Download date: 14. Nov. 2026

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Cities on the agenda

Urban governance and sustainable development

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Publication date:
2016

Document Version
Publisher's PDF, also known as Version of record

Link to publication

Citation for pulished version (APA):
Stepputat, F., & van Voorst, R. (2016). *Cities on the agenda: Urban governance and sustainable development*. Danish Institute for International Studies. DIIS Report Vol. 2016 No. 4 http://www.diis.dk/node/6356

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DIIS REPORT 2016: 04

Urban governance and sustainable development

CITIES ON THE AGENDA

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Layout: Lone Ravnkilde & Viki Rachlitz
Printed in Denmark by Eurographic
Coverphoto: iStock, zodebala

ISBN 978-87-7605-799-2 (print)
ISBN 978-87-7605-798-5 (pdf)

DIIS publications can be downloaded free of charge or ordered from www.diis.dk

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ABBREVIATIONS

ACCCRN:	Asian Cities Climate Change and Resilience Network
ASEAN:	Association of Southeast Asian Nations
BAPPEDA:	Jakarta Development Planning Board
BAPPENAS:	Indonesia National Development Planning Agency
BMZ:	German Federal Ministry for Economic Cooperation and Development
BPBD:	Jakarta Disaster Management Agency
CCCI:	Cities and Climate Change Initiative
CCTV:	Closed-Circuit Television
CDS:	Cities Development Strategies
CGIAR:	Consultative Group on International Agricultural Research
CSR:	Corporate Social Responsibility
CLEAN:	Danish Clean-tech cluster
C40:	Cities Climate Leadership Group
DfID:	Department for International Development
DRR:	Disaster Risk Reduction
ESP:	Environmental Support Programme
FAKTA:	Jakarta Residents' Forum
3GF:	Global Green Growth Forum
HoFor:	Greater Copenhagen Utility
ICCSR:	Indonesia Climate Change Sectoral Roadmap
ICSU:	International Council for Science
ICCTF:	Indonesia Climate Change Trust Fund
IDA:	The Danish Society of Engineers
IIED:	International Institute for Environment and Development
ILO:	International Labour Organisation
IPCC:	Intergovernmental Panel on Climate Change
IUA:	International Union of Architects

JCAT:	Jakarta Climate Adaptation Tools
JEDI/JUMPF:	Jakarta Emerging Dredging Initiative/Jakarta Urgent Flood Mitigation Project
KL:	Kommunernes Landsforening (Danish Association of Municipalities)
MDG:	Millennium Development Goals
MFA:	Ministry of Foreign Affairs
NCICD:	National Capital Integrated Coastal Development
NGO:	Non-Governmental Organisation
OECD:	Organisation for Economic Co-operation and Development
PAKLIM:	Policy Advice for Environment and Climate Change
PDW:	Pandega Desain Weharima
PU:	Ministry of Public Works and Housing, Indonesia
RAN-API:	National Action Plan on Adaptation
RPJMN:	National Medium-Term Development Plan 2010-2014
RPJPN:	National Long-Term Development Plan 2005–2025
SDG:	Sustainable Development Goals
UCLG:	United Cities and Local Governments
UN:	United Nations
UNDP:	United Nations Development Programme
UNEP:	United Nations Environment Programme
UNFCCC:	United Nations Framework Convention for Climate Change
UNISDR:	United Nations Office for Disaster Risk Reduction
WB:	World Bank

PREFACE

This report is part of a collaborative effort between the Danish Ministry of Foreign Affairs (MFA) and the Danish Institute for International Studies (DIIS) to explore trends in development and development cooperation. It aims at 1) taking stock of the current challenges of sustainable urban development in the global South and the (re-) emergence of cities on the agenda of international development cooperation; and 2) providing material for a discussion of the possibilities of focusing on cities in Denmark's future development cooperation. As part of the analysis undertaken for this report, the MFA asked us to include a case study of Jakarta. We thank the staff of the Danish Embassy in Jakarta for their assistance, and the MFA staff in Copenhagen for their inputs into and comments on the report. We also owe thanks to all the persons in Jakarta and Copenhagen who have taken time to give interviews for this report, and to the Universities of Amsterdam and Copenhagen for hosting seminars. Apart from the Ministry of Foreign Affairs, the report is written with a broader, interested audience in mind, such as municipal and professional organisations.

EXECUTIVE SUMMARY

Cities are emerging as important actors in the global political arena for sustainable development. More than half the global population now lives in urban areas, and from 2015 to 2030 the urban population will increase by more than one billion people, mostly in cities in Asia and Africa. Urbanization is a defining trait of the 21st century, and cities are decisive for the future of sustainable development, which has been recognized through the definition of a stand-alone goal for sustainable urban development, or SDG 11. Cities represent extremely serious problems, but with their concentrations of population, infrastructure, services, innovation and production, they also offer huge potentials for changing the course of urban development and climate change mitigation.

Currently one billion people live in informal settlements with no or limited basic services, and the number is expected to increase further. The challenge of providing growing urban populations with water, sewerage, transport, security and other services is compounded by the exposure to disasters and the effects of climate change, which will increase if urbanization continues in its current forms.

This report, commissioned by the Danish MFA, aims to take stock of the field of sustainable urban development and the implications for how Denmark's international engagement could strengthen its focus on cities as part of the SDG agenda. The report builds on three elements; first, it looks at the state of the art in research on urban governance and sustainable development; secondly, it maps current trends and actors in the global political arena for sustainable urban development; and thirdly, it includes a case study of Jakarta, a dynamic but flood-prone megacity.

While research on sustainable urban development is growing rapidly in volume, researchers are still struggling to understand and theorize trends in rapid urbanization in the global South. The lack of disaggregated data at the city level is a challenge for both research and urban planning, and cities of different sizes, environmental contexts and political histories show a high degree of diversity. It has been suggested that an international network of national research centres be established to engage directly with urban governments and other parties in action-research and documentation. These centres should aim at developing more integrated approaches to disaster risk reduction, climate action and basic service delivery according to context-specific challenges, and at strengthening more inclusive practices that address the needs and initiatives of vulnerable populations.

In the global arena, international organisations and agencies for climate action, sustainable development, the environment, disaster risk reduction and urban development increasingly recognize the importance of cities and local government for the implementation of the SDGs. But beyond this role in implementation, cities and their networks, such as C-40, ICLEI and UCLG, are also becoming more vocal as political actors themselves. This opens up new perspectives in terms of alliances and influence in global policy-making. However, among UN member states there is some reluctance to recognize regional, city and local governments as active partners, since this implies the devolution of more authority and resources from central governments.

The case study of Jakarta below shows that national and city governments, as well as groups of citizens and private companies, are very active in developing plans and projects for more sustainable urban development. However, it also illustrates the many problems, limitations and vested interests involved. Such projects are deeply political processes. They can have negative effects on poorer parts of the population with little political influence, which is why projects should be analysed and screened for their social as well as their environmental sustainability effects. Furthermore, the case of Jakarta shows that the new and urgent agendas of climate action cannot be separated from the more traditional agendas of basic service provision. Thus, the various challenges of sustainable urban development have to be approached in an integrated way.

Overall, the study shows how urban governance is a key issue in the quest for sustainable cities. Apart from general limitations in capacity and resources, important issues are how to develop clear arrangements of cooperation between governments at city, regional and national scales; the involvement of citizens in processes of change; maintaining the political momentum for sustainable development beyond the electoral cycle; and oversight with private-sector involvement and public–private partnerships.

As both recent research and the case study of Jakarta suggest, informality and fragmented authority are two of the most important challenges that city governments, research institutions, international organisations, city-networks and the private sector face. Often criminalized in practice and ignored in policies of green growth, informal economies, settlements and authorities represent both problems and opportunities. They are essential to the daily functioning of cities and will have to be approached in more inclusive and differentiated ways. Many city governments, private firms, NGOs

and community-based organisations have already embarked on the challenge in innovative ways, but the theme needs more focus and efforts in the pursuit of the SDGs.

On the basis of this study, the report recommends that the Danish Ministry of Foreign Affairs takes the SDG 11 as an occasion to focus on cities as part of Danish support for the implementation of the Sustainable Development Goals. Because of their future importance, and the significant governance deficit, intermediate and smaller cities merit support and strategic engagement. Among these, special attention should be given to 'fragile cities', in particular, those that provide safe havens for displaced populations from areas of armed conflict, for example, in the Middle East, the Sahel and the Horn of Africa.

In international fora, the MFA should work to give cities a role in policy-making that 1) corresponds to their importance in the implementation of the SDG agenda, and 2) reflects the responsibility for sustainable development that cities and local governments have already assumed through their multiple networks. This includes working for the improvement of subnational governments' access to climate and investment funds, and sensitizing national governments in partner countries, organisations and banks, such as the 3GF or the Asian Infrastructure Investment Bank, to the role and needs of cities and local governments.

There is plenty of scope for international initiatives in support of capacity-building and the training and education of urban government staff in their national settings. The study suggests that land-use planning, financial management, taxation, the design and oversight of public-private partnerships, and participatory forms of urban development and disaster risk reduction are all important fields. Due to the diversity of cities and their specific dynamics of informality, such capacity-building should be linked to national research centres.

In Denmark, the MFA, together with other ministries, should take on a facilitating and supporting role in relation to the many different actors that have shown an interest in engaging internationally in sustainable urban development, such as municipalities, public utilities, NGOs, private companies, research institutions and professional organisations of architects, city planners and engineers. Considering the multiple entry points to the global political arena, a platform model of organisation would suit multi-pronged Danish engagement in support of the SDG 11. Unlike the Millennium Development Goals, the SDGs are global, and Danish cities and municipalities can also learn and benefit from taking part in some of the city networks.

Finally, sustainable urban development represents opportunities for the engagement of Danish know-how, technology and approaches in sectors such as water, energy and energy-efficient buildings, in particular through systems export. However, there is still a need for topical support in putting together and promoting these systems.

INTRODUCTION

As the share of the global population living in urban areas has surpassed fifty percent, cities have increasingly attracted attention as sites of the main problems of global sustainable development, but also as sites of the solutions. In 2013 a High Level Panel report concluded that 'the post-2015 agenda must be relevant for urban dwellers. Cities are where the battle for sustainable development will be won or lost.'[1] Indeed, the adoption of a Sustainable Development Goal for cities (SDG 11) represents a turning point in recognition of their importance, not only as sites of development, but also as important actors in global governance and international politics.

The focus of the report is on urban governance as a key challenge in the pursuit of the SDG 11.

While a few mega-cities, such as São Paolo and Jakarta, have had World Bank lending programs as large as many country programs, in general donors have been reluctant to engage in urban development since the 1980s. Cities do not really fit the predominant schemes of development cooperation: poverty has been regarded as a rural phenomenon, and a focus on the urban has been at odds with the practice of giving support to sectors (health, education etc.) or central budget support. Aid expertise has been biased towards the rural, while urban migration has been interpreted almost as a failure of development. Moreover, having to deal with numerous cities instead of a few states adds to the administrative burden of development cooperation. Also, the lack of disaggregated data and indicators at the city level has made it hard for urban projects to fit within result-based aid management systems.[2]

Meanwhile poverty has been recognized as an urban phenomenon.[3] One billion people live in informal urban settlements, where the lack of basic infrastructure constrains productivity and quality of life, and many cities are extremely vulnerable to natural disasters and climate change. But cities also have an extraordinary potential for development due to their concentrations of people and economic activity, potential for social transformation, high levels of investment in infrastructure, economies of scale in basic services, and ability to reduce eco-footprints by densification. Hence, much hope is invested in the future of the cities.

The issues figuring most prominently in the SDG 11 are disaster risk reduction, climate change adaptation and mitigation, slums and the need for inclusive forms of urbanization, which will be the main themes of our analysis. Other important issues, such as urban violence, are not included in the SDG 11 and will only be touched on briefly. The SDG 11 conforms to the idea of the 'sustainable city' defined as 'a paradigm of urban development that recognizes the ecological costs of urban wealth creation, and the need for a more socially inclusive future'.[4]

The focus of the report is on urban governance as a key challenge in the pursuit of the SDG 11. 'Governance' is here understood as broader than 'government'. It includes networked forms of power that work beyond the formal government and that involve many other actors in arrangements that determine how urban development evolves.

