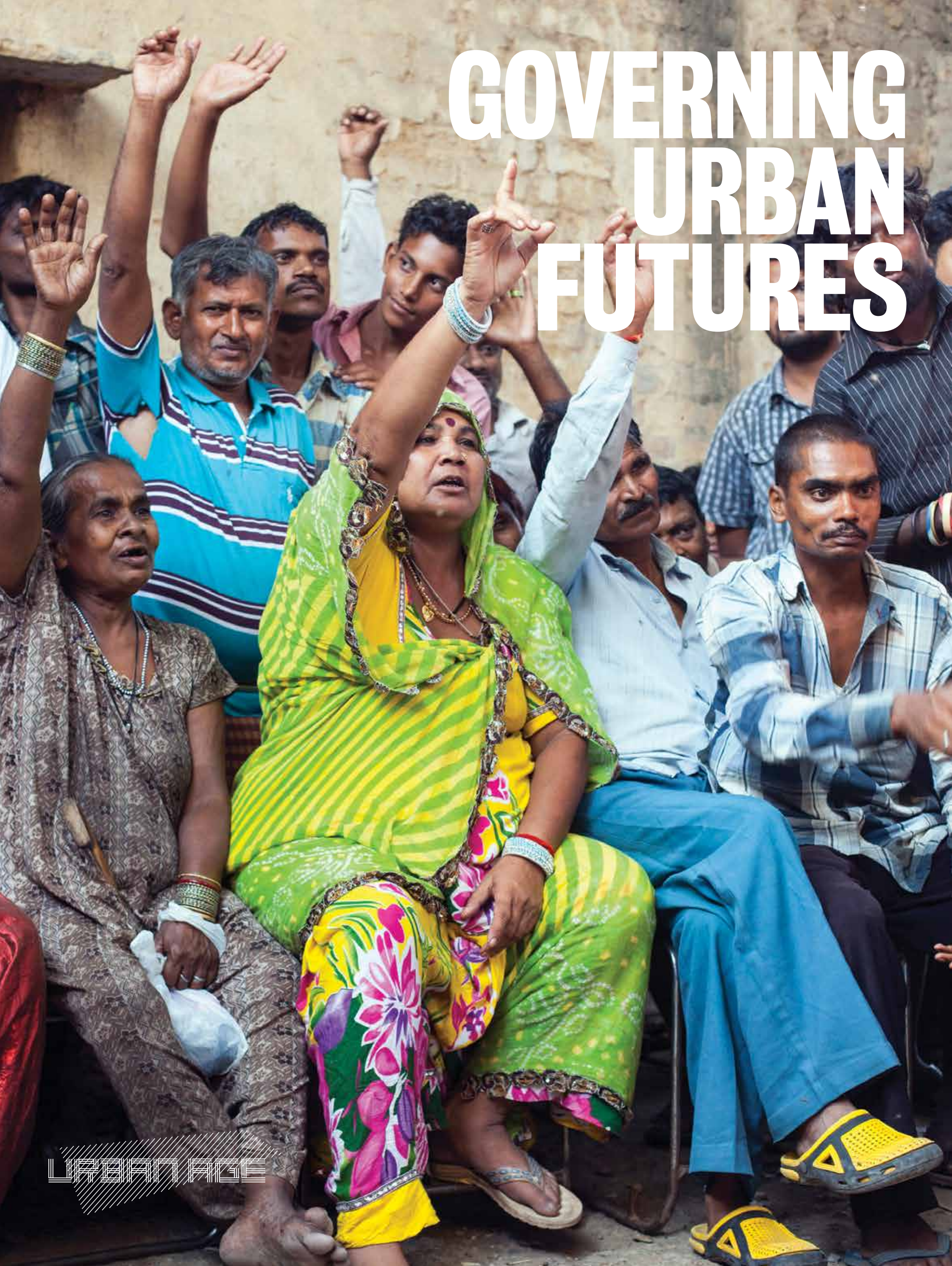
GOVERNING URBAN FUTURES



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URBAN AGE
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URBAN AGE

LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

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FOREWORD

The Urban Age returns to India after a series of international conferences that have allowed us to test the temperature of cities in hotspots of urban growth and change across the world. Since the Urban Age conference in Mumbai in 2007, we have investigated questions of cities and health in Hong Kong, the jobs and economy in Chicago, the smartness of smart cities in London and the impacts of grand scale transformations in Rio de Janeiro. We have done further in-depth studies of the dynamics of São Paulo and Istanbul, and carried out extensive work at LSE Cities on the green economy, social cohesion and the impacts of climate change on cities.

As Philipp Rode and Priya Shankar note in their introductory essay, it is the future of urban governance that now requires urgent attention, as cities and city regions across the globe struggle to cope with exposure to environmental, social and political risk. For this reason, the Urban Age has carried out new research on governance systems, published for the first time in the Data section of this newspaper, alongside essays by experts and commentators on the major theoretical, political and environmental issues faced by cities in India and internationally.

As India enters a critical juncture in its development path, its cities will be key sites of evolution. With the help of over 60 experts and policymakers from 22 cities, in ten countries from five continents, we hope that this year's conference in Delhi will help us understand the links between urban governance and the future development of cities.

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GOVERNING CITIES, STEERING FUTURES

Philipp Rode & Priya Shankar

In 1963, the late planner and urbanist Peter Hall imagined London's future in the year 2000 and identified some of the implications of the city's growth. One of his key recommendations was to replace the system of government for London with "a completely new type of regional government, as yet unknown in this country, and analogous to the status of an American state or German Land." This, of course, never happened and London instead went through a cycle of implementing, abolishing and re-introducing a far less ambitious city-wide government.

However, it is hardly surprising that most explorations of the future of cities and approaches to developing urban strategies tend to incorporate questions related to the governance of cities. These questions cut across a wide spectrum, ranging from functionalist perspectives on more appropriate administrative boundaries to broader issues related to political control, place-based autonomy and local democracy.

Furthermore, there is an increasing recognition of the complex interrelationship of the 'what' and 'how' of urban development, which rarely allows for discussions of one without references to the other. The Urban Age Programme is no exception. Ten years of research and conferences in more than a dozen world cities has had to consistently bring together critical reflection, observation, ideas, strategy, plans and governance in order to allow for a more fruitful engagement with the 21st century urban question.

In this tenth year of the Urban Age Programme, we are explicitly turning our attention to urban governance, building on the past three phases of a programme that first investigated the urban futures of individual cities, then focused on the broader regional contexts of urbanisation, and over the last four years has addressed key thematic areas of urban change. These have included the global shifts of urban economies, health and well-being, environmental sustainability and technology, and the physical transformation of cities.

The 13th Urban Age conference centrally addresses the link between urban governance and our collective capacities to engage with and shape the future development of cities. By investigating the way we govern urban futures, we analyse how the decisions that are made (or not made) today have long-term implications reaching well beyond the boundaries of individual cities – and aim to achieve a better understanding of the underlying conditions and processes that allow for participatory, effective, accountable and future-oriented decision-making in and for cities.

These enquiries take place against a background of some major changes in urban governance, above all, the trend towards 'urbanising' government, alongside the re-scaling of planning functions, both part of the considerable decentralisation efforts occurring in both developing and developed countries since the 1990s. We also identify a shift towards a broader coalition of private and civil society actors – replacing traditional hierarchical coordination of urban development with more networked forms of governance – while acknowledging the critiques of these shifts and the questions they raise around the processes of decision-making and democratic legitimacy. The last two decades have clearly witnessed an increase in the role of the private sector as a result of economic globalisation, far-reaching privatisation of former state functions, the increasing importance of partnerships between public and private sectors as well as greater levels of private capital flowing into urban development, (due not least to substantial infrastructure funding gaps, recently exacerbated by severe public budget constraints in some regions of the world). We also recognise that, (well before recent trends of 'networked' governance emerged), there have always been urban areas and aspects of urban life in several parts of the world that the state has never fully reached or formally governed.

The contemporary urban governance context is often presented as a realm of opportunity. Many commentators have identified cities as a favourable arena for collective decision-making, taking advantage of the proximity between citizens and their government, a more progressive general public and a governance geography that can represent functional boundaries rather than historic, geopolitical demarcations. As Joan Clos points out in his essay, local governments have the unique potential to build state-society relations, deliver services and ensure equitable access to citizenship. At the same time, as Neil Brenner suggests, in current conditions of urbanisation, these system boundaries for cities are situated within much wider global urbanisation processes.

The current urban context presents a range of uncertainties and risks, especially in rapidly urbanising regions: it is widely acknowledged that the world has entered a more volatile period of political, social, economic and environmental conditions. While cities have always been associated with significant complexities and uncertainties, these may now be amplified by technological disruption and new types of challenges; from climate change to economic crises, health pandemics to new forms of crime.

A number of the essays in this newspaper take in a consideration of these emerging challenges. Henk Ovink outlines optimistically the process of building coalitions to create resilience, based on his experience with 'Rebuild by Design', a programme that emerged after Hurricane Sandy hit New York. Austin Zeiderman discusses conflicted claims around Bajamar, a hotly-contested waterfront settlement in Buenaventura, Columbia. In Bangalore, Malini Ranganathan points to the potential of citizen activism in highlighting the links between flood risk and land development in the city.

At this point, the extent to which city institutions are equipped to address such risks and challenges – and whether this could ever be adjusted appropriately – remains unclear. Some are universal issues, affecting all cities: these relate to their institutional capacities, participation and leadership skills, and strategic planning and foresight – in essence, their ability to facilitate decision-making while recognising urban complexities, asymmetries of political power, pervasive uncertainties and a range of other barriers to more effective urban governance.

In his overview of global urban governance and city leadership, Greg Clark points out that many institutional hurdles remain – including low levels of autonomy and fragmented governance – making it more difficult to plan for the future. In the context of the United States, Gerald Frug argues that a better coordination of local responsiveness and state policy requires reform in city governance. In Delhi, Asher Ghertner considers uncertainties within the city government itself, whose policies and responses vary depending on the specific actors and situations involved.

To an overwhelming degree, our physical environments and settlement structures are co-produced by the urban policies of cities and other tiers of government – and this shaping of the spatial characteristics of cities is a central lens through which we discuss the governing of urban futures, a focus which also reflects the particular role of spatial planning within the social sciences. These planning and policy interventions have extremely long-term ramifications, as they breed path-dependencies linked not only to human-made physical structures (which can last for centuries themselves) but also because they come along with secondary social, institutional and economic lock-in effects.

At a time when global urban land is projected to almost triple over a period of just 30 years (2000 to 2030), governments around the world continue to face critical decisions about urban development and related futures. As Ananya Roy pertinently argues – through an analysis of the politics of industrialisation in West Bengal – land is the question. Saskia Sassen also refers to significance of land, especially how changes in the ownership of land to more private actors and larger agglomerations is having a detrimental impact on what she calls 'city-ness', i.e. the quality of urban life. Yue Zhang outlines how, in China, two types of land ownership (urban land publicly-owned by the state vs. rural land collectively-owned by villagers) are producing increased informality at a time of rapid urbanisation.

Processes of urbanisation raise a number of questions. Where and where not to build in order to accommodate projected population growth? How to agree on the desired social and economic activities, and what to construct in order to enable them? What kind of transport infrastructure to develop? How to ensure sufficient and long-term provision of fresh water, energy and food? What kind of sewage, recycling and waste collection systems to implement? How to connect the city with its regional hinterland and the rest of the world? Most of these questions are directly linked to the physical development of cities – a primary area of political engagement for urban governance, and a policy realm where cities and city governments are well-placed to facilitate decision-making and implementation. Strategic infrastructure development is key to the future development of cities, and the planning, financing and implementation of urban infrastructures are among the few policy instruments where the state has considerable control over shaping urban development in the long term. However, as Jonathan Silver relates in his analysis of waste management infrastructure in Mbale, Uganda, new forms of global financing can also further complicate the ability of local governments to deliver infrastructure. And as Edgar Pieterse suggests in his discussion of the 'Corridors of Freedom' project in Johannesburg, even when the state has strategic plans and strong projects, long-term imperatives are difficult to invoke in the current era of instant communication and short-term gratification.

The implications that changes in information and communications technology have for urban governance and city identity are explored several of the essays here. In Karachi, Sobia Kaker outlines how Twitter and SMS are increasingly being used by citizens to navigate the insecurity of the city. Adam Greenfield applauds the repurposing of Amazon.com and Facebook in creative citizen-led initiatives such as Occupy Sandy in New York and at el Campo de Cabada in Madrid, but is also cautious about the use of certain technologies by the state. Conversely, Jagan Shah speaks optimistically of the ways in which technology can be used to improve cities and urban governance in India.

We have chosen to convene this Urban Age conference on governing urban futures in Delhi, convinced that India is a particularly appropriate context for our discussion. The world's largest democracy is currently undergoing dramatic shifts from rural to urban activities, with a projected increase of 250 million urban dwellers by 2030. Sanjeev Sanyal's essay highlights the dynamism of migration to cities as a means for opportunity and social mobility in India. However, urban governance is frequently singled out as a key concern for Indian cities, and some argue that critical reforms are overdue, as Arvind Panagariya makes clear in his essay with respect to land markets. While India has had constitutional changes and national policy efforts aimed at decentralisation, these have not resulted in any substantial changes on the ground. As Isher Ahluwalia emphasises, in order to fulfil its potential, decentralisation will also need to be accompanied by substantive capacity-building and training for local administration.

Government at all levels also struggles with highly departmentalised governance structures, often leading to fragmented policy initiatives, which have particularly adverse effects in the context of urban development: insufficient water, waste and electricity infrastructure, congestion and pollution being the most commonly cited problems. But the current developmental pressures might provide fertile ground for India's ingenuity to continue developing institutional contexts capable of addressing an urban condition more extreme than that of most other regions in the world. It is therefore also unlikely that a successful reform agenda will be able to simply refer

to systems of urban government elsewhere. Reforms for urban governance in India will need to remain sensitive to the country's rural contexts and constituencies.

City governments in India clearly need to be given more power and also to be made more accessible and accountable to their citizens, as Charles Correa argues powerfully in his essay. The challenges that cities face in today's interconnected world, are far too complex for one-dimensional solutions. If as Richard Sennett suggests, the urban challenge of today is acknowledging and coping with disorder, then India, as it embarks on major urbanisation initiatives for its future, must also build on its strengths: the flexibility and adaptability of its urban conditions.

In cities in India and throughout the world, academics, planners and policy-makers are still grappling with the question that Peter Hall raised over fifty years ago: how should cities be governed in order to plan for their futures? The contributions to this newspaper alone indicate that there is much debate on these issues, from what governance implies to how the urban is defined. Yet, from the different perspectives in the essays that follow, four key trends and themes emerge for what will be critical in shaping our urban futures. Globalisation, particularly economic globalisation through the links of trade and the flows of capital and investment, is affecting cities throughout the world. Technological change, especially the revolution in ICT, is changing the nature of all human interactions but also of state-society relations. There is increasing inequality in most cities and increasing informality in many. And all cities are confronting the existential threats presented by climate change. Each of these trends has significant implications for the governance of cities. At the same time, urban governments face fundamental choices about how to respond to these trends, and what is decided now will be critical in steering both urban and global futures.

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TOWARDS A NEW URBAN AGENDA

Joan Clos

With more than half of humankind living in cities and the number of urban residents growing by nearly 73 million every year, it is here that our future will be decided. We need cities and human settlements that are inclusive, safe, resilient and sustainable. We are failing in how we plan, build and manage our cities. Subsequently, we are failing to create a sustainable future for ourselves and our next generations.

The fact that the majority of the world's population now lives in urban areas has a significance that extends far beyond its quantitative dimension. It means that a much more significant role is now played by the galvanising power of proximity, and also by the economies of agglomeration – which together constitute the basis of the transformative power of urbanisation. The globalisation of economic relations has also brought about the emergence of new, more specialised functions at different hierarchical levels, from megacities to small villages, in an immense urban web interconnected by new information and communication technologies.

It is also clear that urban residents now work, think and act in ways that are different from the past – ways that are based on what might be termed an "urban mindset". Urbanisation is driving a slow but persistent process of cultural change. This has also caused the living environment to change from a small-scale agriculture-oriented setting to a place of mass production, consumption and service. Urban spaces have also changed in their configuration and functionality, their scale and density and in the makeup of their social, cultural and ethnic groups.

Urban centres attract investment and create wealth. They enhance social development and harness human and technological resources, resulting in clear gains in productivity and competitiveness. Indeed, cities have become the repositories of knowledge and are often agents of social, political and economic change. At the same time, however, when not properly designed and managed, cities can pay the high price of negative externalities, such as congestion, contamination and wide-spread inequality.

Rapid urbanisation in the 21st century has posed huge challenges in all areas of the planet. Paradoxically, the most complex challenges are to be found in the developed world. The model of urban growth in the second half of the last century has led to a lower density in cities and a significant increase in the formation of suburbs, with a wide range of unexpected effects. The most relevant of these is arguably the increased cost of living in the urban environment, which in turn generates social tensions, urban fragmentation and unrest, and in certain developed countries leads to social problems in some neighbourhoods.

Demographic stagnation in the developed countries is leading to an ageing urban population, all the more evident in countries that resist immigration. There are an abundance of examples reflecting the growing difficulties impeding urban spaces from exercising their role in integrating social diversity, for instance, gated communities, a lack of public space and monofunctional districts.

Lastly, we must not forget that the urbanisation process also has an essentially political component. Often it is not financial constraints that impede the needed transformation of a city, but the impossibility of finding agreement between the various stakeholders. It is in this context that urban design, governance and land legislation play a key role. What counts here is helping to build community institutions and mechanisms capable of circumventing the disagreements, misunderstandings and local conflicts that get in the way of the kind of urbanisation that generates prosperity. No urban transformation is possible without consensus.

The year 2016 – with the celebration of the third United Nations Conference on Housing and Sustainable Urban Development (Habitat III) – should represent a turning point in the debate on the future of our cities. Habitat III is a unique opportunity for governments and institutions around the world to engage in a New Urban Agenda that addresses the challenges of rapid urban growth and offers a new model of urbanisation.

Over the next thirty years, the urban population of the world will increase by at least 2.5 billion people. Enormous financial flows will have to be mobilised for investment in construction, energy, public transport and other aspects of the urbanisation process. Investment in cities during this period will exceed the total sum of all expenditure on urbanisation over the entire history of humankind. The policy decisions which will guide this enormous economic effort must take account of all the successful experiences of urban transformation in recent years. The objective is clear: to shape good cities, those in which the inhabitants live together in density and diversity, where the economies of agglomeration are able to generate prosperity and where the public spaces which guarantee equality and justice are respected and inspire respect.

Good cities do not come about by accident. The prerequisites for a good city are broad community consensus, long-standing political determination and sound urban planning which, over the course of time, engender urban environments that can provide wellbeing and security to their inhabitants, guarantee the supply of water, energy and food, and promote a compact and diverse urban structure in which innovation, trade and economic prosperity are encouraged. It definitively protects that urban communal space in which individual rights and opportunities are most respected. Results like these have never been achieved through spontaneous urbanisation, nor by the adoption of wrong-sighted decisions. The well-made city is not only difficult to achieve but also difficult to maintain.

In tackling the problem of sustainable urbanisation, a three-pronged approach is needed, covering the areas of urban regulations, urban planning and urban finance. If the world's cities are to move from an unsustainable to a sustainable urban future, it is essential to identify and to coordinate efficient and implementable measures in each of those three areas.

Good governance prevents conflict, facilitates stability, helps cities to adapt to future challenges and is critical for their performance in an increasingly competitive world. Governance is the enabling environment that requires adequate legal frameworks, efficient political, managerial and administrative processes, as well as mechanisms, guidelines and tools to enable the local government to respond to the needs of the citizen. Local governments have the proximity to translate the principles of good urban governance into effectively managing, governing and developing a city, and ensuring equitable access to citizenship. In contexts of fragility and conflict, local governments also have the potential to build positive state-society relations and deliver services in situations where national institutions remain weak.

The new complexities of the cities of today require a constant and fluid dialogue between institutions, on one side, and between people and institutions, on the other. Relations with non-state actors are increasingly important to ensure a real participatory process and stronger inclusion of all in city decision-making. The public should be able to hold institutions accountable for the provision of basic services for all. To do this, people need information about decisions taken by local councils and how public money is spent. There is an increasing need for accountability and transparency measures to ensure institutional effectiveness and better service delivery. On the other hand, more local governments are engaging in public-private partnerships (PPP) to provide for public services. However, some may not have the capacity to properly negotiate PPP arrangements or to follow-up with implementation during the agreed time. The efficiency of service provision rests on how well the procurement process is conducted, to ensure that the right service provider is awarded the contract and that those contracts are cost-effective, and beneficial both for the private partner and for the citizenry as a whole.

Improved service delivery, well-functioning infrastructure and sustainment of the economic dynamism of any city are highly dependent on governance relations and management systems at the local level. When operations among communities and neighbourhoods, or the private and public sectors fail to harness the full potential of each, then the overall functioning of the city suffers. Similarly, when relations between the local authority and other key stakeholders are lacking in participation, accountability, transparency as well as overall civic engagement, the city will not perform optimally.

In terms of the everyday functioning of a municipal authority, organisational systems and institutional arrangements play a critical role in enabling the municipality to perform its roles. The manner in which programmes are planned, tasks are organised, supervision is executed, processes are coordinated, reporting is done and budgeting is undertaken are critical to the functioning of a municipal authority. Indeed, livable and prosperous cities are supported by good local institutions, designed according to local needs and financial possibilities. The prevalence of the appropriate checks and balances, with clear protocols, must underlie a sound management system.

There is great potential for success, and we must act accordingly – with ambition. The implementation of the New Urban Agenda will range across the entire process of urbanisation that continues to sweep the global community, encompassing all human settlements in all parts of the world. Not only can we make slums history and address long-standing issues of economic depression and social marginalisation, but we can also tackle urban poverty and inequity and new forms of discrimination. Good governance and the rule of law at the national and subnational levels are essential for the achievement of those objectives, in order for us to move to a more sustainable model of urbanisation. If urbanisation is to be truly inclusive and sustainable, participatory mechanisms and integrated human settlement planning and management practices are crucial.

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COPING WITH DISORDER

Richard Sennett

The city-state, old and new

If you were a traveller to Florence in 1414, the moment you passed through the city's gates you entered a different world: the thick dialect Florentines spoke was hard for a Venetian to understand; the local ways of doing business were strange to travellers from Genoa; local crimes and punishments were unfamiliar even to migrants from nearby Siena. Above all, Florence was a polity in which the majority of its citizens could participate – Medici rule was yet to come. This was the classic city-state: a place which shaped itself.

Today, Singapore and Hong Kong are the two city-states which come immediately to mind. They are very different, Singapore seeming much more in the classic mode of self-control; Hong Kong, a city which did maintain a certain degree of autonomy even during colonial times, but which is struggling to hold on to it today. If we look away from politics, even these two are not city-states culturally, at least, not of the kind our ancestors knew. When, in 2014, your plane lands, once you pass immigration, take a taxi to your hotel, and go in search of something to eat, neither city seems so different from the Beijing or Delhi, Buenos Aires or New York, or even the London you just left. Similarly, the business of big cities is globally converging and mutually contingent: cities shape each other. They are networked cities, rather than independent city-states.

Should we want to transform the networked city into a more locally-oriented, self-contained city-state? Max Weber certainly thought so. The German sociologist, who lived before the age of networks, but in an age of nationalist passions, thought that locally-oriented politics, dealing with practical issues on the ground, were more likely to resist the blandishments of nationalisms or other isms. The mayor of Amsterdam, Job Cohen, once remarked at an Urban Age event, "the nation is a visceral experience only when a country is at war; everyday, in peace-time, the city is the reality people feel." Another way to say this is that the things that make cities matter are the things that make them distinct, whereas the networked city with its global brands and habits lacks the sense of a local, tangible, particular reality.

Weber thought the city-state could be inclusive in ways a nation could not be, particularly in giving migrants who had crossed national borders the standing of citizens with local rights. Weber called these "place-based" rights. Weber represents a stream of thinking which emphasises the "right to the city," in the phrase of the urbanist Henri Lefebvre – a right to be accounted and included in a specific and defined place. Were either Weber or Lefebvre alive today, their critique of the networked city would be that only a few people enjoy rights within it.

The difference the countryside makes

Because we are meeting in Delhi, I am minded of an entirely different way of thinking about the city-state – one which sets it in a rural-urban context. The most politically-minded modern writer to draw the contrast between city and country was the Algerian Franz Fanon, who celebrated the village and the farm as more truly autonomous than life in the city – a celebration which has reverberated in India, thanks to Gandhi, whom Fanon revered. He believed the autonomous city was from its origins a malign construct in the developing world; cities were the places in which the imperial powers first installed themselves, and even after de-colonisation, big cities like Algiers, Cairo, and Mumbai retained the top-down bureaucracies and political habits of the colonial masters. In development work, Fanon's beliefs proved immensely influential, as a kind of rural, revolutionary romanticism – until the great growth spurt of cities in the last 30 years forced aid workers, foundations, and development ministries to take seriously the fact that the city has become a much bigger, and much different beast, than it was in colonialist times. What Weber and Fanon shared is a belief in autonomy, in local self-control. Weber located this within the city, Fanon within the countryside.

The difference climate change makes

Just that belief in autonomy as a goal, even an inclusive, democratic sort of autonomy practiced in the city, needs to be unsettled. New realities oblige us to think about the city, and so the city-state, in a different way. The most urgent of these, to my mind, is climate change. The perils of climate change cannot be addressed by thinking at the scale of urban self-shaping, as Max Weber wanted; or that of local, inclusive democracy, such as Henri Lefebvre believed in. And climate change has rendered Franz Fanon's opposition of urban versus rural out of date.

Hurricane Sandy in New York was a sharp lesson to Americans about these dimensions of climate change. This supposedly once-in-a-century storm followed a similar event just the year before, the storm surge devastating the city's coastline, and destroying much of its inland energy infrastructure. Afterwards, those who lived along the coast wanted to rebuild the places they had lived in, rather than move away; this local sentiment was translated into expenses local communities were willing to pay in order to erect storm walls and barriers. But scientific opinion, marshalled by programs like Rebuild by Design, has shown that this strategy is not sustainable, and has argued that some communities should be broken up, others abandoned, others reconfigured drastically.

The IPCC [International Panel on Climate Change] casts this difference as one between mitigation and adaptation. But politically it is a conflict between the Weberian value placed on self-determination and a different kind of engagement which links cities together. The rebuilding which attempts to push back the sea so that people can return to their homes is very much in the city-state mode; aiming to keep the city together, whereas the adaptation strategy aims to break up much of the city. The same issue would play out similarly in India in a coastal city like Mumbai. Adapting to climate change, in other words, means that coherence of the city's form will alter, due to forces beyond human control.

Nature is undemocratic. Of course, voting and inclusion cannot change the facts on the ground about how the climate operates, but the issue cuts deeper: collective will is irrelevant to adaptation strategies. Under Nature's sway, the very idea of autonomy loses its meaning. The natural environment makes no distinction between urban and rural, at least not along Fanon's lines. Jane Harrison's recent studies of water problems in Nigeria illustrate a global problem: industrial ways of farming are destroying the water resources cities need. But, as she points out, the same ways of water-intensive, chemically-polluting rural development are pursued by local farmers as well as big firms. Moreover, rising temperatures mean in some places more drought, in others more flooding. Agriculture is going to become an ever more unstable, if industrially-routinised, activity. "Unpredictable" is the key word – there is certainly a water crisis coming, but we don't yet know what form it will take. Almost all models of climate change argue for non-linear changes, chance combinations, erratic consequences, all occurring in the coming decades. All this argues that rural and urban must be seen together, as one disturbed ecology.

The political problem is how to practice governance under these conditions. In part, the needs of the city have to dictate what happens in the countryside, but the political problem is complex because the natural system is becoming ever more unstable. How do you legislate under these conditions? Like "autonomy," the climatic crisis is rendering the word "control" problematic. I'm not a gloomy pessimist, but I think that the seductive idea of a place controlling its own fortunes is obsolete. The climate crisis obliges us, I think, to consider our fortunes in a different way. To adapt, the city can no longer cohere; we must meet the uncertainty of a physically unsettled world by thinking of the city itself as a more unstable place.

The city is an open system, not a state

This is the logic of what natural scientists call open systems. These are structures which model chance, or seemingly illogical change, or complex events which de-stabilise an equilibrium condition. When IPCC climatologists moved from strategies of mitigation to adaptation, they began using open-systems thinking to model turbulence and disruption in storm patterns, polar melt-down, and rising sea levels. All these phenomena are erratic in the short term, year-on-year, though the long-term effects are certain over the course of decades.

We should be thinking about the networks linking big cities in the same way. Specific patterns of migration are as unstable in the immediate term as changes in the natural environment; for example, movement across the Mexican-American border is an erratic, convulsive process year-on-year, though the cumulative effect is clear. So, too, is the economy of networked cities – financial flows are not smooth and linear, nor are investments in real estate or primary industry. Open system analysis thinks about networks as trembling rather than placid connections – because the connections are complex they are peculiarly open to disruption.

Of course, in everyday life we want to be in control as much as possible. But we are moving into an era where the sphere of human self-control and autonomy is shrinking, particularly in our relations with the natural world. As an open-systems theorist, this is why I want to argue against the juridical impulse to privilege local urban law, and against Weber's belief in place-based rights. These are closed political fantasies. We must acknowledge the disorder to come and learn to cope with it: the urban challenge we face now is how to live openly.

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WHO OWNS THE CITY?

Saskia Sassen

Sharp shifts in the ownership of urban land confront a growing number of major cities with a new type of urban politics. Several of the Urban Age cities are among them. These shifts are mostly from small private to large corporate modes of ownership, and from public to private. Formally, these acquisitions entail buildings – small and large, private and public. Thus the more common language to describe this process is as the buying of buildings.

But I want to argue that at the current scale of acquisitions, we are actually seeing a systematic transformation in the pattern of land ownership in cities which has deep and significant implications for equity, democracy and rights. This is particularly so because what was small and/or public is becoming large and private, though often with local government support. Some of the most noxious developments of "site assembly" happen when one or two city blocks are bought by one owner, whether local or foreign, and the city authorities cave in to their requirements for street closures, and more, often in the name of enhanced security.

The trend is to move from small properties embedded in city areas, crisscrossed by streets and small public

Hauz Khas, New Delhi: A burst water-main floods the crossroads but business continues as usual

squares, to projects that absorb much of this tissue of public space. This privatises and de-urbanises city space.

This proliferating urban gigantism is further strengthened and enabled by the privatisations and deregulations that took off in the 1990s across much of the world, and have continued since then with only a few interruptions. The overall effect has been a reduction in public buildings and an escalation in the amount of private ownership. This brings with it a reduction in the texture and scale of spaces previously accessible to the public – a space that was more than just public buildings. Where before there was a government office building handling the regulations and oversight of this or that public economic sector, now there might be a corporate headquarters, a luxury apartment building, or a mall.

In what follows, I examine these trends and then begin to conceptualise what we can think of as the making of a new urban landscape, which goes well beyond the notion of a new visual order. It is also partly a new ownership and control order as well as a frontier zone where the powerless and the powerful can actually meet.

When more and more in a city is corporate-owned

While foreign acquisitions may have received much of the attention in some cities, the process is far broader, and in many cities is mostly shaped by domestic investors and developers. The key issue is not the fact of foreign ownership, but the shifts in ownership mode – from modest or small to large and expensive, and from modest public properties to expensive private ones. Examples of scale-ups in private ownership are Gurgaon in Delhi, Santa Fe in Mexico City or Sandton in Johannesburg.

Foreign acquisitions of buildings in a city are not a new development. In *The Global City*, I documented the large-scale acquisition of buildings and urban land plots in the late 1980s, especially by foreign firms, in the three leading global cities in that early global phase – New York, London, and Tokyo. These acquisitions included iconic buildings, especially in New York and London, that would have shocked the average resident at the time had they known: Harrods in London, the Rockefeller Center and Saks Fifth Ave in New York, and more. In London, over half of the buildings in the City were foreign owned – especially by continental European and by Japanese entities.

It is not the novelty of it all that I seek to emphasise but rather its scale and impact on urban fabric, on daily life in the city, and even on social cohesion in an urban area. In short, the effect goes well beyond functional use. These acquisitions are not simply about buying an office building and a home that are needed if a firm and its employees are to live and work in that city. These are to a large extent just acquisitions – they could be as a safe or speculative investment, as a second or third or n^{th} home. Thus, according to the *Financial Times* (2014), a good many residential and business properties in central London and residential properties in central Oxford, the two cities they studied, have been bought by foreign firms, investors or households over the last few years.

A share of the foreign-owned residential properties tend to be underutilised, and in some documented cases, never used – for instance, the extreme examples in the Hampstead area of London.[1] This then also means that they contribute to a sort of de-urbanising, especially if they are large and have been constituted by combining several buildings on a block. This removes the texture and porosity, as Richard Sennett would call it, of the urban built environment. They do not contribute to cityness, but rather kill it.

Most recently, a so-called "super-prime" real estate market has been launched. This is a made – an invented – market, where properties are given minimum prices – 8 million, 20 million, often de facto 100 million US dollars in cities such as New York, London, and Hong Kong. As far as I can establish, these properties are not worth that much money: setting these minimums is a form of gating via exclusionary criteria rather than self-evident walls. But it is above all a mechanism for super-profits. It is also the making of a cross-border geography that connects particular spaces of major cities across the world and strengthens the new geographies of wealth and privilege that cut across the old historic divides of North and South, East and West.

Finally, the new wave of foreign acquisitions in New York City, for instance, includes among others, buyers from Kazakhstan and from China. Among the largest are Chinese acquisitions. The economy in China is slowing down, Europe's is not in top shape, and South America's is unstable. In this context, New York has become an attractive destination for Chinese real estate investment. It is seen as a safe haven for investors, as the law definitively protects the rich.

These investments are massive, and include the biggest construction company in China, China State Construction Engineering Corp. The latter has bought New York-based Plaza Construction, which builds commercial and residential developments across the US. The largest of these recent investments is from Shanghai-based Greenland Holding Group: in December of 2013 they acquired a 70% stake in the vast Atlantic Yards project in Brooklyn for $200 million. The project will include 14 apartment buildings, in addition to the Barclays Center Arena. The investors expect to complete the entire project within eight years.

How do we interpret these trends?

There are familiar concepts that come to mind promptly, notably, gated communities and gentrification. They contribute to explaining some of this. But I am interested in going beyond these in order to get at what we might think of as constitutive elements of the city. One of these is urban land. Another one is the larger spatial formations within which inter-urban transactions and shifts take place.

The large acquisitions of urban land – whether by foreigners or locals – brings urgency to the work of actively making the public and the political in urban space. Today's large complex cities, especially if global, are a new kind of frontier zone. Where the historic frontier, as seen from imperial centres, was in the far stretches of the "colonies", today it is deep inside global cities, some of which are those erstwhile imperial centres. Actors from different worlds meet there, but there are no clear rules of engagement. These actors come from multiple diverse settings. Chinese investors are not the same as British investors, and these in turn are not the same as Dutch or Kazhakstani investors. Those making new, modest, neighbourhood economies are equally diverse: Jamaicans are not the same as Bangladeshis, and so on. Nor are the long-time residents and old leading firms the same as either the neighbourhood enterprises or the new foreign moguls investing in global cities. It is the world that moves into the city.

These cities, whether in the global North or South, have become a strategic frontier zone for global corporate capital. Much of the work of forcing deregulation, privatisation, and new fiscal and monetary policies on the host governments had to do with creating the formal instruments to construct their equivalent of the old military "fort" of the historic frontier. Now the "fort" is the regulatory environment needed in city after city worldwide to ensure a global space for their operations.

Under these conditions, the work of *making* the public and the political in urban space becomes even more critical. There are multiple actors and multiple perspectives – that of the citizen, the foreign investor, the immigrant entrepreneur, the old oligarchy, the grandmother, professional men and women, and many more. Let me illustrate my point with one type of actor, major developers. The challenge here is how to contain or govern major developers, both local and foreign, who consider urban space a commodity, a good to be bought and traded. City residents, no matter where they live, should have a voice when major developments in a city centre absorb what was once public space, streets, urban tissue, into a privately built and owned mega-building.

The mantra of "economic development" might be enough for some major developments but it should not be enough of a justification for all major building projects. Gerald Frug's argument in *A Rule of Law for Cities* comes to mind, that "...we need to open up the contestability of economic development policy...to a democratically organised institution [which] should represent people city-wide. The participants should be empowered to establish the city's strategy for economic growth, with the experts advising the decision-makers rather than being the decision- makers. The goal is to include the very people left out in the reigning economic development strategy."

Having a robust urban public space is critical at a time when national political space is increasingly dominated by powerful actors, both private and public, only minimally accountable to a city's people. There is a kind of "public-making" work that can happen in urban space, and that helps us see the local and the silenced. Our (still) large complex global cities are one key space for this making: they are today a strategic frontier zone for those who lack power, those who are disadvantaged, outsiders, minorities who are discriminated against. The disadvantaged and excluded can gain presence in such cities, presence vis-à-vis power and presence vis-à-vis each other. This signals the possibility of a new type of politics, centred on new types of political actors. It is not simply a matter of having or not having power. These are new hybrid bases from which to act, spaces where the powerless can make history even when they are not empowered.

This emergent frontier-space at the heart of major global cities arises in a context of increasingly hardwired "borderings" inside cities and across cities. Gated communities are but the most visible representation of these borderings. The uses that global corporate capital makes of our cities are part of that hard bordering. The common assertion that we are a far less bordered world than 30 years ago only holds if we consider the traditional borders of the interstate system, and then only for the crossborder flow of capital, information and particular population groups. Far from moving towards a borderless world, let me argue that even as we lift some of these barriers for some sectors of our economies and society, these same sectors are actively making new types of borderings that are transversal and impenetrable. It is in this context that the complex global city becomes a frontier space with political consequences.

1 See http://www.theguardian.com/society/2014/jan/31/inside-london-billionaires-row-derelict-mansions-hampstead

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CONNECTED CITIES

Adam Greenfield

We are lucky enough to live at a time in which a furious wave of innovation is breaking across the cities of the global South, spurred on both by the blistering pace of urbanisation, and by the rising popular demand for access to high-quality infrastructure that follows in its wake. From Porto Alegre's participatory budgeting and the literally destratifying cable cars of Caracas, to Nairobi's "digital *matatus*" and the repurposed bus-ferries of Manila, the communities of the South are responsible for an ever-lengthening parade of social and technical innovations that rival anything the developed world has to offer for ingenuity and practical utility.

Nor is India an exception to this tendency. Transparent Chennai's participatory maps and the work of the Mumbai-based practices CRIT and URBZ are better-known globally, but it's the tactics of daily survival devised by the unheralded multitude that really inspire urbanists. These techniques maximise the transactive capacity of the urban fabric, wrest the very last increment of value from the energy invested in the production of manufactured goods, and allow millions to eke a living, however precarious, from the most unpromising of circumstances. At a time of vertiginously spiralling economic and environmental stress globally, these are insights many of us in the developed North would be well advised to attend to – and by no means merely the poorest among us.

But, for whatever reason, this is not

the face of urban innovation official India wants to share with the world – perhaps small-scale projects or the tactics of the poor simply aren't dramatic enough to convey the magnitude and force of national ambition. We hear, instead, of schemes like Palava, a nominally futuristic vision of digital technology minutely interwoven into the texture of everday urban life. And of course it made headlines around the planet when the Modi government announced in 2014 that it had committed to build no fewer than 100 similarly "smart" cities.

Because definitions of the smart city remain so very vague, I think it's worth thinking carefully about what this might mean – beyond, that is, the Rs 7 lakh crore (roughly US$ 114 billion) in financing that the High Powered Expert Committee on Urban Infrastructure believes the scheme will require over the next 20 years. It is one thing, after all, to reinforce the basic infrastructures that undergird the quality of urban life everywhere, and quite another to propose saddling India's cities with expensive, untested technology at a time when reliable access to electricity, clean drinking water or safe sanitary facilities remain beyond reach for all too many.

We can take it as read that our networked technologies will play – will *continue* to play – some fairly considerable role in shaping the circumstances and possibilities experienced by billions of city-dwellers worldwide, in India no less than elsewhere. So it's only appropriate to consider the ways in which these technologies might inform decisions about urban land use, mobility and governance. Especially at a time of such enthusiasm for the notion in India, though, I think it's vital to point out that "the smart city" is not the only way of bringing advanced information technology to bear on these questions of urban life. It's but one selection from a sheaf of available possibilities, and not anywhere near the most responsive, equitable or fructifying among them.

We can see this most easily by considering just who it is that the smart city is intended for – by seeking to discover what model of urban subjectivity is inscribed in the scenarios offered by the multinational IT vendors that developed the smart city concept in the first place, and who are heavily involved in sites like Palava. When you examine their internal documentation, marketing materials and extant interventions, it becomes evident that there is indeed a pronounced way of thinking about the civic that is bound up in all of them, with rather grim implications for the politics of participation. A close reading leaves little room for doubt that vendors like Microsoft, IBM, Siemens, Cisco and Hitachi construct the resident of the smart city as someone without agency, merely a passive consumer of municipal services – at best, perhaps, a generator of data that can later be aggregated, mined for relevant inference, and acted upon. Should he or she attempt to practice democracy in any form that spills onto the public way, the smart city has no way of accounting for this activity other than interpreting it as an untoward disruption to the orderly flow of circulation: something that must be managed, and ideally suppressed, in the name of optimum efficiency. (This is explicit in Palava's marketing materials, as well.) All in all, it's a brutally reductive conception of civic life, and one with little to offer those of us whose notions of citizenhood are more robust.

Given how impoverished this vision is, a casual onlooker could hardly be faulted for concluding that networked information technology is something that will never furnish contemporary city-dwellers with the architecture of participation they deserve. But while this is certainly a more defensible position than breathless technophilia, or the blithe stories of triumphally self-regulating urban ecosystems the vendors themselves peddle, I happen to believe that this is not the case. I remain convinced that ordinary city-dwellers can use networked informatics beneficially, to support them in their aims of group coordination, collective decision-making and deliberative self-determination. The following two brief case studies might help put some flesh on the bones of this assertion.

Organised by veterans of Occupy Wall Street, the citizen relief group known as Occupy Sandy emerged in response to the unprecedented damage done to New York City by Superstorm Sandy in October 2012. Perhaps unsurprisingly, given its lineage, OS was organised along strong principles of leaderlessness, horizontality and consensus. What may be more surprising is that this group of amateurs – unequipped with budgetary resources or any significant prior experience of logistics management, and assembled at a few hours' notice – is universally acknowledged as having outstripped traditional, hierarchical and abundantly-resourced groups like the US Federal Emergency Management Agency and the American Red Cross in delivering relief to the hardest-hit communities.

Occupy Sandy's volunteers were unquestionably able to do this because they used networked technology to coordinate and maintain real-time situational awareness over their activities. Crucially, though, the systems they used were neither particularly elaborate, nor the ones many theorists of networked urbanism might have envisioned; they certainly didn't have anything to do with the high-spec, high-margin instrumentation IT multinationals would have municipal governments invest in.

