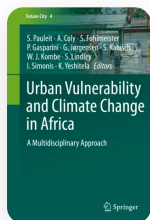


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Fostering Transformative Climate Adaptation and Mitigation in the African City: Opportunities and Constraints of Urban Planning

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Abstract

Mainstreaming climate resilient strategy into the systems of urban design, construction and management has to take seriously both climate adaptation and mitigation in shifting the practices of urban planning if the interests of the urban poor are to be advanced. Because of the way that urban poverty has been conceived, the adaptation agenda tends to focus on small-scale household interventions rather than strategic spatial planning, development controls and enforcement. These city scale planning actions are more closely

tied to the climate mitigation agenda, something that has had little traction in African cities where planning is weak and often considered part of the urban problem. Few professions have such a poor reputation or are so badly understood as town planning, and this is nowhere more so than in the fragile African context where illegitimate colonial legacies, weak local government and low levels of professional capacity make embedding the climate agenda into the planning regime especially difficult. However, pro-poor planning and planners cannot be bypassed if a sustainable city, rather than a set of projects, is to be promoted. In an effort to make clear the barriers and opportunities to a transformative climate agenda, this chapter sets out the importance of rethinking poverty in less individualised ways, thus enabling the reform of urban planning practices that are typically found in African cities and through which institutional change might be realised.

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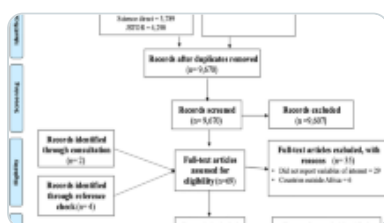
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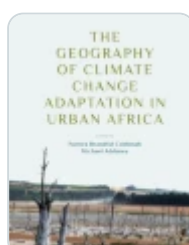
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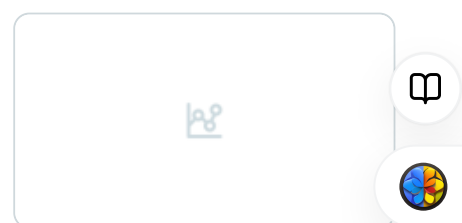
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Notes

1. An early version of ideas on which this paper draws were prepared for MAPS. The author would like to acknowledge the comments of Emily Tyler and the ongoing support of the National Research Foundation.
2. Although the focus of this chapter is on poverty it may well be that the unchecked expansion of wealth in the African city is the more important barrier to climate resilience.
3. By the time an urban climate change meeting was convened at Bellagio in 2007 this position was, if not fixed, clearly well entrenched across donors, scholars and activists.
4. Evidence of this pro-rural emphasis is found in the programme design of START's climate training throughout the 1990s and 2000s. Only recently have START actively engaged the urban agenda's relevance to climate (see 2013 their Durban meeting).
5. See extensive discussions of the under-recognition of urban poverty in UN-Habitat [2009](#); Satterthwaite and Mitlin [2013](#) etc.
6. UN-Habitat, UCLG, ICLEI, Cities Alliance, Metropolis, SDSN (18th September 2013), Why the World needs an Urban SDG? Accessed on 12 Feb 2014 from <http://sustainabledevelopment.un.org/content/documents/2569130918-SDSN-Why-the-World-Needs-an-Urban-SDG.pdf>. See also www.urbansdg.org



References

ADB (2011) The middle of the pyramid: dynamics of the middle class in Africa, Chief Economist Complex, African Development Bank, Market Brief, April 2011

[Google Scholar](#)

Anguelovski I, Carmin J (2011) Something borrowed, everything new: innovation and institutionalization in urban climate governance. *Curr Opin Environ Sustain* 3:169–175

[Article](#) [Google Scholar](#)

Ballard R (2013) Geographies of development II: cash transfers and the reinvention of development for the poor. *Prog Hum Geogr* 37(6):811–821

[Article](#) [Google Scholar](#)

Bank AD (2010) Focused action: priorities for addressing climate change in Asia and the Pacific. ADB, Manila

[Google Scholar](#)