THE REPORT HAS THREE DIFFERENT ELEMENTS

1. A review of trends and issues brought out in the research literature on urban governance and the challenges of sustainable development.
2. A mapping of the main actors and trends in the global political arena for sustainable urban development, including the role of city networks and the private sector.
3. A case study of Jakarta, the capital of Indonesia, to identify the governance problems and dynamics that are articulated through recent climate action and disaster risk reduction in the mega-city. The study is based on four weeks of field-work and interviews against the background of five years of work with citizens, civil society, government employees and private firms in the city.

Conclusions from page 49 bring these three elements together in a concluding discussion of the implications for possible (Danish) engagement in support of the SDG 11. The report also offers recommendations for a multi-pronged engagement that focuses on how to strengthen urban governance.

Urban governance and sustainable development

RESEARCH PERSPECTIVES

This part provides a brief overview of the main points to emerge from research on urban governance and sustainable urban development with a focus on cities in the global South and on the challenges of fragmented governance. In conclusion the part identifies current gaps in research.

AN URGENT URBAN AGENDA

Since 2007, the world's urban population has exceeded the population living in rural areas. Whereas the rural population will stagnate or fall from 2015-30, projections suggest that in the same period cities will grow by 1.1 billion inhabitants.[5] Most of this increase will take place in Asia and Africa. The megacities (those with more than ten million inhabitants) will increase in number from 28 to 48 by 2030. Yet, according to the UN, the fastest growing cities are the smaller African and Asian cities, suggesting that more than two thirds of the growth in urban population will take place in cities with less than five million inhabitants (see Table 1). These cities generally have fewer resources and less governmental capacity, which has made city organisations call for attention to 'intermediate' cities (see Box 1 and The global political arena for sustainable urban development page 25). In any case, we know that there is much variation in the patterns of growth and decline, as well as the underlying reasons for these, and research and statistics are weak in this field.[6]

Table 1. Prospects for urban population growth from 2014 to 2030 (number and share of urban inhabitants for categories of cities)[7]

	2014 (3.88 billion)	2030 (5.06 billion)
Megacities > 10 mill.	453 mill. (12 percent)	759 mill. (15 percent)
Large cities 5-10 mill.	300 mill. (8 percent)	400 mill. (9 percent)
Medium cities 1-5 mill.	827 mill. (21 percent)	1.100 mill. (22 percent)
Small cities 300,000-1 mill.	521 mill. (13 percent)	828 mill. (16 percent)
<300,000	1.670 mill. (43 percent)	1.920 mill. (38 percent)

After decades of high rates of urbanization, urban planning and basic infrastructure and services are lagging behind. More than a billion people live in informal settlements, problems of traffic congestion and pollution are growing, and the population of cities is increasingly exposed to natural hazards. Most of the negative impact of climate change will fall on cities in the global South since the effects of climate change in several ways combine with the high rates of urbanization in low- and middle-income countries.[8]

- Cities are predominantly located along hazard-prone coasts and rivers.[9]
- Their governments often lack the resources and incentives to deal adequately with these risks and vulnerabilities.
- Processes of urbanisation can themselves make cities more vulnerable to climate impacts, as their concentrations of infrastructure, concrete, pavement etc. increase exposure and fragment environmental systems.[10]

Currently, more than two-thirds of the world's largest cities are exposed to rising sea levels. By 2050, the number of people exposed to natural hazards in large cities could more than double to 1.5 billion, with the largest concentration of at-risk people living in Asia and the Pacific.[11] Urban disaster studies consistently identify poor and marginalized city dwellers as the groups most exposed to landslides, hurricanes,

floods and other hazards because 1) they often reside in high-risk areas and faulty shelters; 2) they have limited access to basic and emergency services; and 3) they lack economic means to bounce back from disasters.[12]

Urban disaster studies consistently identify poor and marginalized city dwellers as the groups most exposed to landslides, hurricanes, floods and other hazards.

However, the projected urban growth and the concentrations of population and production in cities also represent possibilities for mitigating climate change, addressing vulnerabilities and achieving economies of scale in basic services. Given that an estimated 60 percent of the infrastructure for cities in 2030 has yet to be built, it is urgent that factors such as greenhouse gas emissions, risks and vulnerabilities are taken into account since the choices made now will fix infrastructure, forms of transport, energy supply and buildings for many years to come.

Whether this potential for a more climate-friendly and less vulnerable urban development will be unlocked depends on how the current challenges of urban politics and governance are managed.

URBAN GOVERNANCE – RESCALING AND FRAGMENTATION OF AUTHORITY

'Governance' here refers to the pursuit of collective goals through relations and networks that reach beyond formal government institutions to include a range of social and market actors.[13] Compared to national governments, city governments are seen as being less dominant and more embedded in webs of institutional, economic and political constraints. This creates complex contingencies in the process of governing. Hence, the challenge of urban political leadership is to forge concerted action with governmental, non-governmental and private actors, and to manage these contingencies strategically.[14]

Research suggests that two developments have marked cities over the past two to three decades. First, their governments have been strengthened in relation to national governments as a process of rescaling from the national to the local and global scales has taken place.[15] While the role of national governments is seen as

being in decline, global cities have become more autonomous, more delinked from national economies and increasingly tied to global markets and regulations. Smaller cities do not occupy the same role in the global economy, but policies of decentralization (of water and other basic services, for example) and the effects of high rates of urbanization have nevertheless enhanced the position of cities vis-à-vis national governments.

The challenge of urban political leadership is to forge concerted action with governmental, non-governmental and private actors, and to manage these contingencies strategically.

This 'rescaling' of governance has been particularly visible in Asia, but has also taken place in Africa and elsewhere.[16] However, the capacities, resources and sometimes the authority of local governments have not matched the decentralization of tasks. Their capacities for planning, oversight, revenue capture and funding, and financial management are generally low, and large as well as smaller cities in the South are characterized by huge backlogs in basic services.[17] Secondly, therefore, public authority in cities has become more fragmented, with privatization and the outsourcing of state functions taking place in many countries, and informal authorities having emerged in urban areas with a limited presence of public institutions and services.[18] This fragmentation of urban governance is often seen as problematic in respect of transparency and accountability, as decisions have moved from formal political institutions to wider networks.

With respect to public services, the private concessions that characterized the 1990s did not live up to expectations when it came to extending access to services in low and middle-income countries; instead there has been a shift towards public–private partnerships (PPP) that combine public investment with private operation.[19] PPPs have increased the efficiency and quality of services in many places, but investment and coverage has lagged behind.[20] Also such arrangements have suffered from unclear contracts and insufficient public oversight, which has contributed to the perception that they blur responsibility.[21]

The fragmentation of urban governance has become more pronounced with the relative absence of governmental institutions and services from marginal urban areas in the fast growing cities of the South. Instead, informal service providers and

a range of social actors operate in these areas, such as market associations, community organisations, guilds, NGOs, unions, mafia-like organisations, protection rackets and local big men or patrons. They provide, for example, water, land registration, jobs, protection and emergency aid, either operating independently of the state, or linking up with governmental institutions to ensure some level of public services.[22] Despite being problematic in terms of quality, rights and accountability, such arrangements solve many local problems in socially approved ways. This is why the non-state providers may enjoy a status as de facto local public authorities, even though lacking any official status.

While these trends are general for cities in the South, there are huge differences between cities and regions in terms of the available resources and capacities. For the purposes of policy considerations we may make a simple distinction between a first tier of (global) megacities, such as Jakarta, Johannesburg, Mumbai or São Paolo, and a second tier of cities, which are becoming known as 'intermediate cities'. Also, cities in areas of armed conflict are singled out as having particular problems in terms of large increases in their populations of displaced people (see Box 1).

BOX 1. 'Intermediate' and fragile cities

These two loosely defined categories have emerged in recent policy debates as cities that deserve special attention. Depending on the source, 'intermediate' or 'second tier' cities are defined as cities of less than one or less than five million inhabitants. They have little visibility and 'voice' in the global arena, yet most of the global urban population now live in such cities, and numerically the largest growth will take place here. In Africa and Asia their population is growing faster than the larger cities.[23] They often have very limited resources or governmental capacity, and the gap in per capita income between the intermediate and the large cities is growing. Nevertheless, due to their projected growth, these 'i-cities' are considered to represent a large potential for local and domestic economies as hubs for logistics and rural–urban linkages, as centres of markets and services, and as the home of small and medium enterprises.[24]

'Fragile cities' refer to the extremely fast growing urban areas in often poor, conflict-prone countries (or regions) where state institutions have a limited presence or lack legitimacy. Cities like Kabul, Mogadishu, Kinshasa, Khartoum, Port au Prince, or currently Amman and Beirut provide relatively safe havens, but the displaced populations strain the limited services and resources to breaking point as high disaster risk, poverty and sometimes violence combine.

URBAN GOVERNANCE AND THE POLITICS OF SUSTAINABLE DEVELOPMENT

Cities and local governments have arguably become more important players on the frontline of sustainable development, and the call for them to take on a key role in coordinating and institutionalizing initiatives related to climate change, disaster risk and resilience has turned into a mantra.[26] Increasingly research is looking into how these challenges find their way on to the political agenda of cities and local governments, when and how they act, and with what effects.[27]

Adaptation to climate change in one part of a city area can have negative spillover effects for adjacent, less privileged neighbourhoods that are thereby rendered more vulnerable.

Case studies of the cities that led the way in taking action to adapt to climate change – the 'early adapters' – suggest that, in terms of governance, the main challenges are 1) how to develop and implement long-term plans and corresponding multi-year budgets; 2) how to maintain skills, practices and political momentum beyond the short term defined by electoral cycles; 3) how to involve the population; and 4) how national, regional and local authorities can work together, within and across territorial jurisdictions.[28]

With regard to sustainable urban development, governments rely on partnerships with non-governmental actors, and in particular with private companies that can provide technological solutions and capital for investments.

The case studies have concluded that the following characteristics have helped these cities embark on the agenda of ensuring more resilient cities in the longer term.

- Pre-existing capacities in basic service provision (water, waste, transport, energy).
- The generation of locally relevant knowledge, risk analysis and awareness of vulnerability.
- Participation in national, regional and global networks, and access to international funding through these networks.
- Well-established networks between different government institutions and other actors, including regional and national levels of government.
- The creation of a team of 'local champions' from public and private institutions (local government, universities, corporations, NGOs) to drive actions over the longer term.
- The ability to reframe climate change as a locally important issue and bundle it together with other tangible development issues. In the experience of cities in the Asian Cities Climate Change and Resilience Network (ACCCRN), drainage, flooding and solid waste management are tangible issues that have captured the attention of city officials. Disaster risk reduction can also represent an important platform for capturing local attention to climate change issues, at least in the immediate aftermath of disasters, when governments can gain legitimacy by responding resolutely.[29]

Furthermore, research has pointed out that projects for climate change adaptation and disaster risk reduction are deeply political in the sense that they affect relations and balances between different parts of the urban population, different elite factions, and private and public authorities. Adaptation to climate change in one part of a city area can have negative spillover effects for adjacent, less privileged neighbourhoods that are thereby rendered more vulnerable. Such potentially negative effects in terms of exclusion and deepened inequality work against long-term resilience, but they have often been overlooked in studies of climate change interventions.[30] This also suggests the need for the spatially comprehensive research and planning of resilience and climate change actions.

With regard to sustainable urban development, governments rely on partnerships with non-governmental actors, and in particular with private companies that can provide technological solutions and capital for investments.[31] In fact, it has been suggested that private firms increasingly secure control over urban space through visions of ecological modernization, green innovation and creative environmental thinking.[32] But recent studies of urban governance in the global South have noted that there is a tendency for large investors and governments to opt for megaprojects driven by elite priorities and sometimes contributing to socioeconomic polarization and further fragmentation of the city.[33] This trend is linked to 1) speculative real-estate developments that tend to price low-income groups out of the market, and 2) shifts in public budget priorities from social objectives to infrastructure investments. In the area of rural climate change initiatives, studies have noted a similar propensity of local and national governments to prioritize (visible) infrastructural projects over other approaches.[34]

However, researchers have also noted countertendencies: both among urban populations and urban governments, the idea of citizens' 'right to the city' have guided initiatives for sustainable urban development, including access to basic services.[35] This underlines the fact that there is much diversity in urban development and that research is still grappling with how to understand and theorize current patterns of urbanization.