In a stroke of inspired creativity, Occupy activists repurposed Amazon.com's existing e-commerce and fulfillment infrastructure, in the form of a wedding registry, to funnel donated goods to the distribution centre they had set up in a Brooklyn church. If this audacious act of *jugaad* underwrote the entire recovery effort, its day-to-day operations relied upon another, as the movements of hundreds of volunteers and thousands of donations, hot meals and pieces of construction material were tracked in a single, gigantic Google Docs spreadsheet never intended for any such purpose. Asynchronous, robust, distributed technologies like mailing lists and text messaging completed the picture, allowing coordinators to maintain links between this nexus of activity and the growing community of donors, potential volunteers and activists that sprawled across the entire Northeast region.

If supple, network-mediated coordination of this type could help people manage the highly dynamic circumstances that followed Sandy's landfall, might it perhaps also prove useful under less volatile conditions? After all, the greatest disasters that ever befall most urban communities move more slowly than a hurricane. They are the ones that are economic in nature.

The La Latina neighbourhood of Madrid was once home to a thriving market hall, and later a well-used community sporting facility, demolished in August 2009 to make way for planned improvements. But with Spain in the grips of the 2008 economic downturn, the money earmarked for the improvements failed to materialise, and the site remained vacant, cordoned off from the rest of the city by a chainlink fence. As such sacrifice zones will tend to, this site, el Campo de Cabada, increasingly began to attract graffiti, illegal dumping and still less salutary behavior. Alerted to the deteriorating situation by neighbours, city authorities claimed they were powerless to intervene, apparently in the belief that they had no right to intercede on land belonging to private developers.

Exasperated with this state of affairs, a group of community activists, including architects of the Zuloark collective, cut through the fence and immediately began recuperating the site for citizen use. Following a cleanup, the activists used salvaged material to build benches, mobile sunshades and other elements of an ingenious, rapidly reconfigurable parliament – and the first question they put before this parliament was how to manage the site itself. This self-stewardship was successful enough for long enough for the collective to eventually obtain quasi-official sanction from the municipal administration. Some three years on, in its various roles as recreation ground, youth centre, and assembly hall, el Campo has become a vital community resource. If it has problems now, they are of the sort that attend unanticipated success: on holiday weekends especially, the site attracts overflow crowds.

Where's the technology in all of this? Beyond canny use of Twitter and Facebook, and an online calendar of activities, there isn't much. That's the point. The benches and platforms of el Campo aren't festooned with sensors, don't have IPv6 addresses, don't comply with some ISO wireless-networking standard. The art walls aren't high-resolution interactive touch surfaces, and the young people painting on them certainly haven't been issued with Palava-style, all-in-one smartcards. Nevertheless, it would be a profound mistake to not understand el Campo as the heavily networked place it is, just as Occupy Sandy's distribution centres were. These are intensely technologised sites, places where the shape of action and possibility are profoundly conditioned by what I have elsewhere referred to as the "dark weather" of the network – that layer of information that swirls around the physical environment, intangible to the unaided human sensorium, but possessing terrific potency. It's simply that in both these cases, the sustaining interactivity was for the most part founded on the use of mature technologies, long deglamourised and long settled into what the technology-consulting practice Gartner refers to as the "trough of disillusionment." The true enablers of participation turn out to be nothing more exciting than cheap, commodity devices, reliable access to sufficiently high-bandwidth connectivity, and generic cloud services. These implications should be carefully mulled over by developers, those responsible for crafting municipal and national policy, and funding bodies in the philanthropic sector.

In both these cases, ordinary people used technologies of connection to help them steer their own affairs, not merely managing complex domains to a minimal threshold of competence, but outperforming the official bodies formally entrusted with their stewardship. This presents us with the intriguing prospect that more of the circumstances of everyday urban life might be managed this way, on a participatory basis, by autonomous neighbourhood groups networked with one another in something amounting to a citywide federation.

In order to understand how we might get there from here, we need to invoke a notion drawn from the study of dynamic systems. Metastability is the idea that there are multiple stable configurations a system can assume within a larger possibility space; the shape that system takes at the moment may simply be one among many that are potentially available to it. Seen in this light, it's suddenly clear that all the paraphernalia that we regard as the sign and substance of government may in fact merely constitute what a dynamicist would think of as a "local maximum." There remain available to us other possible states, in which we might connect to one another in different ways, giving rise to different implications, different conceptions of urban citizenship and profoundly different outcomes.

The sociologist Bruno Latour warns us not to speak airily of "potential," reminding us that we have to actually do the work of bringing some state of affairs into being before we can know whether it was in fact a possible future state of the system. And that work is an investment, is never accomplished without some cost. I nevertheless believe, given the very substantial benefits we know people and communities enjoy when afforded real control over the conditions of their being, that whatever the cost incurred in this exploration, it would be one well worth bearing. The evidence before us strongly suggests that investment in the unglamorous technologies, frameworks and infrastructures that are already known to underwrite citizen participation would result in better outcomes for tens of millions of ordinary Indians – and in any event would shoulder the state with far less onerous a financial burden – than investment in the high-tech chimeras of centralised control. The wisest course would be to plan technological interventions to come on the understanding that the true intelligence of the Indian city will continue to reside where it always has: in the people who live and work in it, animate it and give it a voice.

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All India International Medical Sciences Hospital, New Delhi: People wait patiently as the queue stretches on

URBAN GOVERNANCE – AT WHAT SCALE?

Neil Brenner

The notion of urban governance generally refers to a specific spatial terrain (the bounded city, metropolis or region) which is thought to contain various regulatory problems (for instance, of economic development, housing, transportation, environmental relations and so forth) whose alleviation requires coordinated collective action. Today, however, the boundaries of that terrain – from city and suburb to metropolis, mega-city and metropolitan region – are being exploded. What, under these conditions, is the appropriate spatial terrain of "urban" governance?

Urbanisation, generalised

Settlement space has long been differentiated by place names, and it seems intuitive to demarcate the terrain of the urban, both historically and today, with reference to the world's great cities – London, New York, Shenzhen, Mumbai, Lagos and so forth. Even amidst the intense volatility associated with accelerated geo-economic restructuring, such places clearly do still exist, and in fact, their size and strategic economic importance appear to be growing, not diminishing. But what, exactly, *are* these places, aside from names on a map that have been institutionalised by governments and branded as investment locations by growth coalitions? What distinguishes them qualitatively from other places within and beyond, say, the South East of England and Western Europe; the US Northeast and North America; the Pearl River Delta and East Asia; Maharashtra and South Asia; or southern Nigeria and West Africa? Do they contain some special quality that makes them unique – their size, perhaps, or their population density? Their infrastructural outlays? Their strategic centrality in global flows of capital and labour? Or, on the other hand, have the socio-spatial relations of urbanism that were once apparently contained within these units now exploded haphazardly beyond them, via the ever-thickening commodity chains, infrastructural circuits, migration streams and circulatory-logistical networks that today crisscross the planet?

But if this is the case, can any city, whatever its size, still be said to have coherent boundaries? Have the everyday social relations, inter-firm networks, labour markets, built environments, infrastructural corridors and socio-environmental footprints associated with such densified clusters now been extended, thickened, superimposed and interwoven to forge what Jean Gottmann once vividly described as an "irregularly colloidal mixture of rural and suburban landscapes" on national, international, continental and even global scales?[1] And, to the degree that all this is indeed occurring, shouldn't inherited understandings of the urban as a distinctive, bounded settlement type be abandoned?

This was the position advanced by French socio-spatial theorist Henri Lefebvre over four decades ago, when he opened his classic text, *La révolution urbaine*, with the provocative hypothesis that "society has been completely urbanised."[2] Although he viewed complete urbanisation as a virtual object – an emergent condition rather than an actualised reality – Lefebvre suggested that the broad outlines of a complete formation of urbanisation were already coming into relief during the 1960s in Western Europe. When actualised on a planetary scale, Lefebvre suggested, such tendencies would entail a relentless, if fragmentary, interweaving of an urban fabric – a "net of uneven mesh" – across the entire world, including terrestrial surfaces, the oceans, the atmosphere and the subterranean, all of which would be ever more directly operationalised to support the voracious pursuit of capitalist industrial growth.[3]

When this "critical point" is reached, Lefebvre suggested, the condition of complete urbanisation would no longer be hypothetical; it would, rather, have become a basic parameter for planetary social and environmental relations, imposing new constraints upon the transformation of the global built environment and unleashing potentially catastrophic dangers, but also harbouring new opportunities for the democratic (re-)appropriation of space. In the late 1980s, Lefebvre suggested that the critical point of complete urbanisation had actually been crossed, and thus that a "planetarisation of the urban" was being realised in practice.[4] This planetary formation of urbanisation has been further consolidated since that time, and it has seriously blurred, even exploded, long-entrenched socio-spatial borders, not only between city and countryside, urban and rural, core and periphery, metropole and colony, society and nature, but also between the urban, regional, national and global scales themselves. Once understood as a relatively bounded, self-enclosed settlement space, the terrain of the urban has today become more ubiquitous, if also now more slippery, than ever.

Urbanisation's operational landscapes

In a collaborative project with Christian Schmid of the ETH-Zurich, I am exploring this emergent condition of generalised urbanisation in various regions and territories of the contemporary world.[5] Alongside its many methodological and empirical challenges, this endeavor has also required us to break quite radically with inherited assumptions regarding the spatiality of the urban, and thus to reconceptualise the imprint and operationality of urban processes on the planetary landscape. In the absence of this labour of *reconceptualisation*, we argue, our collective ability to understand, and thus to influence, the thickening worldwide urban fabric of early 21st century capitalism is seriously constrained.

Inherited approaches to urban knowledge have long demarcated their focal point for research and action with reference to *cities* – conceived as settlement types characterised by certain indicative features (such as large populations, density and social diversity) that are thought to make them qualitatively distinct from a non-city social world (suburban, rural and/or "natural") that is putatively located "beyond" or "outside" them. By contrast, our work builds upon some of Lefebvre's methods and concepts to supersede such understandings, and on this basis, to transcend the urban/non-urban divide that has long anchored the entire field of urban research and practice.

In pursuing these agendas, our claim is decidedly *not*, as some urbanists have occasionally proposed, that cities (or, more precisely, zones of agglomeration) are dissolving into a placeless society of global flows, borderless connectivity or haphazard spatial dispersal.[6] Nor do we suggest that population density, inter-firm clustering, agglomeration effects or infrastructural concentration – to name just a few of the conditions commonly associated with cityness – are no longer significant features in contemporary economy and society. But, in considering this assemblage of issues, we insist that "cities are just a form of urbanisation," and therefore must be understood as dynamically evolving sites, arenas and outcomes of broader processes of socio-spatial and socio-ecological transformation.[7]

But how, precisely, to theorise this process of urbanisation? The task poses considerable challenges because, in most accounts, the concept of urbanisation refers, *tout court*, to the process of city growth: it is circumscribed, by definition, to refer only to the growth of large, and perhaps dense or diverse, settlements, generally in conjunction with some of the other macro-trends of capitalist modernity. Although the origins of the concept of urbanisation may be traced to various strands of 19th and early 20th century social theory, this city-centric conceptualisation was paradigmatically embodied in sociologist Kingsley Davis' classic, mid-20th century definition of urbanisation as the expansion of the city-based population relative to the total national population. Rather than defining cities in social, morphological or functional terms, Davis famously used numerical population thresholds – generally 20,000 or 100,000 – to demarcate their specificity as settlement types.[8]

Davis' mid-century definition is today firmly institutionalised in the data collection systems that are still used by the United Nations (UN) and other global organisations, and it is also still rigidly entrenched within major strands of contemporary social science, urban planning, social policy and public health.[9] Indeed, it is precisely this empiricist, city-centric conceptualisation of urbanisation that underpins the hugely influential contemporary assertion that more than 50% of the world's population is now located in "cities."

Aside from its empirical blindspots, which are considerable given the non-standardised, nationally specific definitions of settlement types that are intermixed within the UN's global data tables, our work suggests that such a proposition is a quite misleading basis for understanding the contemporary global urban condition. It presupposes an ahistorical, population-centric concept of the city that does not adequately grasp the extraordinary scale and diversity of agglomeration processes that are currently unfolding across the major world-regions. Just as importantly, the notion of a 50% urban "threshold" fails to illuminate the wide-ranging impacts of urbanisation processes that are unfolding far beyond these large centres of agglomeration – including in zones of resource extraction, agro-industrial enclosure, logistics and communications infrastructure, tourism and waste disposal – which often traverse peripheral, remote and apparently "rural" or "natural" locations. While such operational landscapes may not contain the population densities, settlement properties, social fabric and infrastructural equipment that are commonly associated with cities, they have long played essential strategic roles in supporting the latter, whether by supplying raw materials, energy, water, food or labour, or through logistics, communications or waste-processing functions. Consideration of such issues also rather dramatically illustrates our contention that the terrain of urban governance must today be massively broadened, both in research and in practice, to consider not only cities and metropolitan regions, but their complex, evolving connections to the broader landscapes that support their everyday operations, developmental dynamics and metabolic processes.

Today, our research suggests, such landscapes are being comprehensively engineered or redesigned through a surge of infrastructural investments, enclosures and large-scale territorial planning strategies intended to support the accelerated growth and expansion of agglomerations and inter-urban systems around the world. Their developmental rhythms are thus being linked ever more directly to those of the major urban centres via worldwide spatial divisions of labour. Meanwhile, the continuing commodification, enclosure and socio-ecological degradation of such operational landscapes are directly contributing to the forms of mass dispossession and displacement that are too often uncritically catalogued or even celebrated in contemporary mainstream urban policy discourse under the rubric of modernising, "rural-to-urban" demographic change.[10] Consequently, if we do indeed currently live in an "urban age," this condition must be explored not only with reference to the formation of global cities or mega-city regions, but also considering the ongoing, if uneven, instrumentalisation of the entire planet – including terrestrial, subterranean, oceanic and atmospheric space – to support an accelerating, intensifying process of urban industrial development.

Insofar as the dominant model of capitalist urbanisation continues to be based upon the generalised extraction, production and consumption of fossil fuels, generally from remote zones located well beyond the major city centres, it is also directly implicated in a form of global ecological plunder that is permanently altering the earth's climate while infiltrating the earth's soils, oceans, rivers and atmosphere with unprecedented levels of pollution and toxic waste. Climate change and the transformation of the biosphere, then, are likewise connected directly to historical and contemporary urbanisation processes.

Towards urbanisation governance?

A new understanding of urbanisation is needed; one that explores the mutually recursive relations between agglomeration processes and their operational landscapes, including the forms of land-use intensification, logistical coordination and socio-metabolic transformation that accompany the latter at all spatial scales. In such an

approach, the development, intensification and worldwide expansion of capitalism produces a vast, variegated terrain of urbanised conditions that include yet progressively extend far beyond the zones of agglomeration that have long monopolised the attention of urban researchers.

Contemporary questions of "urban" governance must be correspondingly expanded – both analytically and spatially – to consider the challenges of coordinating such complex interconnections and, more generally, the intensely variegated, volatile and often destructive socio-environmental geographies of urbanisation. Of course, the classical question of the "growth of the city" remains as essential as ever to the politics of urban governance; municipal politics and inter-city coordination remain hugely consequential for social, political and economic life and environmental relations. But, under conditions of generalised urbanisation, the process of urban growth increasingly hinges upon a planet-encompassing operational landscape whose most minute contours and macro-environmental parameters are being powerfully transformed to support diverse forms of urbanism, often in quite distant locations and in lastingly destructive ways.

How are the connections between cities and their dispersed operational landscapes to be institutionally coordinated and environmentally managed, within and beyond national states and supranational regions? How might those systems of socio-economic, infrastructural and environmental interdependence, and their wide-ranging externalities, be reconfigured to create more socially just, democratically vibrant and ecologically viable regions, territories and landscapes? These macro-spatial questions are all-too-rarely explored by urbanists, but they today urgently require our systematic attention: the field of urban governance must be articulated to a much broader terrain of questions regarding large-scale socio-territorial organisation, infrastructural planning, environmental stewardship and democratic (re-)appropriation of the planetary commons. Under contemporary conditions, urban governance – or, more precisely, the governance of urbanisation – and the governance of the planet as a whole are not only inextricably intertwined with one another; they are identical.

1 Jean Gottmann, *Megalopolis* (Cambridge, Mass.: MIT Press, 1961), 5.
2 Henri Lefebvre, *The Urban Revolution*. Translated by Robert Bononno (Minneapolis: University of Minnesota Press, 2003 [1970]), 1.
3 Ibid., 1-23.
4 Henri Lefebvre, "Dissolving city, planetary metamorphosis," in Neil Brenner ed., *Implosions/Explosions: Towards a Study of Planetary Urbanization* (Berlin: Jovis, 2013), 566-571.
5 Neil Brenner ed., *Implosions/Explosions: Towards a Study of Planetary Urbanization* (Berlin: Jovis, 2013). See also the website of the Urban Theory Lab (Graduate School of Design, Harvard University): urbantheorylab.net.
6 The *locus classicus* of such arguments is Melvin Webber, "The post-city age," *Daedalus*, 94, 4 (1968), 1091-1110. See also Stephen Graham, "The end of geography or the explosion of place: conceptualizing space, place and information technology," *Progress in Human Geography*, 22, 2 (1998), 165-185.
7 Matthew Gandy, "Where does the city end?," in *Implosions/Explosions* (Berlin: Jovis, 2013), 86.
8 Kingsley Davis, "The Origins and Growth of Urbanization in the World," *American Journal of Sociology*, 60, 5 (1955) 429-437.
9 See Neil Brenner and Christian Schmid, "The 'urban age' in question," *International Journal of Urban and Regional Research*, 38, 3 (2014): 731-755.
10 See Timothy W. Luke, "Global Cities versus 'global cities': rethinking contemporary urbanism as public ecology," *Studies in Political Economy*, 70 (2003) 11-33.

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THE LAND QUESTION

Ananya Roy

"Land is not a problem," was the recent declaration of Mamata Banerjee, the fiery Chief Minister of the state of West Bengal in India.[1] Seeking to woo Singaporean investors, Banerjee described the availability of land banks in the state – "large parcels of undisputed land…readily available for investors."[2] Issued amidst the ruins of de-industrialisation, the confident declaration can be read as the fantasy, and urgency, of development. After all, what can de-industrialised metropolitan regions offer to global investors other than vast swathes of seemingly-empty land? Think Detroit.

In this brief commentary, I take a closer look at this vision of development and its fantasy that land is not a problem. I argue that it is precisely land that *is* a problem, and that disputes over land are central to the politics of urban transformations around the world, from Kolkata to Detroit. Closely entangled with the land question is what, in previous work, I have termed "urban informality": complex arrangements of tenure, ownership and shelter that cannot be easily converted into neat and tidy sales. Governing urban informality is thus tricky. On the one hand, such unsettled and unmapped land regimes present tremendous opportunity for powerful state action, notably evictions, dispossessions, and land grabs. On the other hand, such action can set in motion equally powerful social uprisings, or simply be confounded by the sheer inertia of urban informality. Let me return to the case of Kolkata to explain these points.

The land promised by one executive, the Chief Minister of West Bengal, to another, the Prime Minister of Singapore, is to be an industrial site. Billed as both "encroachment-free" and ready "right now" for the location of manufacturing industries, the site marks one of the many inter-Asian transactions through which a new era of modernisation, industrialisation, and urbanisation is being forged. It also marks some of the common problems that haunt such transnational alliances. For example, this particular plot of land, fantasized as empty of encroachers, and indeed of inhabitants, is one that has its share of squatters. Not surprisingly, these are labourers who migrated to the area from nearby villages to work on the various construction projects of the government. And despite the promise of readiness for global investment, there is little adequate infrastructure for industrialisation. To build such infrastructure requires not only substantial subsidies from the state but also the capacity to acquire land through eminent domain. Thus, while the Chief Minister states "I can give the land right now if someone wants it," in the lower ranks of the bureaucracy, a district official says this about the widening of the one narrow road that serves the region: "We'll need to acquire hundreds of acres of land as the road passes through many densely populated areas. Given the government's hands-off land policy, a four-lane road to the Goaltore plot is a distant dream."[3] The infrastructure problem, it turns out, is effectively a land problem.

This land problem came to a head in West Bengal a few years ago as spectacular protests erupted over the state's acquisition of land for purposes of industrialisation and urbanisation. Condensing at key sites of struggle, such as the now-abandoned Tata Nanocar factory at Singur and the village of Nandigram, which had been slated to be a special economic zone, these mobilisations toppled the government, at that time led by the Left Front, and blockaded these strategies of development. Indeed, Mamata Banerjee was elected to office as a part of such sweeping political transformations. She came to be known for her fierce opposition to the land question as framed by the government. This framing presented land acquisition as a matter of public purpose. In defending industrial enclaves and special economic zones, the Minister of Industries for West Bengal justified this public purpose thus: "If a particular industry wants a big chunk of land in a contiguous area for setting up a large plant there, it is not possible for the industry to purchase land from each and every farmer, particularly in West Bengal where fragmentation of land is very high …will the State government not acquire it for the project? And, of course, it is a public purpose. Industrialisation means employment generation, it means the development of society; the entire people of the State will be benefited."[4] In the bitter struggles that ensued at Singur and Nandigram, the "State" enforced such public purpose with unchecked violence, thereby writing its own political death sentence. The protest movements created a very different narrative about land. At the Singur public hearings that were held in 2006, activists presented "project-affected" men and women as "landholders, … sharecroppers,…agricultural laborers,… artisans, and small traders." They argued that "the project cannot be more important than agriculture," that industry cannot replace a fertile, irrigated tract of multi-cropping, that it must instead utilise vacant "wastelands" of abandoned factories. Theirs was a claim to the "right to life" and to the agrarian settings that were seen to constitute the "natural environment" for such life.[5] It is in the context of such struggles that Mamata Banerjee forged her political slogan steeped in populism and peasantry: "Ma Mati Manush" (Mother, Motherland, the People). The land question, which she had once adeptly demonstrated to be a vitally important political problem, is now her governance problem.

The troubles of West Bengal may seem to be a parochial story. Yet, I present it here as a paradigmatic story of the urban century. The land question has always been central to urban transformation. Processes of enclosure, gentrification, zoning, eminent domain, are all key elements of urban governance. Such governance is not simply a matter of land use – i.e. where urban functions are to be located – but rather it is fundamentally a matter of redistribution; who owns and claims what, and through what means of power. What defines the present historical moment is that urbanisation is rapidly unfolding in the global South. Here, significant portions of land exist in the unsettled and unmapped conditions that I call urban informality. Often urban informality is associated with iconic spaces of poverty: slums, squatter settlements, *favelas*. But as my long-standing research on the topic has shown, urban informality far exceeds such bounded spaces. I am particularly interested in the landscapes of urban informality that are produced at the interface of urban and rural lands. Here, at the edges of metropolitan regions, we find a patchwork of laws and regulations which collide and collude to create volatile frontiers of land speculation, including the types of speculation by the state that is evident in Banerjee's fantasy of development. Michael Goldman, in his insightful work on the Bangalore metropolitan region, has appropriately dubbed this "speculative urbanism."[6] In the interstices of these frontiers, the rural-urban poor eke out inhabitation, or what the Indian courts prefer to call encroachment. But in fact the dominant form of urbanisation in such spaces is elite informality. From the luxurious farmhouses on the outskirts of Delhi to the new towns on the periphery of Kolkata, expressions of elite informality abound in Indian cities and indeed in many cities of the global South. Of course, it is the state that often determines what is informal and what is not, thus allowing elite forms of such informality to function legally as appendages of agrarian land laws, while squatter settlements are criminalised and demolished. Thus, to consider the relationship between urban informality and urban governance, we have to consider how the state itself deploys informalisation as a means of managing the land question. In doing so, it produces an urban space of tremendous differentiation and variegation. That splintering does not take place at the fissure between formality and informality but rather in a fractal fashion, *within* the informalised production of space, often between elite informalities and subaltern informalities.

But the land struggles of the 21st century indicate the limits of these urban governance strategies. Public purpose, as asserted by the state, has turned out to be an insufficient basis for securing consent to land acquisitions. Global investment, propped up by what Neil Smith once called "geobribes,"[7] has turned out to be scant in its capacity to ease the problems of joblessness, poverty, and deprivation. In such a context, the land question remains at the very heart of today's urban transformations. Contrary to Chief Minister Banerjee's declaration, land is a problem.

1 Sarkar, P. and N. Jana, "Postcards for Goaltore" *Telegraph,* September 2014
2 Mukherji, U.P., "Land No Hurdle" *Times of India,* August 2014
3 Sarkar, P. and N. Jana, ibid.
4 Chattopadhyay, S., "Land Reform Not an End in Itself: Interview with Nirupam Sen" *Frontline 23*, no.25, December 2006.
5 Kumar, A. et al. 2006. "Public Hearing, Singur."
6 Goldman, M., "Speculating on the Next World City" in A. Roy & A. Ong, eds. *Worlding Cities: Asian Experiments and the Art of Being Global.* Wiley Blackwell (2011).
7 Smith, N., "New Globalism, New Urbanism: Gentrification as Global Urban Strategy" Antipode 34:3, 2002.

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WHO DECIDES WHO DECIDES

Gerald Frug

People often think of city governance in terms of local democracy: the goal is to make city officials more responsive to the local population. In the United States, this certainly is one of the issues that needs addressing. But it is not the whole story – indeed, it is less than half the story. It fails to mention that the design of city governance is not in the hands of local residents or city officials. It is the product of state law – the product, that is, of decisions made by each of the fifty states that make up the United States. Sometimes states allocate power to city governments in a way that requires them to provide for public participation in decision-making and accountability to local citizens. But sometimes states seek instead to ensure that public decision-making is accountable not to local residents but to the state itself. This dual focus of the structure of city government – sometimes responsive to local will, sometimes responsive to state policy – is a fundamental ingredient of city governance in the United States. It cannot be overcome – and should not be overcome – by choosing one perspective over the other. Local responsiveness is sometimes undesirable, and so is state policy. Instead, the primary task of city governance reform in the United States is to redesign this dual focus to better align state policy with the exercise of decentralised power.

This essay will suggest one possible such redesign. But before turning to the suggestion, it is important to better understand the current system – the system that needs to be redesigned. Let's start with the ways in which state policy, rather than local responsiveness, guides local decision-making. First of all, states have delegated a substantial portion of decision-making on local issues not to democratically-elected city governments but to state-run public authorities. These authorities – such as the Massachusetts Bay Transportation Authority, New York State's Empire State Development, and the Oregon Department of Environmental Quality – make decisions about transportation in Boston, economic development in New York, and environmental protection in Portland without the participation of local citizens or city governments. Other issues – the design of local finance and the regulation of private economic decision-making, to name but two – are normally decided by state governments themselves without city input. It is simply a mistake to think of local decision-making as being largely in the hands of local citizens and their elected city government. Alongside words like participation, transparency, and accountability, one needs to add to the vocabulary of city governance another much less familiar but no less important word: preemption. The doctrine of preemption provides that once state policy is set on a particular issue, city decision-making on that issue cannot contradict it. Indeed, states can determine city policy not just expressly but by implication – an extensive state law regime is interpreted to mean that no city role is allowed on the issue at all.

Why would the state make policy in this way? One reason is local parochialism. Any city decision – and I mean any – has an effect not only on insiders but on neighbouring jurisdictions. Decisions about transportation, economic development, the environment, crime, housing, zoning, education – you name it – all of these issues have inter-local effects. Worse still, the way that the states have empowered cities in the United States fosters this parochialism. The current structure encourages cities to compete with each other for revenue, economic development, and high-income residents. As a result, cities all too often favour themselves over outsiders. Not always. Just too often. For that reason, someone – and the state and state-created authorities are the usual choice – has to look out for outsiders. Another reason states over-ride local decision-making is that cities sometimes make decisions that disadvantage a portion of their own population. Think, for example, about the cities that have sought to harass recent immigrants rather than to attract them. It's not surprising that many people want state or federal policy to preempt these kinds of actions. There are many other reasons justifying state control as well: local corruption, local favouritism to powerful interests, even sheer incompetence. Romanticising local decision-making is not a good idea.

And yet, local democracy is a vital form of human freedom. Cities ought to be able to make policies that improve the lives of their own citizens. Why, after all, do we elect local officials? People favour decentralisation because local democracy seems more meaningful – closer to the people affected – than state or national democracy. Popular participation is possible on the local level in ways that don't exist for more centralised governments. Moreover, tailoring decision-making to the circumstances of individual cities often makes sense: the minimum wage in big cities should be different than in the countryside. Besides, there's no reason to think that the states themselves don't suffer from the same kinds of defects as cities. They too can favour themselves (or their favoured constituents) over others; they too can threaten the lives of immigrants; they too can be overtaken by corruption and incompetence. For these kinds of reasons, among others, states should delegate a portion of decision-making power to cities. And they do.

The city governance problem in the United States is that both positions just outlined – for state power and for local power – are correct. Yet they contradict each other. The governance problem, then, is to figure out how to deal with this contradiction. Most of the fashionable ideas one hears repeated over and over again at urban conferences do not address this problem. Some people, for example, want to talk about goverNANCE, as opposed to governMENT, as if the inclusion of "stakeholders" in decision-making will lead to better outcomes. But who are these stakeholders – and at what level of government do they operate? One worries that the answer is that they are powerful business interests and selected civic organisations – groups that have no vote in a democracy but want more influence over it – and that they operate at whatever level of government seems most amenable to their influence. Other people talk not about "stakeholders" but about "the community." This term shifts the focus to groups smaller than the city at large: neighbourhood groups are a prime example. From this perspective, the city is simply another form of a centralised government. Empowering neighbourhood groups, however, reproduces the central-local contradiction at another level. Who represents the "community"? What are its boundaries? And when should it, rather than the larger polity, make decisions? Certainly not always. The list of ideas that restate the state power vs. city power contradiction is too long to elaborate further here. But don't get me wrong: of course the government needs to work with the private sector when formulating public policy. Of course community involvement is an essential ingredient in a democracy. I'm trying to raise a more fundamental question. It's not just the need to determine whether the state, a public authority, the city, stakeholders, or the community should decide what any particular local policy should be. The more basic question is: who decides who decides? Who has the power to allocate decision-making authority?

In the United States, the answer to these questions is clear: the state government decides. The problem posed by this answer for cities is that they have no role in the decision-making on this critical issue. One might have hoped that the election of state legislators from locally-drawn election districts would have given localities a role in this decision, but it hasn't worked out that way. Cities are not represented in the legislature. Election districts divide cities and combine them. Moreover, elected officials at the state level are much more attuned to political party discipline than they are to local voices. And executive officials, like the governor, think of themselves as representing the state as a whole, an attitude that often means over-riding local concerns. Local mayors have become just another group of lobbyists – and not the most powerful group of lobbyists (money talks louder). It is not enough for cities to wrest decision-making authority from state control on particular issues one by one. They need to be involved in decision-making about how governmental power is structured – on the role of cities, as distinguished from the alternatives, in city governance. If cities are not part of this process, decentralisation will always be in jeopardy.

It is difficult to see how such a reform can be accomplished at the state level in the United States. It would require state legislators to approve a reform which could put all of them out of office. Moreover, the federal government does not have the authority to overcome their resistance. (Perhaps elsewhere this problem could be overcome.) I have suggested in other work that the better approach in the United States would be to shift the power to allocate decision-making authority from the state to a new kind of regional institution. One often hears these days that the "real" city has already become the metropolitan area, and that the individual cities no longer matter. This simply isn't true as a governance matter in the United States. (Portland, Oregon and a few other cities are the rare exceptions.) Decision-making is now in the hands of whomever the state government selects, and that has normally meant the state government itself, public authorities, or cities. Regions do not make policy in the United States. To empower a new regional institution, however, it has to be carefully designed. It cannot simply be another form of centralised government. There is no support in the United States for yet another institution that can undermine local decision-making. The goal should not be to limit the power of cities but to increase it.

What this means is that the regional institution should be a forum for collective decision-making by the region's cities. Every city in the region should be represented (with votes weighted by population), and the decisions they collectively make about the allocation of power should be decisive. One should note that this is not a call for city autonomy. No city, acting alone, will have authority over an issue unless the cities collectively agree that it should. In this way, the regional organisation can help overcome the parochialism that now undermines efforts to decentralise power. Neighbouring cities affected by any decentralised decision would be part of the decision-making process: they can make sure the allocation of power takes their interests into account. The key difference for city power in this proposal lies in the fact that cities – if they work together – will be able to design the decentralised system. Since cities are likely to agree on one important issue – the need to decentralise power – I expect that they will try to achieve this goal. To be sure, there are countless issues that need to be worked out in setting up such an institution: how to organise it democratically given the different size of cities; what the voting rules should be (unanimity is not to be expected); where to draw the regional boundary line; how to protect smaller jurisdictions from control by larger ones. And, of course, there is the question of how one persuades the state government to create such an institution. (In the United States, a majority of the population in most states lives in metropolitan regions. If the region's cities worked together, rather than against each other, they could control the state as it is currently organised.) Given space constraints, I cannot explore these details here. (For more, see Gerald Frug and David Barron, *City Bound: How States Stifle Urban Innovation*.)

Empowering cities to control the allocation of decision-making power is not the only item on the reform agenda for city governance. As mentioned at the outset of this essay, there is also the question of how to make city officials themselves more responsive to the local population. This problem has many dimensions: at large elections versus district elections; the power of the mayor versus the power of the city council; enabling long-term decision-making when local officials come and go every four years. These issues are debated now. But they become even more pressing if cities are "at the table" when "who decides" is on the agenda.

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UNDERPOWERED CITIES

Tim Moonen, Emily Moir & Greg Clark

After a decline in the perceived importance of leadership and governance in cities, the last 30 years have seen important efforts to re-organise effectively for an urban age, especially in Europe and other OECD countries. Awareness of governance gaps and deficits has increased and a realisation that sectoral policies and regulations alone do not produce great cities has emerged. The profile of city leaders has grown, and governance systems are being reformed and upgraded, as city mayors lead substantive processes of invention and innovation.

It falls to city *leaders* to ensure that urbanisation is harnessed as a catalyst for positive change. However, as global challenges have accelerated and intensified, many formal city leaders – local government, mayors, councils, and other appointed city level authorities – have found themselves under-powered, as city governance reform has not kept pace with the demands made upon cities. In other words, most cities face substantial governance and investment deficits.

Cities around the world are trying to overcome these deficits in different ways. In some cases, higher tiers of government *are* giving cities more formal power, larger boundaries, greater access to fiscal resources, and more stable and capable institutions. But these cases are rare, and in most cities we have only seen a partial response in terms of empowering city leaders. Despite rhetoric about the rise of 'city-states', this metaphor refers much more accurately to the trading roles of cities rather than a substantial increase in the autonomy of their governments. In fact most cities are not city 'states' but rather city nodes and city markets, lacking any government functions akin to a state.

Official city leaders (mayors, governors, managers and others appointed by city or national level authorities) form the bedrock of urban governance systems. In some cities, such as New York, Chicago, Seoul and Tel Aviv, these leaders have 'strong' powers that almost resemble a 'City CEO', able to prepare budgets, veto legislation and make appointments to influential boards. At the other end of the spectrum, mayors in many Australian and Indian cities play an almost ceremonial role. Most city leaders have 'weak' formal powers and must rely on influence, negotiation and networks to build and deliver a political programme.

The last 25 years have seen a surge in popular demand for directly elected, transparent and accountable city mayors. In Europe alone, cities in Germany, Italy, Poland, Austria, Belgium, Norway, Hungary, Portugal and the United Kingdom have all introduced directly elected mayors in some or all of their cities. They were joined by Lithuania as recently as June this year. Public confidence in mayors has grown, especially in countries such as Italy, where the 1993 reform allowed visionary mayors such as Torino's Valentino Castellani to build a transformative agenda for struggling industrial cities. Around Europe, the mayoral model has become a major driver of political devolution from central and provincial governments.

In the USA, confidence in city mayors has returned after the pioneering successes of Richard Daley, Thomas Menino and Michael Bloomberg in Chicago, Boston and New York, who all proved that big, racially diverse American cities could achieve sound fiscal management, steady stewardship and urban revitalisation. Meanwhile, many Latin American cities have also established elected city leadership as part of the continent's wave of democratisation in the 1980s and 1990s.

Political machinations mean that direct election has not worked for every city, and change has not been a one-way street. In 2014, in the Indian State of Rajasthan cities reverted to mayoral appointments via their councils after five years of protracted political conflict among urban bodies. Central governments are also reluctant to concede powers permanently, as shown by the Russian government's recent decision to abolish directly elected mayors in favour of appointed city managers. The mayoral system is not a one-size-fits-all solution that suits every political context.

The challenges facing city leaders can be compounded by the governance context within which their city is embedded. Many city leaders work within parameters which provide them with insufficient formal authority to meet the challenges their city faces. These include:

- Low levels of autonomy – Almost all cities (with the exception of a handful of the more empowered 'city states' such as Singapore, Hong Kong, Berlin) are supervised through national and /or state systems. They operate within these parameters with insufficient powers to be able to implement the policies their cities need. Even in federal systems, governing powers often remain concentrated at the state or provincial level, with little devolution to individual cities.

- Fragmented governance – Many national systems, and metropolitan areas, have too many local governments, operating with limited coordination, weak competences and powers, and within fragmented governance systems. As a result, cities are often burdened with a complex mesh of local governments combined with national and subnational bodies, all with different political leadership and reporting mechanisms.

- Short-termism – the big challenges that cities face require continuous action through several cycles of development and investment. But the majority of local governance systems provide city leaders with mandates that span somewhere between one and five years. In the US for example, the most common mayoral term is four years. Mayors in Morocco, France and South Africa are outliers who benefit from an unusually long term of six years, and in some German states a mayors' term of office can last as long as nine years. Conversely, in India and Guyana, mayors are restricted to a one year (renewable) term.

- Lack of national support for urban agendas – relatively few national governments have specific national urban policies. Most national governments operate with strong sectoral ministries that fail to embrace spatial and territorial issues, such as cities, metropolitan areas, or functional regions. Many sector policies and regulatory frameworks unintentionally incentivise poor urban development and sprawl. Where national governments do focus on urban issues, policies have traditionally concentrated on the problems of urbanisation and (in the Western world) de-industrialisation, constraining city leaders' ability to bring about positive change.

- Fiscal and financial deficits – Many cities lack the fiscal resources to invest in the infrastructure required for long-term growth, and operate within a sub-optimal low-investment–low-return equilibrium. Cities which lack a degree of fiscal autonomy are generally compelled to petition higher tiers of government to win backing for trophy projects, and must compete with other jurisdictions for sources of revenue. Grants from national government often come 'with strings attached' – requiring money to be spent within a certain time period or in a specific way (and often resulting in privatisation of infrastructure and service delivery).

- City-region governance deficits – Increasingly, cities have grown beyond their historic political and electoral boundaries, meaning the functional city region is often governed by multiple local government players. Higher tiers of government are slow to adjust city boundaries to take account of growth, and as a result proliferation occurs, often with stark social conditions emerging in multiple neighbouring municipalities. The amalgamation of local governments or redrawing of boundaries is rarely attempted by state and national governments as these exercises are politically unpopular and involve substantial adjustment costs and/or political capital.

As a result of these deficits faced by city leaders, governance innovation is becoming increasingly important. The importance of elected mayors has been pivotal to raising awareness about the needs of cities in a competitive economy. But mayors are by no means the only leaders steering cities into the future. The historic roles of formal city government have gradually become more distributed, incorporating many other organisations, delivery authorities, institutions, formal and informal bodies. Amongst these, business leadership groups like London First, Bombay First, New York City Partnership and the Committee for Melbourne have become increasingly influential in guiding and advocating for city development. Initially involved in partnerships for specific urban renewal projects, these bodies have gradually come to take on broader roles in strategic alliance with civic groups and government.

Civic leaders outside the formal structures of government have also retained a role in city governance, especially when they have amalgamated into strong and purposeful collective organisations. Over the last decade, groups such as Greater Toronto's CivicAction have successfully advocated for regional transport, sustainability, and immigrant integration. In many developing cities, civic organisations have been champions of political reform and social mobilisation, resulting in democratic innovations such as Brazil's City Statute that enshrine the involvement of civil society, churches and unions in urban policy. The roles of business and civic leadership in cities are an indication of how city governance has become something of a multilateral 'public-private partnership' of its own.

The task of governing large cities extends beyond historic administrative boundaries that now tend to be dwarfed by the size of the functional economic region. The 'real' geography of cities typically encompasses many smaller local governments and municipalities, with localised concerns. This means that a critical challenge for urban governance in the past 20 years has been to move towards a coherent, integrated approach to development, services and financing, and to overcome a culture of competition and duplication. In a small number of cases, state or national governments have redrawn old geographical borders to cover a much wider territory, in order to adjust to spatial changes or to prepare for future growth. Chongqing and, recently, Moscow are examples of places where city borders have been significantly altered to prepare for a future as a megacity. More commonly, a period of inter-municipal collaboration has paved the way for the successful consolidation of local councils into either a single-tier (e.g. Auckland in 2010) or a two-tier (e.g. London in 2000) system of governance. In other cases, such as Mumbai and Manila, a metropolitan development authority has been created to provide planning and project management.

The last generation has seen urban governance systems adapt to coordinate more actors in pursuit of delivering better services and implementing policy and strategy more effectively. The sources of political 'power' have become more diffuse, but city leaders, and especially elected mayors, have nevertheless gained more substantive capacities, higher profiles, and the ability to bypass national systems to network globally. Yet the devolution of formal political, fiscal and financial powers has tended to lag behind the evolving needs of metropolitan regions. Cities of all sizes have become more engaged in dialogue with their central governments about their longer-term infrastructure and investment needs. The new cycle of urbanisation, metropolitanisation, and re-urbanisation can expect to see two major efforts sustained. Firstly, coalitions for the reform of city and metropolitan governance will grow, with city mayors and business leaders mounting sustained pressure on higher tiers of government to regulate and legitimise metropolitan leadership. Secondly, continued innovation in investment and management tools by mayors will be encouraged through enhanced international networking and exchange. These efforts may go some way to rebalancing the future of our underpowered cities.

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DATA

The information on the following pages summarises some of the research that is currently being developed by LSE Cities as part of its urban governance workstream. It brings together data and evidence from the Urban Age research programme and LSE Cities' recently launched 'New Urban Governance' project, supported by the MacArthur Foundation. It provides a global overview of contemporary urban development and illustrates critical urban governance dynamics cutting across the differences in urban settlement patterns, urban governance geographies and governance indicators. More detailed city-specific analysis is presented for four case study cities which, over the last decades, have been particularly relevant cases for understanding institutional arrangements and change at the city and metropolitan level. These case study cities are Delhi, Tokyo, London and Bogotá, and the analysis cuts across the cities' systems of government, their urban expansion and the evolution of their administrative areas, and the governance of their transport infrastructures.