Berrisford S (2014) The challenge of urban planning law reform in African cities. In: Parnell S, Pieterse E (eds) *Africa's urban revolution*. Zed Books Ltd, London, pp 167–183

[Google Scholar](#)

Bicknell J, Dodman D, Satterthwaite D (2009) Adapting cities to climate change: understanding and addressing the development challenges. Earthscan, London

[Google Scholar](#)

Blanco H, Alberti M, Olshansky R, Chang S, Wheeler SM, Randolph J, Watson V (2009) Shaken, shrinking, hot, impoverished and informal: emerging research agendas in planning. *Prog Plan* 72(4):195–250

[Article](#) [Google Scholar](#)

Brand P, Dávila JD (2011) Mobility innovation at the urban margins: Medellín's metrocabes. *City* 15(6):647–661

[Article](#) [Google Scholar](#)

Brenner N, Madden DJ, Wachsmuth D (2011) Assemblage urbanism and the challenges of critical urban theory. *City* 15(2):225–240

[Article](#) [Google Scholar](#)

Bulkeley H, Betsill M (2013) Revisiting the urban politics of climate change. *Environ Polit* 22(1):136–154

[Article](#) [Google Scholar](#)

Carmin J, Angelovski I, Roberts D (2012) Urban climate adaptation in the global south: planning in an emerging policy domain. *J Plan Educ Res* 32(1):18–32

[Article](#) [Google Scholar](#)

Cartwright A, Parnell S, Oelofse G, Ward S (eds) (2012) *Climate change at the city scale: impacts, mitigation and adaptation in Cape Town*. Routledge, Abingdon

[Google Scholar](#)

Elmqvist T, Redman CL, Barthel S, Costanza R (eds) (2013) *Urbanization, biodiversity and ecosystem services: challenges and opportunities: a global assessment*. SpringerOpen, New York. doi:[10.1007/978-94-007-7088-1_2](https://doi.org/10.1007/978-94-007-7088-1_2)



Frayne B, Moser CO, Ziervogel G (2012) *Climate change, assets and food security in Southern African cities*. Earthscan, Abingdon

[Google Scholar](#)

Graham S, Marvin S (2001) Splintering urbanism: networked infrastructures, technological mobilities and the urban condition. Routledge, London

[Book](#) [Google Scholar](#)

Hodson M, Marvin S (2010) Can cities shape socio-technical transitions and how would we know if they were? Res Policy 39(4):477–485

[Article](#) [Google Scholar](#)

Hodson M, Marvin S (2013) Green cities: position paper, Unpublished. Mistra Urban Futures

[Google Scholar](#)

Hunt A, Watkiss P (2011) Climate change impacts and adaptation in cities: a review of the literature. Clim Chang 104(1):13–49

[Article](#) [Google Scholar](#)

Intergovernmental Panel on Climate Change (IPCC) (2012) Special report on managing the risks of extreme events and disasters to advance climate change adaptation (SREX). In: Field CB, Barros V, Stocker TF, Qin D, Dokken DJ, Ebi KL, Mastrandrea MD, Mach KJ, Plattner G-K, Allen SK, Tignor M, Midgley PM (eds) Cambridge University Press, Cambridge/New York. Available via http://ipcc-wg2.gov/SREX/images/uploads/SREX-All_FINAL.pdf. Accessed 5 Feb 2014

Jaglin S (2014) Regulating service delivery in southern cities: rethinking urban heterogeneity. In: Parnell S, Oldfield S (eds) A Routledge handbook of cities of the global south. Routledge, London, pp 343–446

[Google Scholar](#)

Lawhon M, Patel Z (2013) Scalar politics and local sustainability: rethinking governance and justice in an era of political and environmental change. *Environ Plan C* 31(6):1048–1062

[Article](#) [Google Scholar](#)

Lewis Y, Jooste M (2012) Opportunities and challenges in establishing a low-carbon zone in the Western Cape Province. In: Cartwright A, Parnell S, Oelofse G, Ward S (eds) *Climate change at the city scale: impacts, mitigation and adaptation in Cape Town*. Routledge, Abingdon, pp 99–121