RESEARCH GAPS

Research on issues of sustainable urban development is growing rapidly, but there are still major and strategic gaps.

First, geographically disaggregated statistics are generally limited and unreliable, in particular in relation to informal settlements and practices, which represents a problem for analyses and urban planning.

Secondly, our knowledge of how different interventions to make cities sustainable work is still limited. We know little about when and how urban governments can steer such interventions, what the effects are of extensive private-sector involvement, and what the possibilities are for marginalized groups to influence the processes that affect them.[36] Therefore calls have been made for more action research in cooperation between practitioners and researchers.[37]

Thirdly, most theories and assumptions about urbanization build on the European and North American experience. They are ill-suited for understanding and navigating current forms of urbanization in the South and East, therefore, research has to focus on and learn from the actual practices of governance, planning and city-building, as well as the pursuit of ordinary lives in the cities.[38]

Most theories and assumptions about urbanization build on the European and North American experience. They are ill-suited for understanding and navigating current forms of urbanization in the South and East.

Against this background, the director of IIED, a leading institution in research in sustainable urban development, has suggested that there is a need for major investment in research, somewhat like the international research partnership CGIAR, which was established in the 1970s to promote agricultural research.[39] An urban research network should primarily support and link national research centres to engage directly with urban governments in action-research and documentation. These centres should aim at developing more integrated approaches to DRR, poverty reduction and climate action according to context-specific challenges, and at strengthening more inclusive practices that address the needs and initiatives of vulnerable populations.

THE GLOBAL POLITICAL ARENA FOR SUSTAINABLE URBAN DEVELOPMENT

In order to identify potential entry points for a strengthened Danish engagement in sustainable urban development, this part provides an overview of current trends and relevant actors in the global, political arena. It shows 1) how international organisations have increasingly recognized that cities and urban governments have an important role to play in sustainable development; 2) that networks of cities and local governments are becoming more vocal and active in issues of sustainable development; and 3) that the sustainable urban development agenda reinforces the involvement of the private sector in the global arena for sustainable development. Finally, we identify some issues that will figure prominently on the agenda of the upcoming UN Habitat III.

International organisations and agencies that are working on climate change, disaster risk reduction and other issues of sustainable development are increasingly focusing on cities and recognizing local and regional government as important actors in the implementation of policies.

INTERNATIONAL ORGANISATIONS

International organisations and agencies that are working on climate change, disaster risk reduction and other issues of sustainable development are increasingly focusing on cities and recognizing local and regional government as important actors in the implementation of policies. Important examples are:

UNFCCC, the UN Framework Convention for Climate Change, has moved towards incorporating a focus on urban areas. The partnership with the city network ICLEI and the 2011 Durban Local Government Convention (organized with ICLEI and South African partners) indicate this trend. In 2015, the International Panel on Climate Change's 5th Assessment Report focused for the first time on urban governments as a crucial part of an effective global adaptation strategy. The Report advises urban governments to take acute action, for example, by strengthening the capacity of low-income groups and vulnerable communities and their partnerships with local governments.

The Compact of Mayors, a UN platform for city governments, was set up in 2014 to scale up cities' commitments to climate resilience, with the major city networks as partners (ICLEI, C-40, UCLG). The Compact comprises the City Creditworthiness Partnership, a joint effort between the World Bank and partners to help cities attract investors to strengthen resilience. Individual members are primarily European and North American cities. The New Climate Economy project of the Global Commission on the Economy and Climate recommends that cities use the framework of the Compact to prioritize policies and investments in low-emission public transport, the energy efficiency of buildings, renewable energy and efficient waste management.[40]

The World Bank and the regional development banks have a long-standing focus on urban development and local governments. However, in its 2009 'Urban Sector Strategy', the World Bank coupled urban development with climate change issues and made this nexus an important component of lending practice and analytical support. The World Bank works with city networks and UN agencies to develop guides and assessment tools for urban governments and to extend the creditworthiness of cities beyond the twenty cities that currently have credit rating.

UNISDR, UN's coordination unit for the International Strategy for Disaster Risk Reduction (DRR), has recently launched 'Ten Essentials for Making Cities Resilient' to accelerate implementation of the Sendai Framework for Disaster Risk Reduction (2015-2030) at the local level, which is seen as the 'front line' in DRR.[41]

UN Habitat, the main international organisation for urban development, has been slow in responding to the climate change challenge, but in 2008 the organisation launched the Cities and Climate Change Initiative (CCCI, aimed at small and intermediate cities, now in twenty countries), a Climate Change Strategy, and (together with the Danish association of local governments) an interactive ClimateActionMap.org at the event of COP 15 in Copenhagen.[42] In 2015, UN Habitat, together with the WB, UNEP and several city networks, produced a guide for the integration of climate change into City Development Strategies and a Handbook for Mayors on climate change issues. In 2016 the UN will organize Habitat III, the UN Conference on Housing and Sustainable Urban Development. This will be the first international conference on the implementation of the post-2015 agenda, with the aim of rethinking 'the urban agenda' and promoting 'a new model of urban development for the 21st century'.

This trend of convergence between the agendas of urban and sustainable development has so far peaked in the definition of the stand-alone sustainable development goal for urban areas, the SDG 11. The SDG 11 demands action in particular in DRR, climate change mitigation and adaptation, and sustainable development, fields that have tended to be managed and discussed in separate international organisations. While these fields are often interlinked at the local level, the SDG process can potentially help overcome the silo'ed international approach and push for a more integrated effort for sustainable development.[43] Under all circumstances, through their extensive networks, cities and local governments are likely to influence how the international SDG agenda will be implemented.

This trend of convergence between the agendas of urban and sustainable development has so far peaked in the definition of the stand-alone sustainable development goal for urban areas, the SDG 11.

CITY TO CITY NETWORKS

Over the past two to three decades, cities have increasingly moved from the sister-city concept to an engagement in networks, and sustainability-, resilience- and climate change-related networks of cities have grown rapidly in numbers, members and influence. Apart from the metropoles, 'early adapters' to climate change, such

as Durban, Cape Town, Singapore, Ho Chi Min City and Quito, have been influential in pushing these agendas among cities. The networks promote thematic exchanges between peers and advocate the interests of cities and local governments in the global arena. They typically constitute multi-stakeholder platforms involving international organisations and private companies. The most important and relevant networks to consider for a strengthened Danish engagement are:

United Cities and Local Governments (UCLG, founded in its current version in 2004) organizes cities and national associations of local, metropolitan and regional governments to strengthen their role and interests internationally. The UCLG is pushing for an official status for local authorities in the UN and has had an important role in the advisory committee of local authorities to the UN (UNACLA) for the Habitat II agenda (after 1996), and later through the Global Task Force in the preparation of the post-2015 agenda. The UCLG includes Metropolis, an association of 140 big cities and metropolitan areas that co-founded the UCLG, and seven regional sections. The Asia-Pacific section alone includes 7,000 local governments with responsibility for almost half of the global population. The UCLG facilitates exchanges and initiatives to strengthen the capacities of local governments in relation to basic services, planning and management, including, for example, the issues of informality, intermediate cities and inclusive governance. Major international organisations and agencies are partners.

ICLEI – Local Governments for Sustainable Development was launched in the wake of the 1992 Rio Summit as the 'Cities for Climate Protection' campaign, incorporating a thousand cities.[44] The ICLEI became the focal point for local governments in UNFCCC's secretariat in 1995, and it organized side events at COP meetings in support of the 'local' version of Rio's Agenda 21.[45] Unlike the UCLG, it focuses on issues of sustainability and climate change and works to strengthen local and regional governments as governmental actors in the global regime of sustainability. It has extensive cooperation with the World Bank, UNDP and other IOs, as well as research institutions.

Climate leadership group, C40 (from 2005) is a relatively exclusive network of currently eighty megacities and 'innovative cities' representing 25 percent of global GDP.[46] C40 facilitates exchange, research, innovation, data-development and evaluation in climate change mitigation and -adaptation. It is organized around thematic networks in water and adaptation, transportation, energy, buildings, solid waste and finance, among others. C40 works closely with Clinton's Climate Initiative and has a one-window access to the WB. Philanthropies Bloomberg and Realdania are among the three strategic sponsors, and a number of research institutes and private companies are involved as partners. One important strategy is to pool resources and demand in order to develop standardized solutions that represent private investment opportunities, such as low

emission buses and the Bus Rapid Transit system.[47] Cities have to set goals and choose the most appropriate for their specific context from a list of relevant policy and technology moves in each of C40's themes.[48] London and New York have been leaders in the network, but cities like Hong Kong, Seoul and São Paolo are moving the centre of gravity towards the East and South.

Cities Alliance – Cities without Slums is a child of the World Bank and UN Habitat born in 1999 to coordinate efforts to reduce the number of slum-dwellers by 100 million by 2020 (endorsed in the MDG 7). Rather than being a city network, the alliance includes organisations of local governments (ICLEI, UCLG, Metropolis), entities from eleven governments and several UN and other international organisations. The alliance functions as a trust fund that provides grants for inclusive city development strategies, slum upgrading and attracting international investment. Increasingly it also supports research and tools for climate action.[49]

100 Resilient Cities (from 2013) is an exclusive network of currently 67 cities that addresses a broad range of economic, social and physical resilience issues (including violence and unemployment). The network is sponsored by the Rockefeller Foundation and supports the employment of city resilience officers and the development of resilience strategies. The foundation also sponsors the Asian Cities' Climate Change and Resilience Network, ACCCRN (since 2008), with now more than fifty members.[51]

THE ENGAGEMENT OF THE PRIVATE SECTOR

The engagement of the private sector in issues of sustainable development in the global arena is becoming ever more pervasive, in relation to both international organisations and city networks. The cities seek to explore the potential of the private sector to finance projects, develop technologies and innovative solutions, and to enhance the scale and cost-effectiveness of particular measures. The companies seek business opportunities and pursue CSR-related objectives.

The UN Global Compact has a special framework for cities (citiesprogramme.com) in which private companies can engage. In the field of disaster risk reduction (DRR), in 2010 the UNISDR formed a Private Sector Advisory Board and developed the DRR Private Sector Partnership to work for resilient and disaster risk-sensitive private-sector activities. When in 2015 the UN World Conference on Disaster Risk Reduction took place in Sendai, Japan, observers registered an 'undeniable momentum' as more and more companies were 'waking up to the business opportunities' within

the disaster and climate risk field.[52] Likewise, in the parallel DRR platform, the ProVention Consortium (with the World Bank as a driving force), several large re-insurance companies are partners; while in its urban resilience handbook for policy-makers, the World Bank encourages local governments to develop public–private partnerships to increase their cities' resilience, for example, through private-sector contributions to slum upgrading and other activities to decrease social vulnerability.[53]

'Intermediate' cities have now emerged as a focus of mobilization in the process leading up to the Habitat III conference.

It seems that, since urban governments increasingly rely on public–private partnerships, the involvement of city networks in the global arena reinforces the global engagement of private actors. In the networks, private companies are either partners, such as several French, Spanish and Turkish water and sewerage companies in the UCLG, and Arup International Development in C40 and the Asian Cities Climate Change and Resilience Network; or else they are co-founders and members of non-profit organisations such as the New Cities Foundation (Ericson and Cisco)[54] and the Climate Group,[55] both of which focus on the development of innovative, marketable, smart and clean technologies.

THE GLOBAL ARENA ON THE WAY TO HABITAT III

As the above mapping shows, the global arena for sustainable urban development has become very dynamic and represents many different access points and forums where nation states, international organisations, local governments and private companies intersect and overlap. This also means that a strengthened Danish engagement can include many different public, private and non-governmental actors, and that a networked, multi-pronged approach to influence the implemen-tation of the urban SDG agenda would be appropriate.