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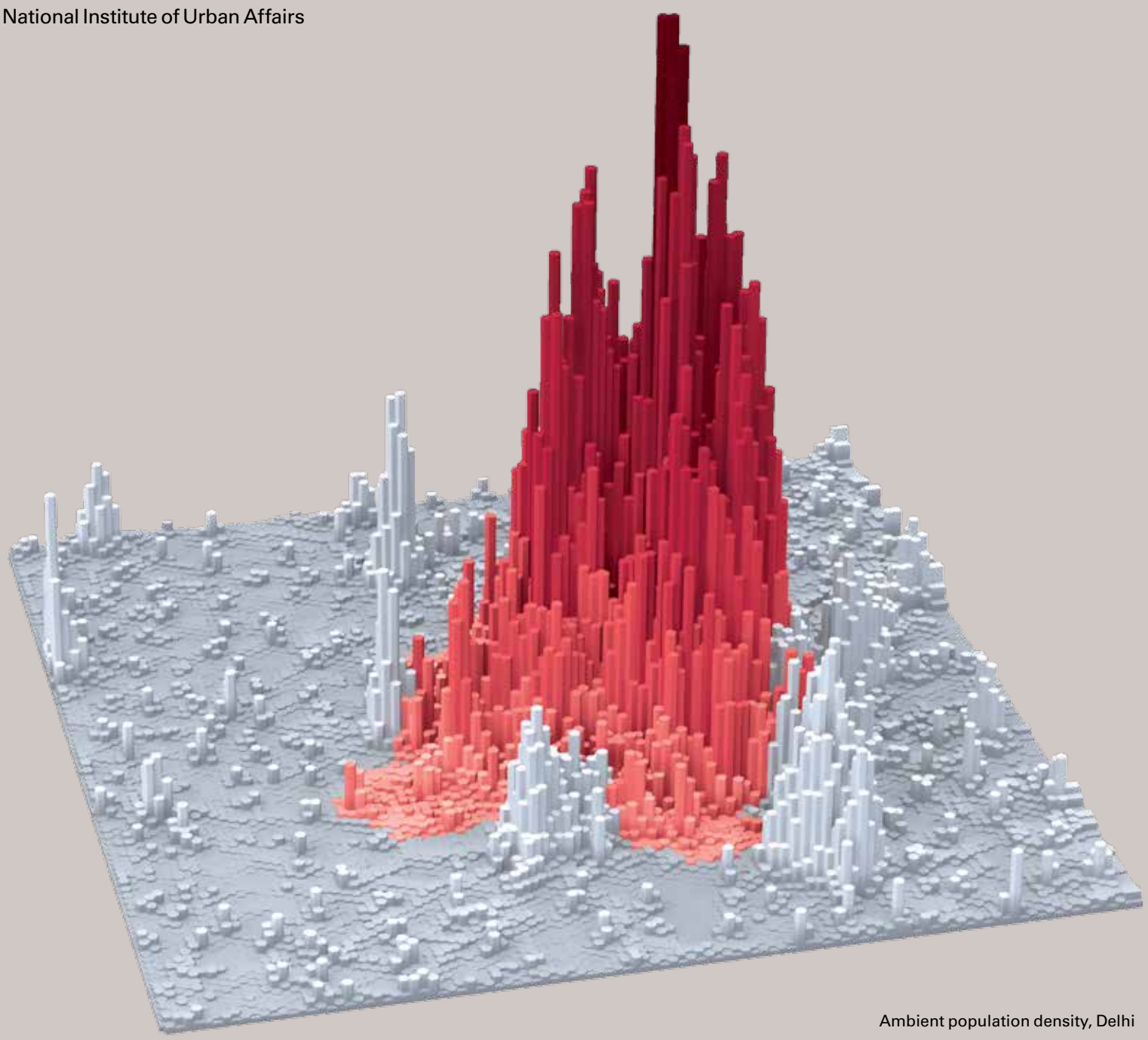
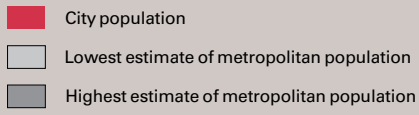


Ambient population density, Delhi

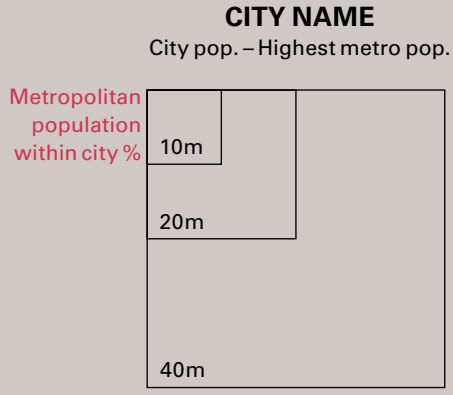
GOVERNING CITY POPULATIONS



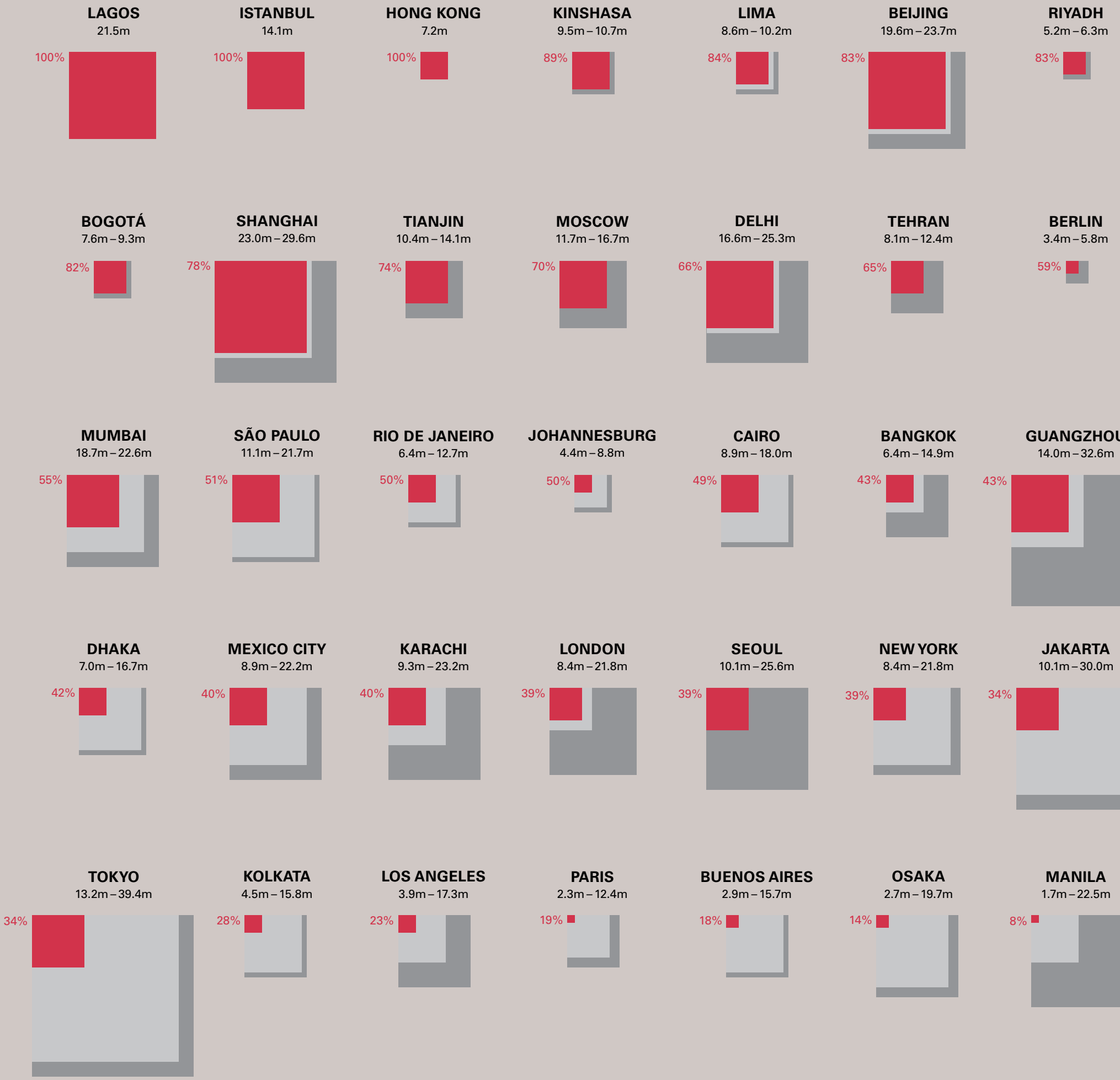
Current debates about the efficiency of urban governance gravitate around the 'fit' between the size of the administrative boundary controlled by a city mayor or governor, and the extent of the 'wider functional metropolitan' area. On balance, the closer the 'fit' between the number of people living within the administrative boundaries of the city and the overall metropolitan population, the more likely it is that the governance of the metropolitan region will be more effectively managed.

The diagrams on this page compare the number of people who live within the administrative boundaries of 35 selected cities to the population of the wider metropolitan areas, or 'functional regions'. Since the estimates for these metropolitan populations can vary considerably, the lowest and highest estimates have been included alongside the number of people living within the city boundary. The percentage expresses the proportion of the metropolitan population who live within the jurisdiction of the city authorities. At one extreme, only 8% of Manila's estimated 22.5 million metropolitan dwellers live under the control of the Mayor of Manila, while at the other, 100% of the estimated 21.5 million people living in Lagos fall under the jurisdiction of the Governor of Lagos. In fact Lagos, Istanbul and Shanghai have adjusted their administrative boundaries to bring the entire metropolitan population under a single jurisdiction. By contrast, the Mayor of Tehran has jurisdiction over 65% of the 12.4m inhabitants living in the metropolitan hinterland around the capital of Iran.

While 8.4m Londoners have been governed by a directly elected mayor since 2000, they still only represent 39% of the number of people who make up the more extensive economic region of the South-East of England, which contains 21.8 million. Similarly, the Governor of Tokyo is responsible for only 34% of what today is still one of the largest metropolitan agglomerations on the world with nearly 40 million inhabitants.



The diagrams also reveal the wide variations that exist, especially in rapidly changing urban regions, in defining precisely the exact numbers of people who live within the metropolitan areas. In Delhi or Jakarta, for example, estimates vary by several million inhabitants.



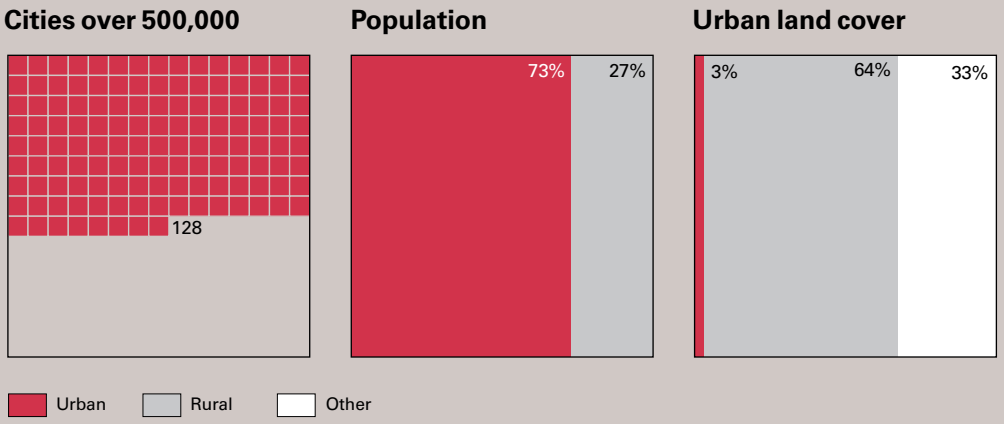
Based on analysis conducted by LSE Cities: for a full range of sources, please see http://delhi2014.lsecities.net/newspaper/

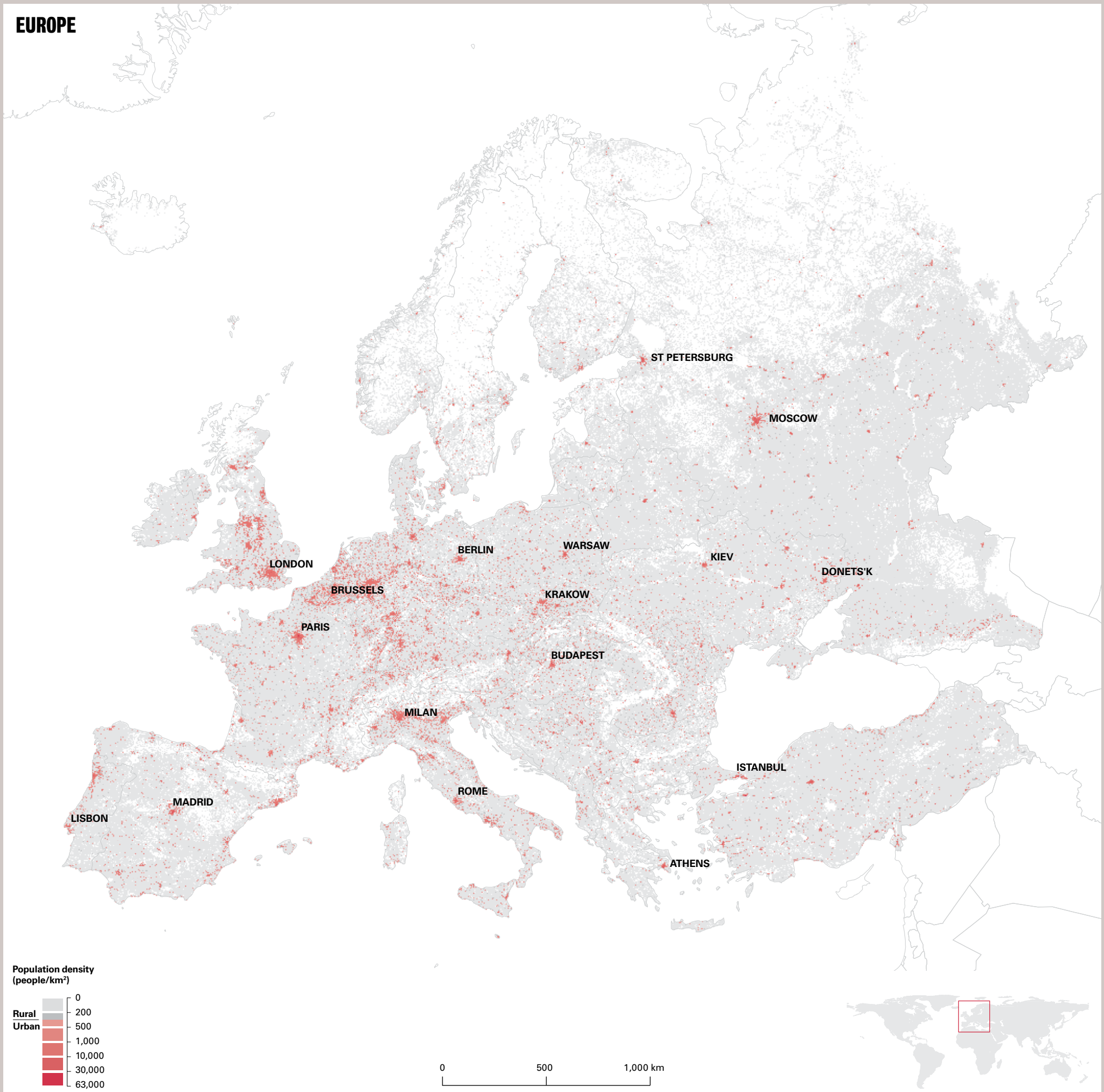
WHERE WE LIVE

Patterns of urbanisation are usually captured by a key demographic indicator – the Urbanisation Index – that tells us, for example, that Europe, South and North America are the most urbanised continents on the globe, with 73%, 83% and 82% of people respectively living in cities, towns and other urban settlements; while Africa is around 40% and Asia 48%, and growing. What these figures disguise is an inconsistency in methodology as to what is considered urban and what is considered rural by the public authorities that collect data in the different nations and regions of the world.

LSE Cities has developed a simple yet innovative methodology to try to capture the subtle variations in patterns of urban and rural habitats amongst four regions of the world: Europe, India, Sub-Saharan Africa and China. The maps displayed on the following pages are based on the combination of two datasets: the urbanisation level for each world region/ country published in the UN DESA World Urbanisation Prospect, and the ambient population density drawn from LandScan 2010 data, which assigns for each square kilometre of the world's land surface a figure which is equivalent to its average population over a 24-hour period.

EUROPE



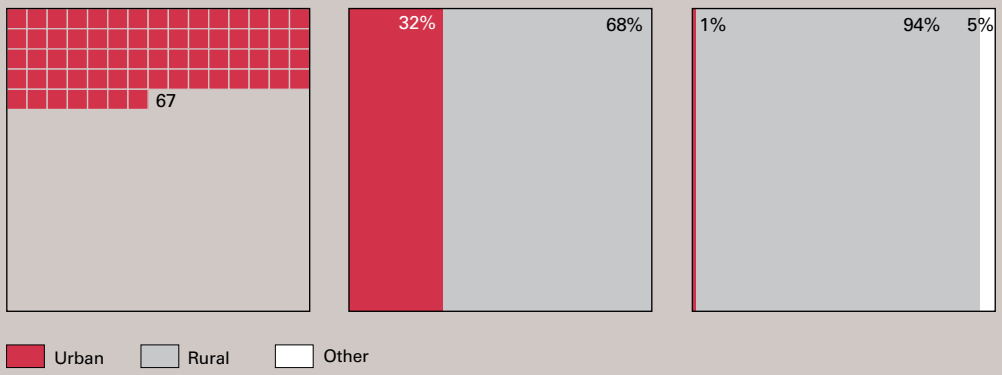


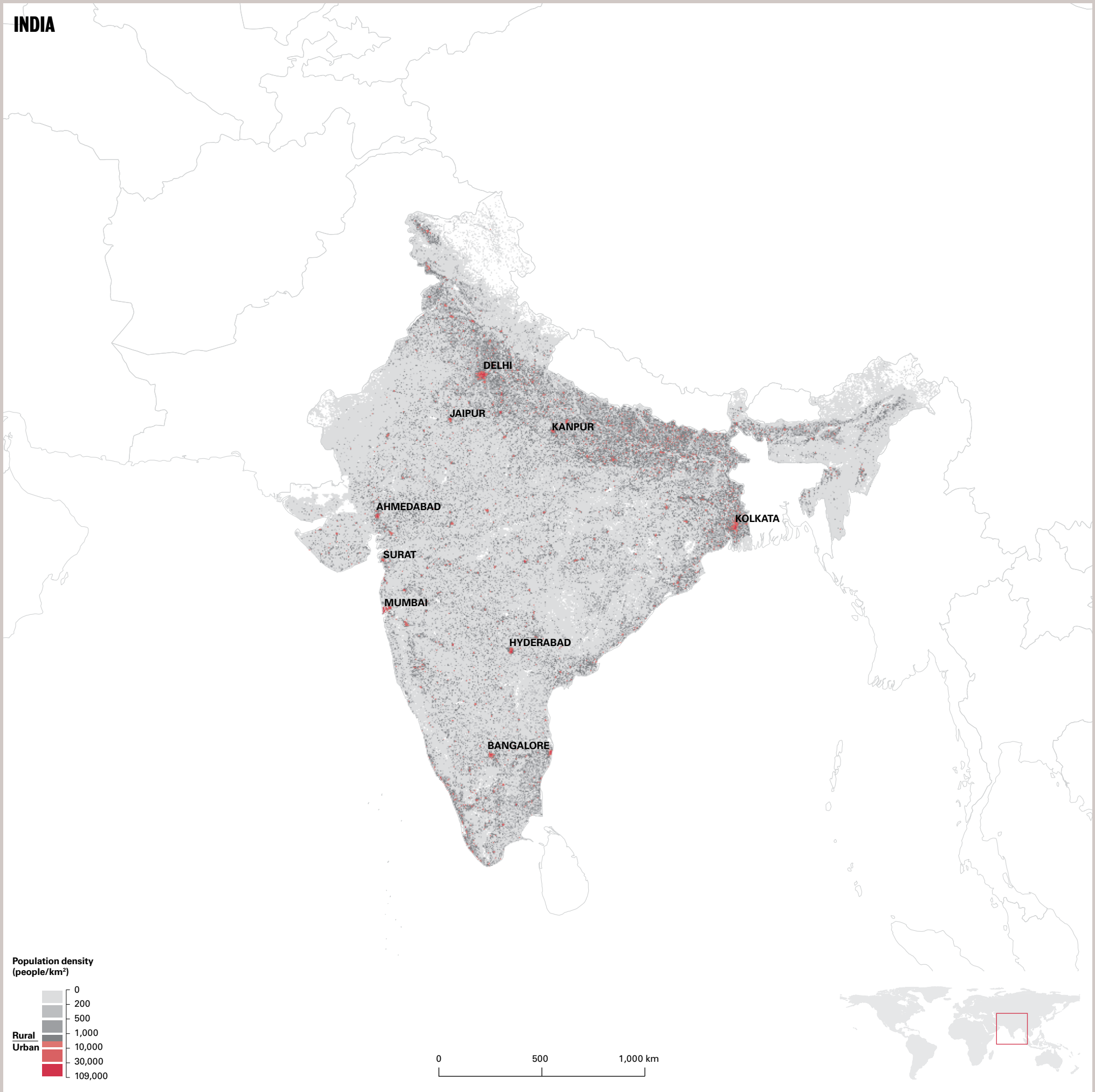
Based on LandScan 2010™ High Resolution Global Population Data Set

In these maps, different land 'parcels' are assigned the 'urban' (red) or 'rural' (grey) category on the basis of the threshold level of ambient population density – which differs from region to region, and nation to nation – for which the total population of all land parcels above that density equates to the total urban population in each region. For example, while the density threshold in Europe is relatively low at 314 people/km^2, in India the threshold is much higher at 4,128 people/km^2. The innovative dimension of the mapping technique is to base the distribution of rural/urban areas on ambient population density (rather than local or regional designations), providing a more universal parameter to compare the distinct distribution of urban and rural settlements while taking account of regional differences in urbanisation levels.

In Europe, there is a more decentralised form of urbanisation that reflects the culture, history and geography of the region. Even though 73% of Europeans live in urban areas – the most urbanised of the four global regions – the urbanisation density threshold is low, meaning that areas with more than 314 people/km^2 are considered urban, contrasting with India where this threshold is over ten times higher. Europe's urban residents occupy just 3% of the total land area of the geographic

INDIA



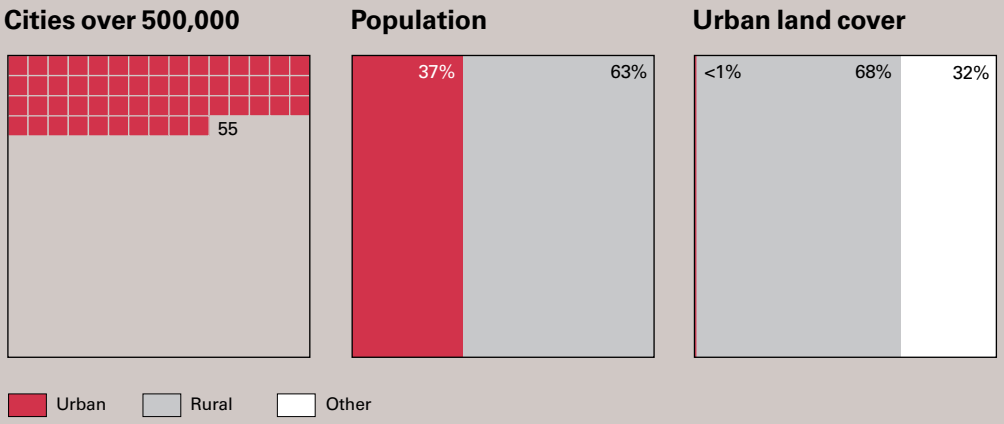


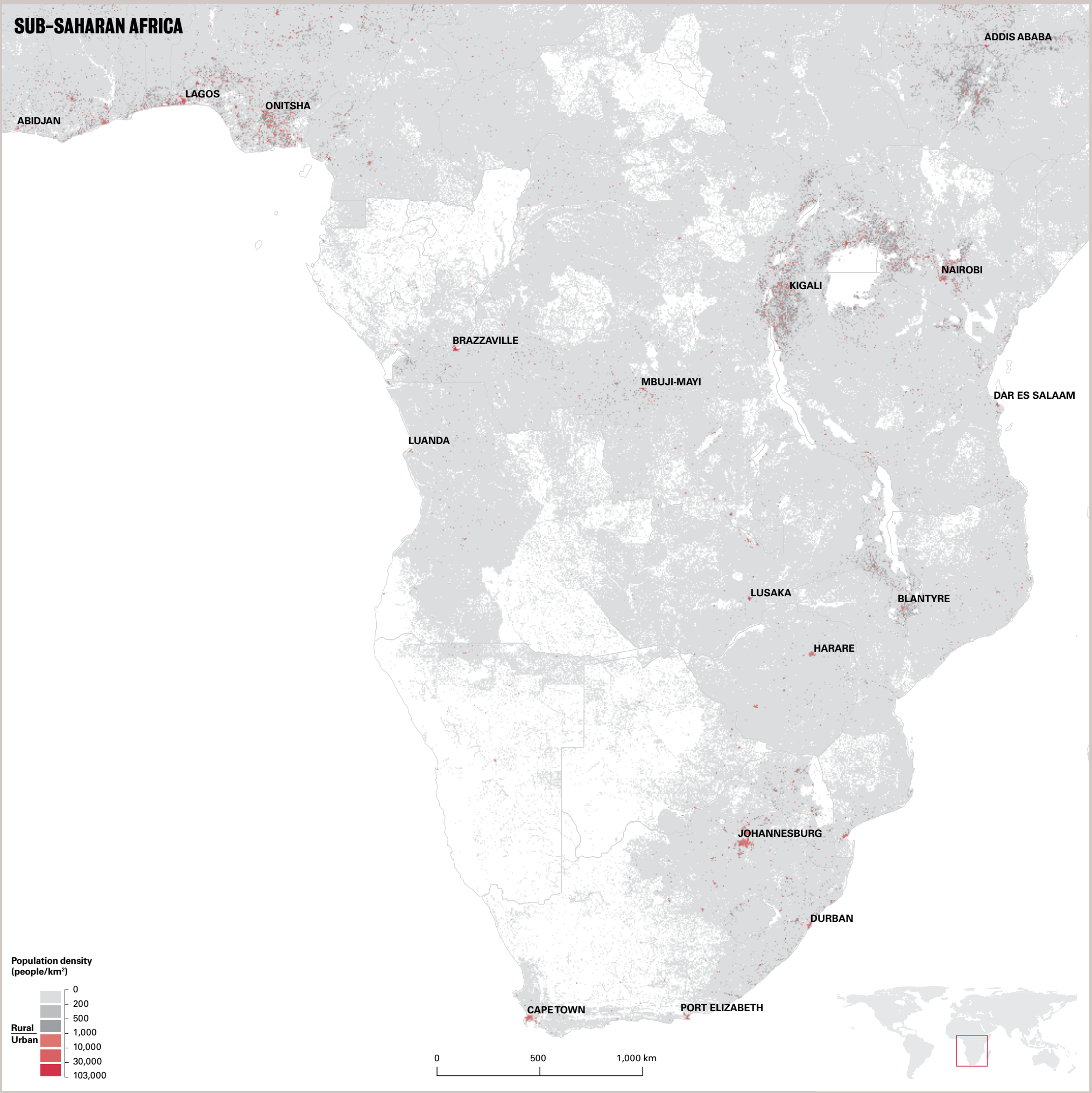
region, and a third of the total land area remains unpopulated (shown in white on the maps) consisting mostly of large bodies of water and mountains. It also contains a greater number of cities with over 500,000 people (128) with a very large number of highly-connected smaller cities and towns across parts of Germany, the Netherlands and Benelux countries, and Northern Italy.

India stands out for the far higher population densities in rural areas across vast territories such as the Ganga valley, as well as the emerging presence of large cities like Calcutta, Hyderabad, Bangalore Mumbai and Delhi. The dark grey areas in Northern India reflect the preponderance of high-density rural areas which, by European standards, would be considered urban. While India has an urbanisation level of 32% , its urban areas represent only 1% of the total land surface of the country, but only 5% of the country is unpopulated – a much lower percentage the other three global regions. In India, the urbanisation density threshold is by far the highest of the four regions, at 4,128 people/km^2.

Sub-Saharan Africa is by far the largest of the four regions and is experiencing a period of intense demographic growth. While only 37% of the population live in urban areas today, that percentage is set to rise dramatically, much of it through

SUB-SAHARAN AFRICA



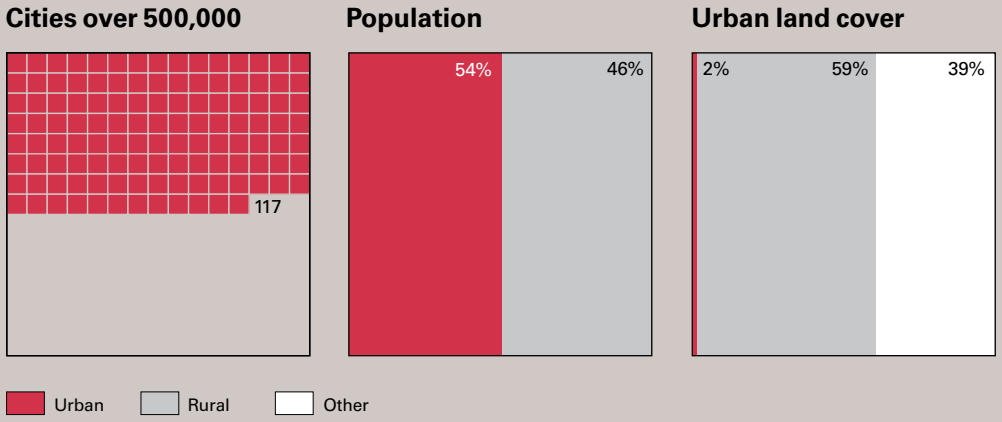


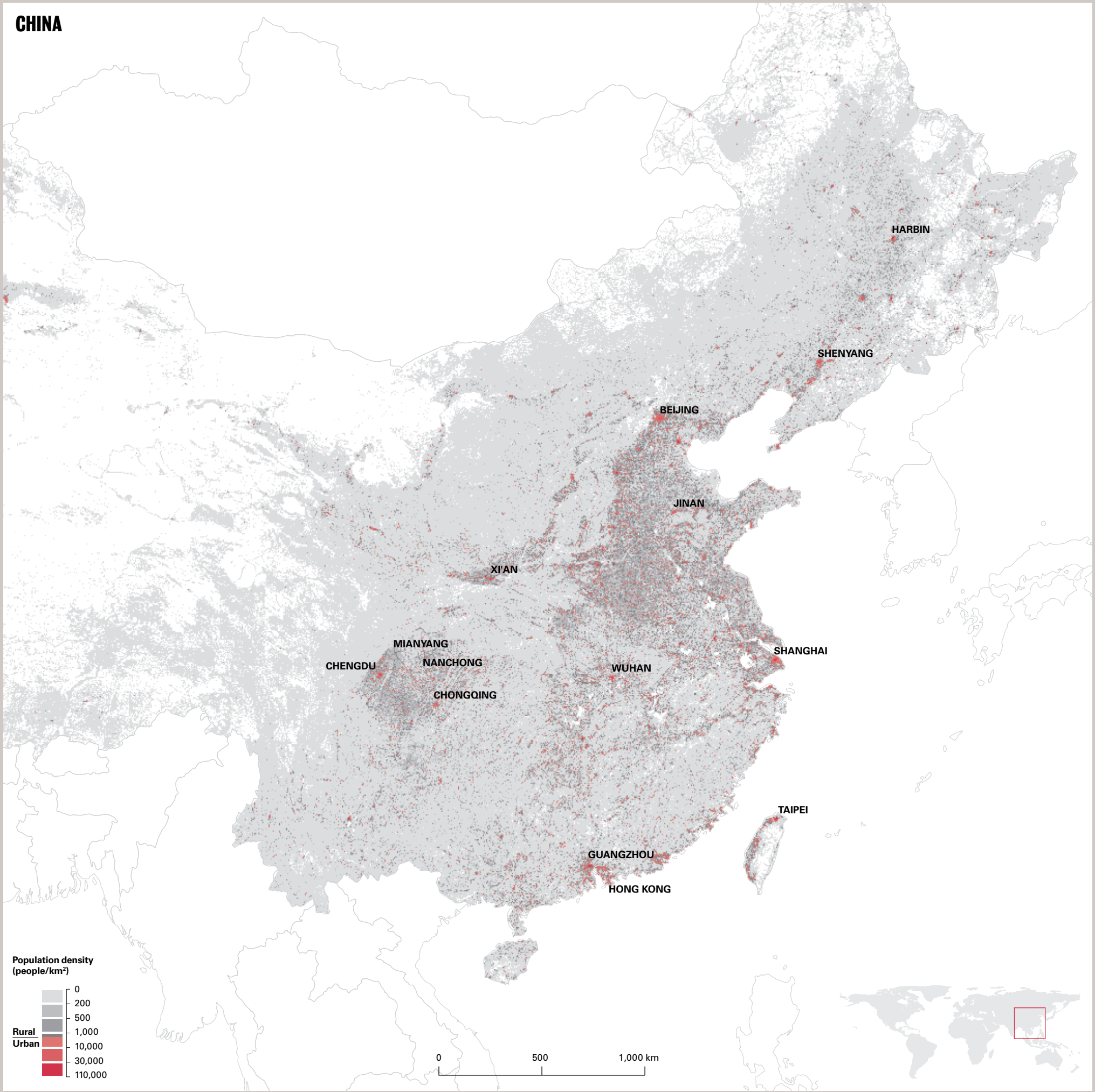
Based on LandScan 2010™ High Resolution Global Population Data Set

informal growth. While urbanisation levels are below that of the other global regions, just 0.4% of the total land area in this part of the continent is urban, while just over a third of the total land area (32%) remains unpopulated. There are fewer, higher density rural areas than in China or Asia, with concentrations around Lagos, Kigali, Nairobi and Addis Ababa. The urbanisation density threshold is 1,019 people/km^2.

Just over half China's population (54%) live in urban areas, which represent just 2% of the total geographic footprint of the nation, with largely unpopulated regions making up 39% of the total land surface area. With its rapid demographic and economic growth, urbanisation levels are approximately two-thirds that of Europe. As in India, there are extensive concentrations of higher density rural areas in the regions stretching from Beijing to Shanghai, and around the Chongqing, Chengdu and Nanchong districts, all areas which are experiencing a rapid transformation from agricultural to urban economies. China has an urbanisation density threshold of 1,433 people/km^2.

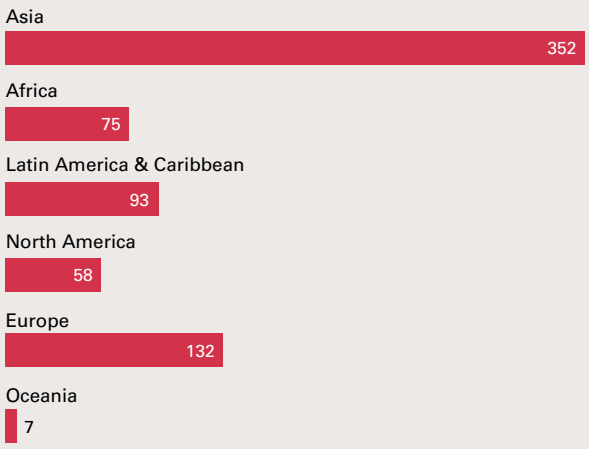
CHINA



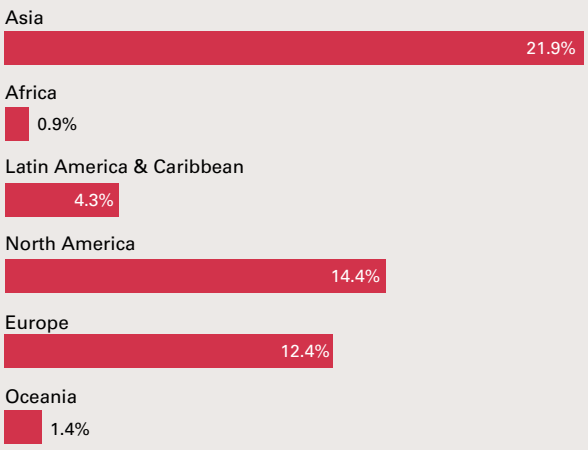


DYNAMICS OF LARGE CITIES

Number of large metro areas by region (2012)



Contribution of large metro areas to global GDP by region (2012)



Statistics on global urbanisation patterns mask significant differences in the dynamics of cities of different sizes and in different parts of the world. Here, LSE Cities explores the demographic and economic performances of larger metropolitan regions over the next 15 years (based on UN Desa projections), focusing on 700 cities with over 500,000 people. As the chart above confirms, the reason for focusing on cities of this size is because they punch well above their weight in economic terms: in 2012, large cities made up 33% of the world's global population, but they produced more than 55% of all global economic output.

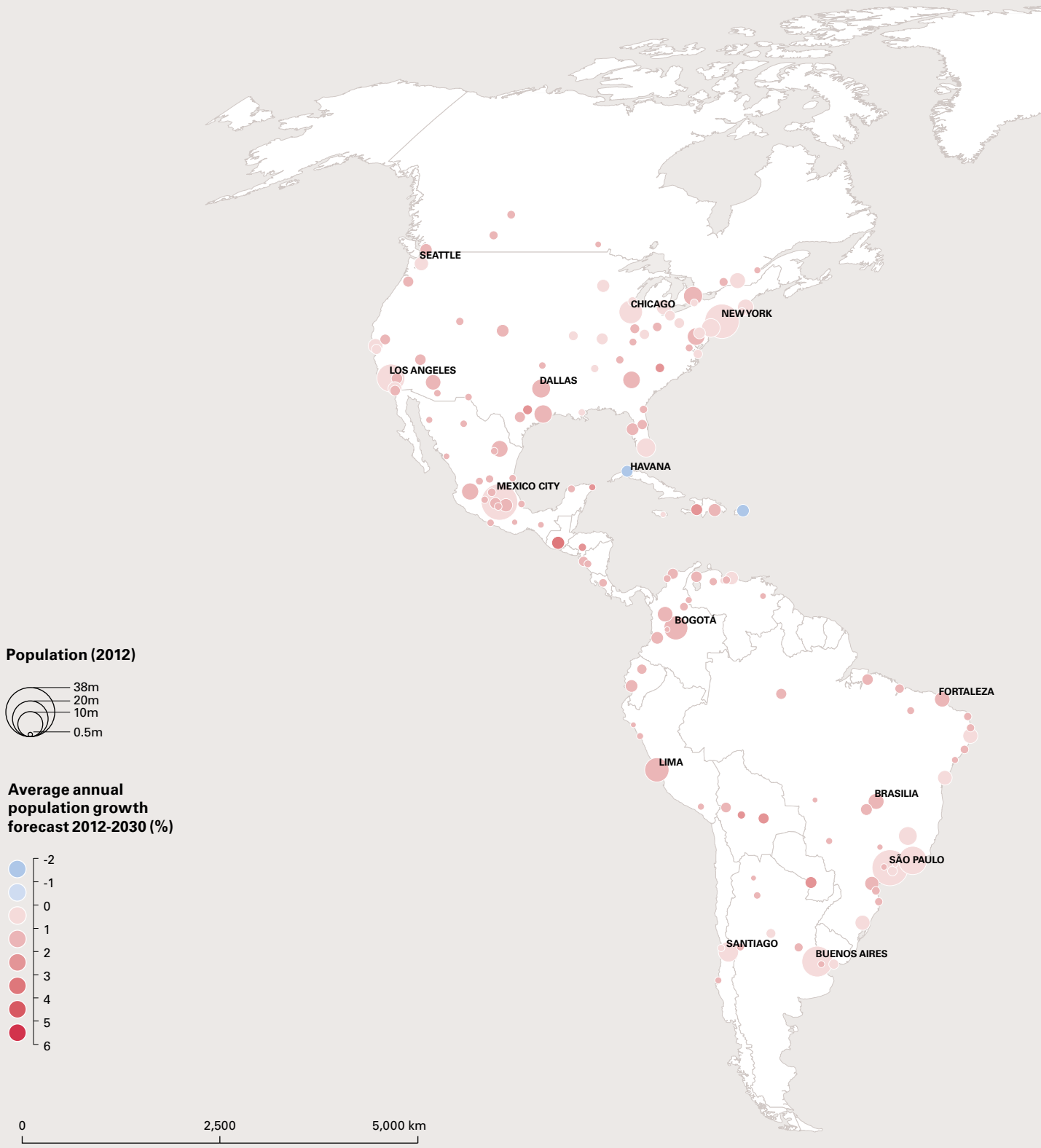
The large world map to the right indicates that the population growth rate of larger cities is disproportionately distributed across the world, with faster growing areas in parts of Africa and Asia, more modest or low growth in Latin America and parts of North America, slow or zero growth in Europe, and negative growth in parts of Japan, Eastern Europe, Russia and the Caribbean.

The size of projected populations by 2030 varies widely, with China and India leading the field for the number of megacities projected to have over 10 million inhabitants by 2030. While today Tokyo is the world's largest city, with an agglomeration of 38 million – followed by Delhi, Shanghai and Mumbai – its population is set to shrink by about 400,000 people by 2030, while all the runners-up are set to continue growing. But amongst the larger cities, it is Dhaka, Lagos, Kinshasa and Dar es Salaam that will transform most rapidly due to extreme growth rates, many with high percentages of informal development.

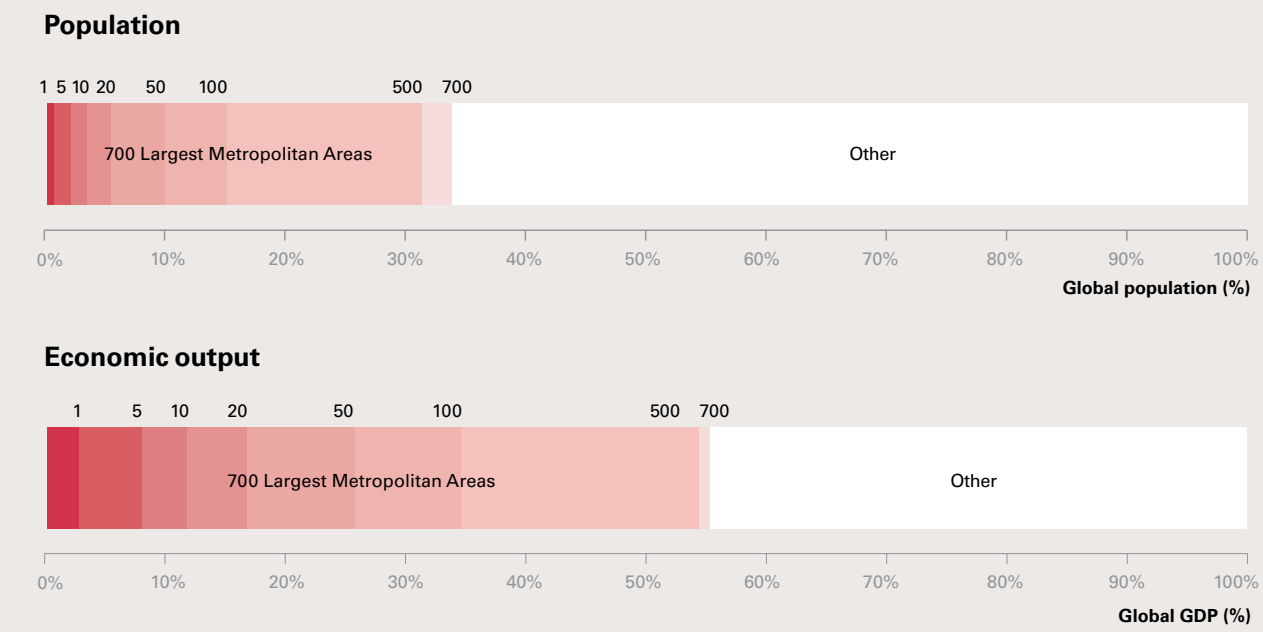
The smaller map illustrates future patterns of economic output and growth for the same 700 cities. The most striking feature is the dramatic regional differences that by 2030 will still persist in GDP/per capita between the Global North and Global South – with important exceptions in the Middle East, China and parts of Latin America and Oceania, with the most intense growth in average GDP concentrated in China and East Asia.

