

Local solutions for global goals? The role of international actors in shaping nature-based solutions in sub-Saharan African cities

KATHARINA ROCHELL, HARRIET BULKELEY AND HENS RUNHAAR, UTRECHT UNIVERSITY, THE NETHERLANDS

Recent literature and policy discourses suggest nature-based solutions (NBS) as viable solutions to current societal problems. In urban areas, NBS can contribute to the Sustainable Development Goals (SDGs) by offering cost effective solutions for climate change mitigation and adaptation, as well as disaster risk reduction, while providing multiple co-benefits. Most academic work developed around NBS is of European or North American origin. Given the unprecedented urban growth in the Global South, it is necessary to better understand the governance of urban nature in different geographical contexts, based on robust empirical evidence. This paper argues that one difference in many sub-Saharan African (SSA) cities as compared to Western contexts is that international actors (IAs) are important players in shaping urban governance processes and outcomes and that this extends to urban nature. Drawing from literature of African urbanism and transnational climate governance, this paper first develops a conceptualisation of how the different roles of international actors in urban governance in African cities can be understood. It then analyses how and with what implications IAs are engaging in governing urban nature in SSA, with what outcomes in terms of the types of NBS that are being promoted, by and for whom, and for what purposes. More broadly, it seeks to contribute to investigating the roles of IAs in enabling the realisation of local visions and solutions to global sustainability goals. The research is based on a small-n dataset of NBS initiatives in cities across SSA developed through systematic internet research, collection of grey literature and project documents, as well as expert interviews.

Key words: African urbanism, urban governance, public participation

- *Draft in progress* -

I. Introduction

By 2050 the urban population of sub-Saharan Africa (SSA) is expected to have tripled from approximately 400 million in 2015 to 1.2 billion people (UNDESA 2018). The region is urbanizing at the fastest rate worldwide, while in most cases, both central and local governments of the region are ill-prepared for such an extraordinary growth in view of limited financial resources and inadequate services and support for citizens (Gore 2015) and weak urban planning and management capacity (Spaliviero et al. 2020). In addition, levels of vulnerability among the continent's large and rapidly growing urban poor populations are high and hazards are exacerbated by climate change effects (UN-Habitat 2014; Revi et al, 2014). Amidst mounting socio-economic and ecological pressures, a nature-based solution approach may assist African¹ countries in making cities and human settlements more inclusive, safe, resilient and sustainable, thus supporting governments to reach sustainable development goal (SDG) 11, whilst also assisting the region to reach other SDGs, such as protecting, restoring and promoting sustainable use of terrestrial ecosystems, halting and reversing land degradation, and mitigating biodiversity loss (SDG 15); combating climate change and its impacts (SDG 13); and strengthening means to implement and revitalize the global partnership for sustainable development (SDG 17), as well as SDG 2 and SDG 8, focusing on food security and sustainable agriculture, and economic growth (Kalantari et al. 2018 with reference to East Africa).

¹ Hereafter, 'Africa' refers to sub-Saharan Africa

Yet to date, research on NBS in the Global South is still at the beginning (Pauleit et al 2017; Renaud et al 2013; Raymond et al. 2017), and particularly scarce in sub-Saharan Africa with the exception of rural areas (Munang et al. 2013) and pioneering cities in South Africa (Roberts and O'Donoghue 2013). Literature on NBS in urban contexts shows that governance influences the emergence and outcomes of NBS (Dignum et al. 2020). Investigating how and with what consequences the governance of NBS in urban Africa takes place is therefore an important contribution to filling the knowledge gap on NBS for sustainable urban development. As the western concept of NBS comes to be propagated for cities worldwide, this research also seeks to contribute to drawing conclusions for both governance and the concept of NBS itself, from the perspective of the African urban context.

Governance can be defined in many ways. As Newig and Rose (2020, p. 5) point out "(i)ts (implied) meanings and connotations (...) range from 'governance as opposed to government' (e.g. Rhodes, 1997), to 'good governance' as mostly used in the development context (e.g. Weiss, 2000) and to broadly referring to political steering with or without non-state actors (e.g. Kooiman, 2003)." This paper builds on Pierre (2005) who characterises governance at the local level as a blurring of public-private boundaries, the rise of networks, and an increased role for other actors than the local government in the attainment of public goals. It recognises the multi-actor and multilevel character of governing outlined in multi-level governance literature (e.g. Allen 2004).