There are many overlaps in the agendas and rhetoric of the different actors in the global arena, but there are also some contentious issues and questions that will come to the fore during the debates at the upcoming Habitat III conference, such as:

How should authority, capacity and resources be distributed between central, regional and local governments? The SDG 11 targets have been criticized for neglecting the institutional dimension, especially the subnational levels of government and their legal authority, resources and capacities for service provision and the management of land and finances.[56] While national governments have given cities and local governments responsibility for reaching the SDG targets through international agreements, networks such as the ICLEI and UCLG imply that central governments have generally not decentralized the resources and authority that correspond to the role they are expected to play. According to them, this should be one of the important points for discussion at the Habitat III.[57]

How can the governments of intermediate and small cities achieve more attention and support? Due to their size and influence, the worlds' megacities have received most of the international attention. Smaller cities have been marginalized, even though their actual and projected growth makes them very important for the sustainable development agenda (see Box 1)[58] However, 'intermediate' cities have now emerged as a focus of mobilization in the process leading up to the Habitat III conference. The UCLG has become a lobbying home for these 'i-cities'. This initiative is supported by Cities Alliance, ILO, UN-Habitat and donors such as Norway and Germany. ICLEI has voiced a similar interest in i-cities.

How can cities and local governments acquire access to funding for sustainable urban development? Apart from transfers from central government, local governments can collect local taxes if the central state allows it, or try to get access to international funds and loans. So far it has been very difficult for local and regional governments to access international funds, for example, from the UNFCCC, which only channels funds to national governments. The ICLEI, UCLG and other networks have made a case for allowing local governments direct access to international funds and for assisting cities and local governments in creating the conditions for access to international credit institutions.[59] The limited capacity for financial management is one of the most important obstacles to this happening. The New Climate Economy report 2015 suggests that an international fund be established to assist the five hundred largest cities in this endeavour, corresponding to all cities above A million inhabitants).

Given the dominant role of private investments as drivers of urban development, an effective way to promote issues of sustainability would be to factor these into streams of private investment, for example, by screening infrastructure investments, as the International Finance Corporation has also suggested.[60] The opportunity for influencing long-term urban resilience in this way is compelling given that 60 percent of the area that is expected to be urbanized by 2030 remains to be built.[61]

What is transformative development? Whereas several actors talk about the need for transformative development, there is disagreement over what it means. The SDG 11 document discusses the systemic and structural barriers to achieving the goals and targets, but, as the Open Working Group notes, there is no indication of how such barriers might be transformed and overcome.[62] In this respect, the notable influence of corporations and other private actors in the development of global and local policies has been questioned, as this trend risks placing decisions beyond the reach of ordinary political forums and perpetuating the inequalities of the status quo.[63] Thus, C40 promotes a business-friendly line of action and an agenda of voluntary but ambitious reductions of greenhouse gas emissions.[64] C40 talks about achieving transformative action, but this refers to the climate change mitigation agenda and to environmental sustainability, rather than to the agendas of political transformation and social sustainability that ICLEI and UCLG tend to foreground.

Case study

JAKARTA

Jakarta, the capital of Indonesia, is the largest urban agglomeration in South East Asia, with a growth rate above 3 percent. The City of Jakarta has close to ten million inhabitants and makes up its own province and government, Special Capital Zone Jakarta, Daerah Khusus Ibukota Jakarta or DKI. The metropolitan area of greater Jakarta (or Jabodetabek, named after the extensive metro system) has a population of 28 million. For the analysis, this part will focus on the governance dynamics of recent plans and projects that address issues of sustainable development, in particular adaptation to climate change. However, as the analysis shows, these projects cannot be understood in isolation from the development of basic services, the 'missing links' of Jakarta's sustainable development. At the end of the part, a short section describes Danish cooperation as it relates to Jakarta.

Flooding (banjir) from both the sea and rivers is Jakarta's main risk associated with climate change. Floods are now occurring more often than ever; they are also more severe.

RISK AND VULNERABILITY IN JAKARTA

Indonesia is extremely vulnerable to climate change-induced risks, including sea level rises, floods, landslides, drought, temperature rises, intense rainfall and related threats to food security and health.[65] Its capital, Jakarta, is particularly vulnerable.[66]

Flooding (banjir) from both the sea and rivers is Jakarta's main risk associated with climate change. Floods are now occurring more often than ever; they are also more severe.

Floods result in stalling of traffic, lost productivity and damage to property. In 2013, large-scale flooding caused an economic loss of 3.0 billion USD, 47 fatalities and extensive damage to at least 100,000 houses. On average, flooding costs the city more than USD 400 million a year.[67] The city's level of vulnerability has increased severely over the past decennia, due to:

- Geographical exposure: Jakarta is located in a deltaic plain criss-crossed by thirteen rivers; about forty per cent of the city is below sea level.
- Rapid urbanization: Greater Jakarta has a population of 28 million, with an additional two million commuters each day.
- Weak spatial planning and land use management, leading to an expansion of commercial areas and a decrease of the open space that could absorb rainwater or function as flood-catchment areas.
- Fast land subsidence due to ground water extraction, causing Jakarta to sink by 6-12 cm per year.
- Lack of drainage of the city's thirteen rivers and canals, which are used for dumping garbage.

Within Jakarta, informal settlements on the river banks and along the northern coast are most vulnerable to flooding. At a rough estimate, some 370,000 inhabitants live in self-constructed houses in flood-prone riverbank neighbourhoods.

NEW PLANS FOR SUSTAINABLE DEVELOPMENT

Over the past five to six years, different levels of government have been active in developing plans of relevance to sustainable development:

At the regional level, the ASEAN countries have signed agreements on Disaster Management and Emergency Response. As part of these agreements, in 2011 ASEAN established a Coordinating Centre for Humanitarian Assistance on disaster management in Jakarta, supported by the EU and other donors. In 2015 the ASEAN leaders committed themselves to building resilient cities, promising to conduct risk assessments, define mitigation and prevention programs, and improve the preparedness of cities to deal with emergencies.

At the national level, the Indonesia Government has recently developed programs for climate change interventions. The 2010-2014 Development Plan emphasizes disaster mitigation and climate change adaptation. Here, the National Planning Agency (BAPPENAS) laid out its strategic vision and recommended activities for energy, industry, transportation, coasts, water, waste and other sectors.[68] It also announced a plan (yet to be developed) for more sustainable development;[69] a financial mechanism to support climate change adaptation;[70] and a mitigation plan to support the goal of a twenty-nine percent reduction of greenhouse gas emissions before 2030.[71]

Transjakarta' is the most extensive BRT in the world, but it has not yet achieved its full potential due to the poor quality of the fleet, inadequate maintenance and the failure to keep bus lanes free.

At the level of Jakarta, in 2010, the government of Jakarta province, or DKI, issued the Jakarta Masterplan for 2010-2030. This plan lays out future developments for the city and describes the city's strategy for climate change adaptation. It includes plans to widen, deepen and drain the city's rivers; to build dams along river ways and along the Jakarta bay; to develop a coastal protection strategy; to enhance public transportation by the development of bus and railway systems; and to create green zones and recreational parks. A regional presidential decree states that thirty percent of Jakarta has to be 'green' so as to ensure that there is sufficient land that can absorb rain and flooding river water. In 2015, the governor announced that the government would work with private companies through their corporate social responsibility (CSR) programs to construct the parks.[72] While greening projects are under way, still less than ten percent of Jakarta is 'green'.[73]

If the master plan reflects a political long-term vision, current decisions by Jakarta's governor Basuki Tjahaja Purnama (nicknamed Ahok, elected in 2014) reflect short-term visions for Jakarta, mainly dealing with corruption. However, he has also announced several climate change, disaster risk reduction and related initiatives.

GOVERNMENTAL PROJECTS

This section reviews projects for climate change mitigation and adaptation, of which the latter are clearly the most comprehensive.

Mitigation projects comprise the development since 2004 of Jakarta's version of a Bus Rapid Transit (BRT) system to help reduce traffic congestion as well as greenhouse gas emissions from traffic. These make up almost half of the city's emissions. 'Transjakarta' is the most extensive BRT in the world, but it has not yet achieved its full potential due to the poor quality of the fleet, inadequate maintenance and the failure to keep bus lanes free. Governor Ahok has made improvement of the BRT system a priority,[74] but his government has also invested in a railway system with two lines financed through a loan from the Japan International Cooperation Agency. The first line is currently being constructed. The railway is expected to open in 2018, when Jakarta hosts the Asian Games.

Adaptation projects fall largely into three types: 1) ICT-based projects, 2) infra-structural flood mitigation projects, and 3) megaprojects related to sea-protection.

ICT-based projects

One example of this group of adaptation projects is the recent installation of 254 CCTV cameras at key infrastructure sites — such as flood gates — to relay information between city officials and agencies responsible for managing disasters in the city, most notably the Disaster Mitigation Agency (BPBD Jakarta). This data system should improve disaster response in the city. Nevertheless, official responses to recent floods have been largely ineffective, as the BPBD still lacks capacitated staff and experiences serious problems with the maintenance of the cameras.[75] This problem might be solved over time, however, due to the staff's participation in a training program facilitated by another ICT project, PetaJakarta.com. The project is financed, sourced and managed by an Australian university together with Twitter Inc., the BPBD and several community organisations, and provides for real-time flood mapping. Through social media, residents can report on floods, while the data

are transferred to real-life flood maps accessible to residents as well as to the BPBD. Several other SMART projects are being developed on similar multi-stakeholder platforms, but so far the popular use of the apps has been limited.[76]

Infrastructural flood-mitigation projects

From 2014 the anti-river flood project JEDI/JUMPF (Jakarta Emerging Dredging Initiative/Jakarta Urgent Flood Mitigation Project) has been running in Jakarta. For this project, Jakarta's thirteen rivers will be dredged and four dams built. For some targeted areas, the project entails evictions and resettlements. The approximate costs for JEDI/JUMPF are USD 190 million. Of this, the World Bank is contributing about USD 140 million through a soft loan. The governments of Indonesia and Jakarta will contribute about USD 15.5 million and USD 34 million, respectively. A grant from the Government of the Netherlands will be utilized to help strengthen Jakarta's Flood Management Information System. The designs for the JEDI/JUMPF project were made by Dutch engineers. The dredging is carried out by Indonesian companies.

Through social media, residents can report on floods, while the data are transferred to real-life flood maps accessible to residents as well as to the BPBD.

A second example of a large infrastructure flood-mitigation project is the Normalisasi (rehabilitation) project. This includes widening Jakarta's largest river, the Ciliwung, from 20 to 50 meters, building a 7.5 meter-wide inspection road on each side of the river with green areas in between and the relocation of circa 34,000 poor riverbank households. The project is officially managed by the national Ministry of Public Works (PU), but Bappeda (the Jakarta Development Planning Board) plays an important part when it comes to evictions and resettlements. Bappeda is responsible for the coordination of housing policies and for their compatibility with the National Development Plans. The estimated costs of this project are 87 million USD, which will be borne by the Indonesia government, the Jakarta government and, for the building of social housing, the private sector as part of its CSR obligations. Because of the involvement of private companies, the total budget is not clear.

These flood-mitigation projects have been criticized by local NGOs and academics that have opposed evictions of riverbank settlers and, together with the settlers, have developed alternative proposals for resettlement. Furthermore, an environmental NGO, the Ciliwung Institute, has claimed that the projects will damage biodiversity. Experts in water management indicate that these infrastructural projects will help to diminish flooding in the city.[77] However, to have a sustainable impact, they have to be accompanied by the development of more comprehensive systems of solid waste management, as well as increased efforts to manage the resettlement of evicted populations.

Megaprojects for adaption to rising sea levels[78]

The 'Giant Sea Wall' is the most prominent example of a megaproject in Jakarta, one that explicitly aims to adapt the city to climate change by protecting it against rising sea levels. The Indonesian and Dutch governments have commissioned the project, which also involves the governments of Jakarta and Rotterdam within the C40 Delta Cities Program (see Box 2). Dutch consultants have developed a Masterplan for the National Capital Integrated Coastal Development plan (NCICD) that aims to facilitate the flood-proof and sustainable development of Jakarta Bay.[79] In 2015, a Memorandum of Understanding was signed with the Korean government to become involved in the megaproject and contribute USD 8.7 million – the same amount as the Dutch government.

These flood-mitigation projects have been criticized by local NGOs and academics that have opposed evictions of riverbank settlers and, together with the settlers, have developed alternative proposals for resettlement.