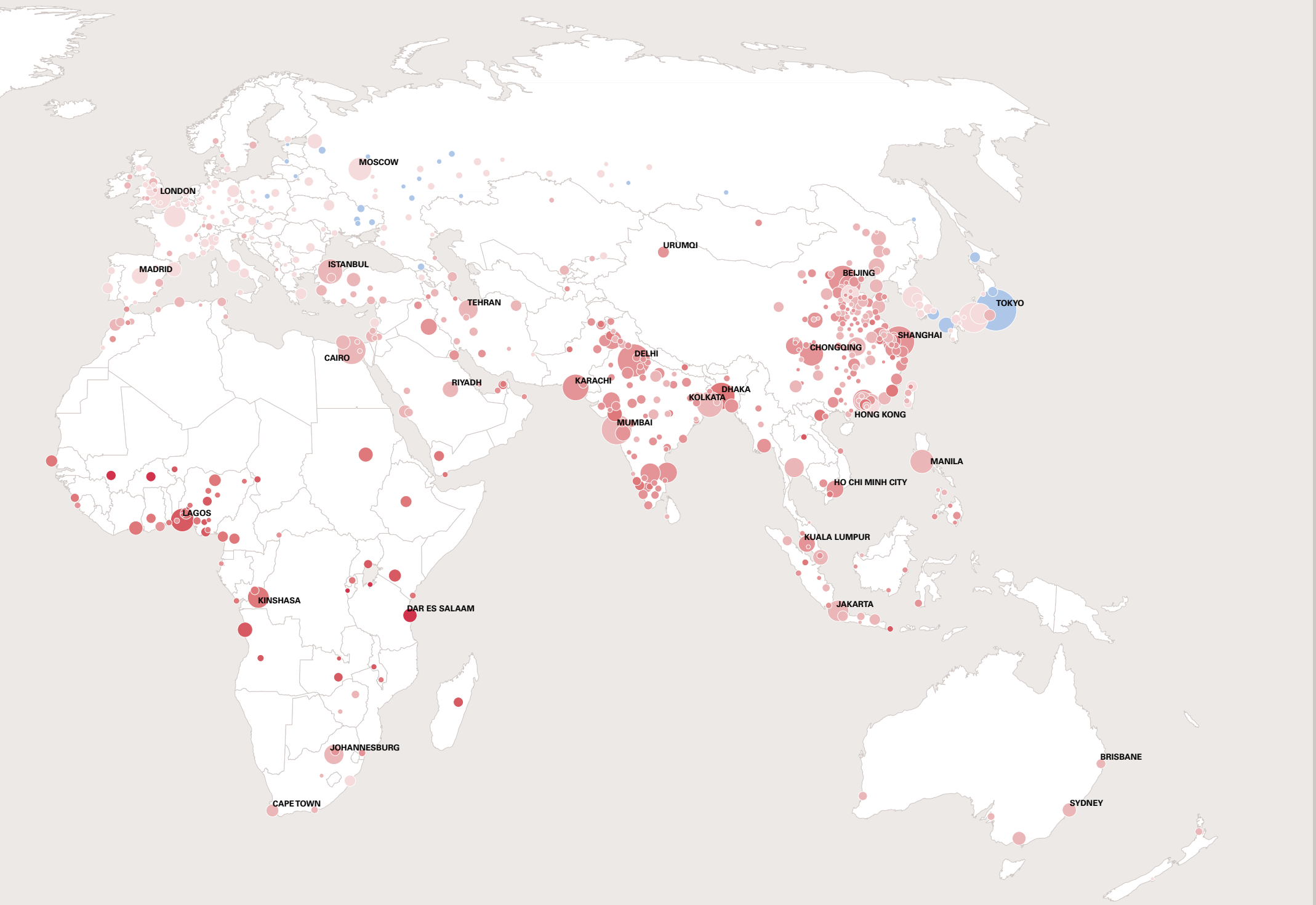
The chart to the right illustrates the global demographic and economic impact of 700 large cities, confirming the disproportionately large contribution made by a relatively few, large cities to both global population and GDP.

POPULATIONS OF THE LARGEST URBAN AGGLOMERATIONS



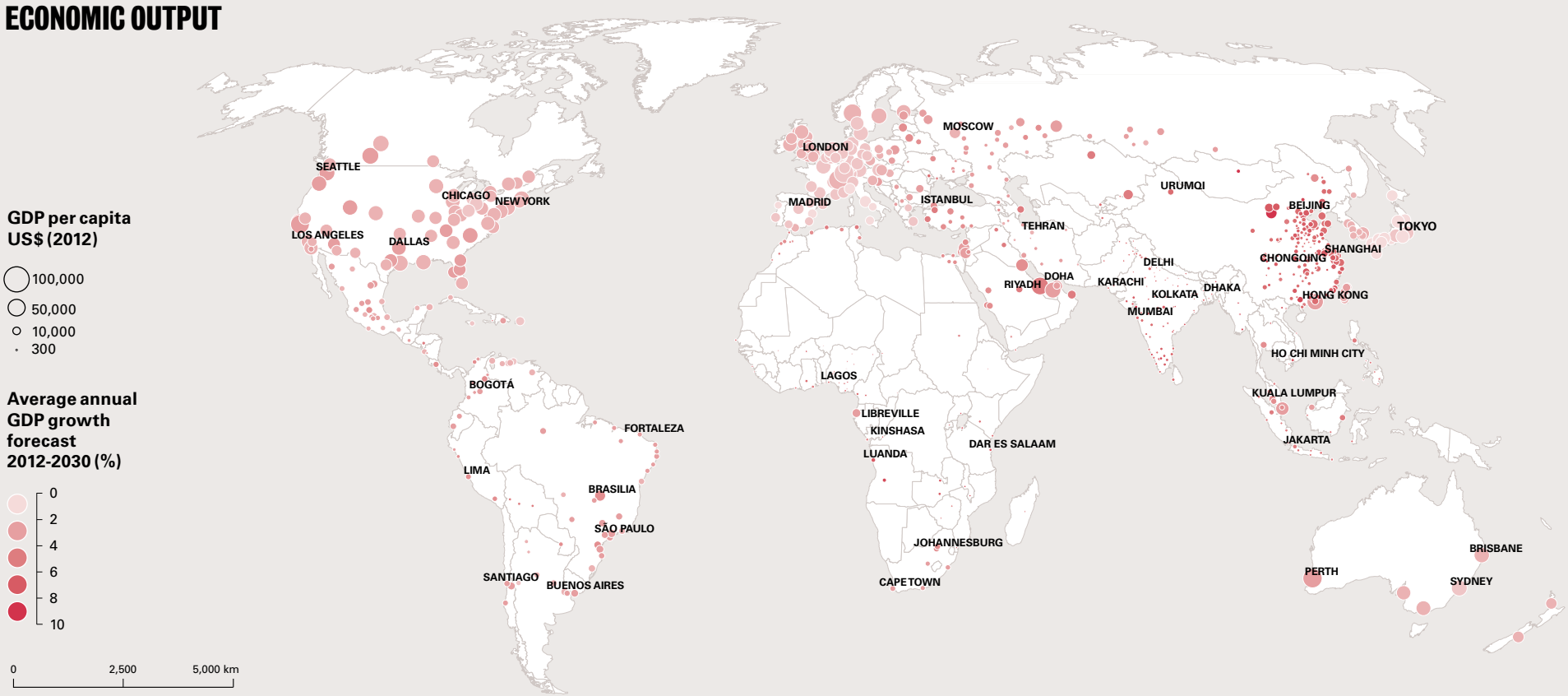
The cumulative contribution of the largest metropolitan areas (2012)





Projected population data courtesy of UN DESA World Urbanisation Prospects, 2014 Revision

ECONOMIC OUTPUT



GDP per capita US$ (2012)

- 100,000
- 50,000
- 10,000
- 300

Average annual GDP growth forecast 2012-2030 (%)

- 0
- 2
- 4
- 6
- 8
- 10

0 — 2,500 — 5,000 km

All other data: LSE Cities / Oxford Economics 2014

HOW CITIES PERFORM

Behind the basic parameters that define how cities perform lie very different patterns of urban development, with diverse spatial, social and economic characteristics. In this city data matrix, LSE Cities has assembled information from a range of official sources for nine selected cities, revealing their social, governance, planning, transport and environmental patterns.

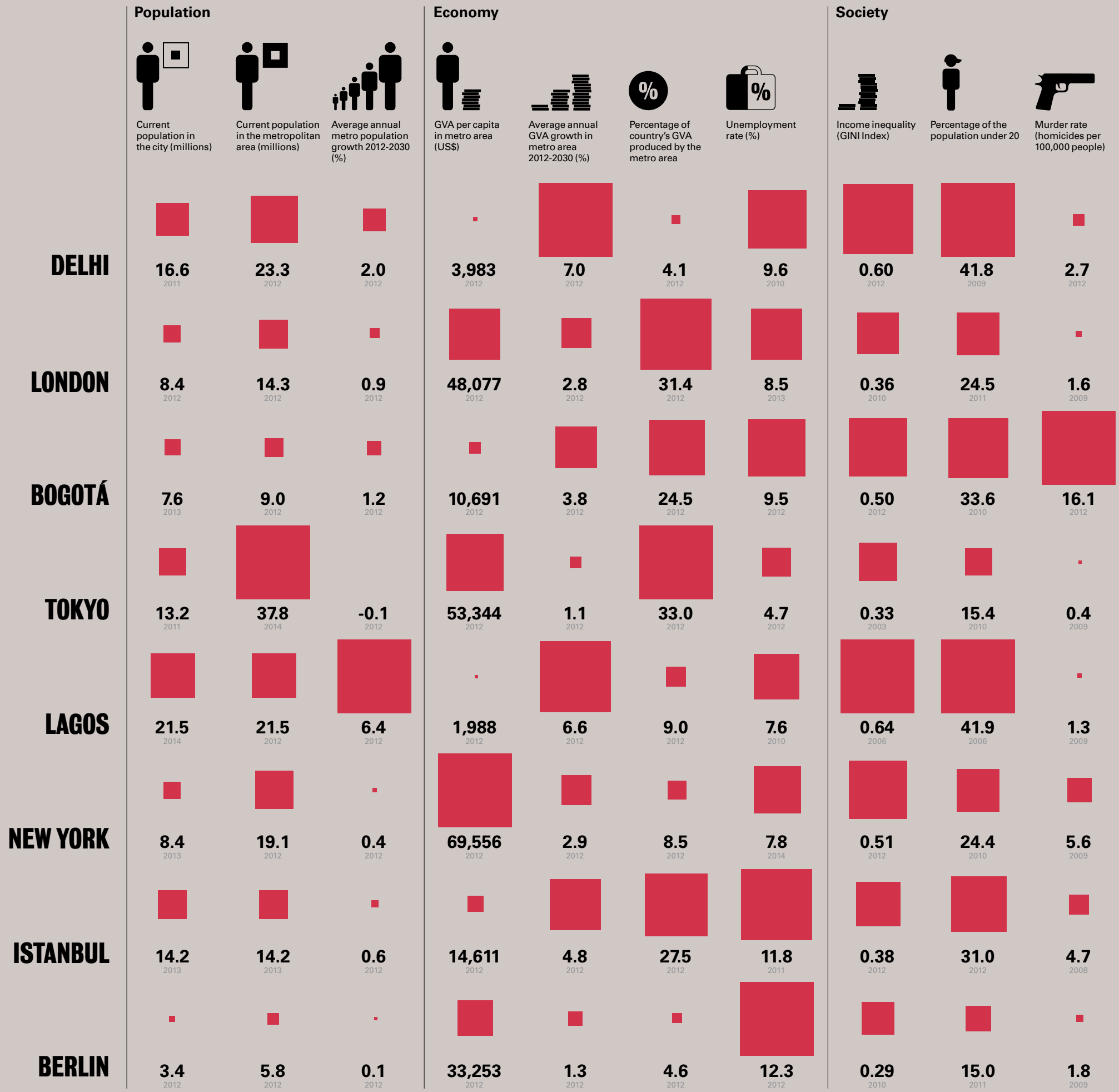
The graphic overview of these results highlights some striking differences. Lagos will be growing the most rapidly over the coming years, with an average annual population growth rate of 6.4% per year – more than three times faster than Delhi (2%) and nearly six times faster than Bogotá (1.2%). Tokyo, currently the largest metropolitan area in the world, is actually depopulating at a rate of -0.1% per year, which will amount to a reduction of almost 400,000 people between 2012 and 2030.

Lagos also leads on economic growth, with projected GVA for the metropolitan region increasing by 6.6% per year between 2012 and 2030, outdone only by Delhi, where the growth rate is projected to be 7% per year – a marked contrast to the relatively slow growth of Berlin and Tokyo. Looking at GVA per capita, New York (US$69,556) and Tokyo (US$53,344) top the list, followed by London (US$48,077) and Berlin (US$33,253). People living in these four cities are many times wealthier, on average, than those in Bogotá or Istanbul, which in turn are significantly wealthier than the average resident of Delhi (US$3,983) or Lagos (US$1,988).

At 12.3%, Berlin has the highest rate of unemployment of all nine cities (with Istanbul a close second at 11.8%), at a time where overall German unemployment has fallen to below 5% for the first time since the beginning of the last recession. Tokyo has the lowest unemployment rate at just 4.7%, twice as low as Delhi or London. However, only 15% of the residents of Tokyo are under the age of 20 (compared to 40% in Delhi and Lagos).

Tokyo also boasts one of the lowest levels of income inequality as indicated by the Gini coefficient – a measure of income distribution where the higher number represents greater inequality. While Tokyo and Berlin are the most equitable, Delhi and Lagos are dealing with Gini coefficients of 0.6 and higher, demonstrating that the strong economic growth has created a more unequal urban society.

When considering voter turnout in the most recent local elections, stark differences in political participation become immediately apparent. New York experienced a historically low turnout during the last elections, with only 24% of eligible voters casting their ballot. By comparison, nearly



90% of Istanbul voters turned out to vote.

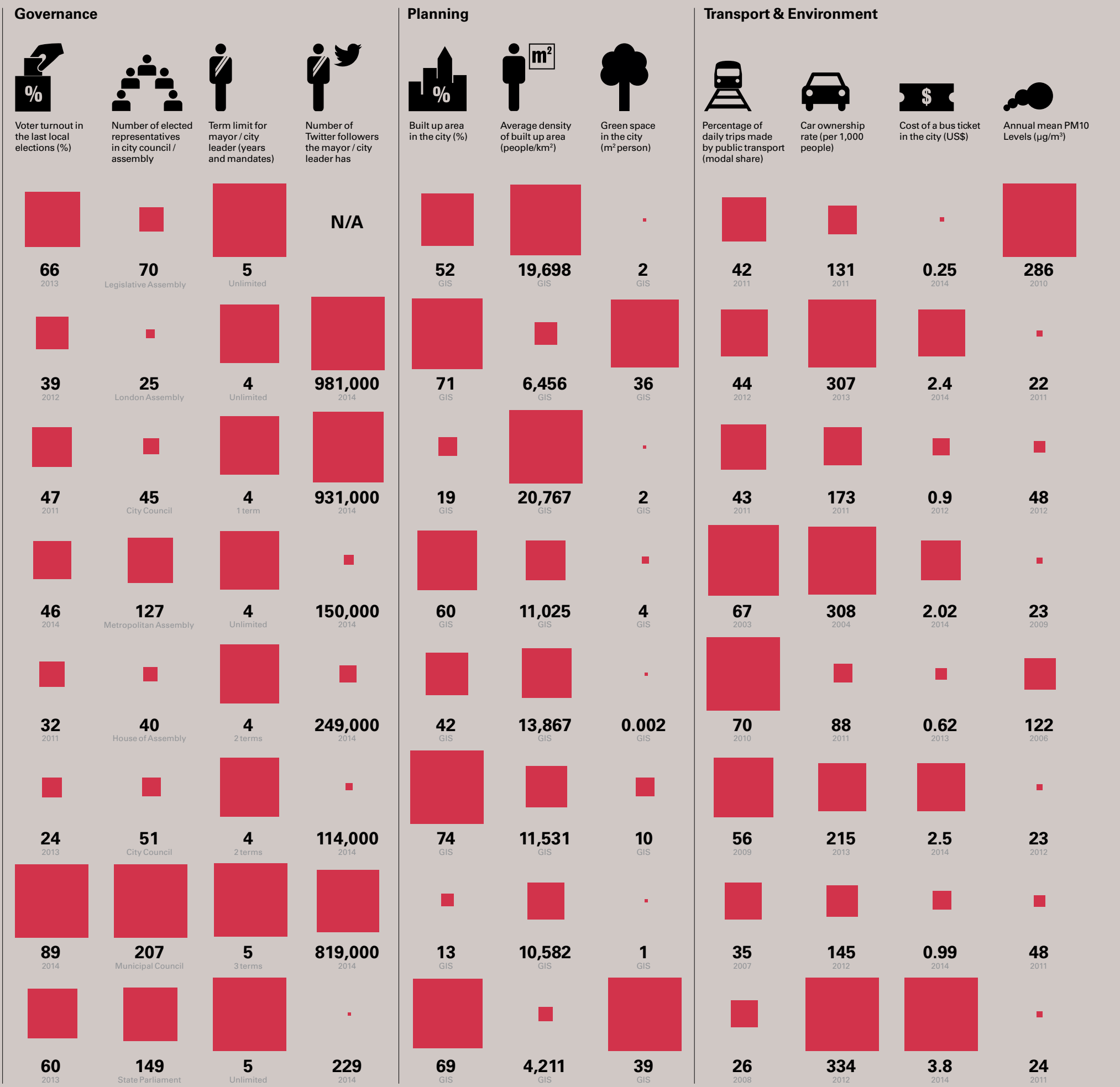
Despite significant variation in the administrative structures and associated political powers of these cities, each has a democratically-elected body that acts as the legislative arm of the government. The London Assembly has the lowest number of representatives (25) while Istanbul's Municipal Council has the highest (207). Arrangements relating to the city leadership are similarly divergent. Concerns about corruption and the concentration of political power mean that in Bogotá the mayor can only be elected for one four year term. By contrast in Delhi, London, Tokyo and Berlin, the mayor (or equivalent city leader) can in theory be re-elected an unlimited number of times.

In terms of the built environment, Delhi and Bogotá face very similar densities within their built-up area (around 20,000 people/km^2) and both have a similarly low amount of green space per person, yet in the case of Delhi more than half of the total land area of the city is already built-up, while for Bogotá it is less than a fifth. New York has the highest percentage of built-up land (74%), followed closely by London (71%) and Berlin (69%).

Berlin and London also have the lowest average density, with Berlin being five times less dense than Delhi. While low density and a high built-up area may sound like a bad combination, it is in fact London and Berlin that have by far the highest amount of green space per person, with 36m^2 and 39m^2 respectively, with the residents of Lagos only benefitting from 0.002 m^2 of green space per person.

Figures for car ownership and public transport use also vary widely, highlighting the cities' diverse transport infrastructures. Berlin has both the lowest public transport use (26% of all trips) and highest car ownership rate (334 cars per 1,000 inhabitants) although it should be noted that 'ownership' does not equate to 'use', and commutes undertaken by bicycle or on foot are not accounted for here. By contrast, 70% of trips in Lagos are made by bus, and it has the lowest car ownership rate of all nine cities. However, its air pollution levels are high with PM10 levels of 122µg/m^3, although not as severe as Delhi's (286µg/m^3 of PM10).

Measurement years and methodologies used to calculate indicator values may vary between cities and are not always comparable.



For a full range of data sources, please see http://delhi2014.lsecities.net/newspaper/

WHAT CITIES TELL US

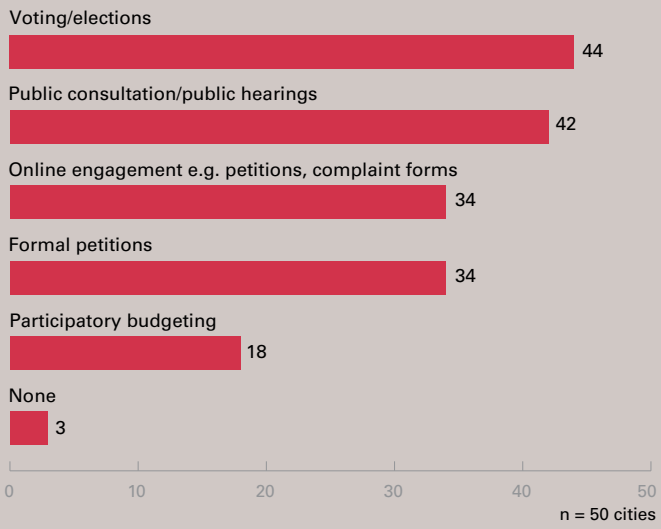
Global comparative research on urban governance is confronted with a substantial data challenge. Regardless of the ever-increasing availability of information on institutional arrangements in individual cities, knowledge and methodologies to capture and compare the wide spectrum of different urban governance systems is limited. The global survey on urban governance – undertaken by LSE Cities in partnership with UN Habitat and United Cities and Local Governments (UCLG), and supported by the MacArthur Foundation – addresses this data challenge and explores new ways of communicating and 'mapping' urban governance for public dissemination, comparative policy and research analysis. A selection of the initial findings are presented here.

The information presented here is a snapshot of the results from a set of 50 city governments that took part in a pilot survey. The survey includes information from five continents and 30 countries, with stronger representation of cities from the Americas and Europe. 25 cities have higher income economies, and 29 cities have populations of over 500,000 people. The survey considered a range of urban governance issues, such as political power, budget and financing, multi-level governance, participation and accountability, strategic planning and institutional change.

THE INFLUENCE OF CITIZENS

Citizens have the ability to influence local policies in multiple ways. Voting in elections is the most common and was reported by 44 of the cities. The vast majority of city governments included in this survey are governed by an executive mayor who is directly elected versus appointed or indirectly elected mayors. Of the 50 cities, only five have reported not having a mayor at all. 'Voting' is followed by 'public consultation', as a further means of influencing policy, and then (with an equal number of mentions) 'online engagement' and 'formal petitions'. Interestingly, a large number of cities also stated that participatory budgeting is one of the processes through which citizens can influence local policies. Some of the cities which have given more detailed replies noted that that youth councils and joint planning processes are integral to how citizens participate in local policies. The survey also found that the larger the city in terms of population, the less capacity citizens have to influence local policies, suggesting that while larger cities may profit from economies of scale and economic resilience, they at the same may offer reduced levels of subsidiarity.

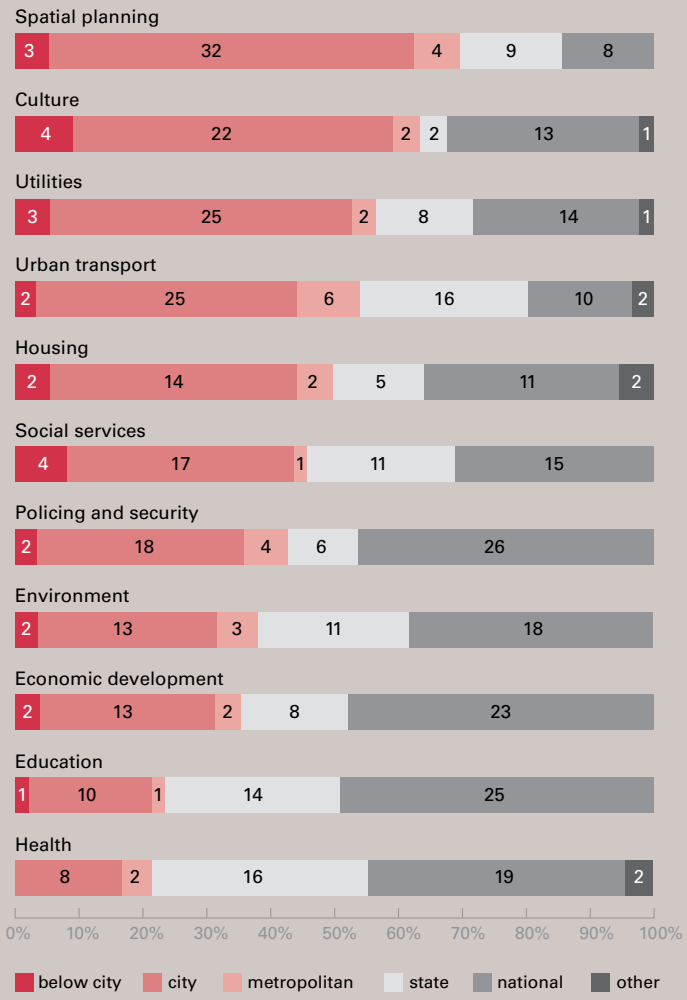
In what capacity can citizens influence local policies?



GOVERNING DIFFERENT URBAN POLICY SECTORS

Substantial differences in urban governance across different cities exist with regards to the sectoral distribution of political power. The survey reveals a clear tendency whereby certain policy sectors are exposed to greater political powers at the urban level while others are more centralised at the level of state or national governments. The survey results show that city level governments take greater responsibility for spatial planning, culture, utilities and transport – and are far less involved with other policy sectors, such as health and education. Other sectors that are more greatly influenced from the local level are social services, policing and security. The ability to lead on specific policy sectors also directly relates to questions of budget and revenue streams. Cities which do not have the budget to administer certain policy sectors tend to also lack executive powers in these areas. Some cities have pointed out that they are under additional influence from regional and provincial bodies. The local policies of European cities are also strongly influenced by supranational bodies such as the European Union. Other cities noted the importance of public consultations as well as NGOs and public organisations.

Who is leading these sectors?



CITY FINANCING

Cities are financed through a wide variety of different sources, including their own local revenues as well as state, national and in some cases even supranational transfers. The survey identified four dominant types based on their dependence on funds coming from different levels of government: state (or region)-dependent cities; national dependent cities; financially independent cities; and, cities which receive funding from multiple sources.

Cities which are heavily dependent on state (or regional) resources include Artik (Armenia), Ghent (Belgium) and Istanbul (Turkey). 50%-85% of the total budget in these cities comes from the state level. Cities which are mainly funded through the national government include La Paz (Bolivia), Madrid (Spain) and Mexico City (Mexico). These cities receive between 50% and 95% funding through the central government. In financially independent cities, less than 50% of their funds come from the state, national or supranational tiers of government. These include Gothenburg (Sweden), Montreal (Canada) as well as Philadelphia (U.S.A). The last category includes cities with a budget funded through multiple sources, including several combinations of state, national as well as supranational sources. Included here are cities such as Rio de Janeiro (Brazil), Port Harcourt (Nigeria) and Villa el Salvador (Peru). Due to the relatively small sample size, it is difficult to identify significant regional trends. European cities reported the significance of the regional and provincial funds that come into the city.

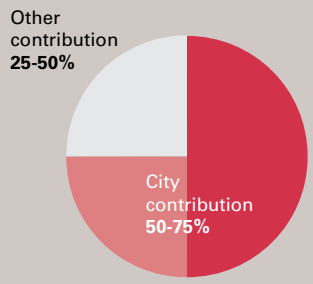
The survey further identified four main sources of revenue for local budgets. These include taxes (property tax, income tax), user fees (tariffs), sale of assets (including land) and other sources. The majority of cities raise over 50% of their income from taxes. European cities noted that some funding streams come from provincial and regional sources, and also directly from the European Union.

CITIES INCLUDED IN THE SURVEY

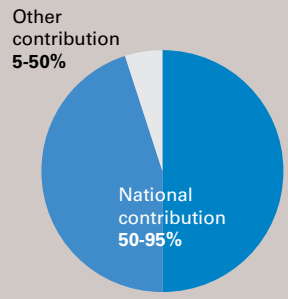
Our thanks to all those who took the time to respond to our survey

Percentage of city budget from different tiers of government

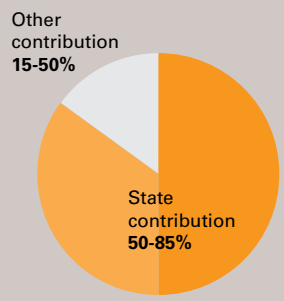
Financially independent cities
18 cities including Gothenburg, Montreal, Philadelphia



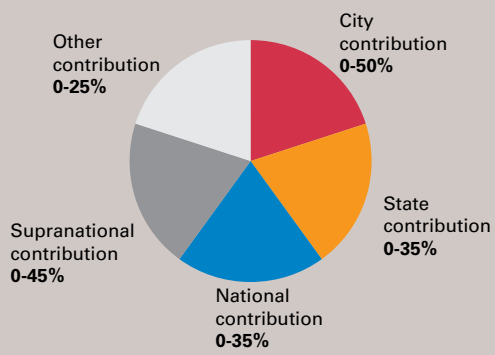
Nationally funded cities
9 cities including Mexico City, La Paz, Madrid



State dependent cities
3 cities including Artik, Ghent, Istanbul



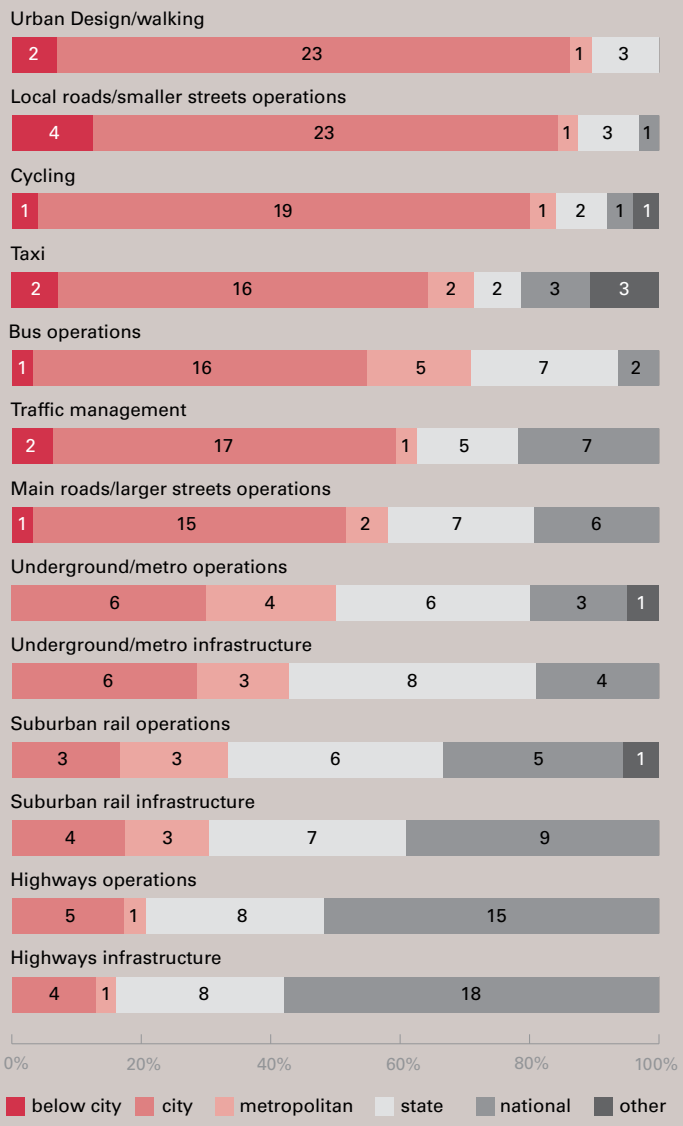
Cities dependent on multiple sources
10 cities including Rio de Janeiro, Port Harcourt, Villa el Salvador



WHO IS LEADING ON URBAN TRANSPORT?

Given the particular relevance of urban transport and the governance of its transport sub-sectors, the survey illustrates the sector's substantial exposure to multi-level governance. While city governments tend to lead on small- and medium-scale public infrastructure initiatives – such as public space improvements, cycle paths, footpaths and smaller roads – large-scale infrastructure tends to be controlled by state and national governments, often requiring substantial external investments. Both highway infrastructure and operations and rail-based transport are the most centralised transport sub-sectors, mainly led by national government.

Who is leading these transport sectors?



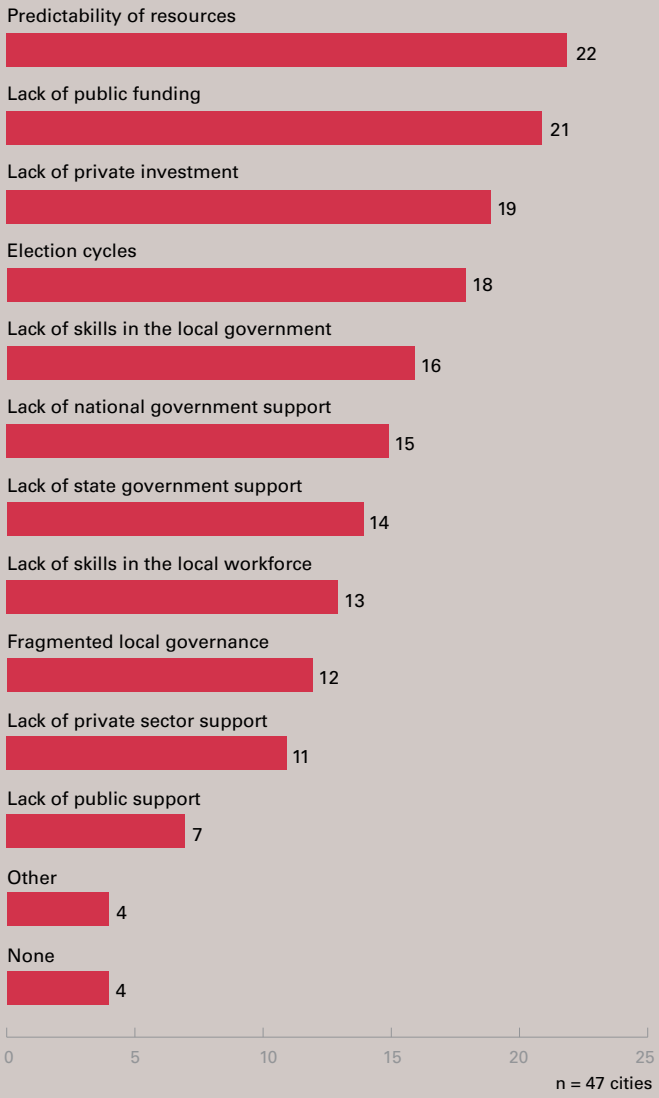
URBAN GOVERNANCE CHALLENGES

The survey asked respondents to state the three biggest governance challenges that their city faces. 'Urban transport' was the most often cited, identified as an issue by 35% of cities, closely followed by 'financial resources' and 'employment'. Transport includes a number of issues, such as congestion, constraints on mobility and the establishment of effective public transport systems. 31% of cities stated that financial resources are a major factor constraining cities governance realities, 25% singled out employment levels (e.g. job creation and youth unemployment) and 21% referred to environment-related challenges such as pollution, the attainment of environmental targets and water and waste management issues as significant challenges. Cities from Central and South America, in particular, identified security and crime as a prime urban governance challenge. This includes cities such as Fortaleza (Brazil), Rio de Janeiro, Cartagena (Colombia) and Mexico City. A further, more region-specific challenge is unemployment, which features dominantly in cities in Europe including Ghent (Belgium), Madrid, Málaga (Spain), Tampere (Finland) and Liverpool (UK).

GOVERNANCE CONSTRAINTS

City governments face many institutional constraints in managing their cities. Respondents to the survey were asked to choose from a number of options and could identify multiple constraints. The largest number of cities highlighted the unpredictability of resources as a significant governance constraint, more even than the overall lack of public funding. This underscores the problem that cities currently lack the ability to plan for future development, as they are exposed to volatile income and resources. Less prominent were concerns related to public and private sector support.

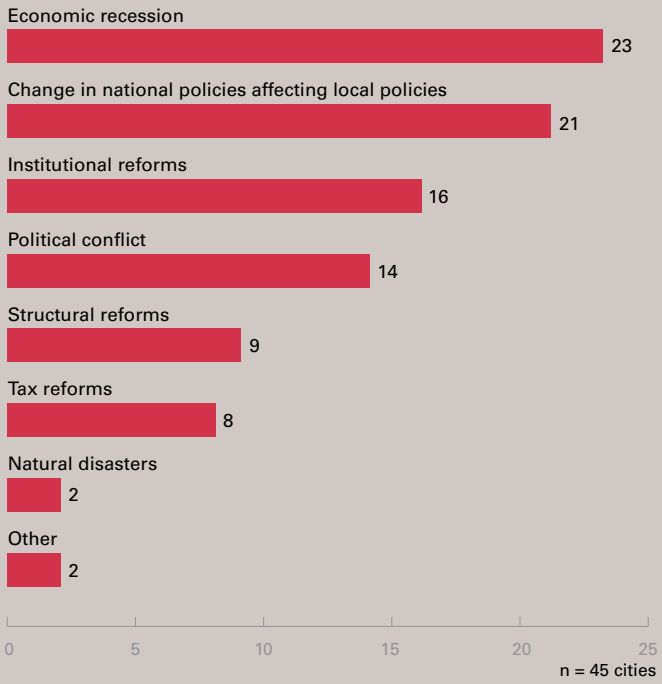
Which of the following governance constraints is your city/local government facing?



GOVERNANCE DISRUPTIONS

Cities are increasingly affected by external events which often lead to significant local disruptions. The survey sought to identify cases of major disruptions that affected local government operations. 50% of cities identified the recent economic recession as a major factor which interfered with urban governance. Preliminary analysis also suggests that the population size of cities included in this survey correlates negatively with disruptions caused by the economic recession: the bigger the city, the less likely they seem to be disrupted by the economic recession. The second most frequently cited disturbance was 'national policies which affected the local level' and 'institutional reforms'. A large number of cities from countries with recent civil unrest referred to political conflict as causing major disruptions to the governance of their city. These include Addis Ababa (Ethiopia), Antananarivo (Madagascar), Gaza City (Palestine), Istanbul (Turkey) and Rio de Janeiro (Brazil).

Have there been any examples of recent disruptions that have affected the way your city/local government operates?



PATTERNS OF GROWTH

To better understand the connections between cities and their governance systems, LSE Cities has carried out in-depth analysis of four case studies – Delhi, London, Tokyo and Bogotá – all cities which offer interesting insights regarding institutional arrangements and innovation, budgets and responsibilities, management of urban expansion and ownership of transport systems.

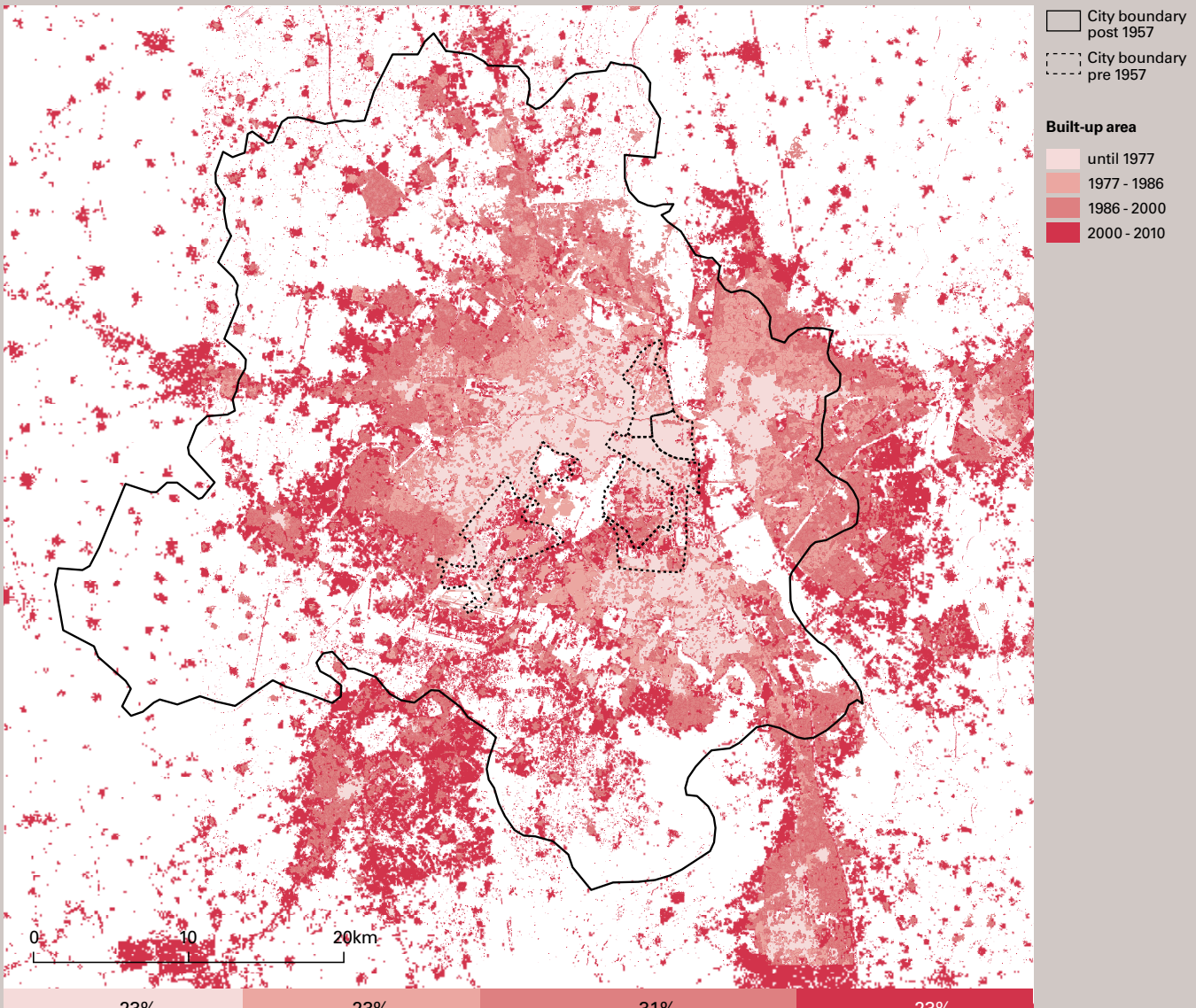
Based on data provided by the German Space Agency DLR-DFD, these maps show how the built-up area in each city has grown over the last four decades at intervals of about ten years. The distribution of urban development within each time frame is illustrated by colour (darker red indicates more recent development) while the length of the bar chart indicates the percentage of total built-up land realised in each period. White areas are unpopulated zones where topography and natural features like rivers and mountains constrain urban development. The boundary of both the current city-wide administrative authority and the historic boundary are overlaid on each map.