Africa is diverse and there are enormous differences in terms of colonial legacies, urbanisation dynamics, economic, social and political contexts and governance conditions between and within countries. Nevertheless, for urban Africa, authors agree that there are distinct groups of actors that can be summarized as the national government and political parties, traditional and religious leaders, community-based organisations, private sector and informal business organizations as well as international actors (Smit 2018; De Sardan 2011). External actors have exerted power and shaped the development of African cities since colonial times. Alongside national governments they remain a major source of funding for sustainable urban development (Gutman et al. 2015) and have therefore been chosen as the research subject of this paper. Informed by literature review, IAs in African urban development can be distinguished as development partners (multilateral agencies & development banks and bilateral donor agencies), international non-governmental organizations as well as transnational municipal networks (TMNs).

Despite a recognition of the importance of IAs in African urban governance, the literature lacks a general framework to study their roles more comprehensively. Drawing from literature of African urbanism and transnational climate governance, this paper first reviews the body of knowledge on IAs in African urban development, to conceptualise the different roles of international actors in urban governance in African cities. It then turns to the subject of NBS, to study to what extent and with what consequences IAs are shaping the governance of urban nature in Africa.

The conceptual framework proposes an idealised typology of four main means of engagement or strategies by international actors, namely urban plans and strategies; regulatory frameworks and policies; enhanced capacity; direct action/physical implementation. Each of these are operationalized through provision of funding, knowledge and expertise and can take on top-down and controlling versus enabling and participatory governance styles.

This characterisation matters because public participation is often cited as one of the pre-conditions of success of sustainable urban development initiatives (Sarzynski 2015, Herslund et al. 2015, Anguelovski et al. 2014), and as an active form of citizenship or right to shape processes of development, rather than as an invitation from external actors to participate in them. While participation is not the 'silver bullet',

proponents highlight the potential for empowerment and the decentralisation of power (Castan Broto et al. 2015), that urban governance becomes more inclusive, transparent and accountable (Archer et al. 2014) and that inclusivity is critical for ensuring equitable planning processes and just adaptation outcomes (Chu et al. 2016). Importantly, it is the type and form of participation that matters (Sarzynski 2015). Merits and tradeoffs associated with different variations are not yet well understood (Chu et al. 2016). It is therefore critical to gain a better understanding of the conditions to facilitate sustainability transitions as often, local participatory mechanisms help to 'sell' and legitimise projects without an analysis of their wider implications (Stren 2014), thereby not improving governance processes and outcomes per se.

Consequently, if in Africa IAs are important players who influence governance processes, it becomes important to investigate what their involvement means for the governance of urban nature. Therefore this paper investigates the extent to which NBS projects in urban SSA are led or supported by IAs, and with what consequences for a) the forms of participation and collaboration that are generated, and b) for the outcomes in terms of the types of NBS that are being promoted, by and for whom, and for what purposes.

This paper is structured as follows: First, a literature review is presented on the roles of international actors in urban Africa that describes how shifting international actors engaged in urban Africa with different agendas over time, and with what implications. This body of knowledge will then inform the conceptual framework development and the research on how and with what implications IAs engage with the subject of NBS in urban Africa. The research methodology foresees analysing a small-n data set of multiple NBS projects and initiatives by IAs. At the time of submitting this draft paper to the Global Goals Symposium, the preliminary database and analysis indicate that, in terms of procedural outcomes, many IAs engage in collaborative ways and form partnerships, yet they still control much of local action through external expertise and priority setting. In terms of substantive outcomes with regard to the types of NBS that are developed, preliminary evidence from Lilongwe, Malawi, indicate that urban afforestation projects are developed for the purpose of disaster risk reduction, which have the potential to contribute to SDG 11. The ongoing research focuses on extending the database to other cities and analysing initiatives in more depth to verify the first results and draw conclusions.

II. Literature review

Research on international actors is largely limited to case studies. A systematic or cumulative meta-analysis is lacking for the African urban context. Moreover, academic literature often remains vague and general and describe actions of international actors in specific arenas without specifying the organisation, the projects and initiatives and other characteristic. Therefore the literature review presents an overview of existing knowledge from academic literature to derive the conceptual categories, and draws on grey literature to make further illustrations.