The NCICD proposes a 34 km long wall that will protect Jakarta against floods from the sea. Inside the Giant Sea Wall, large lagoons with seventeen man-made islands will be created to buffer outflow from Jakarta's rivers. Together, the area will cover 5,200 ha and will be built in the shape of a 'Garuda' – Indonesia's national emblem. The project seeks to prevent Jakarta's inundation by blocking out the ocean and boosting the water supply so that ground water extraction may be reduced. To achieve this second goal, the bay, once sealed, will be converted into a giant freshwater reservoir fed by the thirteen rivers that flow through the city and out into the bay. Construction and improvement of the current sea dike has already started and should be finished in 2017.

The NCICD includes the construction of roads and bridges, as well as the reclamation of land for residential and business use. The estimated costs are more than USD 31 billion, which the Jakarta government plans to fund by selling building permits to the private sector. The municipal government will receive five per cent of the sale of every square metre of land created by the private developers and has promised to set aside that amount for social projects. Seven large real estate companies have been granted building permits by the Jakarta government. Predominantly mid- and high-end housing developments are being sold off; eventually up to 1.5 million people will be living on the Garuda. House prices in the area are rising extremely rapidly. Jakarta was recently ranked as the hottest high-end real estate market in the world, and the spill-over effects are likely to make housing even more expensive for Jakarta's less affluent inhabitants.[80]

The project is hotly debated. Many experts in Jakarta, including some of the consultants involved in the project, are sceptical that the NCICD will help to make Jakarta more resilient to climate change in the long run.[81] If the problem of land subsidence is not solved, the wall will not offer a sustainable solution to rises in sea level. Also, success in creating an alternative source of potable water relies on the Indonesian government's ability to clean up West Java's fetid rivers. Jakarta's waterways are fed primarily by the Citarum, one of the world's top ten of most polluted rivers, meaning that water pollution levels must be reduced by 75 to 95 per cent for the Giant Sea wall project to work.[82] Furthermore, many people fear that the megaproject will have a massive environmental and social impact on the city, and a recent study by the Maritime Affairs and Fisheries Ministry has warned that it might cause an 'environmental disaster' in the Jakarta bay.[83]

If the problem of land subsidence is not solved, the wall will not offer a sustainable solution to rises in sea level.

Despite these criticisms, the project is being implemented by the Jakarta government in cooperation with the private sector. Currently the process has stalled due to pending strategic environmental analyses, but because of the economic interests involved and the acute need to provide protection against flooding from the sea, it is most likely that the project will move on.

BASIC SERVICES AS 'MISSING LINKS'

Our study shows that these large-scale climate actions may not have a sustainable impact on Jakarta's resilience unless they are accompanied by interventions that address four 'missing links': clean water, garbage, social housing and land use. These problems are recognized by the Jakarta government, but despite repeated announcements that it will address them,[84] effective action remains limited. Below we analyse these missing links and the most important factors that prevent effective solutions.

Clean water supply

Clean water supply in Jakarta is inefficient. Water quality and pressure are both extremely low, and the formal water supply system reaches less than fifty per cent of the city's inhabitants, extending mostly to higher income areas of the city. However, most new housing and shopping complexes strive to be self-sufficient and stay off the public grid.[85] The majority of Jakarta's residents, companies and government entities make use of individual water pumps, water distributed by local vendors, bottled water or other sources managed outside the formal network. As long as so many residents extract ground water using electric pumps, the land will continue to subside, undermining the protection against rising sea levels that the Giant Sea Wall can provide. Even though, in 2015, Jakarta's governor announced that his administration would solve the problem of land subsidence by taking over responsibility for water management from poor-performing private companies,[86] it has been proved hard to reach this goal for three reasons. First, the private companies that currently manage Jakarta's water supply system[87] are unwilling to end their contracts, which run until 2023. They claim that the problems are caused not by their bad provision, but instead by the fact that organized 'water mafia groups' tap off the system.[88] Mafias or not, the practice of tapping the piped water system is a well-known tactic in many other cities.[89]

There exists no clear vision in the Jakarta administration on how the city's water supply can be improved.

Secondly, political contestation is preventing the Governor from taking control of the water supply. In March 2015 the Central Jakarta District Court ruled that the provision of water in the city of Jakarta cannot be privatized. The case was filed by the Coalition of Jakarta Residents Opposing Water Privatization, a group comprised

by city residents, trade unions and water justice activists. The court decision in effect annulled the public–private partnership between the city and the water companies. In September 2015, the national government appealed and took the case to the Higher Court. Until the court has decided, the contracts may not be ended, and the city administration cannot take control of water resources.

Thirdly, there exists no clear vision in the Jakarta administration on how the city's water supply can be improved. An extension of the underground piped system would entail complex, large-scale infrastructure construction which might take a long time and disrupt traffic in the city. According to water management experts, Indonesian companies lack the necessary expertise. The Dutch government has offered to support the Jakarta administration in developing a plan and setting up a 'water supply team', but so far little action has been taken for the above reasons.

This case illustrates the complexity of the challenge of remedying the backlog in water services that characterizes many cities. The limited service contributes to the fragmentation of the city and the proliferation of informal solutions, and solving it requires large investments in infrastructure and strengthened government capacities (enforcement of contracts and long-term planning).

'Waste Banks'. These are set up in poor neighbourhoods and are usually run by local cooperatives. Members (mostly scavengers) bring non-organic waste to the banks, where it is treated like a deposit, since the bank sells the waste to recycling companies.

Solid waste management and sewerage

The great majority of Jakarta inhabitants do not have access to sewerage, and there is no efficient system of waste management. According to the law, the owners of private housing complexes and malls are responsible for managing waste. Since law enforcement on this issue is weak, many owners dump the waste in the rivers, which clogs the canals and increases Jakarta's flooding problem. Regarding sewerage, only two percent of waste water is cleaned centrally (by the Danish company Grundfos); all other waste water is filtered through septic tanks and dumped into Jakarta's rivers, where it causes pollution.

The problems of waste and sewage will become more pressing if the Giant Sea Wall is built in the Northern Bay. If these issues are not solved, the future elite inhabitants of the Northern Bay will, in the words of a consultant, 'end up living in the shit of the rest of the city.'

This problem co-exists with other problems of waste: in Jakarta's only garbage dumping sector, solid waste is not transferred into energy, but only covered, once a week, with soil. This method was forbidden by Indonesian law in 2008 for reasons of health, safety and greenhouse gas emissions. Nonetheless no political action has been taken to shift to more innovative methods because of a lack of expertise in governmental institutions, limited law enforcement and a lack of political prioritization.

Finally, recycling opportunities are hardly utilized. A small-scale recycling program exists but appears unsustainable. Since 2012, the Ministry of Environment and Forestry has been promoting decentralized 'Waste Banks'. These are set up in poor neighbourhoods and are usually run by local cooperatives. Members (mostly scavengers) bring non-organic waste to the banks, where it is treated like a deposit, since the bank sells the waste to recycling companies. The program seems promising – it has even been exported to Rio de Janeiro through the C40 network[90] – but in practice it has proved difficult to sustain and scale up the program. Waste banks are set up but not maintained by the ministry, something that community members themselves do not have the resources to do. Environmental NGOs have tried to take over, but they lack the financial resources to continue operation.[91]

The lack of low-income housing is aggravated by ongoing evictions, including those related to the current flood-mitigation projects, which entail the eviction of at least 53,000 households living in informal neighbourhoods along rivers and reservoirs.

The Indonesian government acknowledges the acuteness of the problems caused by waste. Since 2012, supported by the United Nations Environment Programme and German GIZ and BMZ, the government has run the Policy Advice for Environment and Climate Change (PAKLIM) Programme. As part of this programme, the Ministry of Environment and Forestry is now developing a road map for a recycling program, which should make Jakarta 'waste free' in 2022. Also a new presidential decree

should improve law enforcement for waste management. However, insiders in the ministry and in Jakarta's administration are sceptical about reaching the aim of a waste-free city: they write the policies but do not see an enduring interest on the part of politicians in recycling and solving the waste problem. As previously mentioned, it is the more visible and prestigious projects such as the Giant Sea Wall that get most of the attention.

Social housing and the resettlement of evictees

Despite extensive legal guarantees of the right to adequate housing, there is an enormous lack of low-income housing in Jakarta.[92] Skyrocketing land prices and rampant, unregulated private developments have resulted in a booming real-estate market that excludes the poor and lower middle classes.[93] Therefore the government has generally been turning the blind eye to informal, unregistered housing, and only recently policies have focused on developing markets and financial mechanisms for housing.[94] The lack of low-income housing is aggravated by ongoing evictions, including those related to the current flood-mitigation projects, which entail the eviction of at least 53,000 households living in informal neighbourhoods along rivers and reservoirs. Only a fraction of these households are being offered alternative accommodation.

The official regulatory framework captures less than fifty percent of land transactions in the city, which results in unclear and overlapping claims to landed property and user rights.

The issue of low-income public housing and evictions underline three governance problems. First, the relevant institutions take no action or act only slowly, due to issues of distrust between different levels of government. Cooperation between the central Ministry of Public Works (PU) and Jakarta's Planning Board (BAPPEDA) suffers from severe friction. This translates into a cumbersome, bureaucratic process before any public housing project can be executed. Despite the fact that the Indonesian administration has a sufficient budget for public housing, spending is slow and limited.[95] The governor is currently negotiating with private companies that they have to build social housing in return for commercial building permits. Several large developers have agreed and signed contracts, but problems of land tenure severely hamper any action (see below).

Secondly, social housing is usually built at the lowest cost and quality, and responsibility for its maintenance is not clearly allocated between developers, residents and public authorities. Consequently, public housing flats tend to turn into what some have called 'vertical slums'.

Finally, the perspectives of the evicted are not integrated in the designs or the resettlement process. Experts agree that, if large-scale eviction and resettlement is executed without the engagement of the urban poor, their financial situation will worsen as housing will be unsuitable to their livelihood needs and hinder the social networks that are crucial to their day-to-day survival.[96] Academics and activists in Jakarta have developed alternative schemes and designs with groups of the Jakarta poor who have clear views on sustainable housing solutions. Despite occasional promises from the Governor, such alternative proposals have not been implemented. Consequently, resettled families often seep back to the river banks, as they find the apartments unsuitable for their work and economic situation, thus undermining flood-mitigation projects such as JEDI/JUMPF.[97]

Land tenure and land use

Climate action, urban development and the construction of public housing in Jakarta are hampered by notoriously complex land regulations, incomplete central land registers, limited capacity for monitoring and controlling land conversion and selective law enforcement. The official regulatory framework captures less than fifty percent of land transactions in the city, which results in unclear and overlapping claims to landed property and user rights.[98] Residents of informal settlements claim user rights because they pay taxes to the Jakarta government and have accumulated entitlements over generations; some possess land documents from colonial times, others from well-connected local strongmen who claim to own the land. In addition, collusion between politicians, developers and financial institutions has enabled developers to use public land as collateral for loans and turn it into private land.[99]

As a result, disputes are resolved through pay-offs, bribes or political pressure. Spatial land-use planning is violated, and the construction of public infrastructure is slowed down or obstructed by endless disputes and resistance from inhabitants and large developers who claim ownership.[100] In addition, it has been suggested that the almost two thousand laws and directives regarding land use and buildings makes for lengthy, complicated and often random procedures and should be reduced in number and complexity.[101]

PRELIMINARY CONCLUSIONS

The Jakarta case study shows that this megacity faces huge challenges in terms of vulnerability, risks and basic services, but also that there is an awareness of this at various levels of government. Some steps have already been taken to confront the challenges, in particular in relation to flooding. However, the different interventions to adapt the city to climate change and reduce disaster risks will not solve its problems in the long run, unless it embarks on a more inclusive form of development in which basic services are extended and organized in a more effective way and adaptation projects are screened for their potential consequences for poorer segments of the citizen body.

As the political and social mobilizations around the adaptation projects suggest, 'sustainability' and 'resilience' can be understood and used in different ways. Proposals and projects are being developed that suggest the potential for different developments in low-energy housing and waste recycling, for example. It has been suggested that the informal systems in Jakarta contain a huge potential for urban sustainability due to the ongoing 'incremental' changes in housing, densification, informal services etc.[102] Rather than criminalizing the informal systems and imposing ambitious, formal arrangements, the government would have to develop inclusive policies of employment and negotiation. In this effort, the government would also have to approach the local 'street authorities', the remnants of the 'New Order' system of institutionalized gangs and protection rackets that underpinned the state. In post-New Order Jakarta, many street authorities and local strongmen have achieved more autonomy, often combining coercive racketeering with functions in land regulation and the informal economy, as well as claiming to represent the marginalized social and economic groups.[103]

As the political and social mobilizations around the adaptation projects suggest, 'sustainability' and 'resilience' can be understood and used in different ways.