Reflecting its status as a young city with a deep history, over 55% of greater Delhi has been built since 2000, while in London only 15% was built in the same time frame, though much of the new growth reveals a process of densification within the boundaries of the Greater London Authority. In Tokyo, the world's largest agglomeration built at very high density, 90% of the urban footprint was already completed by 1972, while Bogotá experienced 82% of its growth until 1980, in line with many other Latin American cities.

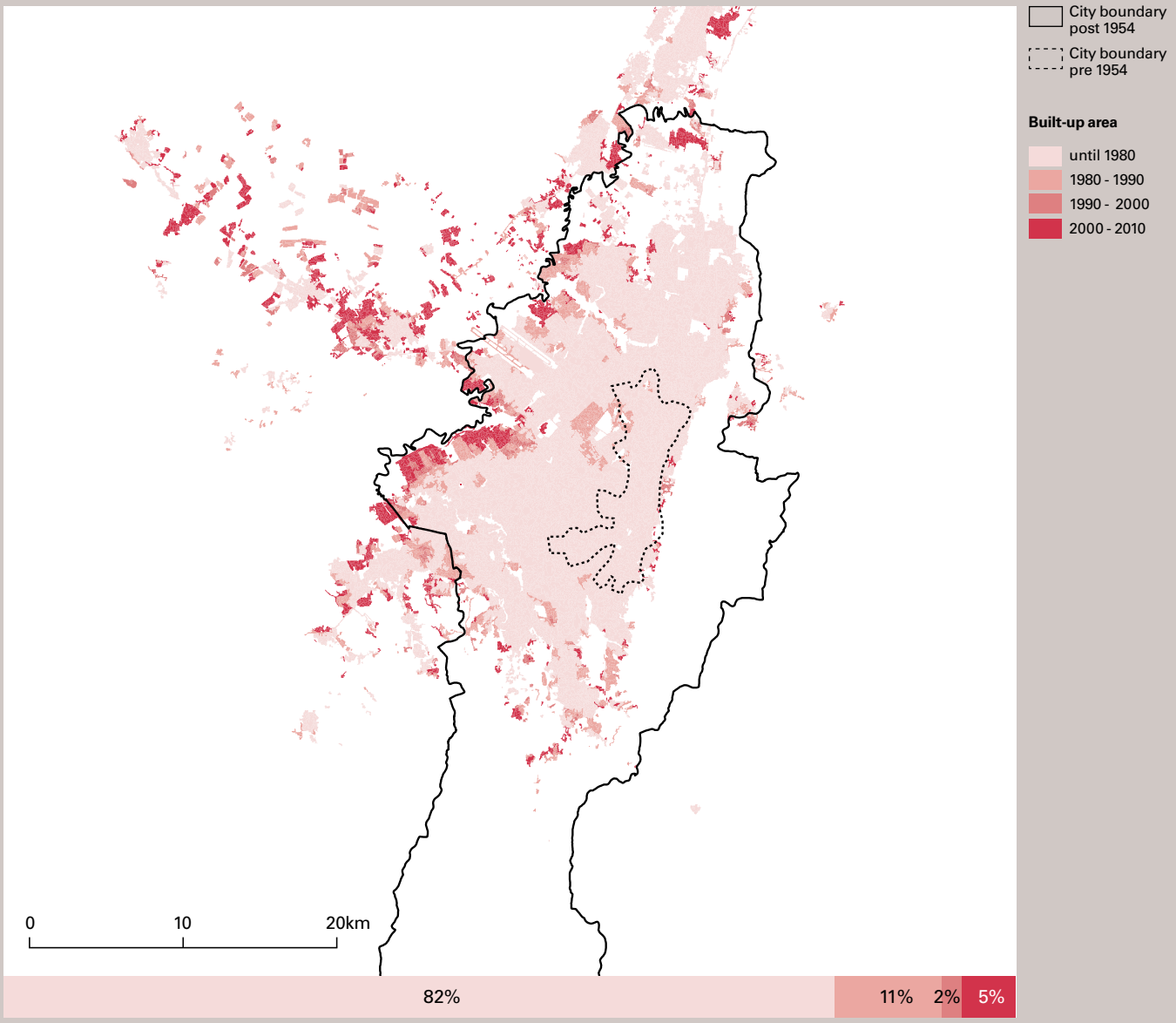
Each of the four cities has faced the challenges of urban expansion in different ways. Tokyo and Delhi in effect implemented oversized governance systems over 60 years ago and have waited for the city form to catch up. Tokyo's Metropolitan Organisation Act of 1943, which merged the Prefecture and City to form the Metropolis of Tokyo, made the new institutional boundaries three times larger than its boundary at the time. Similarly, Delhi's 1947 independence boundaries covered 19 times the area of Old Delhi (Shahjahanabad) and Lutyen's New Delhi. Today, the built-up areas of both have spilled over these 'historic' boundaries, with Delhi showing high levels of new development in the neighbouring states to the south and east of the traditional city boundary.

London had already reached its peak as a world megacity by the mid-20th century. The 1943 Greater London Plan defined the political boundary of the then London County Council at what was roughly the limit of the built-up area, but reinforced it with the implementation of the Green Belt. By 1965 the London County Council gave way to the Greater London Council which covered five times the area (which coincides with today's Greater London Authority boundaries). In 1954, Bogotá's Special District enlarged the city boundary to 37 times its former size, and while much of the administrative area remains unpopulated (due to topography and land constraints) the majority of recent growth is concentrated on the poorer peripheral edges to the north and west.

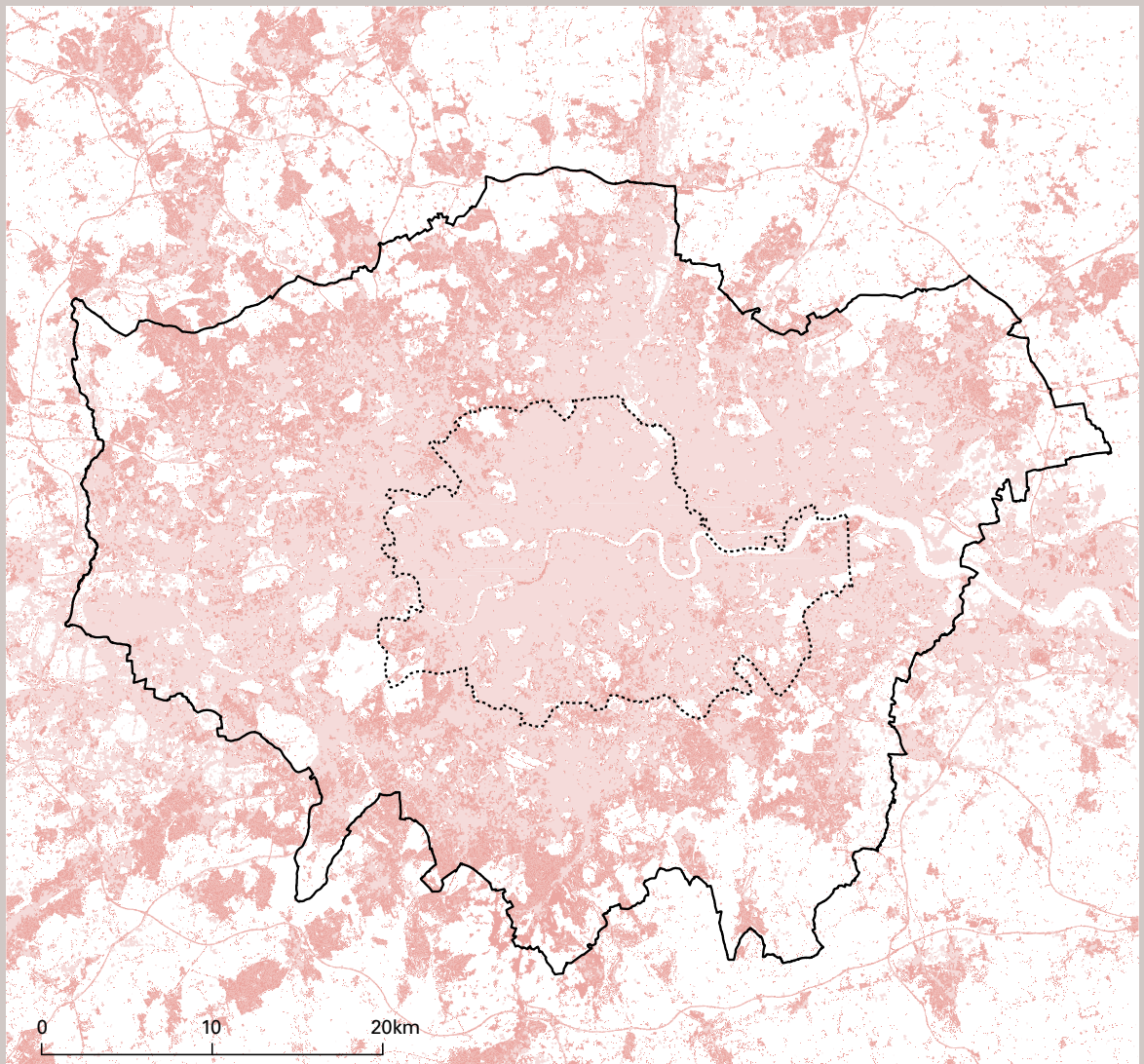
DELHI



BOGOTÁ



LONDON



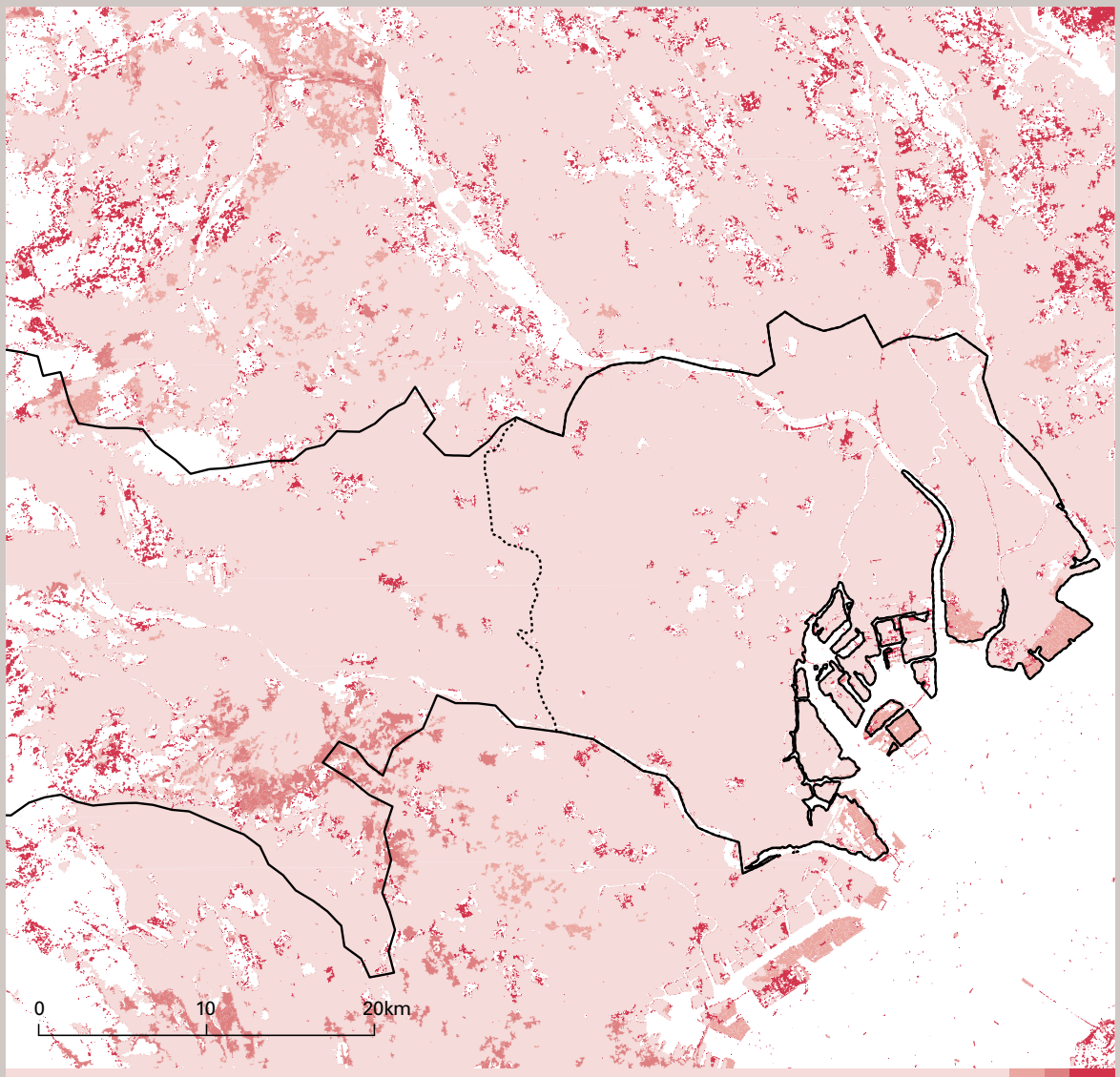
City boundary post 1965
City boundary pre 1965

Built-up area

until 1976
1976 - 2008

67% 33%

TOKYO



City boundary post 1947
City boundary pre 1947

Built-up area

until 1972
1972 - 1990
1990 - 2000
2000 - 2011

90% 3% 2% 4%

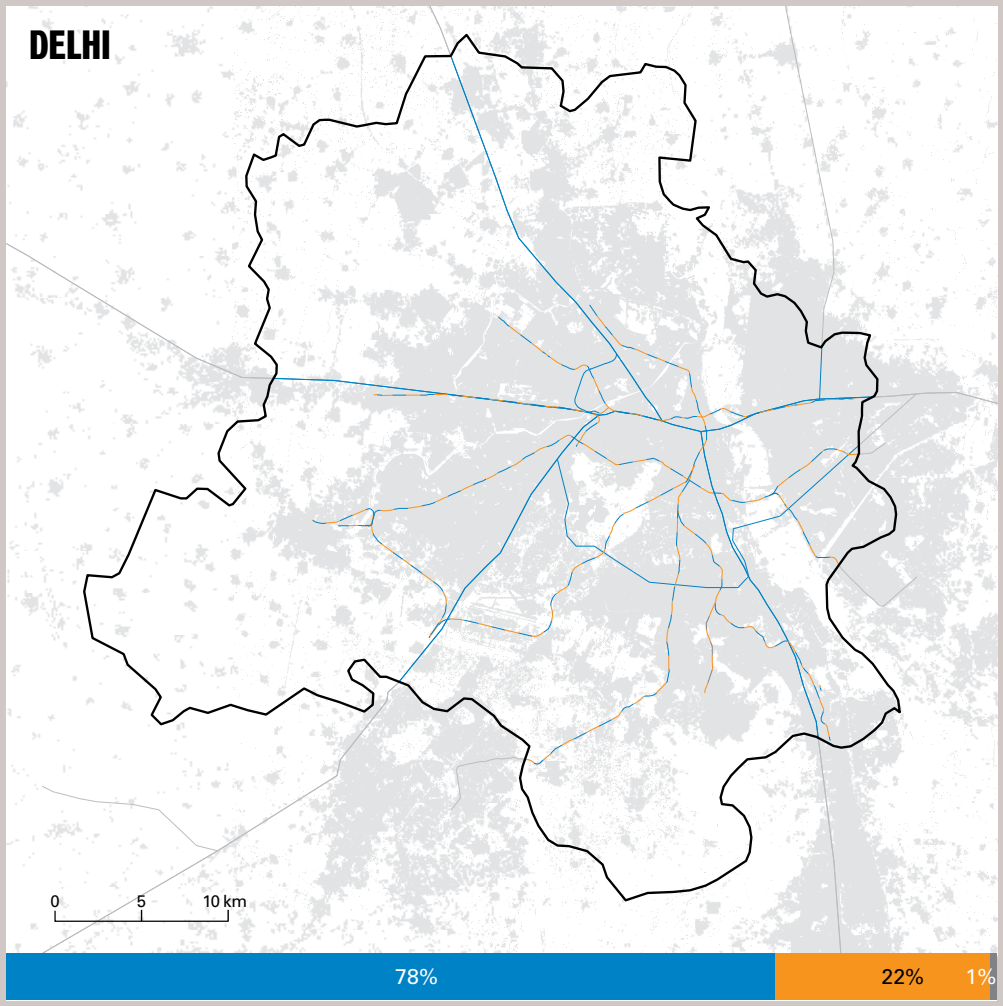
Urban Growth maps based on data provided by DLR-DFD, as cited:
Taubenböck H, Esch T, Felbier A, Wiesner M, Roth A & Dech S (2012): Monitoring of mega cities from space. In: Remote Sensing of Environment, vol. 117, pp. 162-176.
Esch T, Taubenböck H, Roth A, Heldens W, Felbier A, Thiel M, Schmidt M, Müller A & Dech S (2012): TanDEM-X mission: New perspectives for the inventory and monitoring of global settlement patterns. Journal of Selected Topics in Applied Earth Observation & Remote Sensing. vol 6. p.22.

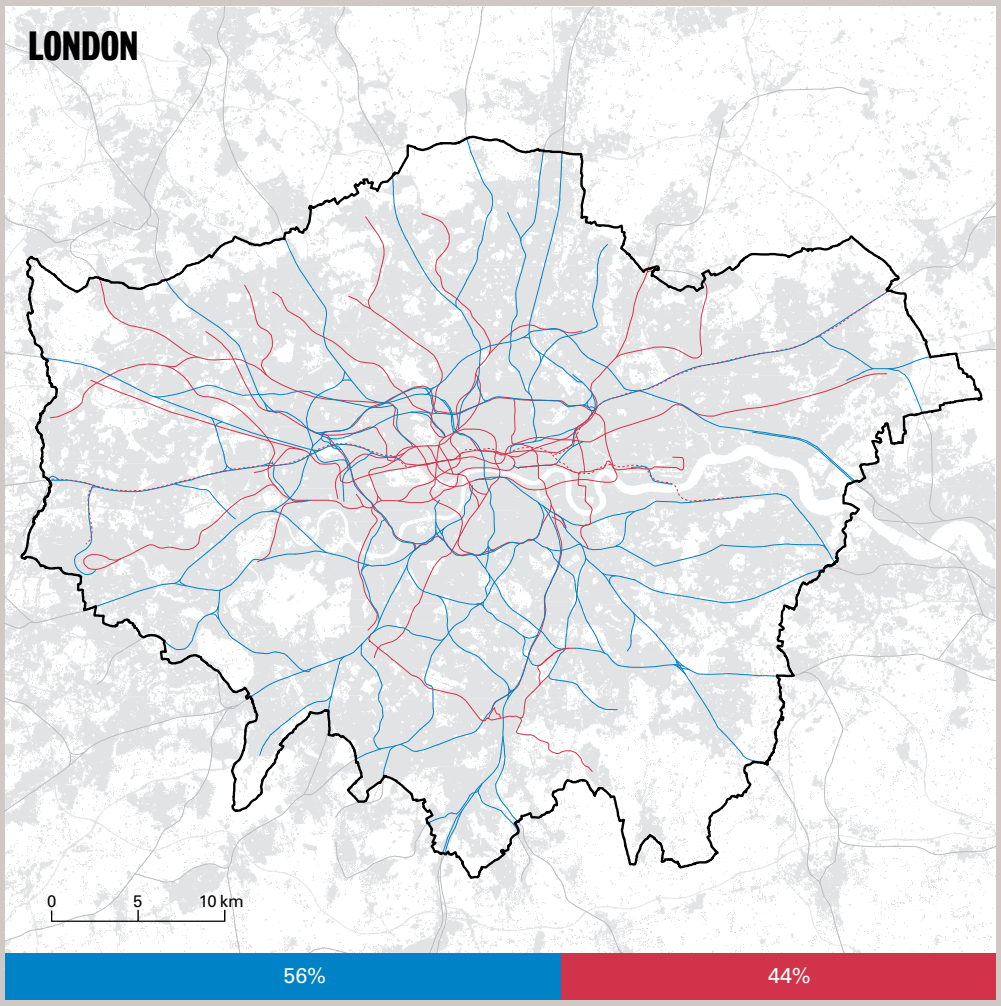
City boundaries based on data provided by the Lincoln Institute of Land Policy and Vision of Britain (University of Portsmouth).

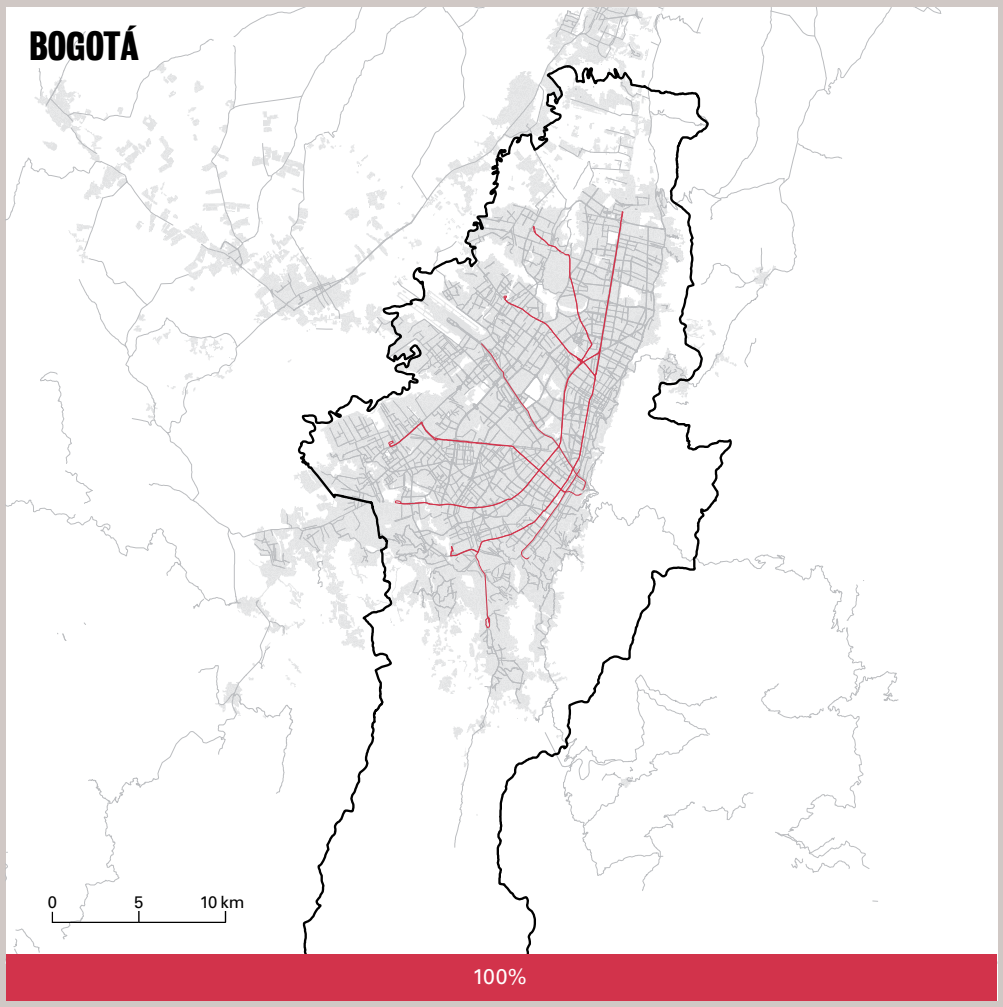
MANAGING MOBILITY

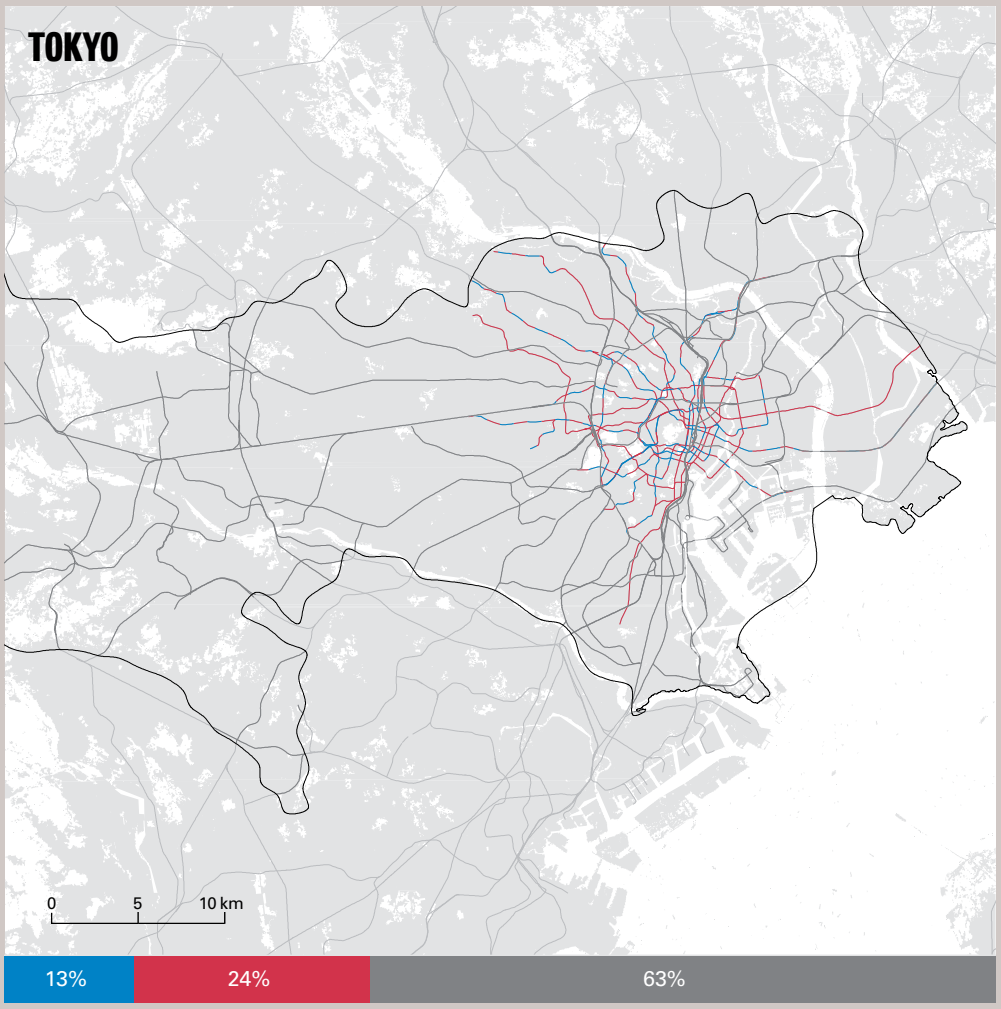
LSE Cities research has consistently identified public transport as a key driver of urban economic, environmental and social performance. The four case studies of Delhi, Bogotá, London and Tokyo, have pioneered innovations in transport in the last few decades, from Tokyo's highly integrated transport system to Delhi's new Metro, London's Congestion Charge, Boris Bikes and CrossRail to Bogotá's Bus Rapid Transit (BRT) and ciclovías. The colours of routes on the maps identify which level of government – national, state, city, local and shared responsibility – owns and manages different parts of the network. The bar charts indicate the percentage of the type of city transport infrastructure managed by each government level. In London, there is a separation between ownership and operations – with some private companies managing buses and trains – while the public sector (mayor and boroughs) still maintains the strategic and managerial power over the base infrastructure. Delhi's BRT route (50% private sector funded) and Tokyo's rail privatisation (representing 63% of the transport infrastructure) confirm the growing importance of private sector investment in public

RAIL AND BUS RAPID TRANSIT (BRT) INFRASTRUCTURE







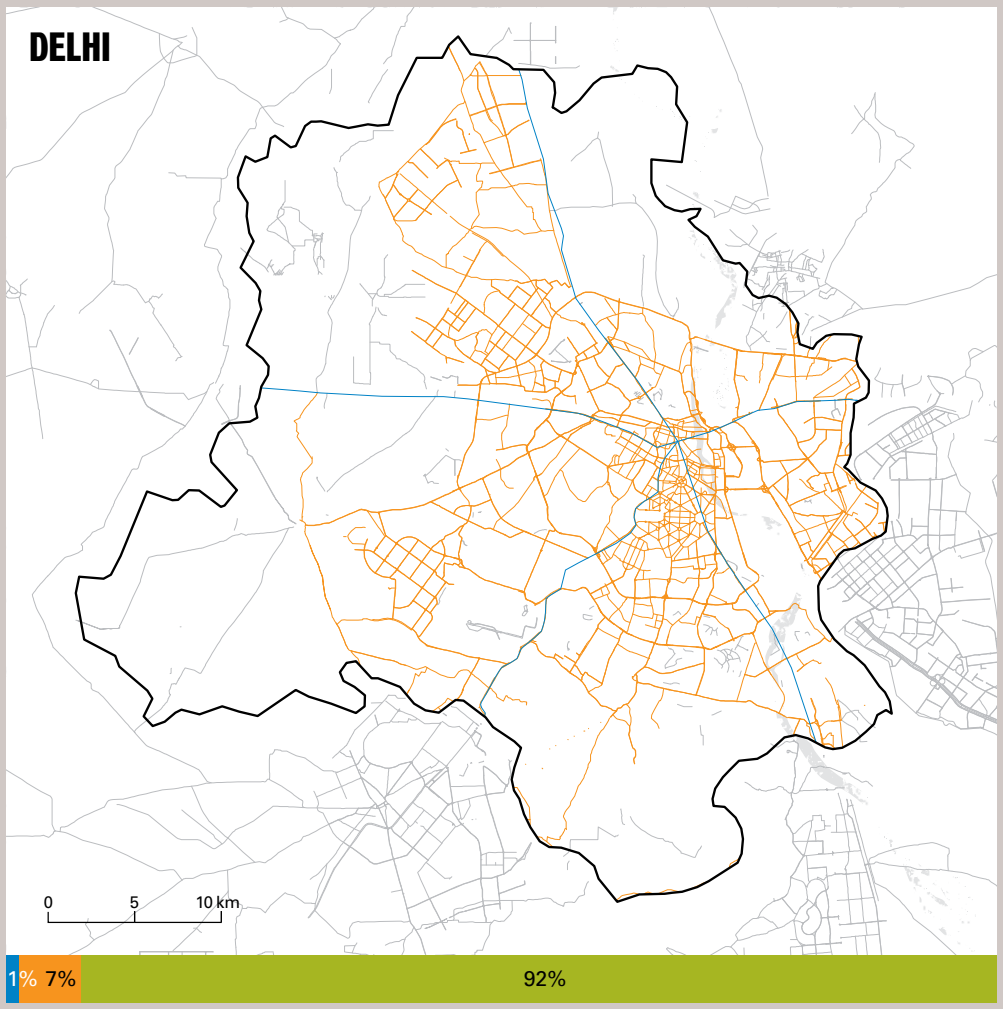


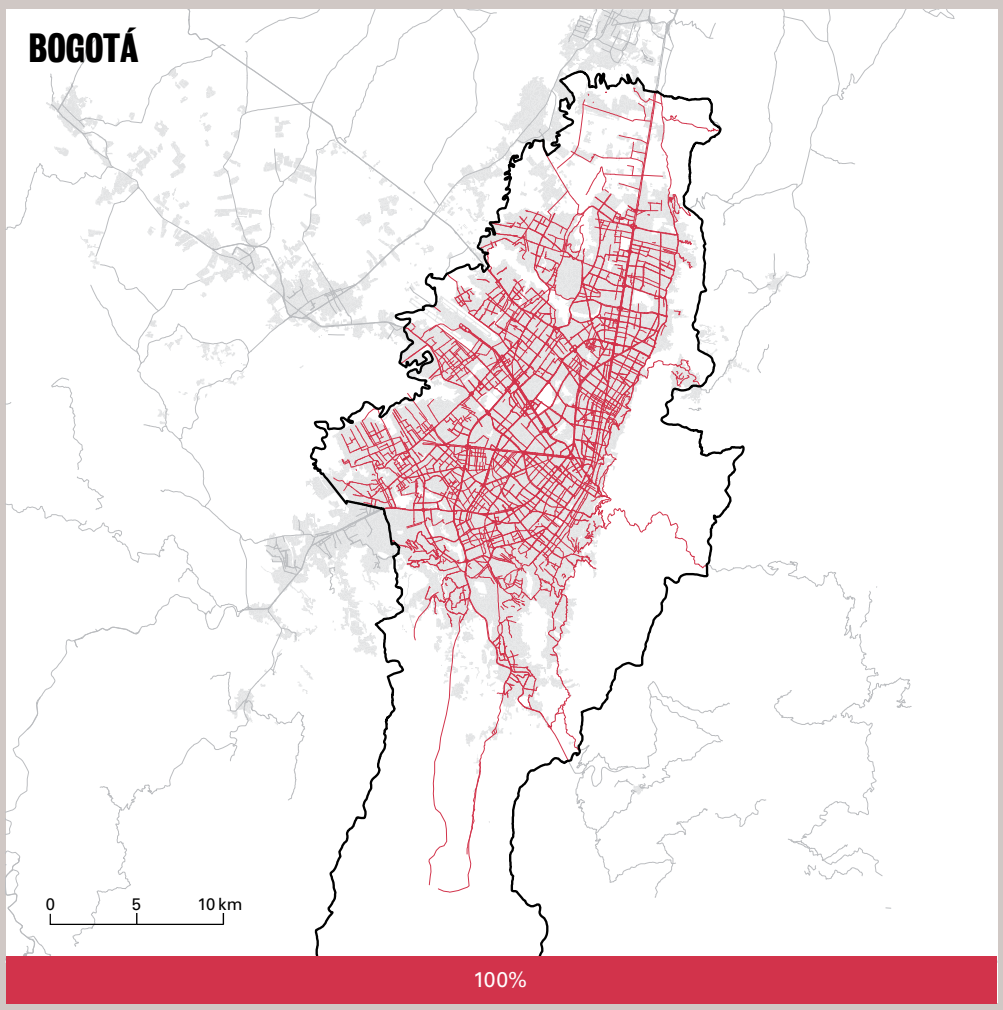
National level · State level · City level · Private sector · Outside boundary / data unavailable · Shared responsibility

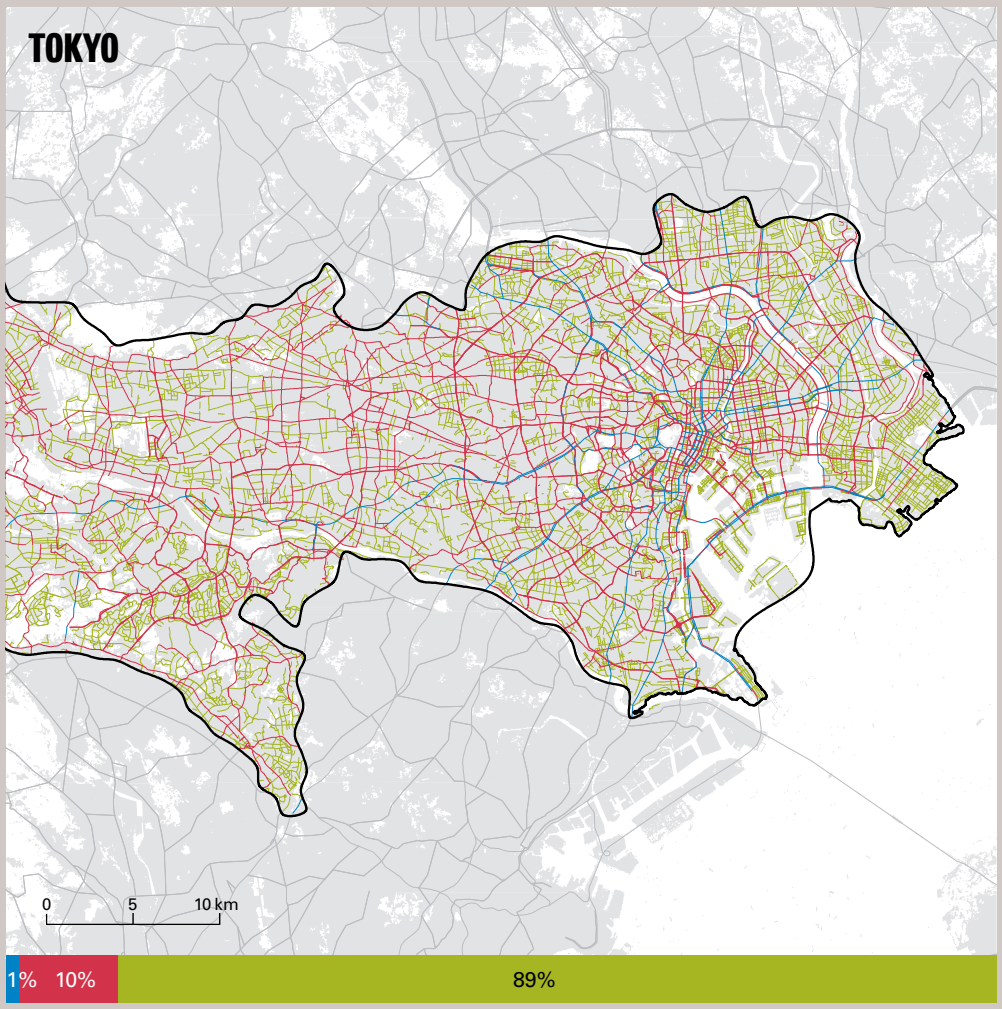
transport infrastructure. Although national governments traditionally control and fund the management of rail-based public transport, this research confirms that they play a less significant role than the sub-city level when it comes to roads. In London, local boroughs manage 90% of roads, while the Mayor (through Transport for London) controls the major arteries which carry 30% of the city's traffic. Local boards control 89% of the roads in Tokyo. Infrastructure management at the level of the municipality represents an advantage in terms of the exercise of democracy and responsiveness to citizens, but economic growth and the availability of resources will struggle to keep apace of the requirements of urban populations. As a result, support from the private sector or national government will become even more significant to the sustainability of urban transport systems in the future.

These maps do not display every road within the metropolitan area, in some cases to improve legibility and in others due to the unavailability of data.