Background: The colonial rational planning legacy

Historically, IAs had an important role in urban planning in Africa since colonialism, when governance in these cities was controlled remotely from capital cities in the global North (Esser 2012). Postcolonial cities have struggled to subvert the internal urban form, segmentation and inequality inherited from colonial planning (Myers 2011). Inherited rational planning systems and approaches, often highly technocratic, bureaucratic and top-down, without much stakeholder involvement, have largely remained unchanged (Duminy et al. 2014). Even though planning laws have been amended or changed, mostly funded by international agencies and donors, in practice, the colonial grip over professional practice and mindsets

in government and bureaucracies remains strong (Watson 2011 and Berrisford 2011). As a consequence, until today, rational planning persists throughout the continent and in many African cities, Master Plans are prepared by ministry officials and foreign experts and consultants, without much involvement of stakeholders and affected residents (Herslund et al. 2015). Hence, authors and observers of African urbanism highlight a tendency to deploy technocratic, expert-led forms of planning in African cities (Myers 2011; Spaliviero et al. 2020) which undermines civic participation in decision-making, as planning control drifts from the city to external cities, whereas the citizenry is in most cases alienated from planning processes in African cities (Pelling et al. 2017). An example is the Lusaka Master Plan 2010 (Zambia) which is referred to as the “JICA-plan” by City Council staff and urban stakeholders, prepared by the Japanese Development agency, and not known widely amongst communities and other stakeholders (source: participant observation in 2019).

Yet, to describe efforts to promote sustainable urban development by IAs as generally top-down would be highly oversimplified and unjustified. The following sections give an overview of the emerging issues on the urban agenda for international actors, including some of the implications, from colonial urban planning until today.

The evolution of urban interventions of IAs since Independence

Stren (2014) outlines that international urban assistance in Africa has gone through distinct phases that reflect import and development ideas and outlines a succession of major thematic objectives and key features of international interventions until around 2010. He summarizes that urban interventions have evolved from a singular emphasis on sites and services housing projects to a focus on urban management and decentralization to a more holistic approach grounded in the tenets of ‘good governance’. The following sections largely follow this logic but add the more recent shift in international urban cooperation in Africa related to the agenda of climate change mitigation, adaptation and urban resilience, that gained traction with traditional development agencies but also brought a new set of international actors to the fore, namely transnational municipal networks (TMNs).

The 1970s: Housing and basic services

In terms of funding volumes, Stren (2014) argues that the World Bank is a major actor in African urban development and that none of the other agencies (such as European Commission and bilateral agencies) mounts such large projects in terms of funding. Between 1972 and June 1981, sixty-two projects totalling USD 2 billion were approved, including projects for shelter, urban transportation, integrated urban development, and regional development. During this period, about 60 percent of the Bank’s urban interventions took the form of shelter programs and were heavily concentrated in sub-Saharan Africa and on poverty alleviation through direct investment in basic infrastructure and housing for low-income residents (Ramsamy 2009). Particularly a first phase of sites-and-services schemes was criticised as it did not fully appreciate locational factors. Most of the projects were located in the urban periphery, requiring a relocation of inner-city squatters that often resulted in political, economic, and social dislocation. In response to criticism that this approach was not reaching the poorest urban residents, subsequent urban projects of the Bank began to incorporate more slum upgrading strategies (Ramsamy 2009).

The 1980 and 90s: Urban management and policy reforms

In the early 1980s the World Bank realised that shelter projects failed to address the complex array of problems confronting the city as a whole, and the focus shifted away from projects toward improvement of the regulatory framework and enhancement of urban management capacity (Ramsamy 2009; Stren 2014). In the 80s and 90s the World Bank devoted a much larger share of its urban lending portfolio to

municipal development projects that sought to build capacity and enact financial reforms within municipal governments (Ramsamy 2009).

The 'urban management' approach was widely shared amongst international actors working in Africa, as evidenced by the 'Urban Management Programme' (UMP) from 1986 to 2006, a tripartite collaboration between UNCHS (now UN-Habitat), the World Bank, and UNDP, funded largely by the latter (Watson 2009). Regarded as one of the largest global urban programmes, the programme has been involved in 120 cities in 57 countries, with the overall mission of promoting socially and environmentally sustainable human settlements and adequate shelter for all, and with the objective of reducing urban poverty and social exclusion (ibid.). It essentially introduced a new planning system following a strategic planning approach and encouraged participatory decision-making approaches while insisting that local government link their policies to implementation through budgets and action plans (Duminy et al. 2014). Although the programme has been described as largely successful in renewing forward planning processes in the participating cities it has attracted critique for failing to make a major impact (Stren 2014). In many cities, the new planning system became simply an addition to the existing planning system which continued as before (Watson 2009 and 2011). Berrisford (2011) points to an underlying issue. With reference to planning system reforms he argues that, usually initiated by international development agencies, there is a common failure to fully understand the complex nature of socio-economic systems in African cities and the interests of various parties with a stake in planning.