Observers often claim that a lack of political will is the reason why the extension of basic services or proper resettlements are not happening, but many factors play into this, as our interviews have suggested: distrust between different levels of government; endemic problems of unclear land tenure; slow bureaucratic processes

and limited capacity; unrealistic budgeting and planning; poor oversight of outsourcing contracts; a highly centralized and hierarchical bureaucracy; a lack of continuity in the leadership; and popular or legal resistance.

While Jakarta does not seem to have a team of 'champions' to keep up the pressures for long-term sustainable development, there are other factors that would help strengthen long-term perspectives. Jakarta has direct access to World Bank funds, and the city is a member of several city networks that push for analyses, risk-mapping, goal-setting and concrete action regarding sustainable urban development.

Box 2. Jakarta's city networks

C40 and CDC. Jakarta is a member of C40 as well as its subdivision, the Connecting Delta Cities (CDC) network (also including Tokyo, Ho Chi Minh City, London, Hong Kong, Melbourne, New York City, New Orleans, Rotterdam, Copenhagen, Venice and Singapore). In 2015 CDC organized a workshop in Jakarta on land subsidence and clean water supply, where experiences from delta cities were shared. Jakarta was one of the 2015 finalists for the 'Adaptation Implementation' C40 city awards for its 'Socially Inclusive Climate Adaptation for Urban Revitalisation Project', a resettlement project heavily criticized in Jakarta itself by academics and activists.

UCLG, ASPAC and Metropolis. Jakarta is an active member of UCLG's subdivision for Asia and the Pacific (ASPAC). In 2015, UCLG funded an international seminar on 'Smart Cities toward Urban Safety' in Jakarta, and there have been meetings between UCLG ASPAC and Jakarta's city government about cooperation on the 'Development of Creative Economy and Zero Waste System' (including the 'waste bank' project with the scavengers). Since 2008 Jakarta has also been a member of UCLG's 'Metropolis' subsection.

ICLEI and ACCRN. Jakarta is a member of ICLEI Southeast Asia and has a partnership with ICLEI Oceania through the Indonesian Mayors' Association APEKSI. Through the ICLEI, Jakarta is also related to the Asian Cities Climate Change Resilience Network (ACCCRN) framework. Programs focus on the national government, but Jakarta is often indirectly involved, including through the ICLEI's 'Best Practices Transfer Program.'

A DANISH PERSPECTIVE

While the Danish government will be phasing out its previous development cooperation partnership with Indonesia, there has been a build-up of bilateral relations in knowledge exchange and business cooperation in various sectors of relevance for sustainable urban development, including transportation, renewable energy, clean energy, energy conservation, education and healthcare. In 2015, a 'growth advisor' was posted to the Embassy in Jakarta to facilitate governmental and business cooperation in energy, energy efficiency and water supply. This complements the still ongoing, grant-based Environmental Support Programme ESP3 that supports the Government of Indonesia in reconciling economic growth with sustainable development and focusing in particular on strategic environmental assessments, for example, in relation to the Giant Sea Wall project. In the experience of the ESP3, it is a challenge to work in or with the enormous bureaucracy at the central and provincial levels, but a modest approach of trying to work with the grain of initiatives that are already underway but just need 'a little extra' to succeed seems to result in a high degree of uptake and ownership.[104]

There is a potential role for developing more participatory and holistic approaches to housing and planning designs that address the needs and circumstances of residents and take climate change-related risks and assets into account.

Under a previous business partnership program, Danida supported the collaboration between a Danish and an Indonesian architecture firm (AG5 A/S and PT. Pandega Desain Weharima), both specialists in integrated energy design and 'green buildings'. The result was a new sustainable office park in South Jakarta, which included rainwater catchment and mechanisms to save energy. As the New Climate Economy report suggests, building and retrofitting low-emission buildings can earn back the investment in energy savings and employment, but the problem is the financing of the projects.

In general, the report study team found a marked interest among Indonesian architects in increasing collaboration with Danish architects and urban planners.[105] There is a potential role for developing more participatory and holistic approaches to housing and planning designs that address the needs and circumstances of residents and take climate change-related risks and assets into account. Slum

upgrading and resettlement programs would be a case in point. Apart from business partnerships, Danish input into education and training in urban planning, architecture and governance could be contemplated.

In the field of water management, the Danish company Grundfos owns and manages pumps that are used for flood control in Jakarta. The company also filters the two percent of waste water that is not filtered through septic tanks. In the future, the company hopes to become engaged in clean water provision for the poor: Grundfos developed a solar system that can be used to filter water, as well as a mechanism that makes it possible to sell clean water at an affordable price to poor communities and includes a mechanism for maintenance of the system.

Whereas Grundfos is optimistic about the prospects in Jakarta, the water management sector is quite competitive, with not least Dutch expertise being in a strong position. However, in general the operations of foreign companies are influenced by the increased levels of professionalism, expertise and economic capacity in the city's private and public sectors. In addition, foreign experts note, Indonesian companies and authorities are increasingly sensitive to what could be interpreted as colonial attitudes. They have observed a trend towards 'Indonesianization' in the country's licensing and tendering practices, which means that foreign companies are meeting stricter demands (in terms of the training and subcontracting of Indonesian experts and companies), as well as stronger competition from Indonesian companies.

An additional complication relates to the ways in which Indonesian corporations interact with the authorities. Their close relations involve many transactions and expectations in terms of corporate social responsibilities, permits, contracts and operational costs that are not immediately transparent and intelligible to outsiders. This amounts to what an international consultant termed 'a different business model'.

Conclusions

IMPLICATIONS FOR DEVELOPMENT COOPERATION

Containing more than half of the world's population, cities are emerging as influential actors in the global arena of sustainable development. States remain vital actors in developing policy frameworks and providing the resources to implement policies. However, the increasing importance of cities represents an opportunity for international development cooperation in pursuit of the Sustainable Development Goals for 2015-30 as set out by the UN.

There is a sense that local governments can act more quickly and efficiently than the central state and that they are essential for ensuring that national plans reach the local level where the ultimate beneficiaries, the population, live.

Indeed, researchers, policy-makers and political leaders increasingly consider cities a frontline where the 'struggle for global sustainability will be won or lost'.[106] Since cities represent an important part of the problem of greenhouse gas emissions, they are also inevitably part of the solution. Many cities are extremely vulnerable to the effects of climate change, and there is an acute need to address backlogs in basic services. But, due to the potential of cities in terms of the concentration of resources and infrastructure, urban governments are seen as a key to generating growth, reducing poverty and coordinating efforts to mitigate and adapt to climate change.[107] There is a sense that local governments can act more quickly and efficiently than the central state and that they are essential for ensuring that national plans reach the local level where the ultimate beneficiaries, the population, live. Mayors are considered people who 'get things done' instead of getting lost in ideological

struggles and national interests. This was illustrated by the constructive, agenda-setting response of the 200 Mayors convoked by the Lord Mayor of Copenhagen during the COP 15 in 2009, where the Heads of States were incapable of coming to an agreement.[108]

Nevertheless, since the 1980s most donors and international agencies have ignored urban development and governance as domains of investment,[109] as well as cities and local governments as potential partners of development cooperation. In this context, the definition of a Sustainable Development Goal for cities (SDG11) is an important international breakthrough, but it also puts on display the political tensions between states and cities that a focus on cities inevitably engenders. For instance, SDG 11 does not sufficiently recognize the pivotal role that city governments will have to play in the implementation of many other SDGs, including those relating to poverty, health, water and sanitation, climate change and peace. Furthermore, there has been reluctance among many UN member states to endorse a stand-alone urban goal because of the inherent devolution of powers to the cities that this entails.[110]

Climate change adaptation is closely related to general issues of infrastructure and social development, as they accentuate problems of basic service delivery.

The conclusion of this report focuses on the implications that the turn to the urban has for development cooperation, as well as the potential Danish role in support of sustainable urban development. It focuses on the integrated and political nature of action in the different policy fields involved and points to the importance of strengthening urban governance.

MEASURES TO ADDRESS SUSTAINABLE DEVELOPMENT ARE INTERLINKED AND POLITICAL

The case study of Jakarta identified several large climate change adaptation projects that aim at countering flooding and the effects of rising sea levels. Thus the immediacy and tangibility of phenomena associated with climate change can create strong drivers for governmental actors to engage in adaptation projects. This resonates with other studies suggesting that 1) climate action has to make sense

for people locally, in practical terms; and 2) local governments are inclined to act on disaster risk reduction in the immediate aftermath of disasters, as this is seen to generate political benefits.[111] On the other hand, when it comes to the problem of reducing greenhouse gas emissions, although the policies are in place and some initiatives have been taken, in practice the issue has a low priority.

It is important for international and national actors to help strengthen coherence across the four-fold agenda of 1) disaster risk reduction and 2) poverty reduction (including access to basic services), plus the recently added tasks of 3) mitigating and 4) adapting to climate change.

The Jakarta study also illustrates two important points about climate change adaptation in general. First, they are deeply political processes. The projects involve a range of business, non-governmental, community-based and academic organizations that generate contestation, political debates and alternative proposals for how to solve the problems. The projects in Jakarta risk increasing the vulnerability of poor people and often involve violent evictions. This has raised debates about participatory and inclusive development in a context of highly unequal and segregated urban development.

Secondly, climate change adaptation is closely related to general issues of infrastructure and social development, as they accentuate problems of basic service delivery: the dredging of rivers will not be sustainable unless a) systems of waste management are strengthened, and b) evicted communities are resettled under conditions that take account of their needs and livelihoods. Likewise, the Giant Sea Wall will not work unless land subsidence is addressed by developing alternatives to the extensive extraction of underground water, such as extending piped-water systems and upgrading sewerage and the cleansing of waste water.

These findings resonate with the argument that 'development' in the form of well-functioning basic services amounts to an accumulated or built-in form of resilience in the face of climate change and disasters. Furthermore, the need for climate action represents an opportunity to address problems of inclusive and accountable urban governance.[112] It also suggests certain limits to the possibilities of using, for example, adaptation templates from Copenhagen in cities like Jakarta, where water, waste and sewerage infrastructures are much less comprehensive or non-existent.[113]

Given the already crowded agenda of strained city governments in the South, it is important for international and national actors to help strengthen coherence across the four-fold agenda of 1) disaster risk reduction and 2) poverty reduction (including access to basic services), plus the recently added tasks of 3) mitigating and 4) adapting to climate change. One example of a coherent intervention across the four agendas would be to address the needs of those living in poor-quality housing in areas at risk of flooding and without waste collection and sewerage.[114]

URBAN GOVERNANCE IS THE KEY CHALLENGE

Often a 'lack of political will' is used to explain why urban authorities in practice give low priority to the extension of basic services, upgrading of informal settlements, climate change mitigation, disaster risk reduction and other issues of inclusive, sustainable development. While political and economic interests certainly dictate priorities, the frequent reference to 'political will' ultimately does not help us understand the limitations, challenges and diversity of existing governance arrangements and how they shape development options.[115] For instance:

- The capacity and resources for planning, development and management, in particular at lower levels of government, are limited. New responsibilities – in climate change mitigation, for example – are delegated to officers in local governments, but they already have a 'day job', so to speak.
- The roles of local, metropolitan/regional and national levels of government are unclear and coordination between them is limited. Metropolitan governments offer one solution for managing rural–urban systems of transport, water provision, and energy, but often they do not have the authority and power to take the lead.
- Cities and local governments often do not have the authority, resources or capacity to fulfil the responsibilities that central governments have given them in basic services and other fields.
- Cities and local governments have limited capacity for developing contracts with and oversight of private service providers and public–private partnerships. This has limited the extension and efficiency of basic services.[116] Furthermore, the shifting of responsibility towards the private sector and their CSR (as in the case of social housing in Jakarta) entails a blurring of responsibilities due to the not-so-transparent relations between governments and developers/private companies.