KEY ROADS







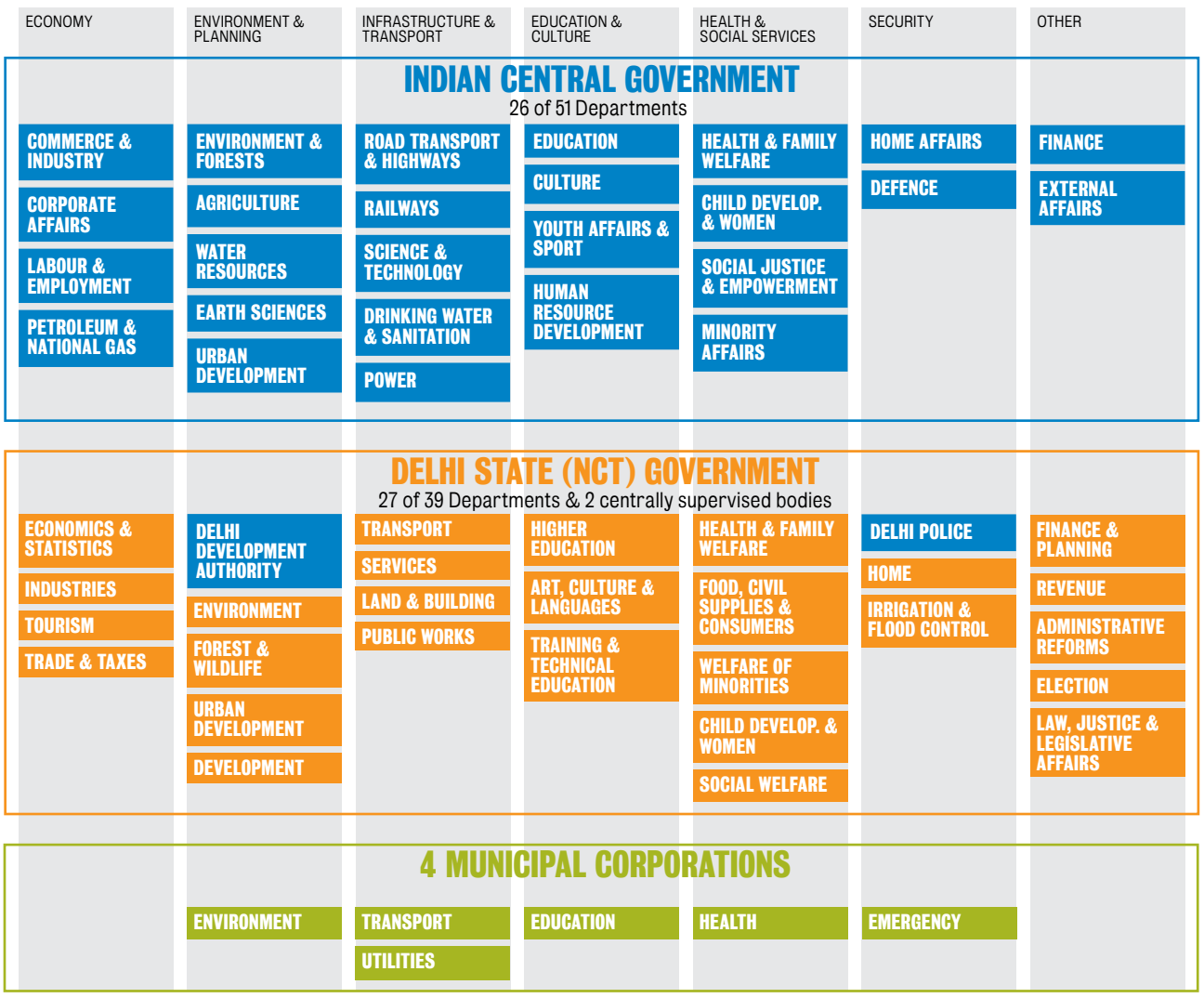
National level | State level | City level | Private sector | Sub-city government | Outside boundary / data unavailable | Shared responsibility

Built-up area data provided by DLR-DFD: for full references to sources, please see http://delhi2014.lsecities.net/newspaper/

GOVERNANCE STRUCTURES

DELHI

GOVERNANCE STRUCTURE

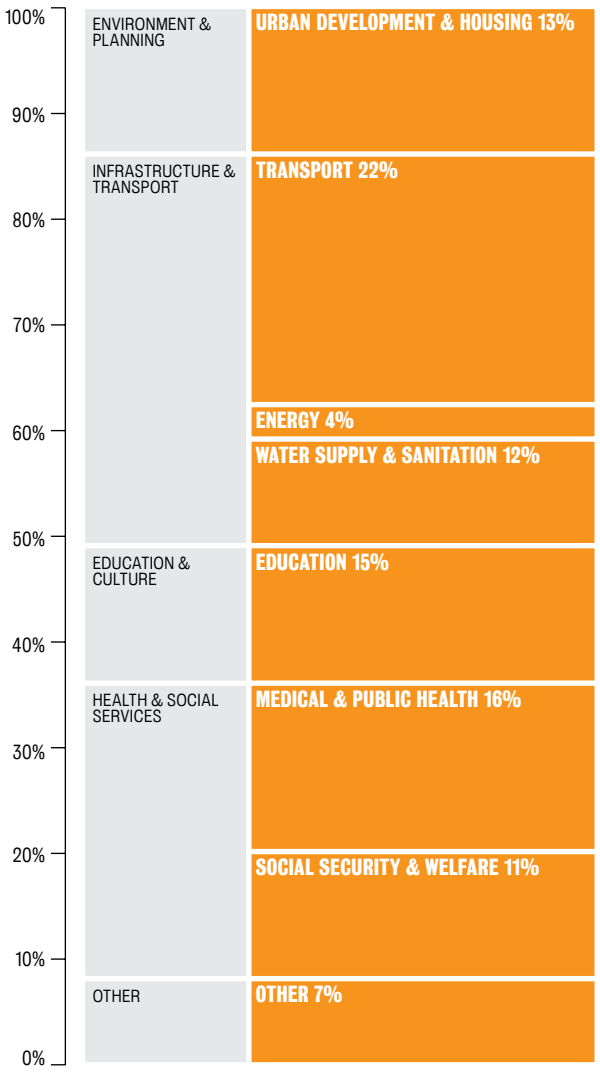


Multi-level governance

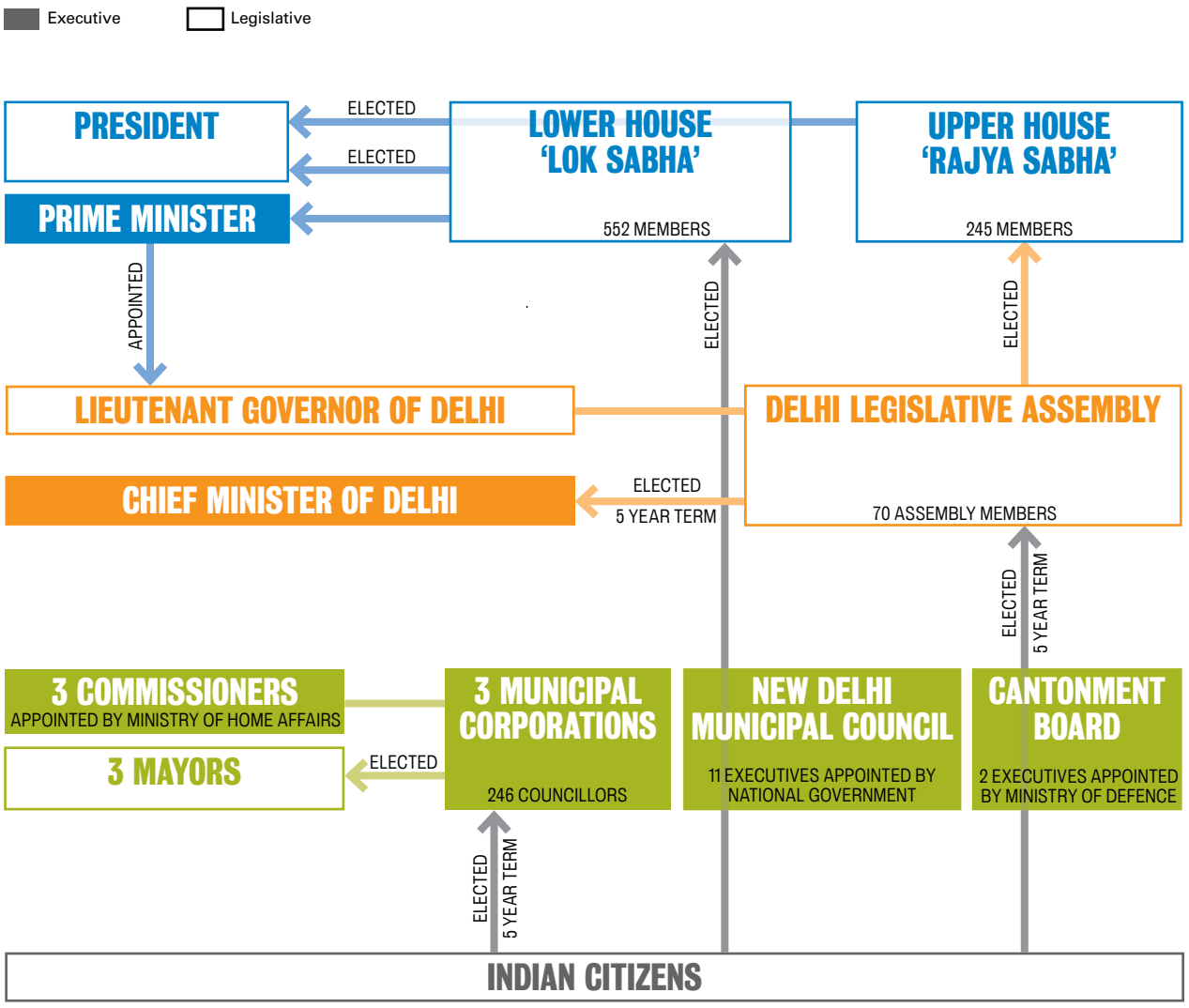
National level | State level | Sub-city level

DELHI STATE EXPENDITURE

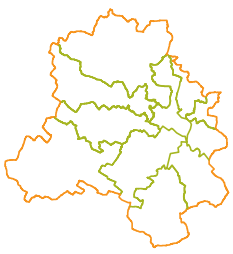
2014-2015



POLITICAL REPRESENTATION



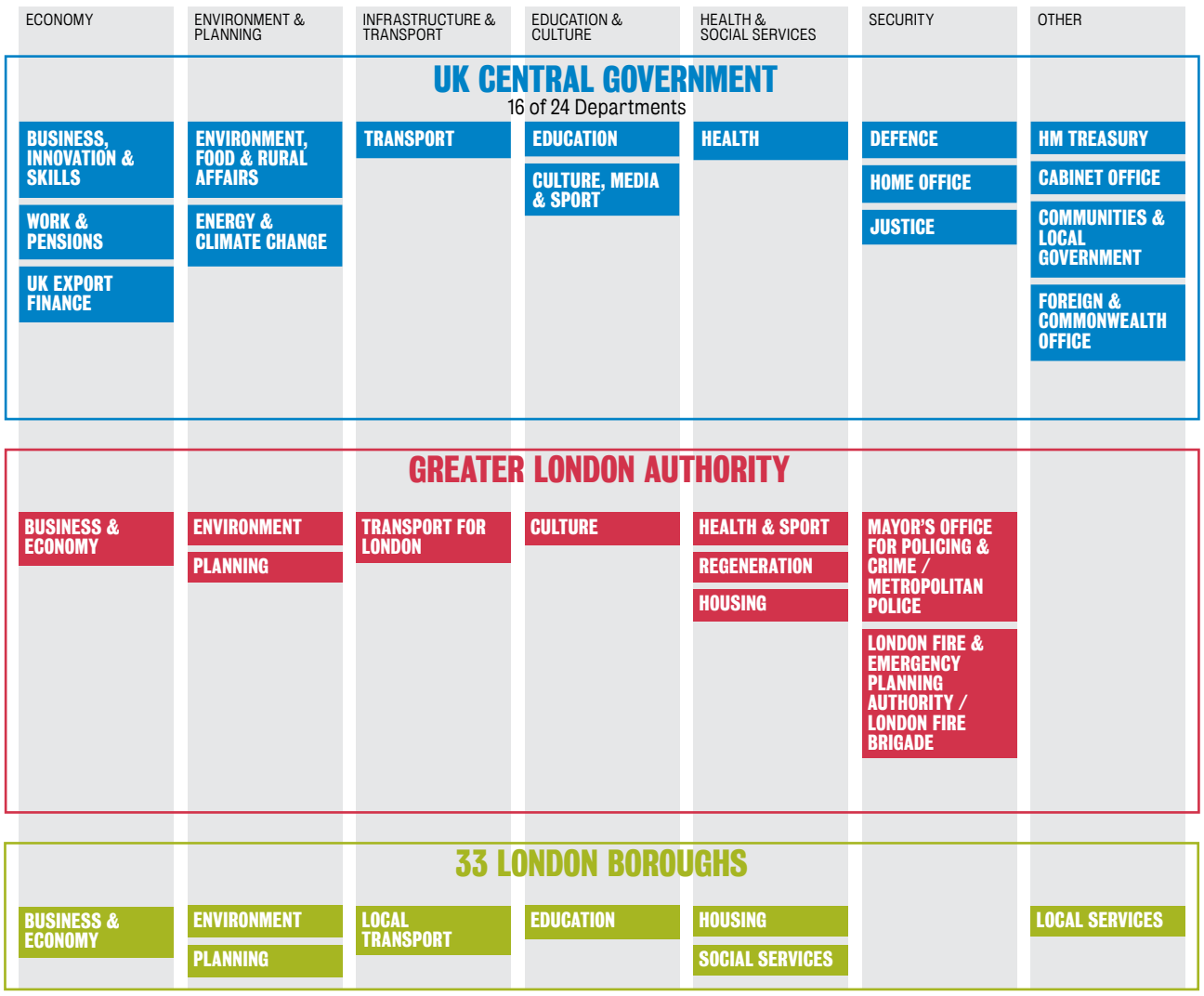
ADMINISTRATIVE BOUNDARY



The National Capital Territory (NCT) of Delhi is one of India's 29 states, with a population of 16.6 million. Its powers are closely dependent on the Indian national government. At the state level, powerful bodies like the Delhi Development Authority and the Delhi Police are centrally supervised. Executive power is exerted through the Chief Minister of Delhi, who is elected by 70 members of the Delhi Legislative Assembly. The central government appoints the Lieutenant Governor. At the local level, there are 11 districts administered through four Municipal Corporations and, partly, by the Delhi Cantonment Board. The executives within these institutions are appointed by national ministries. In 2012, a change in legislation saw the Delhi Municipal Corporation split into three separate corporations: the East, South and North Delhi Corporations, each with their own commissioner and mayor. 22% of the NCT's budget is allocated to public transport and 13% to urban development and housing.

LONDON

GOVERNANCE STRUCTURE

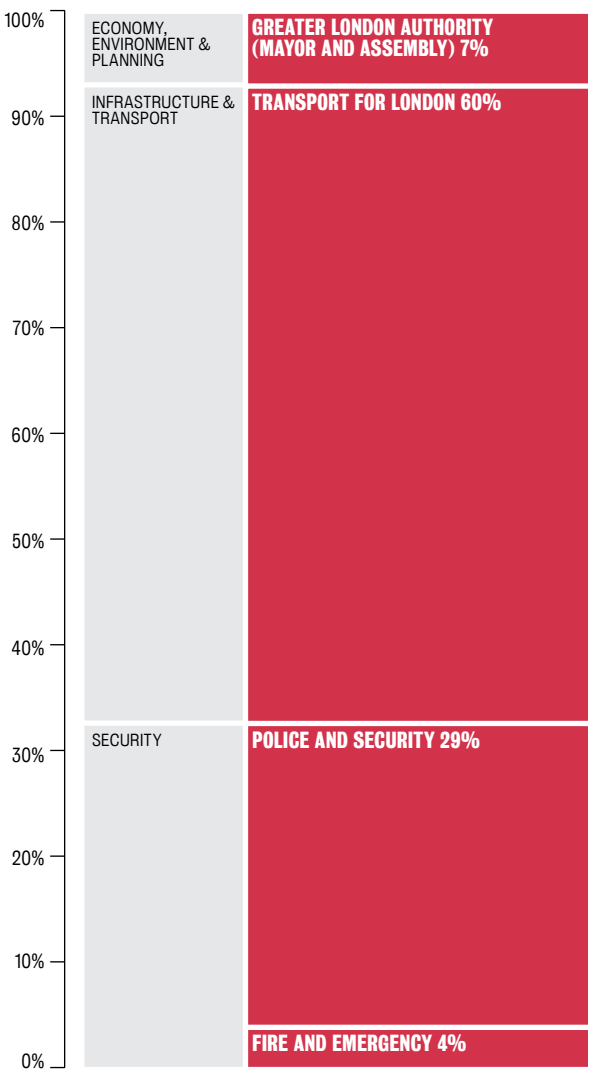


Multi-Level Governance

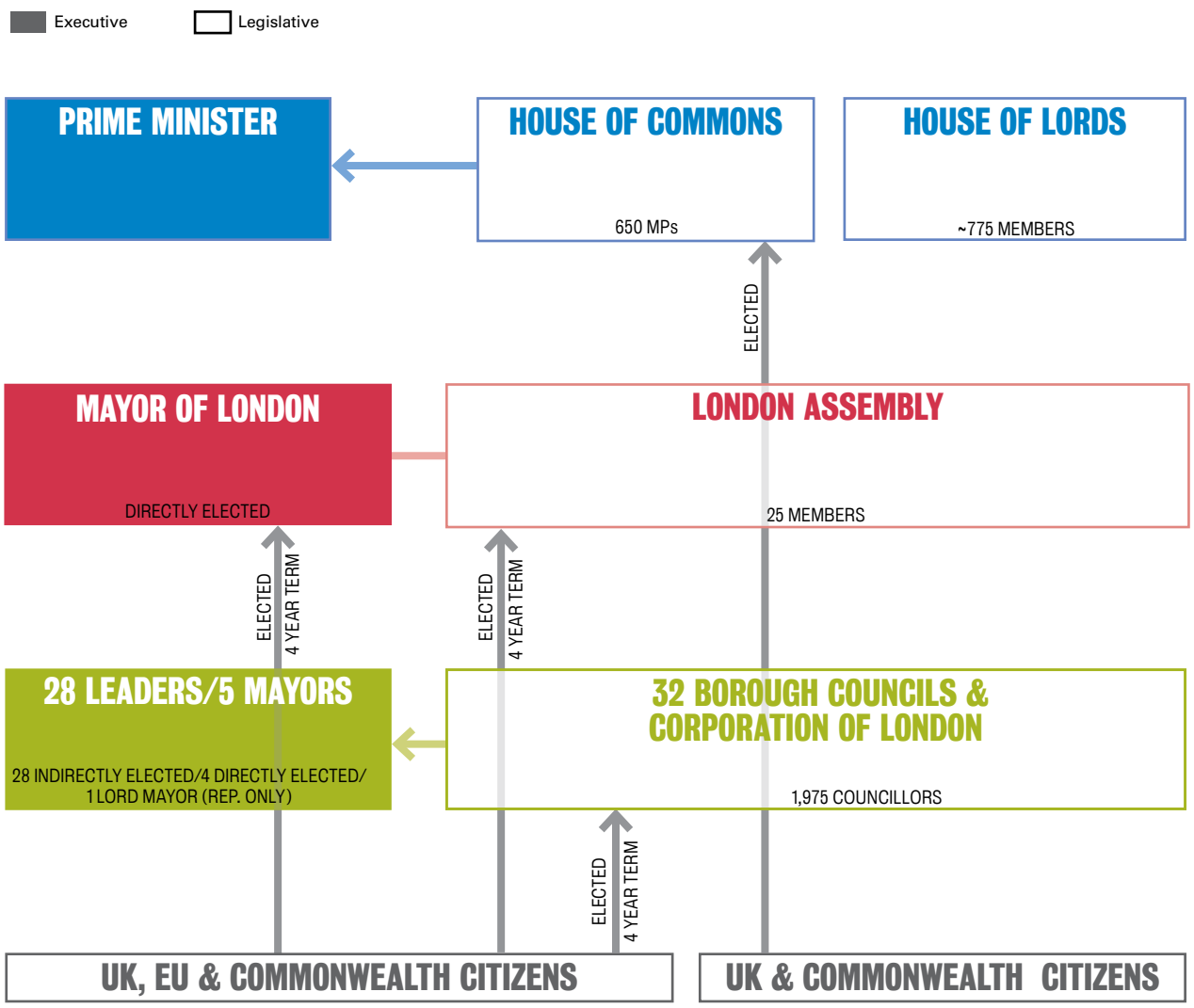
National level | City level | Sub-city level

GREATER LONDON EXPENDITURE

2014-2015



POLITICAL REPRESENTATION



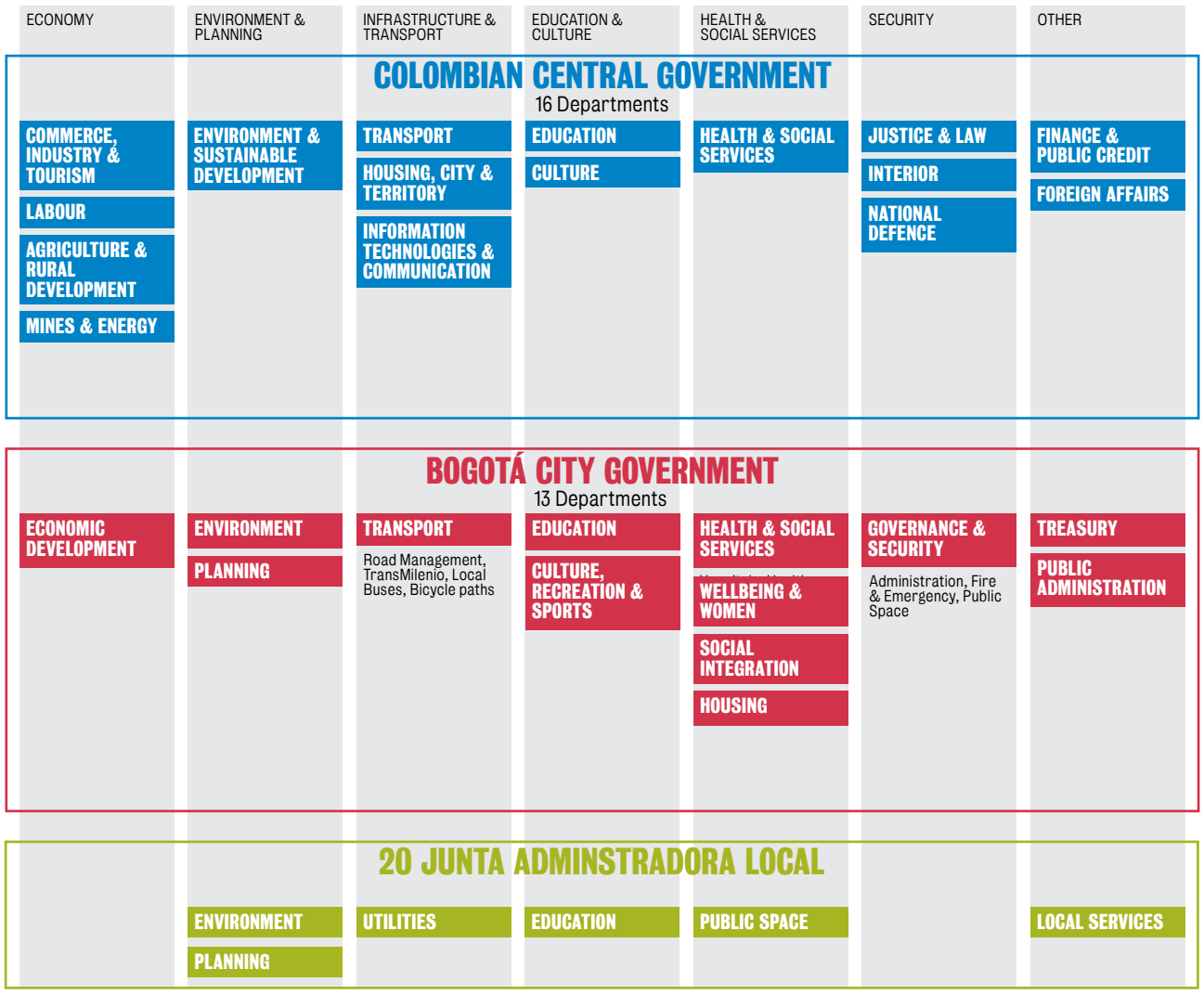
ADMINISTRATIVE BOUNDARY

Since 2000, the eight million residents of London have been governed by a directly elected mayor and the Greater London Authority. The mayor sets the strategic framework for all of London's 33 boroughs (including the Corporation of London) and has executive powers over a number of city-wide areas including transport (the mayor chairs Transport for London), policing, fire and emergency services, inward investment and, to a degree, regeneration and housing. Other areas like education and health are controlled by central or local government. Unlike other nations, there is no state or regional level of governance in the UK. The mayor has the largest electorate in the UK, and one of the largest in Europe, with 5.8 million voters entitled to take part in elections every four years. The 25 directly elected members of the London Assembly have the responsibility of scrutinising the Mayor's Office. Local boroughs, made up roughly 200,000-300,000 residents, are responsible for most other services including schools, social services planning, environment and waste collection. 28 of the 33 borough leaders are indirectly elected through the borough councils, with four borough-level mayors directly elected. The lion's share of the GLA budget is spent on transport (60%), with nearly one-third on police and security.

GOVERNANCE STRUCTURES

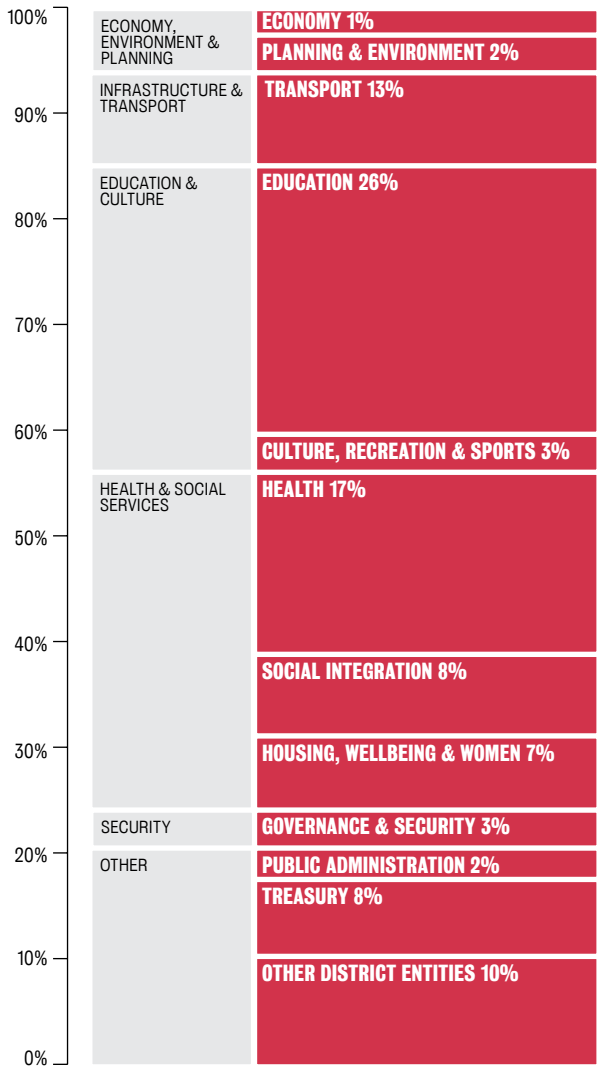
BOGOTÁ

GOVERNANCE STRUCTURE



BOGOTÁ EXPENDITURE

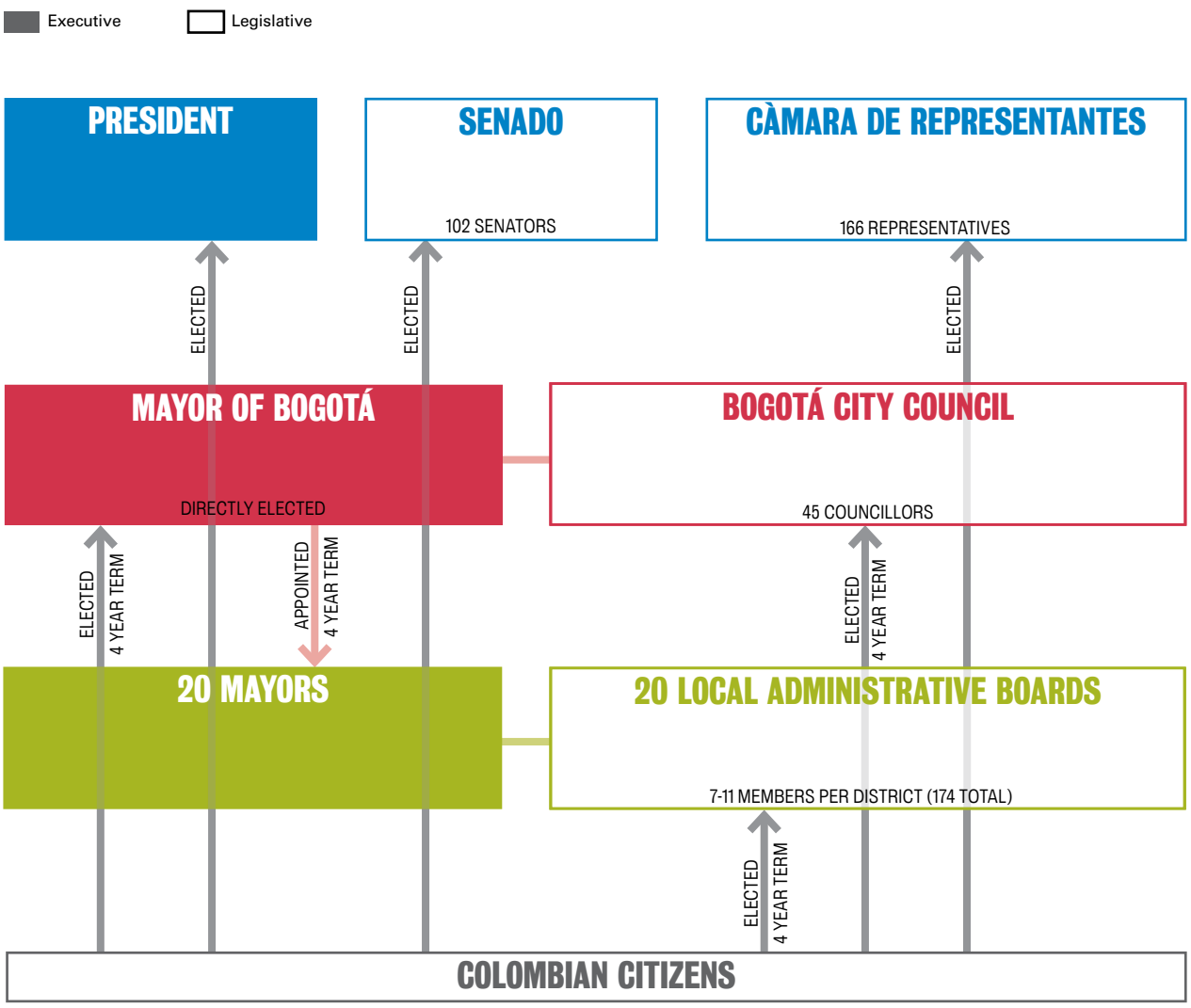
2012-2013



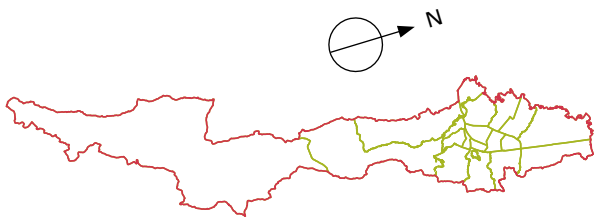
Multi-Level Governance

National level | City level | Sub-city level

POLITICAL REPRESENTATION



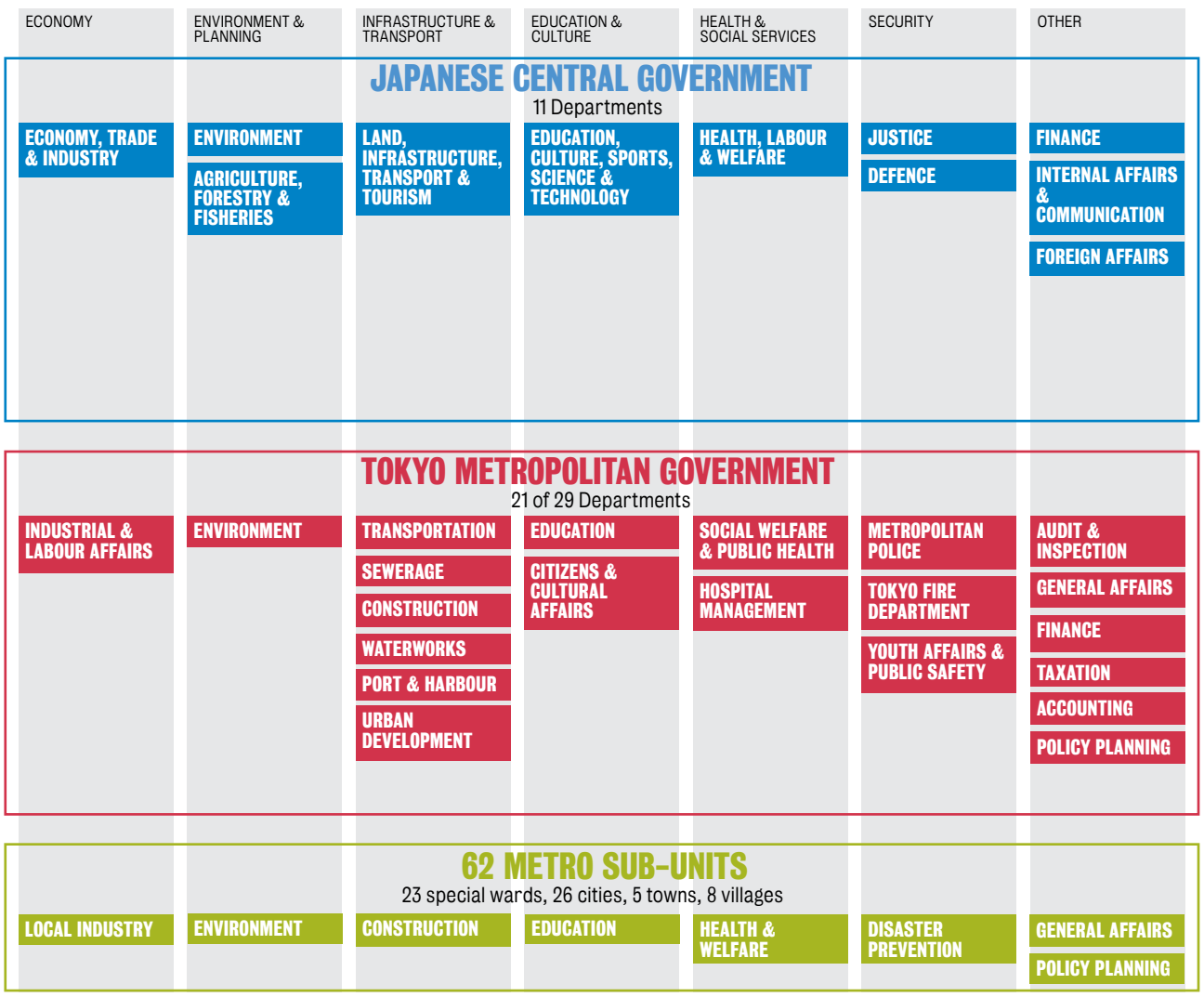
ADMINISTRATIVE BOUNDARY



The City of Bogotá is the capital of Colombia with a population of over seven million people. It is governed by a directly elected mayor, who cannot hold office for more than one four-year term consecutively. While the city formally lies within the Department of Cundinamarca, it is administered independently from the rest of the state and has a degree of autonomy, with 45 directly elected councillors on the Bogotá City Council. Like the UK and unlike India, the power of the regional state is not dominant in city governance structures. The mayor of Bogotá has relatively strong powers across many different sectors including education, health and transport, while the 20 local administrative boards, each made up of 7-11 members, have relatively few responsibilities compared to local boroughs in other cities. The mayor's and City Council's direct influence over transport, health, environmental and educational policies account for the city's ability to implement a series of successful innovations, including the Transmilenio Bus Rapid Transit system, the ciclovía network of cycle ways, and the provision of high-quality schools and libraries near the city's most deprived communities. 26% of the city budget is allocated to education, with 17% on health and 13% on transport.

TOKYO

GOVERNANCE STRUCTURE

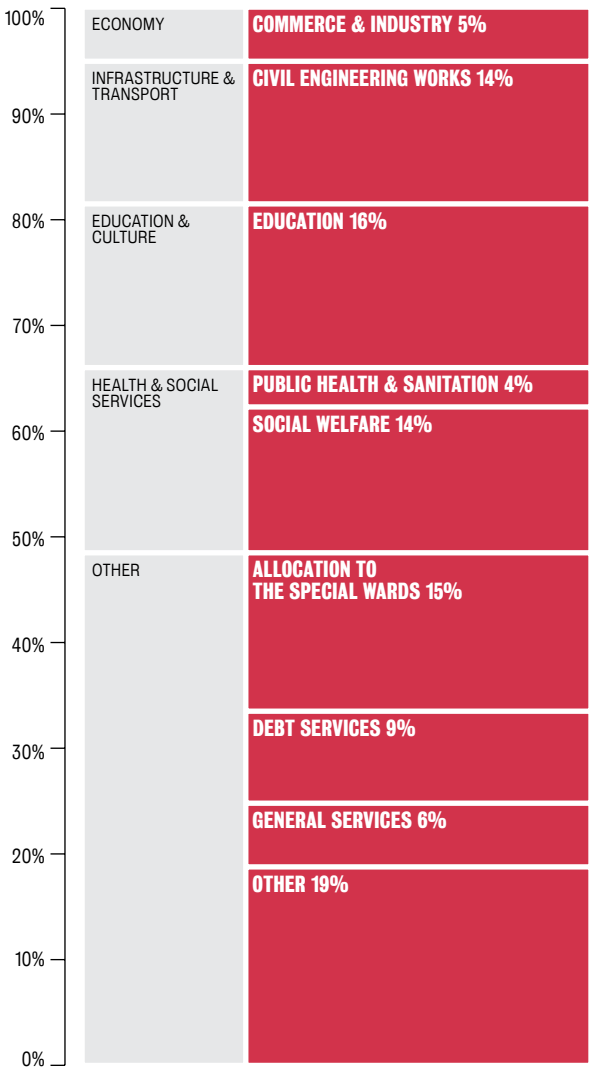


Multi-Level Governance

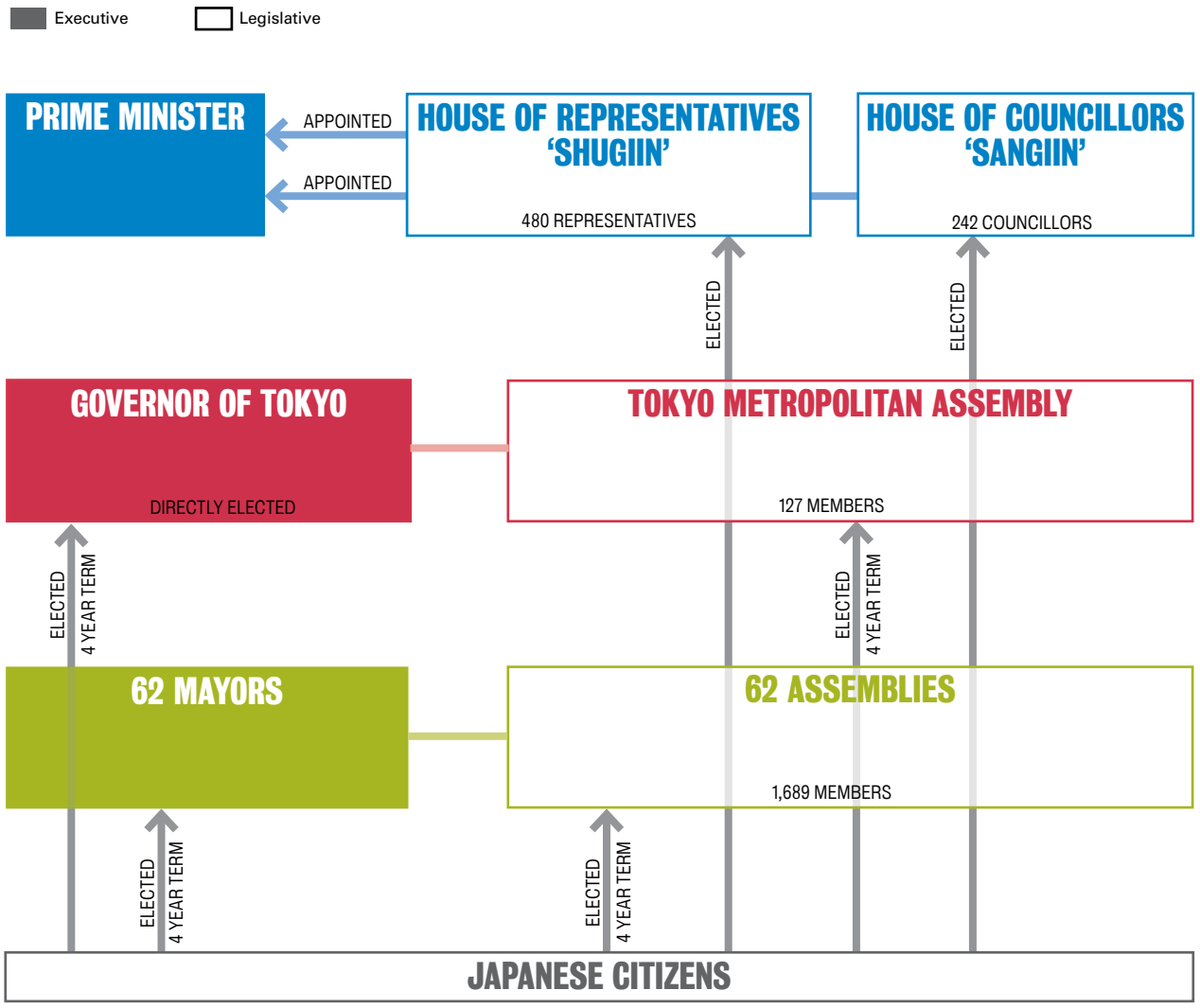
National level | City level | Sub-city level

METROPOLITAN TOKYO EXPENDITURE

2012



POLITICAL REPRESENTATION



ADMINISTRATIVE BOUNDARY

Tokyo is largest urban agglomeration in the world with a population of 38 million people. It is the capital of Japan (and one of its 47 prefectures) and has 13.2 million residents. Despite its size, it has developed an articulated metropolitan governance system that responds to its specific economic, environmental and social challenges, with one of the most sophisticated and efficient integrated public transport systems in the world. Given the size and economic weight of the greater Tokyo area, the directly elected Governor of Tokyo is the second most powerful figure in Japan after the Prime Minister, with an electorate of 9.6 million residents. 127 members of the Tokyo Metropolitan Assembly are directly elected. The Tokyo Metropolitan Government (TMG) administers a total of 62 municipalities which include 23 special wards, 26 cities, five towns and eight villages. Each of these 62 units has a directly elected mayor and assembly who serve office for four years. While the TMG handles broader administrative works, local municipalities are responsible for local services such as education, health and welfare. The 23 special high-density wards are home to major business activities, with different needs from the other municipalities in the prefecture. While 16% of the TMG budget goes to education, 14% to civil engineering and 14% to social welfare, it is interesting to note that 15% is allocated to special ward initiatives.

MEASURING DENSITY

Density is a fundamental measure of urban structure and determines the efficiency of its urban footprint. On these pages, the number of people living in a square kilometre – the 'ambient population density' over 24 hours – is represented for the four case study cities. Across an area of 100x100 kilometres, the diagrams illustrate this density of 'occupation' in any part of the city over a 24 hour period. They combine a range of socio-economic data – residential location, places of employment, journeys to work – to capture the key spatial dimensions of urban economic life.

The taller spikes in the diagrams represent higher numbers of people concentrated in particular locations – dense residential areas, central business districts, event spaces, shopping streets etc. Flatter zones suggest more residential neighbourhoods of a suburban or low-density nature.

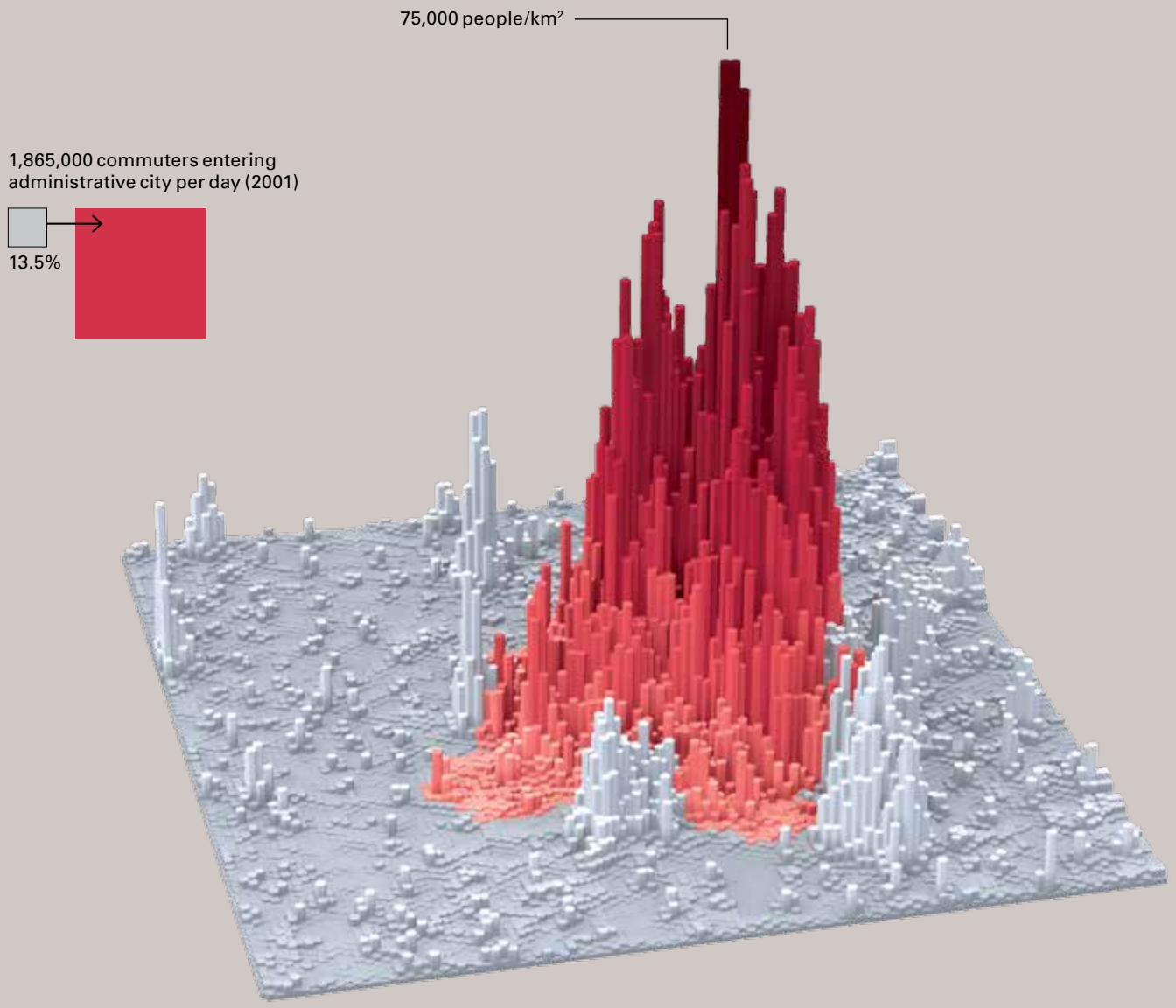
Higher densities can facilitate more sustainable public transport, walking and cycling, making it more efficient to provide services and promote urban vitality. These advantages depend, however, on high-quality urban design and effective city management to minimise the negative impacts of overcrowding, stress and pollution.