During the same period, the World Bank also launched a new form of development financing termed structural adjustments loans which were contingent upon major economic reforms in a particular developing country. The World Bank's agenda for urban development involved a shift in the developing country government's role from that of a "provider" of public urban services, to that of an "enabler" of the private sector (Ramsamy 2006). The structural adjustment programmes were criticised by a large group of scholarship including Davis (2006) who, in his iconic book 'Planet of Slums' criticises international finance institutions for creating the preconditions for a severe deterioration in urban services. Others argue that while the involvement of foreign donors in urban Africa by strengthening the private sector and transnational capital has on the one hand in many instances lead to overall improvements in quality of life, overall neoliberal approaches also lead to increased inequality of service delivery with negative consequences for the urban poor and lacked participation in decision-making (Myers 2011).

The 1990s and 2000s: Good governance and decentralisation

Over the past two decades, donors increasingly link foreign aid to democracy objectives in Africa (Dietrich and Wright, 2015) and from the late 1990s, 'good governance' has become the mantra for development in the global south. The term has come to mean different things, however. The World Bank, for example, has been associated with a mainly administrative and managerialist interpretation of good governance, whilst agencies such as the UNDP have emphasised democratic practice and human and civil rights (Watson, 2009).

Urban projects have been heavily influenced by the notion of 'good governance' in terms of a focus on transparent, accountable and efficient local institutions, and demand driven components as well as local participation (Stren 2014). This led donors to pursue projects like the Local Government Support Project in Tanzania funded by the World Bank with a community infrastructure upgrading component worth USD 18.8 million that covered 20% of Dar es Salaam's unplanned areas from 2002-2012. Other examples are the Lagos Metropolitan Development and Governance Project approved in 2006 for USD 205.69 million with a USD 12.3 million component on urban policy and project coordination, including city-wide consultative forums, or the Kenya Informal Settlements Improvements Project with support by the French

and Swedish Development Agencies approved in 2011 (ibid.). Another example is the Participatory Slum Upgrading Programme, founded in 2008 as a tripartite initiative of the Secretariat of the Africa, Caribbean and Pacific Group of States (ACP), the European Commission and UN-Habitat, which is active until today with funding by the European Commission (UN-Habitat 2020).

Along with these developments “(i)ncreasingly, governments and international agencies recognised that improved urban management, decentralisation and local democracy are interlinked, and there were fresh attempts at decentralisation to local government level (...)” (Smit and Pieterse 2014, p. 151). The key theoretical motivation behind the promotion of decentralisation was to bring decision making closer to the people, and therefore to help ensure that programmes and services better address local needs (ibid.) Since the 1980s there had been a first wave of political decentralisation around Africa that has so far not been matched by fiscal decentralisation (UN-Habitat 2014, Smit and Pieterse 2014). In most nations, national and state/provincial governments still concentrate most of the power and control over public investments, exacerbated by donor’s preference for direct budget support to national governments (Dodman and Satterthwaite 2009), which poses challenges to cities to deliver services (Resnick, 2011). Scholars argued already in 2003 that “decentralisation is arguably one of the ‘ephemeral aid trends’ over the past decade” (Perin and Attaran 2003: 1218, cited in Esser 2012) and examples of UN agencies promoting this agenda suggest that the trend has continued up to present, as UN-Habitat’s work around the International Guidelines on Decentralisation and Access to Basic Services for all (UN-Habitat 2009) suggest, as well as numerous projects of the United Nations Capital Development Fund (UNCDF) in local development finance in collaboration with multilateral agencies, development banks and bilateral donor agencies, which seeks to capacitates localities through fiscal decentralization, innovative municipal finance, and structured project finance to drive local economic expansion and sustainable development (UNCDF 2017).

Yet, the decentralisation agenda is also criticised by scholars. Esser (2012, p. 399) asks “How is it that in spite of half a post-colonial century’s local as well as international efforts to improve their fates, African cities remain stuck in a ‘limited voice, limited service’ trap?”. He argues that the decentralisation agenda is beset by “donor agencies’ implementation of the perceived panacea of decentralisation on the one hand, and their simultaneous horrors of local politics on the other.” (ibid., p. 401). By examining the Decentralisation and Local Government Reform in Sierra Leone in the early 2000s funded by the World Bank, UNDP and the UK Department for International Development (DFID), he gives an example of how the fiscal leverage of donors over urban institutions, policies, and politics can result in disempowerment of local government and lack of decentralisation. He sharply criticises what he describes as remote control by international donors and how local institutions were reshaped by visions of depoliticised technocratic development, without any significant consultation with Sierra Leonean stakeholders. Donors insisted on decentralisation, yet championed national leadership and kept local politicians in the capital Freetown at bay. Esser (2012) calls for a more nuanced approach to urban development among international donors, including more contextualised knowledge.