- The limited availability of disaggregated statistics at the city level represents a problem for urban planning and the measuring of change in key indicators for the SDG 11 and other goals. The case of Jakarta shows that strong governors in centralized systems can be decisive in strengthening the focus on the long-term challenges of climate change, basic services and resettlement, but also that this focus is rarely sustained. Cities that started to adapt to climate change early have shown that city 'champions' or teams that unite influential persons and institutions from administration, universities and private and social organisations can help maintain the focus and resources beyond electoral cycles. Also, involvement in city networks can have an impact, as in the case of C40, which seeks to hold city governments accountable to emission goals through peer-pressure and threats of exclusion from the benefits of membership.

- Cities have a limited ability to secure funds for urban development, whether from local taxes, national governments or international funding. With respect to funding for climate change mitigation specifically, the 'New Climate Economy' has built a strong economic case for introducing low carbon measures in cities, arguing that investments will break even over a limited time horizon due to savings in energy, increased employment, reduced travel times, etc. But cities need the capacities and creditworthiness to finance low-carbon measures.

While these governance challenges are general, the governance deficit is most conspicuous in the intermediate and smaller cities, where most of the urban population lives and where the largest population increase will take place over the next fifteen years. A particularly challenged group of cities are the 'fragile cities', which are located in areas of conflict, where they grow extremely fast and where services are similarly strained because of the influx of persons displaced by armed conflict (e.g. in the Horn of Africa, the Sahel and the Middle East).

Cities and local governments often do not have the authority, resources or capacity to fulfil the responsibilities that central governments have given them in basic services and other fields.

Apart from the above, informality represents one of the biggest challenges to urban governance. The percentage of urban populations living in informal settlements went up from 35 to 45 between 1990 and 2010, and informal practices in land tenure, the provision of water, electricity, transport, security and other services characterize most cities in the South. In African cities, unofficial operators provide up to 80 percent of the population with water and electricity.[117] In Jakarta, 60-70 percent of the population lives in kampungs, largely self-constructed neighbourhoods, more than half of all land transactions take place outside the official system, and poor and lower middle-income sectors mainly construct their livelihoods in the informal economy,[118] such as the scavengers who are important actors in unofficial waste management.

Some of these informal systems can have high local legitimacy, provide a sense of order and security, and be cheap and procedurally simple.[119] Others are inefficient, exploitative, arbitrary and serve to legitimize coercive strongmen, gangs, vigilantes and militias, who control the systems and constitute fragmented forms of urban authority. It is not simple. In Jakarta, these structures emerged from the transformations of the authoritarian regime (the New Order) and their local henchmen. In the wake of decentralization and democratization, they have acquired new and more autonomous roles, often representing local claims to recognition, land, jobs and services among excluded populations. In short, they have become instrumental in managing urban spaces and economies through informal means.[120]

It is unlikely that sustainable, inclusive urban development will happen if the pervasive informality is not taken into account in urban planning and regulation. Regulation based on formal-sector dynamics is ill-suited to regulating informal activities, since it tends to criminalize and reproduce the activities, rather than include people that work and live in informal economies and settlements.[121] With regard to the current backlog of basic services, it has been suggested, as a medium-term measure, that informal systems may be accommodated as part of multi-layered governance frameworks. This has been done in many cases by strengthening partnerships with local organisations such as federations of slum-dwellers, unions of minibus-drivers or groups of scavengers, who are included in attempts to upgrade and regulate informal systems and practices.[122] However, such initiatives have to give due attention to the limits and weaknesses of informal systems, as well as the risk of creating parallel systems of service provision. And as always, upscaling local initiatives is a challenge.

DENMARK CAN DEVELOP A MULTI-PRONGED APPROACH TO THE SDG 11

As shown in the part on the global political arena for sustainable urban development, the global political arena for sustainable urban development is characterized by a highly networked complex of overlapping international organisations, city networks, regional and local governments, and multi-stakeholder platforms with substantial participation of private companies. This arena offers multiple points of possible engagement for the Danish Ministry of Foreign Affairs (MFA) and other relevant ministries (of Energy, Utilities and Climate, and of Environment and Food), but also for a range of other actors, such as Danish municipalities, public utilities and private companies.

It is unlikely that sustainable, inclusive urban development will happen if the pervasive informality is not taken into account in urban planning and regulation.

The MFA will continue to represent Denmark in the UN and other international organisations, including international development banks. It will continue to coordinate bilateral and inter-ministerial initiatives through the embassies. But a multi-scalar and multi-pronged engagement with urban development means that it will also have to take on a more limited, facilitating role and leave more space for other interested parties to engage internationally. These could include, for example, the National Association of Municipalities (KL), the Municipal Credit Association (Kommunekredit), individual municipalities, professional organisations of architects, urban planners and engineers (IDA), waste and water utilities (e.g. HoFor), Realdania, CLEAN, research institutions, NGOs and others. While a platform model for facilitating Danish engagement with sustainable urban development seems appropriate, a consultative process should identify who would have the interest and capacity to take responsibility in this field, and what forms of funding could support the multi-pronged engagement.

Networks of cities and local governments represent opportunities to support various agendas, whether internationally, nationally or locally. C40 has become a hands-on, high-octane organisation for the development and promotion of low-emission policies and technologies with a potentially significant impact, both in the member cities and beyond. ICLEI – Local Governments for Sustainability has been influential in the development of global policies and includes a large number of cities in

exchanges and the development of approaches to sustainable urban development. United Cities and Local Governments (UCLG) has a broader development agenda and is in the process of gathering momentum around issues such as intermediate cities and how to work with the informal sector. Cities Alliance is still important for developing responses to the extensive informal settlements that include their inhabitants. Thus, for the wider agenda – inclusive basic services, improved governance, the upgrading of informal settlements, more equitable housing policies and market regulations, and the development of approaches to informal systems and fragmented authority – it may be worth considering how to help strengthen the work of networks such as ICLEI, UCLG and City Alliance.

Finally, with regard to the engagement of Danish private companies and public utilities, sustainable urban development represents opportunities. As the case study of Jakarta shows, strategic environmental assessments, systems and technologies for flood control, water provision, waste management, sewerage, participatory resettlement and social housing are among the fields where foreign private companies can enter partnerships with city and central governments. In climate change mitigation, in particular energy-efficient buildings, low-emission transport, efficient waste management and renewable energy offer possibilities for engagement, provided that the political and financial momentum for these investments grows.

While Danish companies are well positioned to offer know-how, technologies and experience in many of these fields, they are in strong competition with other foreign as well as Indonesian companies. Robust facilitation of access and exchanges of experience are important if newcomers are to manoeuvre in markets and the different layers of government involved. In Jakarta specifically, Dutch companies have extensive experience in the field of water and flood management. Through various institutional channels, including C40's network, 'Connecting Delta Cities', and sister city Rotterdam, the Dutch have direct access to the political leadership at various levels. In support of these initiatives, the Dutch have a very strong research component in management of urbanizing deltas.

Denmark has developed a somewhat similar approach in support of platforms and partnerships of private firms, utilities and research institutions in the water sector, with the aim of exporting integrated water-management systems. While the MFA's new 'growth advisors' will be helpful in developing contacts and access, experience suggests that there are two missing links on the Danish side: 1) public utilities (such as HoFor) are restrained by legal restrictions on their 'associated activities' abroad; and 2) there is no business model or public support for the actual work of integrating partnerships, putting together solutions and bids, starting negotiations abroad, etc.[123]

RECOMMENDATIONS

The MFA should consider

- Treating the SDG 11 as an opportunity to strengthen support to cities and networks of cities.
- Focusing attention on the needs of intermediate and smaller cities.
- Paying special attention to cities that provide safe havens for displaced populations in areas of conflict ('fragile cities').

In international organisations and agencies, the MFA should

- Work for the formal representation of a constituency of cities and local governments in the UN.
- Support discussions and initiatives to develop approaches to incorporating informal systems and practices in land-use management, housing and basic services.
- Support initiatives such as the City Alliance to work more efficiently towards the upgrading of informal settlements and, where necessary, towards processes of resettlement that incorporate the ideas and livelihood needs of residents.
- Support the establishment of an international network of national action-research institutes in the fields of urban governance and sustainable urban development.
- Wherever possible, facilitate more comprehensive and holistic approaches to sustainable urban development among international organisations and avoid compartmentalized approaches.
- Use Denmark's influence in the 3GF to focus more explicitly on how national governments can support cities and local governments in fulfilling their role in moving the sustainable development agenda forward.

In order to facilitate increased funding for sustainable urban development, the MFA should

- Work to improve cities' and local governments' access to international climate funds.
- Support the establishment of an international fund for technical support to help cities and local governments develop creditworthiness and access investment-ready programs for climate action.
- Use Denmark's membership of international development banks, such as the Asian Infrastructure Investment Bank (AIIB) to focus activities on sustainable, inclusive and low-carbon urban development.

In Denmark, the MFA should

- Recognize that the urban SDG agenda represents a potential for involving a wide range of Danish institutions, associations and companies, and facilitate the formation of a Danish platform for sustainable urban development.
- Support Danish municipalities to participate actively in relevant city networks.
- Support Danish contributions to the education and training of urban government officials in the global South.
- Develop a support facility for institutions or firms that take the lead in partnerships in systems export (e.g. in water supply).
- Support the Investment Fund for Industrializing Countries (IFU) in developing a portfolio in support of sustainable urban development.

In general, Danish support for sustainable urban development should follow three principles

- Take into account that climate action and programs for sustainable development are deeply political processes with differentiated effects for different areas and groups of population, and that they risk having negative effects for poorer segments of the population with little political influence.
- Support development of cooperation between national, metropolitan and city governments around practices of multi-scale governance in the management of transport systems, ecosystem services and rural–urban linkages.
- Focus on how to strengthen support for the development of urban governments' capacities and resources in the fields of financial management; the design and supervision of PPPs and other forms of cooperation with the private sector; taxation; participatory forms of urban development; land-use planning; sustainable, low-carbon solutions; and disaster risk reduction.

LIST OF INTERVIEWS

Private sector (March and September 2015)

- Arlene Nathania, CEO of squee.com
- Etienne Turpin, director Petajakarta.org
- Gert Borrits, General Manager of Grundfos
- Indra Djohar, general manager DHI Jakarta
- Izul, Zulfikar, Environmental and Waste Management Expert at Fichtner Consulting Engineers
- Jan-Jaap Brinkman, political advisor of Jakarta governor Ahok; general flood manager in Jakarta; general manager DELTARES
- Joshua von Berkel, country manager Brunei of DHI
- Koen Broersma, Consultant Urban WaterManagement Royal Haskooning DHV
- Marc Scheres, Project manager drinking water and waste water at Witteveen+-Bos Indonesia
- Prabham Walung Pratipodyo, architect at Ciputra developers
- Tiyok Prasetyoadi, Managing Director Planning & Development Workshop (PDW – architects and consultants in Architecture, Urbanism, Planning); Director for Rating Development Green Building Council Jakarta.