[Google Scholar](#)

Martine G, McGranahan G (eds) (2014) *Urban growth in emerging economies: lessons from the BRICS*. Routledge, London

[Google Scholar](#)

Martine G, McGranahan G, Montgomery M, Fernandez-Castilla R (eds) (2008) *The new global frontier: urbanization, poverty and the environment in the 21st century*. Earthscan, London

[Google Scholar](#)

Mitlin D, Satterthwaite D (2013) *Urban poverty in the global south: scale and nature*. Routledge, London

[Google Scho](#)



Moser CO (1998) The asset vulnerability framework: reassessing urban poverty reduction strategies. *World Dev* 26(1):1–19

[Article](#) [Google Scholar](#)

Moser C, Satterthwaite D (2008) Towards pro-poor adaptation to climate change in urban centres of low- and middle-income countries, Human settlements discussion paper series. Human Settlements Group and Climate Change Group: International Institute for Environment and Development (IIED), London

[Google Scholar](#)

Myers GA (2011) African cities: alternative visions of urban theory and practice. Zed Books Ltd, London

[Google Scholar](#)

Napier M, Berrisford S, Kihato S, McGaffan R, Royson L (2013) Trading places: accessing land in African cities. African Minds, Somerset West

[Google Scholar](#)

Parnell S, Pieterse E (2014) Africa's urban revolution. Zed Books Ltd, London

[Google Scholar](#)

Parnell S, Robinson J (2012) (Re)theorizing cities from the global south: looking beyond neoliberalism. Urban Geogr 33(4):593–617

[Article](#) [Google Scholar](#)

Parnell S, Simon D, Vogel C (2007) Global environmental change: conceptualizing the growing challenge for cities in poor countries. Area 39(3):357–369

[Article](#) [Google Scholar](#)

Pelling M (2010) Adaptation to climate change: from resilience to transformation. Routledge, London

[Google Scholar](#)

Pieterse E (2008) City futures: confronting the crisis of urban development. Zed Books Ltd, London

[Google Scholar](#)

Pieterse E (2014) Filling the void: an agenda for tackling Africa's urbanisation. In: Parnell S, Pieterse E (eds) Africa's urban revolution. Zed Books Ltd, London, pp 200–220

[Google Scholar](#)

Pieterse E, Hyman K (2014) Disjunctures between urban infrastructure, finance and affordability. In: Parnell S, Oldfield S (eds) A Routledge handbook of cities of the global south. Routledge, London, pp 191–205

[Google Scholar](#)

Rakodi C, Lloyd-Jones T (eds) (2002) Urban livelihoods: a people-centred approach to reducing poverty. Earthscan, London

[Google Scholar](#)

Revi A (2009) Climate change risk: an adaptation and mitigation agenda for Indian cities. In: Bicknell J, Dodman D, Satterthwaite D (eds) Adapting cities to climate change: understanding and addressing the development challenges. Earthscan, London/New York, pp 311–338

[Google Scholar](#)

Rosenzweig C, Solecki WD, Hammer SA, Mehrotra S (eds) (2011) Climate change and cities: first assessment report of the Urban Climate Change Research Network. Cambridge University Press, Cambridge

[Google Scholar](#)

Sánchez-Rodríguez R, Seto KC, Simon D, Solecki WD, Kraas F, Laumann G (2005) Science plan urbanization and global environmental change, IHPD report 15. International Human Dimensions Programme on Global Environmental Change, Bonn

[Google Scholar](#)

Satterthwaite D, Mitlin D (2013) Reducing urban poverty in the global south. Routledge, London

[Google Scholar](#)

Satterthwaite D, Huq S, Reid H, Pelling M, Romero Lankao P (2009) Adapting to climate change in urban areas: the possibilities and constraints in low- and middle-income nations. In: Bicknell J, Dodman D, Satterthwaite D (eds) Adapting cities to climate change: understanding and addressing the development challenges. Earthscan, London/New York, pp 1–47

[Google Scholar](#)