While some cities have maintained resident population levels in their central areas, others are losing population from these zones as their boundaries expand. This poses a challenge to cities, as they depend on residents' taxes to finance urban facilities and infrastructure.

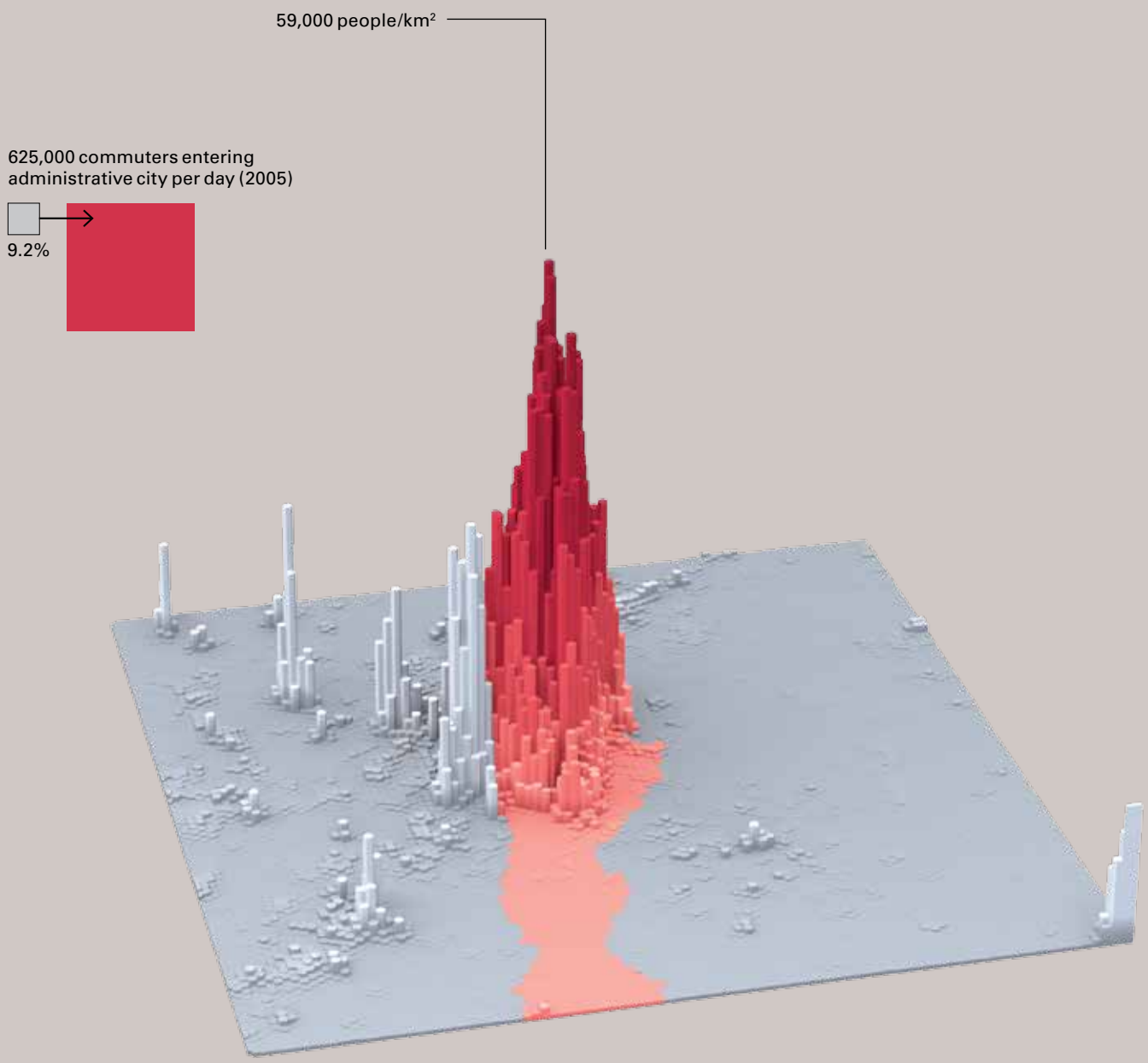
At the same time, most cities have a high percentage of people entering to work each day who do not pay taxes there and often are not represented by the city government as they cannot vote locally. Studying commuters is therefore fundamental to the governance of cities. Tokyo has the equivalent of 20% of its population entering the administrative city every day, while Delhi has 13.5% and Bogotá and London in the order of 9%.

Density differs widely within the four case study cities. Delhi and Bogotá have higher and more concentrated densities in the city core and outskirts while Tokyo and London present lower and more balanced distribution of densities.

DELHI



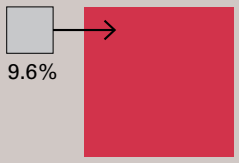
BOGOTÁ



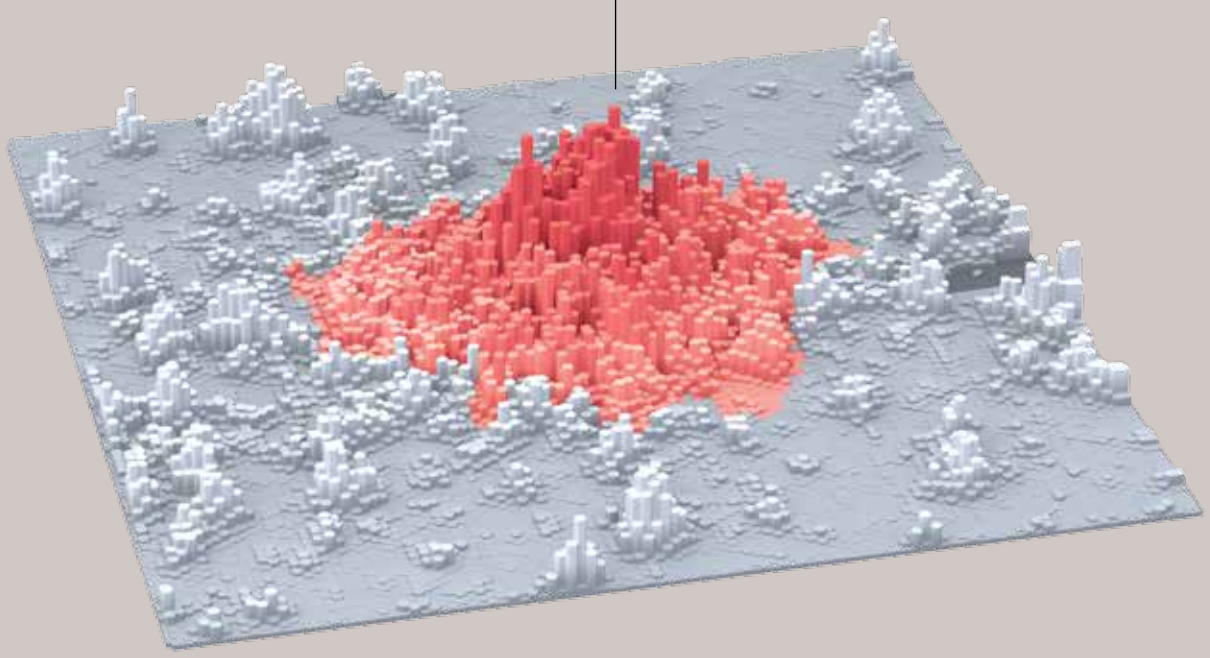
LONDON

21,000 people/km²

722,000 commuters entering
administrative city per day (2007)



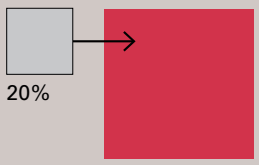
9.6%



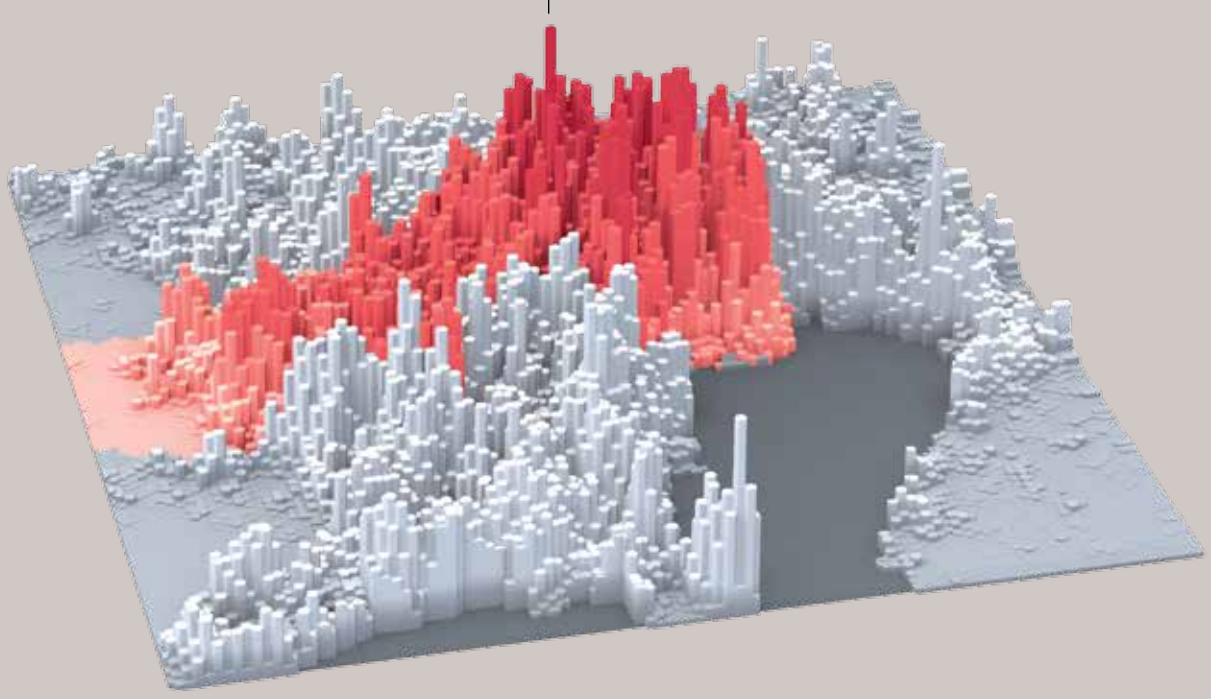
TOKYO

33,000 people/km²

2,530,000 commuters entering
administrative city per day (2010)



20%



Based on LandScan 2010™ High Resolution Global Population Data Set

ASPECTS OF INDIA

INDIA:

SPACE, SERVICES AND THE STATE

Arvind Panagariya

Given the crucial role of cities and towns as centres of economic activity and engines of economic transformation, the importance of well-functioning life in them and their orderly growth can scarcely be underestimated. Unfortunately, however, in India, scant attention has been paid to either the development of new cities or the maintenance and expansion of the existing cities. Basic urban services such as housing, water, electricity, sewage, solid waste and transportation are poorly supplied in much of urban India. Indeed, much of the emphasis of longer-term planning, which formed the backbone of policy-making until the 1991 reforms, was on the countryside, with developments in the cities largely governed by short-term responses to the day-to-day needs of the urban population.

The Indian constitution, with its federal structure, vests much of the power to govern the cities and towns in the states, including the power to enact laws for them. Though urban local bodies such as municipalities and municipal corporations must attend to the daily needs of the citizens, they lack the power to make rules, design policies or do long-term planning in areas of local concern. The state government controls both the budgets of the local bodies as well as significant decisions. This creates a serious free-rider problem whereby local bodies blame the state government for mismanagement and vice versa.

The 74th Constitutional Amendment Act of 1992 tried to correct this situation by mandating the setting up of elected municipalities as institutions of self-government but the devolution of real power has been at best limited. There is a lack of clarity in the assignment of functions and, even more importantly, the local jurisdictions lack adequate financial resources to fulfill even their core functions. They are neither in a position to raise their own tax revenue nor do they receive adequate transfers of financial resources from the state. Most of the local-level decisions remain subject to approval by the state government, with the latter having decisive power to alter urban plans. Therefore, states have a crucial role in undertaking massive reforms in issues of concern to the cities and towns. There are three critical and inter-related areas for reform: land markets, water and waste services, and transportation.

Bigger Indian cities suffer from an acute shortage of space. A number of factors have contributed to the enormous shortage of space in urban land.

First, the Urban Land Ceilings Act (ULCRA) of 1976 led to the withdrawal of vast tracts of urban land from the market. This act imposed tight ceilings on the ownership and possession of vacant lots. The act provided for the acquisition of the excess land by the state, for the common good, at extra-low prices. Seventeen states and three union territories adopted the act, which applied to 64 urban agglomerations within them. Given the negligible compensation, landowners had no incentive to allow the acquisition of their excess lands. The act had provided exemptions on grounds of public interest, hardship and building houses for weaker sections of society. Nearly all owners with excess land claimed one or more of these exemptions. With the power to grant these exemptions vested in the state governments, politicians and bureaucrats sought and received large bribes. Owners who failed to access the exemptions went to court and the land became tied up in lengthy legal battles. The result of these developments was that neither could the government acquire much of the excess land, nor could the owners sell it on the open market. In turn, the cities subject to ULCRA came to face huge land shortages, with prices in large cities such as Mumbai rivaling those in Tokyo and New York City. By the late 1980s, the harmful effects of the act were widely recognised, and it was repealed in 1999. This sufficed to end the ceilings in some areas but required additional action by state governments in the majority. The process of state-level action has been painfully slow. In the interest of making unused land available for industrial and commercial development and housing, states need to make repeal effective.

The second source of shortage of land in the cities around India has been the exceptionally low floor space index (FSI), also called the Floor Area Ratio. The FSI is the ratio of maximum floor space permitted to the area of the plot. For example, if the FSI is two, maximum floor space permitted on a plot of 1000 square meters is 2000 square meters. If the building stands on half of the plot area, the FSI translates into a maximum of four floors. The FSI in Indian cities is much lower than the international average.

Some Indian cities including Mumbai have tried to raise the FSI through so-called Transferable Development Rights (TDR) whereby municipalities trade a higher FSI to a land-owner (whose land they acquire for public purpose) in exchange for a part of their land. Land-owners can then use the TDR to create extra floor space by building up vertically or sell them to someone who needs them. But rather than systematically helping to build a more spacious central business district, such ad hoc trades have led to taller buildings on plots in dispersed locations. What the cities need, instead, is a systematic rise in the FSI over entire areas.

The presence of overly tenant-friendly rental laws, including rent control, also adversely impact the availability of residential and office space. Though reforms have taken place in the last 15 years in several states including Karnataka, Rajasthan, Maharashtra and the union territory of Delhi, overall the laws still continue to be favourable to the tenant.

Once rented, tenants refuse to move out – for decades, even – though alternative uses of the space are likely to become far more productive as the city undergoes transformation. Making it difficult for the owner to reclaim their space from the tenant discourages them from renting out the space in the first place. The result is the proliferation of empty flats, despite a massive shortage of rental properties.

The efficient use of urban land often involves its conversion from one use to another. Warehouses may be converted into office space, declining factories into housing and peripheral agricultural land into factory space. Indian cities are subject to myriad rules and regulations that prevent such conversion and even when permitted, the process can be prohibitively cumbersome.

Water and waste services in India remain in a deep crisis that threatens to get deeper. The problem arises from the delivery of services by the state and local authorities. Having water and sewage connections is not enough to avail of these amenities: the services must be supplied reliably and regularly. What can governments do to improve matters in these areas? As Jagannathan points out, the key problem of the existing decision-making process in the delivery of water is its highly centralised nature at the level of the state. The same state-level agency or department performs the bulk of the remaining functions, including policy-making, regulation, financing, designing and building infrastructure, management and delivery. When the leadership at the top is highly motivated, competent and hardworking, such a system may produce occasional successes. But given the work culture of Indian bureaucracy, such a system produces vast scope for avoiding accountability, with one arm of the concerned department blaming the other for breakdowns and poor delivery. When it comes to design and management, the centralised system is also far removed from local conditions and fails to adequately take account of the needs of the customers.

There is a case here for unbundling the major functions of the actual acts of delivery, tariff setting and policy making. The actual delivery of water supply within a specified jurisdiction should be assigned to an autonomous local body with separate finances. The autonomous body should be given the responsibility of maintaining the infrastructure, undertaking necessary capital investments, installing and reading meters, billing the customers and collecting revenues. An independent state-level regulatory agency should be charged with tariff setting and regulating all aspects of delivery such as 24x7 supply and minimum quality standards of water in all jurisdictions. Finally, the relevant department at the level of the state should be entrusted with the responsibility to make policy within which the regulatory agency operates.

Transfer of operational authority to the local body in this manner will go some way toward bridging the gap between the service supplied and service demanded by local residents. It will also open the door wider to forging partnerships with private companies to deliver the service more effectively and efficiently. For instance, the autonomous local body could use variations of the PPP and franchise models to improve service.

States need to design more systematic reforms for the delivery of services. This will, of course, require strong commitment on the part of the state leadership. Those currently in charge of building and running the water delivery system have a vested interest in maintaining the status quo. The leadership will have to overcome this opposition. Giving greater authority to local bodies where they exist and creating them where they do not can be effective in improving sanitation and solid waste management as well. There have been success stories in waste services in Navi Mumbai, Rajkot and Surat: the question is whether these successes are the result of exceptional leadership in certain government offices, or if they can be easily replicated in other cities.

Given the significance of transport in cities, coordination among different components of the transportation system is critical. This suggests that while the private sector can play an important role in supplying and operating the rolling stock, effective public sector coordination is likely to be central to the success of the overall transportation system. Unsurprisingly, the public sector remains actively involved in the provision of in-city transportation in virtually all the major cities of the world.

While basic transportation systems have existed for many years in at least the larger cities of India, rapid transit systems are still in the process of being developed in most cities. Successful experiences with both bus and rail-based rapid transit systems have emerged recently, the former in Ahmedabad and the latter in Delhi. In 2006, Ahmedabad Municipal Corporation launched the Bus Rapid Transit System (BRTS), designed partially after Bogotá's TransMilenio. When fully completed, it will provide high-speed transportation over the length of 155km.

The system involves a dedicated lane on the road for the buses that can be monitored at all times from a control room. This allows rapid response to emergencies and breakdowns along the transportation route. A Special Purpose Vehicle, Ahmedabad Janmarg Limited, (registered as a subsidiary company of Ahmedabad Municipal Corporation) governs BRTS operations. The success of Ahmedabad BRTS has led Bangalore and Chennai to opt for similar systems. These are currently under implementation.

In 1995, Delhi decided to build its rail-based Mass Rapid Transit System (MRTS) via the instrumentality of Delhi Metro Rail Corporation, a public sector company with equal equity participation by the Government of India and the Government of the National Capital Territory of Delhi. This is an ambitious project consisting of six lines with a total length of 190km and 142 stations. The system connects Delhi to Gurgaon on the western side and Noida and Ghaziabad on the eastern side. Daily ridership rose from the initial level of 82,000 passengers in December 2002 to the record figure of 2.3 million on February 11, 2012.[1]

Other larger cities in need of rapid transit systems could learn from Delhi and Ahmedabad. Delhi Metro is undoubtedly the far more expensive option in terms of cost per passenger carried than Ahmedabad BRTS, but it is also one that has the benefit of linking many surrounding towns in the adjoining states of Haryana, Uttar Pradesh and Rajasthan to the nation's capital. These links promise to play a critical role in the future economic development of the wider national capital region. On the other hand, Ahmedabad BRTS model offers a less expensive option. The rapid transit systems in Ahmedabad and Delhi complement the older, larger and denser transportation

systems.

In order for urbanisation to proceed smoothly and for urban residents to have healthy lives, economic policy and reforms must be aimed at progress in each of these three areas. Because of interconnections among these components, progress in one or more areas can make progress in other areas easier. By the same token, bottlenecks in one area can create bottlenecks in others. In particular, the problems are often local while all the decision-making authority rests at the level of the state. What is required is the creation of entities at the local level that are entrusted with the responsibility to oversee the service, and a greater devolution of authority and financial autonomy to them. This structure will also allow the local entities to forge partnerships as necessary.

1 See "Delhi Metro records highest ridership of 23 lakh on a single day" in the Times of India, February 12, 2013.

This article is based heavily on Ch. 7 of Arvind Panagariya, Pinaki Chakraborty & Govinda Rao, *State Level Reforms, Growth and Development in Indian States*.

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INDIA:

BUILDING CAPACITY

Isher Judge Ahluwalia

India faces a major transformation of its urban landscape as growing numbers of young and aspiring Indians move from rural to urban areas in expectation of better living conditions and more productive employment. The combination of rising aspirations and growing middle classes on the one hand, and inadequate planning for the inevitable increase in urbanisation on the other, is creating a situation which is socially and environmentally unsustainable, and the consequent deterioration in the urban environment could easily throttle the high growth that India should otherwise reasonably expect.

India is not unique in this experience although its scale and its highly participative and open democratic regime make it especially vulnerable. Urbanisation is not only a consequence of faster growth and development but is also an instrument promoting development through the economies of agglomeration which characterise cities. Poorly-run and inadequately funded cities are obviously not in a position to support this process.

For quite some time now, the rich and the middle classes in Indian cities have tried to get around the deteriorating condition of public services by finding private solutions. They use cars for their unnecessarily long travel needs within the city (caused by poor land use planning with little regard for transport planning) because public transport is either non-existent or of poor quality. Similarly, they rely on water storage tanks and booster pumps to convert an intermittent supply of water into a reliable and constant supply. Typically, there is political resistance to raising tariffs, as in the case of drinking water. Those responsible for delivering water are unable to cover costs, and since water is underpriced, there is no incentive for users to conserve. The poor suffer the most because of their inability to afford high-priced substitutes. The rapidly growing middle classes also suffer because they are denied access to services which they need and are often even willing to pay for.

With half of India's population below the age of 25 and their patience running out, the conspicuous absence of well-functioning urban environments creates a social challenge of monumental proportions. In fact, the rejuvenation of rural India also depends critically on the way urbanisation proceeds, e.g. how the quantity of water available for agriculture is significantly affected by water use in urban areas, and how modern supply chains offer opportunities for high-value agriculture.

An additional challenge has been the proliferation of slums, particularly in the large metropolitan cities of India. A heavily distorted market for land and housing, a highly inadequate regulatory regime, multiple restrictions pertaining to rent control and the absence of a well-crafted strategy for providing housing for the economically weaker sections of society within an overall framework of urban planning, has created conditions in which 25% of India's urban population (the poor and also not-so-poor) live in slums, with the figure rising as high as 50% in Mumbai. Besides the cramped living-space for housing, most slum settlements lack basic water and sanitation systems.

India's urban population is projected to increase from 380 million (33%) in 2014 to 600 million (about 40%) by 2031. Besides the 8000 or so cities and towns, there are also the unacknowledged urban areas, that remain so even when the Census declares that they fulfill the criteria to graduate from a village to a town. Such "census towns" increased by more than 2500 – from 1362 in 2001 to 3894 in 2011 – while the number of statutory urban local governments increased by less than 250 over this period.

The census towns represent the missing middle in urban governance. Not only is there political resistance (at the state government level) to empowering these towns with a statutory urban local government (which could articulate and deliver their demand for urban infrastructure and services), but often the rural local governments themselves are reluctant to "go urban" because local politicians see more largesse coming their way through rural development schemes.

More generally, political empowerment is circumscribed by infrequent elections and limited tenures of mayors, while the executive power by and large is vested in Municipal Commissioners who are appointees of state governments. As the demand for good governance is growing, there is no doubt that only a politically-empowered city government can be held accountable effectively.

So far, India's political system has systematically ensured that the urban population is under-represented in national and state legislatures. The general elections of 2014 were conducted with urban and rural constituencies distributed on the basis of the 2001 census which showed only 28% of India's population as urban. A political agreement was also reached whereby this proportion will continue until 2031: the significant under-representation will continue.

A major reality check on the extent of urban unhappiness with the state of affairs was provided by the meteoric success of Aam Aadmi Party (AAP) in the Delhi state elections of December 2013. "Aam Aadmi" translates as "common man", while "Aap" is the Hindi word for "you", in the formal register which indicates respect. AAP was able to mobilise urban votes in the city state by committing to affordable and better delivery of public services and a promise to root out corruption. Even though the fledgling party was not able to capitalise on these political gains and resigned within a short period, the lesson for the political class in general and the two established national political parties in particular is to recognise the growing dissatisfaction of urban India and address the associated challenges.

We need to begin by politically empowering urban citizens through adequate and fair representation in electoral rolls and national parliament. This has to be supplemented with the empowerment of local governments (by conducting elections at regular intervals), and also by empowering communities to orchestrate the demand for good governance.

A suggestion for the direct election of mayors is often put forth as an instrument for better governance. Only very few states – including Tamil Nadu, Rajasthan, Madhya Pradesh, Uttar Pradesh and Himachal Pradesh – currently have directly elected mayors. The functioning of a directly elected mayor in a parliamentary system poses a number of challenges. Where the Council of locally-elected representatives is controlled by a political party antagonistic to the party from which the directly elected mayor comes, the decision-making can become tortuous, although the Council could act as a counter-balance to the mayoral position. However, such checks and balances become meaningless, since in most states the mayor has virtually no executive powers. Where powers are vested in Mayor-in-Council, an indirectly elected mayor may well be in a better position to ensure smoother functioning. More important than the mode of electing the mayor is the issue of the powers of the city government relative to the state government.

In 1992, the 74th Constitutional Amendment formally recognised urban local governments, and transferred the responsibility for a number of basic urban services to them. The specified functions have largely been devolved by most state governments although a number of very important functions, such as town planning as well as law and order, remain with the state governments. There is not enough financial devolution to attend even to the functions devolved. Moreover, functionaries remain under the control of the state government rather than the local government to which they are assigned.

A new opportunity for financial devolution is offered by the current negotiations between the Government of India and the state governments on sharing GST (goods and services tax), which requires an amendment of the Constitution. The same amendment should ensure that a small proportion of GST is earmarked for transfer to local governments. This will take forward the process of decentralisation that was set in motion by the Constitutional Amendment of 1992. Assigning town planning to municipal governments could be another instrument through which urban local governments can unlock land value, allowing them to go about the business of land zoning and developing urban infrastructure within a framework of self-financing.

Urban local bodies also need greater autonomy in mobilising revenue through municipal taxes and user charges. Besides reforming the property tax regime, there is need for a Municipal Finance List in the Constitution which should specify taxes that are exclusively the domain of local governments. They must also have effective power to set user charges to cover costs in the delivery of public services.

Above all, fundamental reforms are needed in gearing up local administration, injecting performance orientation and encouraging the use of new technology including innovative practices of e-governance. State governments can facilitate the devolution of functionaries by creating municipal cadres and strengthening their capacity through training. Only then can a credible revenue model emerge which makes urban local governments credit-worthy so that they can borrow in the capital market or attract private funds in public-private partnerships (PPPs). As regards the latter, there is also the need for a clear and transparent assignment of risks for both parties and an effective dispute resolution mechanism if PPPs are to succeed in improving the public service delivery scenario.

With the objective of providing strategic leadership, in 2005 the Government of India launched a national mission, JNNURM (Jawaharlal Nehru National Urban Renewal Mission) to provide conditional funding for urban infrastructure projects in partnership with state governments and local urban governments. Enforcing the conditionality of reforms for financial support was a major challenge. It was politically difficult for the Government of India to withhold disbursements on a project which was being implemented well just because reforms were not carried out by the state and city governments. While the Mission therefore had only limited success in driving urban reforms – and also suffered from its design, which did not explicitly relate funding to service delivery improvements – it served as a catalyst for a lot of action on the ground. Success of the projects depended critically on the enabling environment provided by the state government and on the capacity and leadership at the local government level. While the Mission has ended as of March 2014, it has important lessons to offer on the way forward.

A compendium of case studies in my recent book, *Transforming Our Cities*, amply demonstrates the critical role played by the state governments in ensuring the success of specific urban development projects. Wherever the state government came forth with necessary legislative reforms, institutional framework for

financial and regulatory support helped build capacity for urban planning and city management at the city government level. Where the city governments were relatively financially strong, there were amazing transformations at the micro level with whatever limited funds were provided. The role of human leadership in delivering better governance also emerges clearly from these stories.

Continuous water supply from a treated source for all in the small town of Malkapur, moving from zero to a complete underground sewerage network achieved in only five years in Alandur, waste water treatment in Surat and Navi Mumbai, integrated solid waste management initiatives in Rajkot and Pune and improvement in public transport through BRTS in Ahmedabad and differentiated modern bus services for different income groups in Bangaluru show that some Indian cities are on the road to transforming themselves. The public service delivery revolution through e-governance can also be seen in Hyderabad, Kalyan-Dombivili, Pune, Pimpri Chinchwad, Surat and some other cities.

The experience of the past decade has raised the ambitions of Indian cities. In one of the first major initiatives of the new government, Prime Minister Modi launched a broad-based Clean India (Swatch Bharat) campaign on October 2, 2014 – the birth anniversary of Mahatma Gandhi. The building of many more toilets including community toilets will have to go hand-in-hand with expanding the sewerage network and enhancing the sewage treatment capacity, which is far short of what is needed to meet even the current needs. Similarly, waste water treatment and drinking-water provision have to be planned and implemented in an integrated manner, as is being attempted in Nagpur.

Our recent experiences have shown that even within the economic and political constraints we impose on our cities, it is possible to do far better than most cities are currently doing. IT has been a major game-changer in Indian cities, where a robust network and computing infrastructure was combined with back-end integration of the software modules, and there was a transition to a new way of doing business. The promise of the new government to build 100 smart cities will require not only new technology but also drastic reforms in the political and institutional environment in which our cities function, with a focus on connectivity, integrated land use and transport planning, and environmental sustainability.

In both the Clean India campaign and the Building 100 Smart Cities programme, champions will have to be assigned the task of communicating the vision, building awareness of the public health hazards with the business-as-usual approach and helping to change minds regarding the importance of cleanliness and smartness. The Government of India and the state governments will also have to play a major role in building the capacity of local governments for urban planning and city management. With political empowerment and greater devolution of functions, finances and functionaries, city governments can rise to the occasion by responding to the growing challenges of urbanisation – and be held accountable.

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INDIA:

ACCOUNTABILITY AND GOVERNANCE

Charles Correa

There are two crucial aspects of urban governance that our cities desperately need. Let's begin with the first: Accountability.

Around the world, more and more cities are being run by political leaders who are directly elected by the people of that city. So they champion the interests of the citizens - or they will not get re-elected. That is the essential mechanism by which Democracy ensures the accountability of our political leaders. It's as simple as that.

Whether the designation is 'Mayor', or 'Chief Minister', it is a position of considerable power and responsibility – one which attracts very high-profile politicians. For instance, just before Jacques Chirac became President of France, he served as Mayor of Paris.

To install this system of accountability, we need not convert our cities into independent city-states. For instance, though the city of New York is very much an integral part of New York State, decisions for the city are not taken by the State Governor in Albany, but by the city's Mayor in Manhattan. For to be elected Mayor of New York, is to stand up to – and when necessary, confront – the Governor in Albany. That is what democracy is about: confrontation resolved through a process of negotiation. How well the Mayor negotiates the key issues determines whether or not he gets re-elected.

This unfortunately is not what happens in our Indian cities. Instead of this system of tough negotiations, with each side trying to protect the interests of their respective electorates, our Indian cities are run by a State Chief Minister who is *not* elected by the citizens of that city – and who can therefore be completely oblivious to their wishes. All he has to do is get his orders from his party bosses in Delhi and convey them directly to the State Urban Secretary – who instructs the Municipal Commissioner accordingly, i.e. to increase Floor Space Index (FSI), change land-uses, etc. Our Chief Minister has no accountability whatsoever to the citizens of this city because we do not vote for his re-election. In that sense, we have no democracy in our cities! What we have instead is a carry-over from the British Raj, where the Governor of Bombay Presidency had complete power over Bombay – as well as all the other cities along the west coast, right up to Ahmedabad, Karachi and Quetta.

In recent years, Delhi has become the one conspicuous exception. But even this is not exactly true, because the Chief Minister of Delhi does not have jurisdiction over several of the most important civic bodies and government departments which constitute that city. For instance, the whole of Lutyens' New Delhi is under the Central Government, the Police under the Home Ministry, and so forth. Unfortunately, when things went wrong over the last few years, Delhi's Chief Minister Sheila Dixit did not bring this up because she may not have wanted to embarrass the powers-that-be. So instead she took the blame, rather gallantly, for decisions that perhaps were not of her making.

When Arvind Kejriwal became CM, this conflict came vividly into focus. He stood up for the city government of Delhi, against the larger political context, i.e. the Central Government. There is nothing wrong in doing that. In fact, it is an essential part of his job. And let's not forget, it was the confrontation between Ken Livingstone and Margaret Thatcher, with their conflicting agendas, that re-energised the city of London.

The other crucial ingredient missing in our cities and towns is pro-active governance. My professor, Buckminster Fuller, used to call the British East India Company 'world pirates', for pirates know they have to act decisively if they want to survive. That sense of urgency is totally missing in our urban governance – although the problems facing Third World cities are among the most fast-changing and lethal we know, and crucial to our very survival.

In 1985, Rajiv Gandhi, one of the few Indian politicians concerned about our cities, appointed India's first National Commission on Urbanisation. For the next two years, we visited all the key cities in every State in our country, meeting with political leaders, bureaucrats and concerned citizens. The picture these experiences generated was surprisingly positive. For India has many growth options. It is not dominated by any single primate city, which pre-empts all investment – like Lagos and Nigeria (or for that matter, Paris and France, or London and Britain). Instead, through the centuries, we have accumulated a diverse system of towns and cities of varying sizes, from Chennai to Jullundur, from Delhi to Coimbatore – and they exist in dynamic balance, so the growth options are indeed flexible.

This is of crucial importance when it comes to the staggering problem that lies at the heart of the crisis that most Third World cities face, viz., the distress migration from villages to towns and cities - with squatters on pavements and other crevices all over the cities. This has invoked two diametrically opposed attitudes. There are those that say: 'Throw them out!' and others that say: 'No, they have the right to stay where they are'. Neither attitude helps. Letting them stay where they are, living in bestial conditions, insults our own human values. Throwing them out misses completely the underlying problem, viz: the dehumanising living conditions and viscously skewed land-holding patterns that prevails in our rural areas.

Europe went through much the same process in the 18th and 19th centuries, when millions of desperate Irish, Italians, Jews, Germans, English, decided to leave – and for much the same reasons. But due to the colonial system operating at that time, they could re-distribute themselves around the globe – an option not open to Indians today. So for the rural migrant, arriving in Kolkata or Pune is a substitute for a visa to Australia. That is the functional role that our cities are playing in the development of our nation. What we have to do is find ways to *increase the absorptive capacity of this urban system*.

The Commission's Report identified several strategies through which this could be done, both within individual urban settlements, and at the scale of the overall system.

For example, in order to alleviate the pressure on our larger cities, the Commission identified 325 small urban settlements that are growing faster than the national average – despite the lack of basic amenities, like sewerage, water supply or transport. Most of these are *mundi* towns (i.e., market towns) – for instance, Erode in Tamil Nadu, a town of 160,000 with no sewage system, but which has evolved into the most important centre in India for re-processing textiles. A bustling town, full of maniacal energy, it has buyers from all over the world, stepping over open drains. If the right decisions and investments are made, towns like Erode could form the nucleus of new urban centres that would deflect migration away from our existing cities – completely changing the dimensions of the daunting problems we face. And there are more than 300 other towns like Erode. This is why we need pro-active urban governance – instead of the passive attitude which has now become chronic. Unlike those pirates, we let almost every opportunity pass us by. For instead of giving Erode a sewage system, or water supply for that matter, we end up spending the money on some new bauble for Delhi or Chennai, which of course only increases the flow of migrants in their direction.

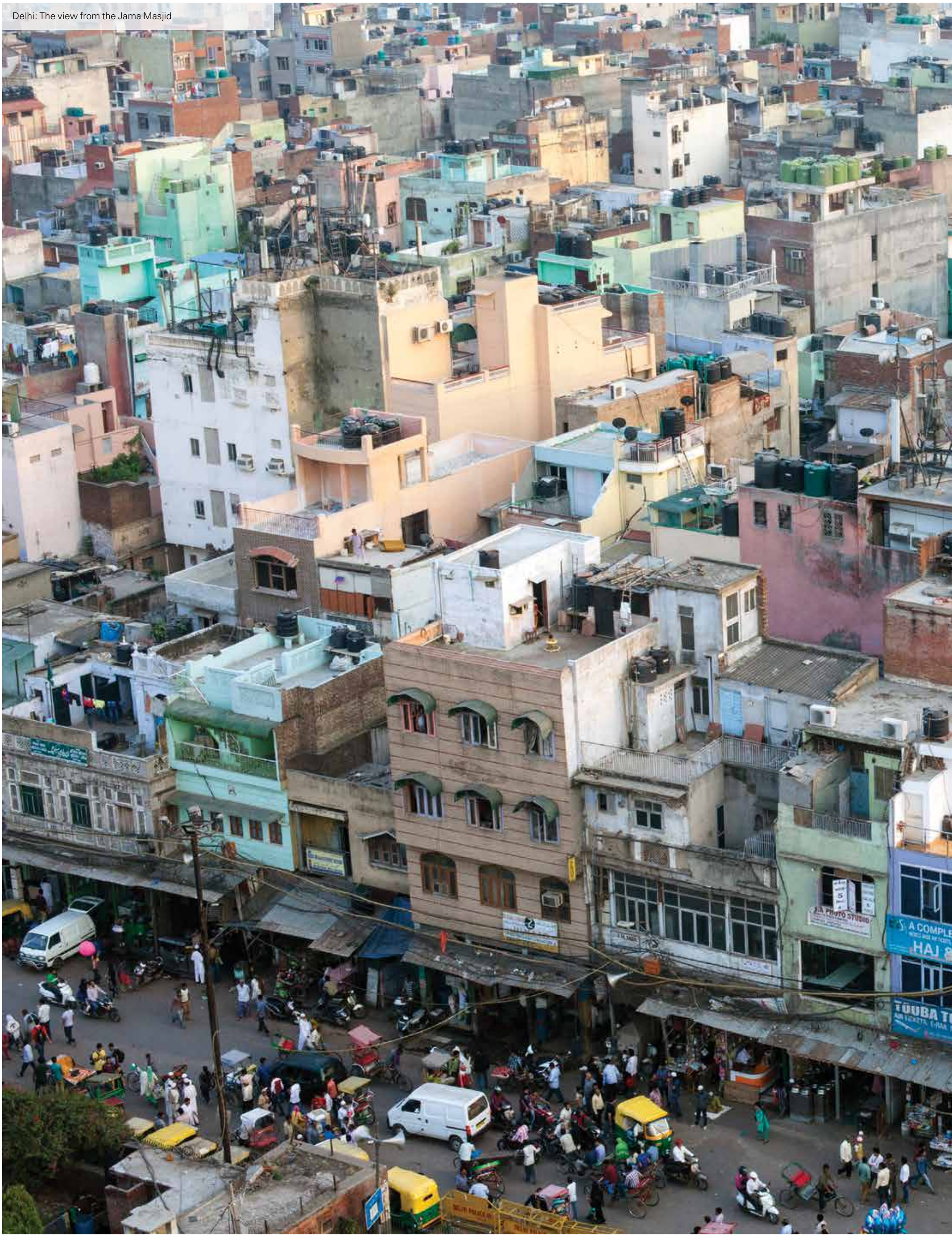
The cities of India are invaluable. Like the wheat fields of the Punjab, and the coal fields of Bihar, they are a crucial part of our national wealth.

- They generate the skills we need to develop as a nation. Doctors, engineers, managers, nurses, these are all urban skills, generated by our cities.
- They are engines of economic growth; properly managed, they could generate enough surplus for their own development as well as for the hinterland around.
- And for millions of the wretched have-nots of our society, they are places of hope – perhaps their only road to a better future.

We must improve fundamentally the governance of our cities – for in the final analysis, they will decide the future of this nation.

Charles Correa is an architect and urban planner who was the first Chairman of India's National Commission on Urbanisation.

Delhi: The view from the Jama Masjid




A COMPLETE TRAVEL HOUSE
HAJ & UMRAH
UMRAH
TOUR & TRAVELS
HAJI HOTEL

INDIA:

PREPARING FOR THE GREAT MIGRATION

Sanjeev Sanyal

One of the major mental shifts of recent years, especially among policy-makers, has been the recognition that urbanisation is an intrinsic part of economic development. Rather than being seen as a problem to be denounced and somehow delayed, it is now accepted that urbanisation, in its various forms, needs to be accommodated. Indeed, current trends suggest that India will be an urban majority country by 2040. If Prime Minister Modi succeeds in implementing his vision of rapidly expanding the manufacturing sector and building heavy infrastructure, the country will hit this milestone a lot sooner.

The implication of this shift is that 300-350 million additional people have to be accommodated in urban centres within a generation, even though Indian cities are already struggling to provide for the existing population. The Prime Minister clearly appreciates the issue and his plan to create 100 smart cities should be seen as an attempt to create urban infrastructure in anticipation of the deluge.

Although I am glad that policy-makers are finally paying more attention to urban issues, it is important to recognise that urbanisation is a dynamic process rather than a static end-state. In particular, we need to think about how hundreds of millions of people will be matched to jobs, homes and amenities according to their needs and abilities. The Indian government lacks the socio-political controls, such as the *hukou* permit system, which allowed the Chinese authorities to manage the mass migration from rural areas.

India's predicament is not unique: the tools available to the Chinese were mostly not available to today's developed countries when they urbanised in the 19th and early 20th centuries. So, what was the mechanism that sucked in millions of people and slotted them into the urban landscape of Europe, North America and Japan? The answer is – slums.

As with other complex adaptive systems, the term "slum" is not easy to define. A slum will generally include elements such as urban poverty, dense living conditions, informal economic activity and migrants, but is more than the sum of its parts. Most people will know a slum when they see one. Nonetheless, it is important to distinguish between the problems of agglomeration faced by slums and the problems of decay faced by Detroit.