Overall, the example of Sierra Leone suggests that there is a contradiction in the good governance agenda of IAs. The norm of participation that they promote is not fully reflected in their own operations, which may still be described as top-down and controlling.

Since mid 2010: Green structural transformation?

A more recent shift emerged with the structural transformation policy narrative that the African Union and UNECA are driving since about 2015, which is “achieving significant traction with key infrastructure financing institutions such as the AfDB, the World Bank, various Chinese banks and the Development Bank

of South Africa". This is underlined by infrastructure deficits and malfunctioning in Africa which still "constitute the largest brake on sustained economic growth and accumulation (...) (and) attracts an inordinate amount of political and technical attention, not least from international actors on the financing side of the development industry" (Pieterse 2018, p. 39). A recent example to that extent is the Integrated Strategic Urban Development Plan funded by AFD (French development Cooperation) in Kisumu, Kenya, with EUR 40 million. It includes planning Kisumu's city expansion, upgrading informal settlements, refurbishing and building new markets, and developing strategies for capital investment in the city (Smit 2018). The structural transformation narrative assigns a key role for to urbanization as a driver of productive and inclusive growth in Africa. "(A)t its core, structural transformation denotes processes to 'shift labour out of low-productivity agriculture into higher-productivity manufacturing and modern services'" (Pieterse 2018, citing UNECA, 2017, p. 20). Pieterse (2018, p. 36) is hopeful that the policy narrative of structural transformation may open avenues for democratic change, as "increasingly the African Union and various UN bodies that deal with these questions are creating spaces for civil society and actors to engage, monitor implementation and apply pressure". Notably, there is an emergence of qualitatively different, green developmental narratives. UNECA highlights that structural transformation should be based on green industrialization and that the continent has the opportunity to leapfrog traditional, carbon-intensive methods of growth and champion a low-carbon development trajectory (UNECA 2016).

Since the 2000s: Climate change and urban resilience

Over the past two decades, international actors already present in Africa, such as mainstream development organisations and lending agencies began to show an interest in climate change mitigation and adaptation (Bulkeley 2010). Many increased their portfolio in the form of new departments or programmes and "(c)limate change appears to be a major current concern for development lending agencies" Adu-Boateng 2015 (p. 50). Gore states that "in the last decade or more, multilateral, bilateral and international non-government organizations have invested heavily in risk assessments and climate change adaptation planning in sub-Saharan Africa (Gore 2015).

Examples to illustrate this trend are guidelines and toolkits developed by IAs, such as UN-Habitat's Guiding Principles for City Climate Action Planning (UN-Habitat 2015), UN-Habitat's City Resilience Action Planning Tool (UN-Habitat 2019), or the World Bank's Toolkit of Measures for Managing Environmental Externalities in Urban Areas (Rowcroft and Black 2017), to name a few.

In 2006, the Global Facility for Disaster Reduction and Recovery (GFDRR) was established as a global partnership to support developing countries to understand, manage, and ultimately reduce their risk from natural hazards and climate change. Hosted at the World Bank, GFDRR is supported by 37 countries and 11 international organizations (GFDRR 2018). Explicitly urban related areas of engagement are promoting resilient infrastructure, scaling up the resilience of cities and building resilience at community level, and the operating principles include a demand-driven approach and focus on inclusive design and participation (ibid). More recently, the subject of NBS gains traction, as grey literature and project documents suggest. Notably, in 2017 the World Bank established a Nature-based Solutions Program aimed to facilitate uptake of NBS in water management and DRM projects (World Bank 2018). A current example is the Tanzania Urban Resilience Programme funded by DFID (World Bank 2019). The programme includes participatory risk mapping at community level and investments for urban flood control in Dar es Salaam through an integration of traditional grey infrastructure focused measures combined with NBS (ibid.). Other than self-reporting by the World Bank, however, there is so far a lack of literature to assess the types of participation and impacts of GFDRR and World Bank related work on climate change adaptation and urban resilience.

Academic literature notes that funding from international donors frequently has been shown to shape local agendas (Carmin et al. (2012) and some authors describe that the tendency of international actors in urban development to deploy outside technical expertise is even exacerbated by the technical complexities of climate change (Castan Broto 2014) and advocate for approaches to climate change action that harness opportunities on the ground to engage with and leverage the creative potential and knowledge that urban citizens already have, for local and context specific priorities and solutions (Spaliviero et al. 2020).