Sen A (1999) Development as freedom. Oxford University Press, New York

[Google Scholar](#)

Seto K, Güneralp B, Hutya LR (2012) Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools. Proc Natl Acad Sci 109(40):16083–16088. doi:[10.1073/pnas.1211658109](https://doi.org/10.1073/pnas.1211658109)

[Article](#) [PubMed Central](#) [CAS](#) [PubMed](#) [Google Scholar](#)

Silver J (2014) Locating urban retrofitting across three BRICS cities: exploring the retrofit landscapes of Sao Paulo, Mumbai and Cape Town. In: Urban retrofitting for sustainability: mapping the transition to 2050. Routledge, Abingdon

[Google Scholar](#)

Simon D (2010) The challenges of global environmental change for urban Africa. *Urban Forum* 21(3):235–248

[Article](#) [Google Scholar](#)

Simon D, Leck H (2013) Cities, human security and global environmental change. In: Sygna L, O'Brien K, Wolf J (eds) *A changing environment for human security: transformative approaches to research, policy and action*. Earthscan, London/New York, pp 170–180

[Google Scholar](#)

Simon D, Leck H (2014) Urban dynamics and the challenges of global environmental change in the south. In: Parnell S, Oldfield S (eds) *A Routledge handbook of cities of the global south*. Routledge, London

[Google Scholar](#)

Swilling M, Annecke E (2012) *Just transitions: explorations of sustainability in an unfair world*. UCT Press, Cape Town

[Google Scholar](#)

Turok I (2013) Linking urbanization and development in Africa's economic revival. In: Parnell S, Pieterse E (eds) *Africa's urban revolution*. Zed Books Ltd, London, pp 60–81

[Google Scholar](#)

Turok I, McGranahan G (2013) Urbanisation and economic growth: the arguments and evidence for Africa and Asia. *Environ Urban* 25(2):465–482

[Article](#) [Google Scholar](#)

Tyler S, Moench M (2012) A framework for urban climate resilience. *Clim Dev* 4(4):311–326

[Article](#) [Google Scholar](#)

UN-Habitat (2003) *The challenge of slums: global report on human settlements*. Earthscan, London

[Google Scholar](#)

UN-Habitat (2009) *Global report on human settlements 2009: planning sustainable cities*. Earthscan, London

[Google Scholar](#)

UN-Habitat (2014) *The state of African cities, 2014: reimagining sustainable urban transitions*. UN Habitat, Nairobi

[Google Scholar](#)

United Nations (2012) *World urbanization prospects: the 2011 revision, CD-ROM edition*. United Nations, Department of Economic and Social Affairs, Population Division

[Google Scholar](#)

Watson V (2009) The planned city sweeps the poor away...: urban planning and 21st century urbanisation. *Prog Plan* 72(3):151–193

[Article](#) [Google Scholar](#)

Watson V (2013) African urban fantasies: dreams or nightmares? Environ Urban
0956247813513705

[Google Scholar](#)

Watson V, Agbola B (2013) Who will plan Africa's cities? Counterpoints, Africa Research
Institute, London

[Google Scholar](#)

Winkler T (2009) For the equitable city yet to come 1. Plan Theory Pract 10:65–83

[Article](#) [Google Scholar](#)

Winkler T (2011) On the liberal moral project of planning in South Africa. Urban Forum
22:135–148

[Article](#) [Google Scholar](#)

Winkler T, Duminy J (2014) Planning to change the world? Questioning the normative
ethics of planning theories, Planning Theory published online 19 Sept 2014.
<http://plt.sagepub.com/content/early/2014/09/15/1473095214551113>.
doi:[10.1177/1473095214551113](https://doi.org/10.1177/1473095214551113). Accessed 30 Sept 2014

Wratten E (1995) Conceptualizing urban poverty. Environ Urban 7(1):11–38

[Article](#) [Google Scholar](#)

Ziervogel G, Parnell S (2012) South African coastal cities: governance responses to
climate change adaptation. In: Cartwright A, Parnell S, Oelofse G, Ward S (eds) Climate
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