Government sector, Jakarta (March and September 2015)

- Bernardus Djonoputro, head of IAP – Ikatan Ahli Perancaan; consultants that advise governmental planning agencies in Jakarta
- Eka Hilda Utami, staff member of the Ministry of Environment and Forestry (Kementarian Lingkuningan Hidup, KLH)
- Evi Memeh, head of Kampung Pulo
- Handoko Dwi Susantyo, staff member subdistrict level Jakarta government, law-enforcement division
- Jatur Edi, advisor social housing at Public Works (PU)
- Mega V. White, staff member of economic department SEAS secretariat
- Muhammad Hussen, Kampong head of Bukit Duri
- Meyriam Kesuma, Lecturer at Terakti universiteit in Glodok, IAP advocate for Young Planners
- Neni Marlina, Environment and Natural Disasters Team Coordinator, ASEAN Secretariat

Academia (March and September 2015)

- Dr Prathiwi Widyatmi Putri, Doctor of engineering science/ planning and development
- Dr Rachel Thompson, Harvard University – PhD on Giant Sea Wall project
- Dr Rita Padawangi, senior researcher from Singapore University working on the topic of evictions
- Namik Mackic, researcher on petajakarta project
- Prof. Kemas, Department of Architecture and Urban Planning at University Indonesia
- Retna Hanani, PhD researcher (Indonesian) at KITLV Leiden, former government employee
- Discussion forum on the Taramanugara University on urban planning and problems in Jakarta

NGO's, grass roots movements (March and September 2015)

- Abdul Irahmad, founder Ciliwung Institute
- Ariel Adele Glenesk Shepherd, architect and activist for Urban Poor Consortium
- Jakarta Flood Relief Drive (various volunteers)
- Red Cross: Raimond Duijsens, international disaster director
- Rudolft Abdul Muiz, volunteer Ciliwung Merdeka
- Dian Tri, project manager, Rujak
- Rosana Sitinjak, Representative at Buddhist Tzu Chi Foundation, specialist in social housing
- Sandyawan Sumardi, founder of Ciliwung Merdeka

Other interviews

- UNICEF: Lina Sofiani, Emergency Specialist, and Rekha Shrestha, Programme Officer Emergency (March 2015)
- World Bank delegate and Petajakarta employees, group discussion (March 2015)
- Rambat Sakwang, social expert at the World Bank (March 2015)
- Kian Siong, Environmental Specialist at the World Bank (March 2015)
- Danish Embassy, (March 2015) meeting with Mikael Ekman, Deputy Head of Mission; Devina Firtika D. Anasruron, Programme Officer DANIDA; and Anjelita Malik, Danida Business Partnerships Coordinator (March 2015)
- Peter Oksen, ESP advisor, Jakarta (October 2015)
- Lykke Lindhardsen, Climate Coordinator, Municipality of Copenhagen (November 2015)
- Pelle Lind Bournonville, Chief of Projects, Realdania(December 2015)
- Lennart Emborg, Consultant, Kommunernes Landsforening (January 2016)

NOTES

1 'A New Global Partnership: Eradicate Poverty and Transform Economies through Sustainable Development', Report of the High Level Panel of Eminent Persons on the Post-2015 Development Agenda, United Nations, New York, page 17, available at http://www.post2015hlp.org/wp-content/uploads/2013/05/UN-Report.pdf

2 World Bank 2010.

3 As Satterthwaite and Mitlin argue (2014), urban poverty has been hidden because of the metrics used to measure poverty.

4 Keil and Whitehead 2012.

5 UN 2014.

6 Potts 2012.

7 Based on UN 2014. Due to the inaccuracy of the numbers in the report, the numbers of the sub-catgories do not add up to the totals.

8 Wisner et al. 2004; Wisner and Caressi-Lopez 2012.

9 Dodman and Satterthwaite, 2008; Dodman, 2008; Gasper and Reeves, 2011.

10 Satterthwaite et al. 2007.

11 Yohe et al. 2007; UN, 2004; Kraas 2007; IPCC 2014.

12 e.g. Pelling, 2003; Dietz et al. 2004; Wisner and Pelling, 2009; Dyson, 2006; Van Voorst et al. 2015.

13 Pierre and Peters 2012.

14 Pierre and Peters 2012.

15 Brenner 1999; Kennedy et al. 2011.

16 See, for example, Wunsch 2001; Ribot 2002.

17 Satterthwaite 2014b.

18 Kennedy et al. 2014; Bulkeley and Castan-Broto 2013; see also McFarlane 2011.

19 Satterthwaite 2014b.

20 For water services, see Marin 2009.

21 Satterthwaite 2014b; Kennedy et al. 2014; Bulkeley and Castan-Broto 2013; see also McFarlane 2011.

22 E.g. Berenschot on India (2009); Wilson 2010, and van Voorst 2014 on Indonesia; Olivier De Sardan 2008, Rakodi 2007 and Andersen et al 2015a, 2015b on Africa.

23 UCLG 2015.

24 Storey, 2014; Roberts and Hohnmann 2014.

25 De Boer 2015; Altpeter 2016.

26 Heinrichs et al. 2013; Pasquini and Shearing; Satterthwaite 2014a.

27 EU 2012; Gasper and Reeves 2011; Dodman 2008; Dodman and Satterthwaite 2008; Bahadur and Tanner 2014. In particular, the research institution IIED's Journal of Environment and Development has maintained a persistent focus on urban resilience in the global South since 2007 (Satterthwaite 2014).

28 Heinrichs et al. 2013; Bulkely and Kern 2006; Kern and Bulkely 2009; Koehn 2009; Carmin et al. 2012; Brown et al. 2012.

29 Brown et al. 2012.

30 Keil and Whitehead 2012; Shove and Walker 2007; Swyngedouw 2010; Peyroux, et al. 2014.

31 Bulkeley 2012; Braun 2014.

32 Keil and Whitehead 2012.

33 Kennedy et al. 2014.

34 Christoplos et al. 2014.

35 Parnell and Robinson 2012.

36 Hoffman 2011; Bahadur and Tanner 2014; Bulkeley and Caston-Broto 2013.

37 Satterthwaite 2014a.

38 Parnell and Robinson 2012, Watson 2012; Yiftachel 2006.

39 The Consultative Group on International Agricultural Research. Satterthwaite 2014a.

40 The Commission was established by the governments of Colombia, Ethiopia, Indonesia, Norway, South Korea, Sweden and the United Kingdom, and the recommendation is found in the New Climate Economy 2015.

41 Johnson and Blackburn 2014: 30. For UNISDR's Ten Essentials, see http://www.unisdr.org/campaign/resilientcities/home/toolkitblkitem/?id=1

42 Kommunernes Landsforening. The website is no longer active.

43 Johnson and Blackburn 2014.

44 In Denmark, Aalborg, Albertslund, Ballerup, Kolding, Copenhagen and Frederikssund are members.

45 Local Agenda 21 is a participatory, multisectoral, process to achieve the goals of Agenda 21, as defined at the Rio Summit in 1992.

46 Jakarta and Copenhagen are both members.

47 Acato 2013a.

48 Interview, Realdania, December 2015.

49 Acato 2013b. The Cities Alliance supports the Urban Climate Change Research Network, the Global Facility for Disaster Risk Reduction and a Latin America/Caribbean program for increasing CC understanding among urban planners in midsize cities

50 The city of Vejle is the only Danish member, but Copenhagen is applying (2015) to become part of the last batch of the one hundred member cities.

51 See Brown et al. 2012 for lessons learned from the experience of the first ten member cities.

52 Surminski 2015.

53 World Bank 2013.

54 http://www.newcitiesfoundation.org/

55 http://www.theclimategroup.org/

56 ICSU 2015.

57 ICLEI 2015; UCLG 2014.

58 Simon 2012.

59 Zimmerman 2014.

60 Smith et al 2014; UN Habitat 2015.

61 UN Habitat 2015.

62 ICSU, ISSC 2015.

63 In the case of C-40, see Acuto 2013a.

64 Acuto 2013c.

65 ICCSR, 2010; Measey, 2010: 31; National Action Plan on Climate Change Adaptation/RAN API, BAPPENAS, 2014.

66 Aerts et al., 2009; Marfai, Yulianto, Hizbaron, Ward and Aerts, 2009; Padawangi, 2012, 325; Ward, Pauw, van Buuren and Marfai, 2013; World Bank, 2011a: 3.

67 Gierveld & van den Burg, 2012: 18.

68 See Indonesian Climate Change Sectoral Roadmap (ICCSR).

69 National Action Plan on Adaptation (RAN-API) – a plan that is supposed to provide guidance for sectors, local government and other stakeholders in respect of the adaptation programs/activities. BAPPENAS will conduct the evaluation and review process for RAN-API by coordinating with the ministries and local governments involved.

70 Indonesia Climate Change Trust Fund/ICCTF.

71 Through development of National Action Plan (RAN-GRK) President Regulation 61/2011 and 71/2011.

72 Republika Online, 2015.

73 This includes the greenery at cemeteries and along big roads, which involves evictions of residents.

74 In 2014, Ahok made improvements to the BRT system a priority. The company changed from a government agency into a city-owned enterprise. Its new directors promised to invest in 500-1000 buses; if they do not live up to these promises, Ahok has threatened to replace them.

75 See Jakarta Globe 2014.

76 Holdeman and Turpin 2015.

77 Interviews, Witteveen+Bos, and Joshua van Berkel, 2015.

78 Megaprojects have been defined as development projects that cost more than USD1 billion and attract a lot of public attention because of substantial their impacts on communities, the environment and budgets (Altshuler & Luberoff, 2003).

79 A consortium headed by Witteveen+Bos and Grontmij developed the Masterplan (DeltaDialogues, 2008; JCAT, 2014).

80 In 2014, the range price of apartments in Jakarta was about 3,000 USD per square meter, but prices go up to 7,000 USD in strategic places on the northern reclaimed islands that still have to be built (CNN, 2014; Manners, 2014).

81 Various Interviews, Jakarta 2015.

82 Hewson, 2014; Brinkman, 2009.

83 Elyda 2015.

84 For example, Ahok announced the 100-0-100 program designed to achieve 100 percent drinkable water in Jakarta's pipes, zero percent 'slums' in the city and 100 percent sanitation by the end of 2019. It is assumed that, without slum neighbourhoods, poverty in Jakarta will lessen and the poor become more resilient towards natural disaster; without waste issues, Jakarta will experience less flooding; and with a full-functioning drinking water system, ground water extraction will stop and Jakarta will stop sinking. While these plans accord to with what would be needed to make Jakarta more resilient, in practice the 100-0-100 program seems an unrealistic target, as our analysis shows that the city administration has taken few actions that would be needed for the program to have a chance to succeed.

85 Simone 2014.

86 Elyda and Wardhani, 2015; TNI 2015.

87 Thames Water International for the eastern part of the city; Lyonnaise des Eaux for the western part, in cooperation with Indonesian companies Paliya and Aetra.

88 Various interviews, Jakarta 2015.

89 Anand 2011.

90 C40 2015: 60.

91 For example, Ciliwung Merdeka, the Ciliwung Institute, Rujak and WALHI have all supported recycling activities in the informal sectors, but had to give up because they could not sustain these programs due to a lack of financial means.

92 Indonesia's Constitution and additional legislation guarantee the right to adequate housing as defined by international human rights law. The Government of Indonesia has also reiterated its commitment to the progressive realization of the right to adequate housing and to address discrimination in access to housing in the National Long-Term Development Plan 2005–2025 (RPJPN) and the National Medium-Term Development Plan (2010–2014) (RPJMN), particularly with regard to low-income housing.

93 World Bank, 2011b; van Voorst and Hellman, 2015.

94 Special Rapport on Adequate Housing 2013.

95 Representatives suggested in the media that the Ministry's low spending was caused by the late disbursement of the revised 2015 state budget, in which the Ministry received an additional Rp 33.6 trillion from the initial budget of Rp 84.91 trillion; however, insiders indicate that the 'freezing' of the budget and action is due to distrust between PU and Bappeda.

96 Advisors of Ciliwung Merdeka and seminar at Taramanugara University on urban planning in Jakarta.

97 This research has not yet been published, but one stream was carried out by the Indonesian University in cooperation with Rujak, another by Ciliwung Merdeka.

98 Wilson 2014, Simone 2014.

99 Simone 2014.

100 Corporate groups such as Podomoro, Salim and Ciputra (Firman 2014).

101 Simone 2014.

102 Simone 2014.

103 Wilson 2015.

104 Interview, ESP advisor, October 2015.

105 Interviews, Jakarta April and September, 2015.

106 General Secretary Ban Ki-Moon, April 23, 2012. See http://www.un.org/News/Press/docs/2012/sgsm14249.doc.htm

107 Heinrichs et al. 2013.

108 Barber 2013.

109 Fox 2014.

110 ICSU, ISSC 2015.

111 See, for example, Christoplos et al. 2014.

112 E.g. Johnson and Blackburn 2014.

113 Interview, municipality of Copenhagen.

114 Director of IIED, Satterthwaite 2014a: 7.

115 Copestake and Williams 2014.

116 Satterthwaite 2014b.

117 Satterthwaite 2014b.

118 Wilson 2015; Simone 2014.

119 Andersen et al. 2015a, 2015b.

120 Simone 2014; Wilson 2015.

121 Brown and McGranahan 2016.

122 Satterthwaite 2014b; Rakodi 2007. See also Kamete and Lindell 2010.

123 Unpublished note, Bjørn Jensen, GEUS, 2015.

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