In addition to traditional IAs in African urban development, transnational municipal networks (TMNs) emerged as an important actor. After a first wave of TMNs in the early 1990s in North America and Europe, a second wave in the early 2000s encompassed cities in the Global South (Huggins 2013, Bulkeley 2010), and African cities learn to engage with international networks in seeking both resources and support and to advocate for action (Gore 2015). Examples of TMNs within Africa are ICLEI – Local Governments for Sustainability, United Cities and Local Governments Africa (UCLGA), Covenant of Mayors sub-Saharan Africa (CoMSSA), C40 as well as the Global Resilient Cities Network (formerly 100 Resilient Cities).

In their pioneering work on developing a framework for systematically analysing and documenting the phenomenon of transnational climate change governance Andonova et al. (2009) identify three governance functions of transnational networks: information sharing, capacity building and implementation, and rule-setting. Their second category of capacity building and implementation includes networks that provide resources in form of finance, expertise, labor, technology, or monitoring to enable action. They suggest that “(t)ransnational networks that seek to build capacity and implement climate policies and projects may also work from the bottom-up, creating and involving actors in alternative frameworks for cooperation” (Andonova et al., p. 64).

This work has been complemented by a large scholarship since. TMNs are described as networks of pioneers for pioneers (Bulkeley and Kern 2009) and TMNs are aiding cities to some degree by developing procedural innovations to address climate change (Bellinson 2018). Fünfgeld (2015) suggests that this can also be explained by the non-binding participation in TMNs which allows for greater flexibility than government adaptation policy and create opportunities for experimentation and innovation”. Besides, “such networks do not function just because they provide access to knowledge and information. (...) beyond technical support and access to financial resources, TMNs also provide opportunities for increasing a local government’s visibility and recognition for innovation — political capital that can be exploited for leveraging additional funding” Fünfgeld (2015, p. 70).

Conclusions for developing a conceptual framework

The literature review suggests that since independence, IAs have brought new ideas and approaches to the continent that shaped governance processes and outcomes whereby key means of engagement or strategies throughout have been the following: Development of urban plans and strategies; Influencing regulatory frameworks and policies; Enhancing capacity; Direct action/Physical implementation, each of operationalized through provision of funding, knowledge and expertise. The function of rule-setting seems to be exclusionary for TMNs.

Literature further suggests that there has been an increased trend over time from top-down and expert led towards more participatory approaches. In that sense, forms of governance shaped by the presence of these actors can be conceptualised along an idealised continuum from top-down and expert led to more enabling, collaborative and inclusive forms of governance, with a more controlling role of the IA (as the main decision maker driving and controlling the process and pushing own ideas top-down), or a more

enabling role (where IAs support the realisation of local visions on the terms of the local government or local partners and empower stakeholders, participation and collaboration).

This leads to the following conceptualization of eight idealized possible categories:

Means of engagement	Top-down/controlling	Enabling/Participatory
Urban plans and strategies	X	X
Regulatory frameworks and policies	X	X
Enhanced capacity	X	X
Direct action/physical implementation	X	X

Recent developments demonstrate that IAs take an interest in the topic of NBS, which is promising it itself as NBS have the potential to contribute to the SDGs. For NBS in African cities this may imply that IAs open avenues for experimentation and increased participation, with potential positive consequences for more effective and equitable solutions. What remains to be investigated is to what extent, how and with what implications the agenda of NBS will be 'pushed' by IAs as a new idea and approach. As outlined in the introduction, thereby (the kind of) participation matters for improved governance processes and outcomes, and will be part of the investigation.

Planned next research steps

1. Refinement of the conceptual framework

It is planned to refine the conceptual framework development, notably further informed by existing knowledge from the body of literature around public participation. Feedback at the Global Goals Symposium will also inform the conceptualisation.

2. Extending the database and analysis

Literature

Adu-Boateng (2015), Barriers to climate change policy responses to urban areas: a case study of Tamale, Ghana, *Current Opinion in Environmental Sustainability*, 2015, 13:49-57.

Allen, John (2004), The whereabouts of power: politics, government and space, *Geografiska Annaler: Series B, Human Geography*, 86(1) pp. 19–32.

Andonova, L., Betsill, M., Bulkeley, H. (2009), Transnational Climate Governance, *Global Environmental Politics*, Volume 9, Number 2, May 2009, pp. 52-73.

Anguelovski, I., Chu, E., Carmin, J. (2014), Variations in experience to urban climate adaptation: Experiences and experimentation from the global South, *Global Environmental Change* 27 (2014) 156–167

Archer, D., Almansi, F., DiGregorio, M., Roberts, D., Sharma D., Syam, D., (2014) Moving towards inclusive urban adaptation: approaches to integrating community-based adaptation to climate change at city and national scale, *Climate and Development*, 6:4, 345-356,

Bellinson, R. (2018), Connecting the Dots: The Politics of Governing Urban Climate Adaptation Innovations Through Transnational Municipal Networks, in Hughes, S. et al. (eds.), *Climate Change in Cities*, The Urban Book Series, Springer International Publishing, pp. 183-202.

