7(9):12295–12321. doi:10.3390/su70912295

Mocca E. 2018. All cities are equal, but some are more equal than others. Policy Mobility and Asymmetric Relations in Inter-urban Networks for Sustainability International Journal of Urban Sustainable Development. 10:139–153. doi:10.1080/19463138.2018.1487444

Nagendra H, Bai X, Brondizio ES, Lwasa S. 2018. The urban south and the predicament of global sustainability. Nat Sustain. 1(7):341–349. doi:10.1038/s41893-018-0101-5

Nguyen Long LA, Krause RM. 2020. Managing policy-making in the local climate governance landscape: the role of network administrative organizations and member cities. Public Adm. doi:10.1111/padm.12684

Quental N, Lourenço JM, da Silva FN. 2011. Sustainable development policy: goals, targets and political cycles. Sust Dev. 19(1):15–29. doi:10.1002/sd.416

Reed MS. 2008. Stakeholder participation for environmental management: A literature review. Biol Conserv. 141 (10):2417–2431. doi:10.1016/j.biocon.2008.07.014

Rockström J, Steffen W, Noone K, Persson A, Chapin FS, Lambin EF, Lenton TM, Scheffer M, Folke C, Schellnhuber HJ, et al. 2009. A safe operating space for humanity. Nature. 461(7263):472–475. eng.. doi:10.1038/461472a

Rodgers D, Beall J, Kanbur R. 2011. Latin american urban development into the twenty-first century: towards a renewed perspective on the city. The European Journal of Development Research. 23(4):550–568. doi:10.1057/ejdr.2011.18

Schattschneider EE. 1960. The semi sovereign people: A realists view of democracy in America. S.l.:Holt. ISBN:978-0030133664.

Shefer I. 2019. Policy transfer in city-to-city cooperation: implications for urban climate governance learning. Journal of Environmental Policy and Planning. 21(1):61–75. doi:10.1080/1523908X.2018.1562668

Smeds E, Acuto M. 2018. Networking cities after paris: weighing the ambition of urban climate change experimentation. Glob Policy. 9(4):549–559. doi:10.1111/1758-5899.12587

Sneddon C, Howarth RB, Norgaard RB. 2006. Sustainable development in a post-Brundtland world. Ecological Economics. 57 (2):253–268. doi:10.1016/j.ecolecon.2005.04.013

Sobol A. 2008. Governance barriers to local sustainable development in Poland. Management of Environmental Quality. 19 (2):194–203. doi:10.1108/14777830810856573

Sørensen E, Torfing J. 2005. The democratic anchorage of governance networks. Scan Polit Stud. 28(3):195–218. doi:10.1111/j.1467-9477.2005.00129.x

Steffen W, Richardson K, Rockström J, Cornell SE, Fetzer I, Bennett EM, Biggs R, Carpenter SR, Vries WD, Wit CAD, et al. 2015. Sustainability. Planetary boundaries: guiding human development on a changing planet. Science. 347 (6223):1259855. eng.. doi:10.1126/science.1259855

Termeer CJAM, Dewulf A, Breeman G, Stiller SJ. 2015. Governance capabilities for dealing wisely with wicked problems. Adm Soc. 47(6):680–710. doi:10.1177/0095399712469195

Tjandradewi BI, Marcotullio PJ. 2009. City-to-city networks: asian perspectives on key elements and areas for success. Habitat Int. 33(2):165–172. doi:10.1016/j.habitatint.2008.10.021

UN Habitat. 2001. City-to-City Cooperation: issues Arising from Experience. Nairobi:United Nations Centre for Human Settlements.

UN Habitat. 2012. State of Latin American and Caribbean cities. Nairobi: United Nations Centre for Human Settlements. https://unhabitat.org/books/state-of-latin-american-and-caribbean-cities-2/.

United Nations. 2018. Revision of World Urbanization Prospects. New York: UN Department of Economic and Social Affairs. https://www.un.org/development/desa/publications/2018-revision-of-world-urbanization-prospects.html.

van Lindert P. 2009. Transnational linking of local governments: the consolidation of the Utrecht–León municipal partnership. Habitat Int. 33(2):173–180. doi:10.1016/j.habitatint.2008.10.015

van Zeijl-rozema A, Cörvers R, Kemp R, Martens P. 2008. Governance for sustainable development: A framework. Sust Dev. 16(6):410–421. doi:10.1002/sd.367

Verba S, Brady SVKLSHE, Schlozman KL, Brady HE. 1995. Voice and Equality: civic Voluntarism in American Politics. Cambridge:Harvard University Press. ISBN:9780674942936.

Watts M. 2017. Cities spearhead climate action. Nat Clim Chang. 7(8):537–538. doi:10.1038/nclimate3358

Wilson G, Johnson H. 2007. Knowledge, learning and practice in North-South practitioner-to-practitioner municipal partnerships. Local Gov Stud. 33(2):253–269. English. doi:10.1080/03003930701200544

Yu I, Jo Y, Sohn S, Kim D. 2016. City-to-city cooperation in environmental infrastructure installation. IJSSH. 6(8):623–627. doi:10.7763/IJSSH.2016.V6.722

Zelinsky W. 1991. The twinning of the world: sister cities in geographic and historical perspective. Ann Assoc Am Geogr. 81(1):1–31. English. doi:. DOI: 10.1111/j.1467-8306.1991.tb01676.x