Berrisford, S. (2011), Why It Is Difficult to Change Urban Planning Laws in African Countries, *Urban Forum* (2011) 22:209-228. DOI 10.1007/s12132-011-9121-1.

Bulkeley, H., 2010. Cities and the governing of climate change. *Annual Review of Environment and Resources* 35, 229–253.

Carmin J, Anguelovski I, Roberts D (2012), Urban climate adaptation in the global South: planning in an emerging policy domain. *J of PlannEduc and Res* 32:18–32.

Castan Broto V. (2014), Planning for climate change in the African city, *International Development Planning Review*, 36.

Castan Broto, V., Boyd, E., Ensor, J. (2015): Participatory urban planning for climate change adaptation on coastal cities. Lessons learnt from a pilot experience in Mozambique, *Current Opinion in Environmental Sustainability* 2015, 13:11–18

Chu, E., Anguelovski, I., Carmin, J. (2016), Inclusive approaches to urban climate adaptation in the Global South, *Climate Policy* Vol. 16, No. 3, 372-392.

Davis, M. (2006), *Planet of Slums*, Verso: New York and London.

Duminy, J., Odendaal, N., Watson, V. (2014), The education and research imperatives of urban planning professionals in Africa, in Parnell, S. and Pieterse Ed. (eds.) (2014) *Africa's Urban Revolution*, Zed Books: London.

Dietrich, S., Wright, J. (2015), Foreign Aid Allocation Tactics and Democratic Change in Africa, *The Journal of Politics*, Volume 77, Number 1, January 2015.

Dodman, D., Satterthwaite, D. (2008), Institutional Capacity, Climate Change Adaptation and the Urban Poor, *IDS Bulletin* Volume 39 Number 4 September 2008.

- Esser, D., (2012), 'When we launched the government's agenda. . .': aid agencies and local politics in urban Africa, *J. of Modern African Studies*, 50, 3 (2012) 397-420.
- Fünfgeld, H. (2015), Facilitating local climate change adaptation through transnational municipal networks, *Current Opinion in Environmental Sustainability* 2015, 12:67–73.
- Global Facility for Disaster Reduction and Recovery (2018), *Strategy 2018–2021*, Washington D.C.: GFDRR.
- Gore, C. (2015): Climate Change Adaptation in African cities: Understanding the impact of Government and Governance on Future Action, in: Johnson, C., Toly, N., Schroeder, H. (2015), *The Urban Climate Challenge. Rethinking the Role of Cities in the Global Climate Regime*, London, New York, Routledge, 205-223.
- Gutman, J., Sy, A., Chattopadhyay, S. (2015), *Financing African infrastructure. Can the world deliver?*, Brookings Institute, March 2015, Washington D.C., United States of America.
- Herslund, L., Lund, D., Jørgensen, G., Mguni, P., Kombe, W., Yeshitela, K. (2015), Towards Climate Change Resilient cities in Africa – initiating adaptation in Dar es Salaam and Addis Ababa, in: S. Pauleit et al. (eds.), *Urban Vulnerability and Climate Change in Africa*, *Future City* 4, 319-348.
- Huggins, C. (2013). Motivations behind local government transnational networking. *Regional Insights*, 4(1), 9-11.
- Kern, C. and Bulkeley, H. (2009), 'Cities, Europeanization and multi-level governance: governing climate change through transnational municipal networks', *Journal of Common Market Studies* 47: 2, 2009, pp. 309–32.
- Munang, R., Thiaw, I., Alverson, K., Mumba, M., Liu, J., & Rivington, M. (2013), Climate change and Ecosystem-based Adaptation: a new pragmatic approach to buffering climate change impacts. *Current Opinion in Environmental Sustainability*.
- Myers, G. (2011), *African cities – Alternative visions of theory and practice*. Zed Books. London. New York.
- Newig, J., Rose, M. (2020), Cumulating evidence in environmental governance, policy and planning research: towards a research reform agenda, *Journal of Environmental Policy & Planning*.
- Pauleit, S., Zölch, T., Hansen, R., Randrup T., Konijnendijk, C. (2017), Nature-Based Solutions and Climate Change – Four Shades of Green, in: Kabisch, N., Korn, H., Stadler, J., Bonn, A. (2017), *Nature-based solutions to Climate Change Adaptation in Urban Areas. Theory and Practice of Urban Sustainability Transitions*, p. 29-50.
- Pelling M, Leck H, Pasquini L, Ajibade I, Osuteye E, Parnell S, Lwasa S, Johnson C, Fraser A, Barcena A, Boubacar S (2017), Africa's urban adaptation transition under a 1.5° climate, *Current Opinion in Environmental Sustainability*, 31: 10-15.
- Pieterse., E. (2018): The Politics of Governing African Urban Spaces; in: Ammann. C. and Förster, T. (2018), *African Cities and the Development Conundrum*, Leiden, Boston: Brill, 26-52.
- Resnick, D. (2011), In the shadow of the city: Africa's urban poor in opposition strongholds, *Journal of Modern African Studies* 49, 1: 41-66.
- Ramsamy. E. (2009): *The World Bank and Urban Development. From projects to policy*. London, New York: Routledge.
- Raymond, C.M., Berry, P., Breil, M., Nita, M.R., Kabisch, N., de Bel, M., Enzi, V., Frantzeskaki, N., Geneletti, D., Cardinaletti, M., Lovinger, L., Basnou, C., Monteiro, A., Robrecht, H., Sgrigna, G., Munari, L. and Calfapietra, C. (2017), *An Impact Evaluation Framework to Support Planning and Evaluation of Nature-based Solutions Projects*. Report

prepared by the EKLIPSE Expert Working Group on Nature-based Solutions to Promote Climate Resilience in Urban Areas. Centre for Ecology & Hydrology, Wallingford, United Kingdom, p. 61ff.

Revi, A., D.E. Satterthwaite, F. Aragón-Durand, J. Corfee-Morlot, R.B.R. Kiunsi, M. Pelling, D.C. Roberts, and W. Solecki, (2014): Urban areas. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, p. 552.

Renaud, F., Sudmeier-Rieux, K., Estrella, M. (2013), The role of ecosystems in disaster risk reduction, New York.

Roberts, D., O'Donoghue, S., (2013), Urban environmental challenges and climate change action in Durban, South Africa, *Environment & Urbanization* Vol 25(2): 299–319.

Rowcroft, P., Black, J. (2017). *Toolkit of Measures for Managing Environmental Externalities in Urban Areas*. Washington, DC.: World Bank.

Sardan, J. (2011), The Eight Modes of Local Governance in West Africa, *IDS Bulletin* Volume 42 Number 2 March 2011.

Sarzynski, A. (2015), Public participation, civic capacity, and climate change adaptation in cities, *Urban Climate* 14 (2015) 52–67.

Smit, W. (2018): Urban Governance in Africa: An Overview, in: Ammann. C. and Förster, T. (2018), *African Cities and the Development Conundrum*, Leiden, Boston: Brill, 55-76.

Smit, W., Pieterse, E. (2014), Decentralisation and institutional reconfiguration in Africa, in Pieterse, E. and Parnell, S. (2014), in Parnell, S. and Pieterse Ed. (eds.) (2014) *Africa's Urban Revolution*, London: Zed Books.

Spaliviero., M., Pelling, M., Lopes, L., Tomaselli, C., Rochell, K., Guambe. M. (2020), Resilience planning under information scarcity in fast growing African cities and towns: The CityRAP approach, *International Journal of Disaster Risk Reduction* 44 (2020) 101419.

Stren, R. (2014), Urban Service Delivery in Africa and the Role of International Assistance. *Development Policy Review* 32 (S1), S19–S37.

United Nations Capital Development Fund (2017), Annual report 2017, New York: UNCDF.

United Nations Human Settlements Programme (UN-Habitat) (2020), *UN-Habitat Sub-Saharan Africa Atlas*, Nairobi: UN-Habitat.

UN-Habitat (2019), *City resilience action planning (CityRAP) tool*. Nairobi: UN-Habitat.

UN-Habitat (2014), *The State of African Cities 2014 – Re-imagining sustainable urban transitions*, Nairobi: UN-Habitat.

UN-Habitat (2015), *Guiding Principles for City Climate Action Planning*, Nairobi: UN-Habitat.

Watson, V. (2009), 'The planned city sweeps the poor away. . .': Urban planning and 21st century urbanisation, *Progress in Planning* 72 (2009) 151–193.

Watson, V. (2011), Changing Planning Law in Africa: An Introduction to the Issue, *Urban Forum* (2011) 22:203-208. DOI 10.1007/s12132-011-9118-9.

World Bank (2018), Nature-based Solutions for Disaster Risk Management, December 2018, Washington D.C.: World Bank.

World Bank (2019), Tanzania Urban Resilience Program 2019 Annual Report, Washington D.C.: World Bank.