Almost every country has suffered slums during the urbanisation phase. The slums of London and New York were notorious well into the 20th century. A century ago, the now trendy Meatpacking District of Manhattan had over two hundred slaughter-houses where many new immigrants worked. Harappan cities and Mughal Delhi had slums. Even today's China, despite the administrative controls, has slums.

Most people think of slums as places of static, urban despair as depicted in films like *Slumdog Millionaire* – the only way out is winning a lottery. While the poverty is real enough, real-life slums could not be more different. Once one looks past the squalor, slums are ecosystems buzzing with activity – shops, mini-factories, people moving in, people moving out. This is where migrants will first find shelter, get their first job, become connected with social networks and receive information about opportunities in the wider city. In other words, slums play a critical role as routers in the migration process.

What is even more interesting is that slums are surprisingly effective in this role. According to estimates by UN Habitat, 60 million people moved "out" of Indian slums between 2000 and 2010. Some may have gone back home, but many climbed the economic ladder into the new urban middle-class. This is exactly why slums continue to attract new migrants despite the awful living conditions – the migrants know that they or their children have a fighting chance of breaking out of the cycle of poverty.

As Indian cities have expanded, they have absorbed the surrounding rural areas. In some cases, the old villages have been swept away but, in many others, they survive despite being engulfed by the expanding urban sprawl. Scattered across modern Indian cities, there remain enclaves where the contours of the old villages are clearly discernible decades after the surrounding farmlands were converted into offices, roads, houses and shops. They make their presence felt in many different ways – as the source of vagrant cattle, as homes to armies of informal workers, as the place to visit if one wants to buy cheap construction material. Many of these villages have been newly absorbed into the urban fabric but some are old and have been embedded in the city for generations.

Despite being ignored by civic authorities, these urban villages play an important role in the evolution of the city and the naturalisation of the rural population into the urban fabric. For the purposes of this article, I will limit myself to Delhi's experience although the story can be easily generalised to many other Indian cities with appropriate adjustments for local conditions.

According to architect Ranjit Sabikhi, there are 106 villages within the city-state. They are many more in the wider metropolitan area if one includes Noida and Gurgaon. My studies suggest that, in general, these villages go through the following cycle:

- As the city expands, the government or a developer acquires farm land. However, the villagers usually retain their houses in the old village settlement. This settlement, dubbed a "*lal-dora*" area, is exempt from the usual municipal and building codes. The former farmers notice that large numbers of construction workers and contractors are moving into the area. They therefore use the *lal-dora* exemption to build a mish-mash of buildings inside the village which they then rent out to the newcomers. This is where construction workers and other service providers live, and the village turns into a slum with the old villagers as slum-lords. It is difficult now to witness this initial phase of urbanisation within Delhi state but it is taking place at the city's fringes in neighbouring Haryana and Uttar Pradesh

- After about ten to 15 years, construction work in that particular area begins to wind down. The construction workers drift away to other sites. New migrants move in – security guards, maids, drivers, amongst others – and work in the newly-built urban space. The commercial establishments too go through a parallel transformation. The shops selling construction material and hardware are steadily replaced by shops selling mobile phones, street-food, car-parts and so on. The settlement is still a slum and the former farmers are still the slum lords, but the migrants become more permanent and often bring in their families from their ancestral villages. This leads to an interesting supply-side response – the "English Medium" school. Language is seen by the poor as the single most important tool for social climbing. There are many such village-slums within Delhi, especially in East Delhi and Gurgaon. Nathupur in Gurgaon is an example of a village that is currently in the second stage. Next door, the village of Sikandarpur is shifting to the next level.

- After another ten to 15 years, the village goes through yet another transformation. By this time, the surrounding area is well settled and open agricultural fields are a distant memory. We now see students, salesmen, and small businessmen move into the village. Some of them may be the newly-educated children of migrants but they are now of a higher social class. The old villagers still continue to be the dominant owners of the land but they now begin to invest in improving their individual properties in order to elicit higher rents. In many instances, the owners have become politically important enough to lobby for public investment in basic drainage and sanitation. Begampur, near IIT Gate, is a good example of such a settlement. Note that public transport connections have a strong positive effect on the economic dynamism of the village-slum as demonstrated by Sikandarpur village in Gurgaon which has jumped from the second to the third stage in the last five years, due to the opening of a metro station nearby.

- The final stage in the process of transformation is that the old village gentrifies. This can happen in a number of ways. Since the early nineties, Hauz Khas village has transformed itself into a warren of boutique shops, art galleries and trendy restaurants. More recently, Mahipalpur has seen an explosion of cheap hotels due to its proximity to the international airport. Similarly, Shahpur Jat has become home to numerous small offices and designer workshops. In many cases, the old villagers have encashed their real estate and the ownership pattern has become much more mixed. The children of migrants now work in the hotels and offices, and many have become part of the new middle-class. These areas now grapple with the problems of prosperity, such as inadequate parking.

The evolution of urban villages reminds us that Indian slums are not places of hopelessness but are often industrious and changing ecosystems. The process of evolution has a big positive impact on the economic and social development of both the old villagers as well as new migrants. However, there are two important findings to consider. First, public investment in the "commons" speeds up the development process. Amenities such as common toilets, public transport and drainage can have a huge impact on the quality of life of residents, as well as attracting new economic opportunities. Second, the process of adaptation depends on decades of steady investment by the owners. This is only possible because private property rights are clear: the same process of evolution does not easily take root in Mumbai, where the slums are mostly on squatted land. Thus, Mumbai's slum-dwellers may slowly move up the economic ladder but the slums themselves do not improve without external intervention.

Understanding urban poverty as a dynamic "flow" has very important implications about how we design and manage the smart cities promised by Prime Minister Modi. We need to design for urban spaces that will play the role of slums. Notice that this is not about solving a housing problem but the functioning of a wider eco-system. Thus, creating neat, low-income housing estates will not work unless they allow for many of the messy economic and social activities that thrive in slums. Additionally, property rights will have to be carefully arranged so that new migrants can enter the system easily and climb the socio-economic ladder. This would include cheap rental accommodation, easy financing to allow home purchase, liquid secondary markets and so on. This is very different from the current thinking that emphasises subsidised housing for the poor but only gives non-marketable ownership rights. From a flow perspective, the subsidy is less important than the availability of alternatives; clear property rights, financing and a secondary market that allow new migrants to constantly climb the ladder.

Finally, access to the "commons" is very important to the lives of the poor. Thus, the lowest rung in the housing ladder can be basic, including dormitories, but must have access to public transport, schools, parks and sanitation. Most importantly, they must be safe and secure for newcomers.

To conclude, slums have always played an important role in the urbanisation process. This is where new migrants are absorbed and naturalised into the urban system. Indian policy-makers need to design for urban spaces that will play the same role. By anticipating this need, one hopes that the absorption process can be made more efficient and the worst of the squalor can be avoided.

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INDIA:

SMART GOVERNANCE

Jagan Shah

The Government of India has launched a multi-pronged strategy to convert the seemingly intractable juggernaut called Urban India – comprising 4041 statutory towns and 3894 census towns with a current annual growth rate of 2.76% – into an engine of socio-economic transformation. An overwhelming majority of India's cities are crippled by the paucity of finance for building infrastructure, the lack of sustained income required for operations and maintenance, and the dearth of functionaries with appropriate skills to plan and implement projects and deliver basic services. While our cities are touted as generating two-thirds of the country's common wealth, the actual wealth is not so commonly spread, with a distinct big-city bias in the consumption and government spending that are key factors of the GDP calculus. The much-celebrated growth in small and medium towns rests on a conspicuous consumption of available land and real estate, and the unprecedented spending of hitherto unopened wallets. Given their low staff-strength, the speculative economy and absence of planning, these cities do not have the necessary resilience against system inefficiency and environmental shock.

As per the United Nations Human Settlements Programme, systemic distortions and inefficiencies are costly in the long term, as they undermine the environmental sustainability, equity and social inclusion, infrastructural availability, productivity and quality of life that form the recipe for urban prosperity. The economies of scale that create the wealth of cities can easily become dis-economies, with inefficient and resource-guzzling processes becoming a burden on scarce resources. Four years ago, the McKinsey Global Institute reported that, in order to sustain growth, India needs to build the equivalent of one Chicago every year for several decades; surely, this 'urban awakening' cannot be a bleary-eyed recognition of another daybreak but must instead be a rousing call to action.

The Government of India has launched a number of initiatives that seek to address the urban challenge in a comprehensive manner. The Urban Development Mission for 500 cities targets the provision of drinking water, sewerage and waste management. The promise to deliver 'Housing for All' by 2022 will also ensure that each house is equipped with a toilet. The HRIDAY (Soul) scheme to rejuvenate heritage cities will commence with six pilgrimage centres of significance to different communities. The programme for Smart Cities envisages the improvement of 100 satellite towns and mid-sized cities through effective planning, financial management and the widespread use of new communication technologies.

Digital connectivity in all cities is proposed as a key enabler of the urban transformation. Enhanced mobility is expected to create productive and liveable cities. All cities must harness private capital and expertise. 'Corporate Social Responsibility' can now include slum redevelopment. The Ministry of Finance has enhanced tenfold the 'Pooled Municipal Debt Obligation Facility', which encourages financial institutions to promote and fund infrastructure projects in urban areas on a shared risk basis. This would particularly benefit clusters of small and mid-sized towns. Recycled water from cities will be used for growing organic fruits and vegetables. The symbiosis would contribute to the 'Rurban' mission, which will address the 'push' factors that have resulted in distress migration, especially from the rain-fed regions that comprise 60% of India's cultivated area and are home to more than 200 million of the rural poor.

Such techno-scientific solutions and optimistic financial scenarios may seem premature, unaffordable and iniquitous to the sceptic. Those given to optimism might find the visions of smart, clean and sustainable cities deeply compelling, perhaps because the urban future is for once being articulated through evocations that distract us from the daily experience of urban poverty, spatial chaos, dysfunctional systems and decrepitude. Should such heroism be entertained? Should the resonance between aspiration and imagination be dampened?

Eight years ago, in *The Open City*, Richard Sennett wrote that "we need to imagine just what a clean, safe, efficient, dynamic, stimulating, just city would look like concretely – we need those images to confront critically our masters with what they should be doing – and it is exactly this critical examination of the city which is weak." Apt words for the contemporary Indian condition, especially because the smart city has no visual corollary and is recognised only in its manifestations. While discussions about the smart city in India must undergo urgent examination, 'smartness' is a necessary condition for the future. The use of ICT can expedite critical reforms in government, and create a platform for public engagement of a scale and complexity that presently confounds our policy-makers and technocrats alike. It is more likely than any other intervention to transform our cities.

The idea that India would want to build smart cities can be appreciated if one observes the impact of the information and communications revolution in India. This revolution must be understood both in terms of growing e-enablement – a tele-density of 1.4 per capita, for example – as well as the force unleashed by the Right To Information. The cumulative effect of over 900 million mobile phone users was championed by Thomas Friedman as a transformative force in India's democracy and has indeed become one. Of the 1100 citizen and business services targeted for e-delivery in 2012, over 600 services of various government departments are already available electronically. Twenty-seven 'mission-mode' projects for delivering e-services – pensions, central excise, income tax, passport, banking & insurance, land records, road transport, e-Courts, 100,000 Common Services Centres – are in advanced stages of completion. In 1996, the Indian Space Research Organisation had created a nation-wide network that can provide 'telemedicine' to remote locations, linking patients with doctors across geographies, and enabling medical consultation through virtual means. This network can extend to urban areas.

India's 'urban awakening' was described by the McKinsey Global Institute using a limited set of economic indicators, but smart urbanisation can harness increasing numbers of data-sets and revolutionise the management of city economies. e-Governance is a necessary condition for an accessible, open and fair government. After an initial phase when they were treated as bulletin boards for public disclosure, the e-Gov platforms created by cities like Ahmadabad, Surat, Bhopal, Pimpri-Chinchwad, Vishakhapatnam, Chennai et al have become interfaces for internal monitoring as well as a slew of public services, minimising corruption and improving efficiency at all levels. Increasing numbers of municipalities are drafting Citizen's Charters to promise time-bound delivery, a reform that will get stronger with the prevalence of tort laws.

The ICT revolution allows the substantiation of official intent with indicators and measures that can be ever more complex, not merely numerical but also spatial, visual, aural and textual. Governments have realised that actual impacts can be measured and performance as per goals can be a mantra. However, decades of ignoring the science of cities and neglecting our research institutions has left us with a lack of data for and analysis of the urban sector. This is a vacuum that must be filled post-haste if we are to face the gathering storm of urbanisation.

We offer a few actions for e-governments to place high on their 'to-do' lists. The first is flexible land use, based on sophisticated modelling of land markets and the mapping of value. This will erase a paramount cause of corruption and tendentious urban policy – the regulated supply of land has distorted the land market by making, say, commercial land-use scarce and residential land-use plentiful – and will enable the cities to become more compact, reducing the carrying distances for infrastructure and leveraging economies of scale. Compact cities will by nature become dense cities, where the density of information will yield greater efficiency and reveal unsustainable distortions and inequities. Consider, for instance, the fact that the highest population density in the country, 37,346 per sq km, is found in Delhi's poverty-ridden North-East district: more than 800 times the global average, nearly 100 times the national average, and over 16 times the average stipulated in the Master Plan for Delhi. The zonal plans for the areas surrounding this congested location could have responded with measures to absorb the overload, but the land-use map shows only a diagrammatic relationship between different zones rather than a dynamic co-dependence.

In addition to evolving intra-city relationships, an enhanced appreciation of urban-rural co-dependencies is a necessity today. Geospatial mapping can combine with the measurement of ecological footprints to make the regional scale the norm for urban planning. The per capita availability of land, which was 0.89 hectares in 1951, dropped to 0.37 hectares in 1991 and is expected to drop further to 0.20 hectares by 2035. The per capita availability of agricultural land is expected to see a more drastic reduction, from 0.48 hectares in 1951 to 0.08 hectares in 2035. Smaller land-holdings are already making farmers more dependent on urban food prices. With agri-productivity in India one-tenth that of China and a fifth of the USA, there is tremendous pressure to enhance yields through mechanisation and biotechnology. Analysis of holding and investment patterns will reveal the power of indigent populations – which are more likely than migrants to demand improved governance – and the mutual interests of city and countryside. These are aspects of the urban-rural continuum that must be addressed through 'smart' spatial planning, as indigent populations with naturally entrenched interests in their own neighbourhoods will appreciate and demand more contextual knowledge.

The most profound impact of smartness in city management will be experienced through the participatory management of commons – that is, the management of all forms of public space and resources. In an era of convergence between different ministries, departments, agencies and institutions, combined with the right to information that energises e-governance, the servant-served relationship that has shrouded our civic lives will yield to a partnership whereby a government can benefit from 'crowd-sourcing' its efficiency, and individuals and communities can benefit from the greater attention paid to performance and outcomes. But governments can also view the access to information as an inherent threat and it is not surprising that e-Governance inspires anxiety. In the Proceedings of the Fifth National Conference on e-Governance in 2012, the editors felt it necessary to include a cautionary paragraph on the 'Pitfalls of Democratisation of Information', pointing out the potential menace of an inquisitive public. Such a cautious attitude resists the potentially liberating qualities of greater access to information and the immense possibilities that might be created from such an information ecosystem. With more and better information becoming accessible, we can expect further automation of government and social functions and the application of predictive technologies, such as those being developed by Google, whereby algorithms will assemble disparate information into coherent statements and instructions.

If today we are at the mercy of information asymmetries and opacities of decision-making, we should expect that our common tomorrows will liberate the collective energies that make cities the supreme celebrations of joint endeavour. The only measure of the smart city should be whether it allows us to achieve the goal that Lewis Mumford identified a century ago: to "socialise creativity". We must imagine a future when the smart Indian city has so little environmental impact that when a story-telling mother points to the night sky, her children can actually see the twinkling stars.

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DELHI:

UNCERTAIN STATE(S)

D. Asher Ghertner

Uncertainty is typically regarded as externally imposed: as an aleatory encounter with something exogenous to the social. The state – as the collective will of society – is then charged with defence against, or management of, the uncertain. What happens, however, when the state is itself an uncertain entity? How do cities oriented towards the management of external uncertainties – the inflow of foreign capital, the threat of international terrorism, exposure to extreme weather events – respond to uncertainties immanent in the very fabric of the city? Fieldwork in Delhi's informal neighbourhoods reveals the uncertainty precipitated by uncertain states. I explore two such states: the *topological state* and the *state outside itself*.

The topological state

Delhi's low-income "slum" settlements have faced intense demolition threats since the turn of the new millennium. As property prices sky-rocketed, settlers have had to contend with the disintegration of patronage networks that long allowed them to occupy public land. In the face of a constantly mutating state form – precipitated both by political uncertainty (Delhi, after all, is under President's Rule today) and new governance configurations – the risks for settlers are high: the inability to intercept a file or pay off the right officer can easily lead to the issuance of a demolition order. Settlers must thus seek sources of influence from an unpredictable network of state actors. Following these experiments offers us a way to read the state not as a fixed hierarchy of order – a topographic state – but rather as a "topological" figure: an entity that functions not through predictable administrative command, but rather through powers of reach that allow actors to draw others into their influence more or less intensely, often in ways quite contrary to bureaucratic hierarchy. A topological view considers how objects function not according to the exact shape or ordering of their constituent parts, but rather in terms of how those parts *connect* to each other, even if they lack fixed positions. I illustrate how settlers adopt this perspective by tracing three moments in a West Delhi slum's fight to stay put.

Moment 1 – In 2003, a group of wealthy property-owners submitted a complaint to the Municipal Corporation claiming that around 300 huts in the slum were settled on land officially designated for a road. Learning of this complaint, the settlers mobilised the area's Municipal Councilor, a politician who sits on the executive wing of the Municipal Corporation, and whom they had voted into power a year earlier. The Councilor requested that the senior bureaucrat who received the complaint bury it in a file. The bureaucrat complied, and the threat against the slum disappeared.

This fairly typical instance of patronage politics maintained the status quo and was operationalised through the predictable authority of "vertical command": an institutionally superior official used his influence to direct those bureaucratically below him. Such predictability was soon to collapse, however.

Moment 2 – Four years later, the property-owners filed a petition in the High Court claiming that the entire settlement occupied Municipal Corporation land and therefore had to be removed. The High Court called upon the Municipal Corporation to respond to this claim, granting it two months to review its files and present its position.

When the case was resumed two months later, the Municipal Corporation Commissioner claimed that there was no record that the Corporation had ever taken possession of the slum land. He argued that when no records of land transfer are present for a neighbourhood, then the roads are automatically vested with the Municipal Corporation, whereas all other vacant lands remain vested with the initial developer who, in this case, had sold off all the plots in the area and disappeared. The question of whether the slum should be removed or not therefore fell to this absent developer, not the court.

After exiting the courtroom, I asked the property owners, who had previously been quite optimistic that the court would order the slum's removal, what had happened. They claimed that the slum headman had paid a clerk in the District Office Rs. 5,000 to misplace the possession letter confirming the Municipal Corporation's control of the slum land, leaving its ownership status ambiguous. I have no idea whether the letter was deliberately misplaced or simply lost, but what is of interest here is the fact that the key arbiter of the slum's future was not the judge sitting in the High Court, nor the Commissioner at the apex of the Municipal Corporation. Instead, authority emerged through the routine actions of a clerk. Whether deliberately or by accident, the action of misplacing the letter blocked the case against the slum. While the Commissioner apologised profusely to the judge for this unpredictable outcome, he was himself powerless to do anything. The locus of state power in this moment shifted from Municipal Councilor, to High Court judge, and back to low-level clerk.

Moment 3 – While the court dismissed the case against most of the slum, the Municipal Corporation had nonetheless confirmed that it had taken possession of the road on which the 300 huts challenged initially in the 2003 complaint were located. Noting this, the court ordered the Municipal Corporation to construct the road and remove the 300 huts. The Commissioner relayed this order to a senior engineer, who then ordered his field staff to mobilise a demolition team.

The settlers, receiving this news, called upon their elected Councilor again, as they had in Moment 1, to try to get him to block the demolition, but the order from the judiciary went above his reach. The bulldozers moved in, clearing the huts and paving a new road through the slum.

After the Municipal Corporation submitted photographs to the court confirming this work, the case was closed. However, things didn't end here. After the demolition, the settlers "adjusted" to the new configuration by allowing the displaced households to rebuild their homes on open areas inside the slum. This meant that some of the open spaces previously used for socialising were built up. The slum did not, however, suffer from reduced public space, as the residents simply shifted their public activities onto the newly built road. The road, after all, was nicely paved and offered a contiguous open space, making it much better for public interaction than the smaller pockets of open dirt previously used. The road has since been completely encroached by the slum and is used for open seating, to play cards and cricket, to park motorcycles and store construction supplies, and as an area for vendors to sell vegetables and snacks. In other words, the overall density of the settlement did not change, which was the aim of the property owners who filed the case in the first place.

This "adjustment" was made possible through negotiations with the Municipal Corporation field staff, who on their first visit to the slum after the demolition noticed the slum-dwellers' re-appropriation of the road. On this occasion senior residents approached him, saying that the homes were removed, the road was built, what more was needed – the court's order had been fulfilled after all, and the Municipal Corporation had completed its duty. The senior field officer was at first reluctant to allow things to proceed, but the headman begged him to return in 30 minutes, and called on residents to remove their motorcycles and pushcarts from the road. When the officer returned an hour later, the headman handed him a 500 rupee note, and sent the officer off, saying "Look, the road is still here." The motorcycles and pushcarts were re-installed immediately after his departure. The authority of the court's demolition order was upheld, but the spirit of that order – and the authority to determine the ultimate mix of land use in the slum – fell to local field staff. While both the locus of state decision-making and the ultimate state decision were uncertain, settlers here "adjusted" to shifting conditions, revealing a topological state prone to twists, bends and continuous deformation.

The state outside itself

I now turn to a second figure of state uncertainty, this time in an unauthorised colony (UC), a type of settlement that differs from slums in that UC residents own the land they occupy. By their very definition, UCs live in a state of uncertainty. Built on land beyond the development area of the Delhi Master Plan, these settlements house up to a third of the city's population and form as developers consolidate rural farm land and cut plots for private sale. Varying drastically in their size, density and income level, the category "unauthorised colony" encompasses everything from peripheral neighbourhoods with services worse than in slums to vast, manicured enclaves composed of elite "farmhouses." Although UC owners possess formal documents that show detailed payments for their flats, these transactions cannot be registered with the local authorities because UCs fall outside the Master Plan. UCs hence blur the line between the *de jure* and the *de facto*. While their tenure security is all-but-guaranteed by the sheer number of people who inhabit them, they cannot receive municipal services such as water or sewerage.

For lower-income UCs, this poses challenges similar to those found in slums: household budgets are stretched to pay for private water delivery, and communicable diseases are higher than they should be due to such neighbourhoods' reliance on open sewage drains. For wealthier UCs, however, the absence of state water and sewerage is lamented for its impact on land prices and prestige. Grand, three-storey estates clad in marble contrast with unpaved roads and sewage "suckers", huge trucks that pump septic tanks and make visible the UC's disconnection from state infrastructure. Serene gardens tended by armies of *malis* (gardeners) are disrupted by wafts of diesel exhaust billowing from generators used to power the bore wells that supply them with water. Residents of these elite enclaves, drawn by cheap land and unenforced building codes, chafe at these everyday scenes; a reminder that, despite their lofty status, they must share with the poor the uncertainty over whether state services will ever arrive.

Housing a large number of retired state bureaucrats, and armed with resources far greater than their poorer counterparts, elite UCs therefore improvise infrastructure. Delhi has a rapidly declining water table, and to discourage the formation of new UCs, the Water Board (Delhi Jal Board) has imposed a ban on the construction of new bore wells in UCs. Yet, in wealthy UCs, new wells are dug weekly. In one such UC, we observed seven, 400-foot deep bore wells pumping water 24 hours a day. (Study undertaken alongside Dr. P. Randhawa, Jawaharlal Nehru University.) Each of these illegal wells is operated by Water Board engineers, who control a series of "gate walls" that switch the flow of water from one lane to another according to need. How have Water Board engineers come to operate bore wells in neighbourhoods that the Water Board has barred from bore well construction? How are we to understand the fact that the state undoes its own legal standing in such a quotidian manner?

The engineers have what they consider a well-reasoned answer to this question, one in which they – the face of the state – are considered simultaneously inside and outside of the state. The local Member of the Legislative Assembly, a politician elected into Delhi's state government, who represents this UC, pays the Water Board engineers using his discretionary fund, a non-Water Board source. As Water Board employees, they operate the bore wells legitimately, in the sense that, as state engineers, they have the know-how and status to run wells. The Water Board can claim non-involvement, however, by noting that none of its funds are allocated to UC wells. As state officials who first exit the formal employ of the state, but then reconstitute a cloak of state authority around their practices, these engineers improvise a vast, informal infrastructure that provides reliable ground water to thousands of households. In the High Court case discussed earlier, we saw how the Court's order to build a road was formally upheld while the contents of that order were completely reinterpreted such that the "road" became just another area of the slum it was intended to replace. Similarly, in Delhi's UCs, a state "truth" is upheld – the rule that the Water Board

shall not maintain bore wells in UCs – but state practice operates outside the space of that regulatory truth and goes on making a city that, more or less, works. As UCs build these improvisational infrastructures, they simultaneously improvise the state.

Slums and unauthorised colonies house more than half of Delhi's population. If the types of scenes I've just described do indeed characterise the urban majority's normal struggles for shelter and social reproduction, then we can safely say that there is no stable regulatory order upon which one can stake out a predictable path to development. Residents, rather, display a powerful capacity to adapt to uncertain state form. Their negotiations and manoeuvres allow us to regard the state not as a fixed regime for educating rules-and order-respecting subjects, or for responding to exogenous uncertainties, but as itself a mutating and uncertain figure that acquires form in response to the pressures and demands placed upon it.

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BANGALORE:

HIGH TECH AND THE MONSOON

Malini Ranganathan

The number of flood events occurring globally is on the rise. Although flooding in rural areas affects larger swathes of land, its effects in cities are made far more deleterious by the greater concentration of settlements, the highly unequal distribution of income and infrastructure, and the increasing precariousness of livelihoods in the face of global and domestic macro-economic shifts. The origins of flood risk and vulnerability in urban areas are, in other words, deeply social and political.

Flood-related anxieties and uncertainties mark the experience of everyday life for a great many of South Asia's urban dwellers. Nearly half of all global flood fatalities over the last quarter century occurred in Asia, with South Asia accounting for a significant share of deaths and economic loss.[1] While the subcontinent's large coastal and deltaic cities appear to be obvious candidates for flooding – and are frequently brought to a standstill during monsoonal rains – cities located inland provide more perplexing instances of flood risk. That chronic flooding is on the rise in these seemingly less flood-inclined (hydroclimatically speaking) cities provides insight into the social, spatial, and political-economic drivers of urban flood risk and uncertainty.

Bangalore (officially "Bengaluru"), branded India's "Hi-Tech City" at the turn of the millennium because of its dominance in the country's software and biotechnology exporting industries, is one such city. At first glance, the city appears an unlikely site to study the evolution of flood risk. Sitting 3,000 ft above sea level in the rain shadow of the Western Ghats with an ancient wetland system, but no proximal river of its own (as a megacity of nearly 10 million people, it is unique in this regard), the city is not often thought of as one that floods. In fact, following devastating floods in the coastal megacity of Mumbai in 2005, politicians offered reassurances about Bangalore's relative "immunity" to flooding, given its distance from coastal storm surges.

With hindsight, those reassurances proved foolhardy. Sustained monsoonal downpours wreaked havoc in Bangalore in late 2005, when over half of the city's road network was inundated and thousands of homes and commercial establishments were damaged following four days of continuous rainfall brought on by an unusually strong northeast monsoon. During the recurring floods caused by normal rainfall over the next decade, the city government identified over 1,000 flood-prone areas, many of which are in low-lying, densely populated neighbourhoods at the city's southern and south-eastern peripheries where the technology and service economy is concentrated. Efforts to map, calculate and govern flood risk and uncertainty – typically outsourced to private planning firms – comprise a centrepiece of infrastructure upgrading plans for the city, particularly given its deteriorating reputation as a destination for global investment. Yet, chronic flooding and its associated risks continue to be a normal state of affairs for the city's more marginalised, peripheral residents. Witness, for example, the "floating" lower-income neighbourhood of Madina Nagar at the south-eastern outskirts of the city, where residents have built makeshift bridges over a murky cesspool of sewage and stagnant stormwater to access their homes on a day-to-day basis. Why has flood risk become so "everyday" in Bangalore and what are the drivers of flood-related uncertainty?

A spatially attuned history of the city's changing wetland geography over the last half-century sheds important light on the cause of this heightened flood risk. In particular, enhanced real estate capital flows in the last two decades – due in large part to the high-tech economy – have driven the smaller-scale "encroachment" and large-scale "grabbing" of the city's government-owned wetlands. These are processes that dangerously obstruct the flow of stormwater and the percolation of groundwater, thus exacerbating water-logging and a cascade of other social-ecological harms. State and parastatal actors have played instrumental roles in the risky commodification of the city's public wetlands – both through institutionalised wetland "conversion" projects as well as the more opaque sanctioning of (wet)land transfers to developers and residents. A powerful nexus forged between political and real estate interests has also helped to recalibrate planning and zoning regulations in such a way that ecologically sensitive wetlands are recategorised and opened up for speculation and development. More broadly, the Bangalore case points to the crucial role played by the political economy of urban land and rogue real estate capitalism in catalysing ecological risks and uncertainties in cities of the Global South.

Until around the mid-20th century, a bird's eye view of the Bangalore region would have revealed an extensive network of engineered and naturally occurring shallow water reservoirs called *keres* in Kannada, or "lakes/tanks" in English. More than a thousand such structures, interconnected through storm canals or *raja kaluves* (what are today the city's stormwater drains), once crisscrossed the urban district of Bangalore. Developed four centuries ago, tanks were traditional and largely village-managed water-harvesting systems engineered in response to the vagaries of monsoonal rainfall in the region. They were gravity-fed, allowing for excess water at a higher gradient to be redirected through canals to a lower gradient. With no major river of its own, but four major valleys draining a number of smaller streams and lakes, Bangalore's undulating terrain and agrarian economy was ideally suited to such an engineered wetland and irrigation system. These traditional water-harvesting systems were not entirely flood-free: in times of exceptional rainfall, the interlinked nature of the tanks was such that overflow was amplified.[2] Such periodic flooding, however, was considered routine, and was offset by the fact that in normal monsoon years, a more or less predictable distribution of water was achieved.

The decline of agriculture in the 20th century, however, combined with new sensibilities favouring modern water infrastructure drastically lowered the appeal of local water-harvesting. In the post-colonial era, massive state-sponsored water projects got underway where colonial schemes had left off. The city's water supply began to be sourced from increasingly distant river reservoirs – at increasing cost and energy intensity – as the boundaries of the city expanded, thereby indirectly contributing to the abandonment of tanks. As a result, many of the city's tank beds were drained, filled, concretised, or otherwise converted through state-led urban projects for utilitarian and recreational ends, including for bus depots, parks, golf courses, and residential layouts. It is not uncommon, for instance, to find middle class residential areas in Bangalore named after a certain "tank bed layout". The dumping of raw sewage and solid waste directly into tanks also compounded widespread public disregard for these water bodies, thus facilitating their appropriation and the city's overall flood-proneness.[3]

Public interest litigations, expert group investigations and environmental activism eventually produced an official moratorium on the conversion of lakes within the city limits. Today, a mere 200 water bodies survive in varying states of health within Greater Bangalore, while a larger number dot the broader metropolitan region. In the absence of aggressive local activism around these remaining water bodies, the majority of wetlands, particularly at the city's lower-lying outskirts, continue to be subjected to an onslaught of threats, including illicit and informal real estate development.

Fuelled by a dizzying flow of global and domestic capital, Bangalore's real estate sector is one of the most lucrative in the country. Almost every instance of the more than 500% increase in the built-up area of the city over the last 30 years is associated with some form of *akrama* ["violation"] of planning, building or land-related legislation, abetted by state actors. "Encroachment" is the term used in India's urban planning lexicon to denote illicit settlement on all forms of public land, but the term has more recently been directed at lower-income groups that settle in risky areas because they are lured there by fly-by-night developers. Many from Bangalore's lower middle class live in "encroachments" at the outskirts under legally dubious conditions of tenure. For those unlucky enough to have settled in a key storm channel or on a lakebed, such settlement is especially hazardous during the rainy season. It is only in the event of rains (and thus much too late) that "encroachers" learn that their houses are obstructing stormflows. To equip themselves for the uncertainties of everyday life, residents in Madina Nagar (located in a major stormwater channel), for instance, must stock plastic sheeting to line their children's beds and mosquito nets, among other precautions. Many continue to live in such flood-prone areas despite the damage caused and expected, holding onto hope that these peripheral areas will "develop like the rest of Bangalore".

Larger-scale "land grabbing" – the appropriation of public land by globally-connected corporate interests – has also compromised the robustness of the city's wetlands with uncertain implications for the future of flood risk. In conjunction with private developers and landed politicians, state players such as the Karnataka Industrial Areas Development Board have been powerful partners in sanctioning wetland development and overseeing meaningless or incomplete environmental and infrastructural clearances for such projects. Although the effects of corporate-driven wetland grabbing are uncertain at this point, large-scale obstruction of stormflows and groundwater absorption are bound to have detrimental effects on a city that is already flood-prone.

Growing public recognition of the connections between wetland politics, real estate capital, and flood risk in the city provides cause for hope. Citizen groups have sought to expose wetland-related illegalities by expanding the discourse of "encroachment" beyond its typical connotation of the poorer, informal settler to also include large-scale corporate land grabbers. This is an important and welcome characteristic of contemporary middle class politics in Bangalore – a politics not only defined by elite interests (as they can be in other Indian cities) but also by progressive demands for corporate accountability. While current citizen-led campaigns are not focused on ameliorating the flood-proneness of poorer groups *per se*, they are nevertheless working to expose the political economy and political ecology of flood risk in the city. In other words, the normalisation of flood-related uncertainties has been politicised through middle-class civic activism, especially through the spotlighting of large-scale wetland appropriations by globally connected actors. As a first step, this can go a long way to creating a safer, more equitable city.

1 Doocy et al., 2013
2 Shah, 2008
3 Ramachandra and Majumdar, 2009

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GLOBAL PERSPECTIVES

COLOMBIA:

FLUID FUTURES

Austin Zeiderman

Mention Colombia to a group of urbanists and you can be sure their eyes will light up. Perhaps they will envision Bogotá's efficient public transportation system, Transmilenio, and extensive bicycle networks. Or their minds may drift to Medellín's playful yet socially-conscious public works projects, such as the Metrocable and the España Library. If members of the group are aesthetically inclined, they might recall recent fanfare surrounding Cali's art scene, and the artistic collectives sparking a cultural renaissance in the city. Those interested in historical preservation may imagine Cartagena's colonial architecture, and efforts to restore the city's rich cultural heritage.

It is likely, however, that the discussion will end there. The realities of daily life in cities like Turbo, Tumaco, Barrancabermeja, Montería, Florencia and Quibdó remain invisible not only to most urbanists outside Colombia, but also to many working within the country. Though the majority of Colombia's roughly 30 million urbanites live in these cities, and this is where future urban growth is likely to take place, they remain off most maps of the contemporary urban world. This is not simply a case of the biggest and brightest stars – the four or five metropolitan hubs with over a million inhabitants – outshining their smaller and less radiant neighbours. The country's ordinary cities are ignored for other reasons.

Colombia has long been associated with the masked guerrilla, the murderous *narcotraficante* and images of urban dystopia. Although this reputation persists, international observers have recently begun to lavish praise on charismatic mayors, budding architects and their creative interventions within the urban fabric. Colombia is now celebrated as a laboratory of enlightened urban innovation, and this reputation dominates discussions about its cities on the international stage. Many of the stories that do not fit this narrative never surface; others are dismissed as exceptions to an otherwise uplifting tale of urban regeneration. These inconvenient truths are mostly found outside the metropolitan centres, or on their peripheries, out of sight.

The rapid inversion of Colombia's stubborn infamy is not benign, however satisfying it may be for those hardworking, civically-minded people struggling to free their cities from the grip of violence and drug trafficking. Focusing exclusively on the big cities and their recent advances in urbanism allows other realities elsewhere to remain invisible. The stories these other places have to tell may not be as hopeful – on the contrary, many are quite disturbing – yet they are central to processes of urbanisation unfolding in Colombia and beyond. Revealing the often-overlooked realities there will broaden our understanding of the 21st century urban condition.

The port city of Buenaventura is a prime example. Despite its increasing importance to the national economy, it rarely figures in conversations about Colombian cities. In fact, even those who have heard of it are sometimes surprised to learn that as many as 350,000 people live there. "That's ten times more than I thought," a friend from Bogotá once told me. Though Buenaventura's star is rising, the city remains in the shadow of the country's urban renaissance, despite a recent spurt of coverage by both national and international news media. Such invisibility is strategic: there are powerful people whose commercial interests – drugs bound for North America, electronics arriving from Asia – depend on keeping it that way. Highlighting the links between trade, both licit and illicit, and the worsening humanitarian crisis there threatens to expose the violence underpinning business as usual.

Urbanists also have reason to take note. The city is rapidly transforming in relation to two imminent world-historical shifts – the dominance of the Chinese economy and climate change – making it a good place to examine dilemmas faced by most contemporary cities. Like all future scenarios, projections of economic development and global warming contain a range of uncertainties. With imperfect and often contradictory information about the future, urban governments must make decisions in the present. Bigger cities have access to resources, information, and expertise that are simply unavailable elsewhere, especially in the global South. Places like Buenaventura are no less impacted by future uncertainty, and may have even more to tell us about how it shapes urban life in much of the world.

The national and local governments both envision a future in which Buenaventura will become a "world-class port city," as is reflected in the economic development plan of the same name.[1] As Colombia's only Pacific Ocean port, enthusiasm is tied to projections of booming trade relations with Asia. With commentators far and wide heralding the advent of the "Chinese century," Buenaventura has been labelled "Colombia's gateway to the Pacific," which the local development plan calls the "basin of the future."

The certainty with which the Colombian state views the global economic future is not matched by observers elsewhere. Consider the cautious and somewhat pessimistic tone of a 2013 report co-authored by the World Bank and the Chinese government's economic advisory body: "Growth prospects [for China] are obviously highly uncertain, not only because of the short-run uncertainty linked to the global financial crisis but also because structural growth trends are contingent on innovations that are virtually impossible to predict. Nevertheless, strong signs suggest that population aging and the shift to services will slow growth in China and many other parts of the world."[2]

The Colombian government, however, is confident that increasing economic ties with Asia and expanding its Pacific seaport are keys to securing the country's future prosperity. Vast amounts of public and private capital, from the Colombian government and investors from Europe, Asia and the Middle East, are being funnelled into infrastructure megaprojects (additional port terminals, a new highway to the interior, a logistical operations centre, a deeper shipping canal, a waterfront promenade, even a trans-Andean railway) to accommodate, but also to entice, the anticipated increase of goods passing through the bay.

Official visions of Buenaventura's future are informed by a second imminent transformation: climate change. There is considerable disagreement as to what the warming of the planet will mean on a local level. Yet government officials are convinced that climate change is likely to adversely impact Buenaventura in the years to come. This ominous forecast is producing its own material effects, many of which tend to facilitate the official vision of urban development, such as further dredging of the shipping canal. As with the uncertainty surrounding projections of China's global economic dominance, the uncertainty of climate change is rendered negligible insofar as it inhibits Buenaventura becoming a "world-class port city."

Standing in the way of these plans for the future are waterfront settlements collectively known as Bajamar (meaning "low-tide"), built and inhabited primarily by Afro-Colombians. These settlements are occupied by an estimated 110,000 inhabitants, approximately one-third of the city's total population. Positioned at the intertidal zone between land and sea, they have become subject to a range of displacement pressures.

The official vision for the city's future sees Bajamar as an obstacle, since it occupies the land on which megaprojects are to be built. This plan, which combines aesthetic and technical criteria for how a "world-class port city" should look and function, would require the removal of the majority of Bajamar's residents. Additionally, projections of the potential impacts of climate change identify these neighbourhoods as highly vulnerable. According to the city's recently created risk management agency, the imperative to create a "resilient" Buenaventura demands the relocation of low-lying occupations classified as "high risk." And, finally, wars between rival paramilitary groups and state security forces are concentrated in these very same settlements due to their strategic importance to economies, both legal and illegal, that use Buenaventura for access to overseas markets. As a local religious leader put it, "Paramilitaries and development go hand in hand."

In spite of mounting displacement pressures, activists and residents of Bajamar propose alternative scenarios for the future of Buenaventura. Unlike the government's vision, which ignores economic and ecological uncertainty in favour of a rigid plan to increase the city's function as a port, their proposals take uncertainty seriously as an essential feature of everyday life. The solutions they imagine are based on settlement patterns and livelihood strategies uniquely adapted to the fluid social and environmental conditions of the Pacific coast.

The city of Buenaventura was founded on an island, the Isla de Cascajal, which now hosts the commercial centre, government offices, and a residential population. From as early as 1860, vacant lots had to be filled in with earth before construction could commence. In the mid-20th century, the urban population grew as Afro-Colombians migrated from nearby river basins and established settlements in a similar manner, reclaiming land from the sea. Habituated to riverine life, they gravitated to the edges of the bay, filling in the mudflats with mollusc shells collected from nearby mangrove swamps. There, they built houses on stilts, adapted to the brackish estuary's tidal fluctuations, which allowed them to continue fishing, harvesting timber and mining artisanally for gold – their primary ancestral livelihoods, all of which depend on access to the sea and its tributaries. They linked their houses together with elevated pathways and established connections to the municipal electricity and water supply as well as to its network of sidewalks and streets. "We call these areas *territorios ganados al mar*" [territories reclaimed from the sea], a local leader told me, rejecting the name Bajamar, "low-tide," since it implies the need to be rescued from a situation of ecological vulnerability.

On the contrary, the rest of the city may have something to learn from these settlements and their intimate relationship with the sea. In 2012, one of the foremost journals of architecture and urbanism in Latin America, *Revista Escala*, organised a design competition in Buenaventura focused on climate change adaptation in coastal cities. It brought together students from 35 leading architecture schools in Colombia, Mexico, Ecuador, Panama and Venezuela to analyse existing settlement patterns, assess their vulnerability to environmental hazards and propose solutions for future development. Out of the 63 proposals submitted at the end of the study period, not a single one endorsed the government's plan to relocate the residents of Bajamar. Instead, each team proposed a combination of neighbourhood upgrading and risk mitigation.

Many of the proposals envision localised improvements throughout existing settlements combined with the restoration of the aquatic ecosystem surrounding the island. Mangrove forests, once fully established, would provide a protective buffer zone between the city and the sea, increasing the (already high) degree to which the settlements are adapted to their environment. And since mangroves provide the habitat for commercially-important shellfish, as well as valuable wood for construction, their restoration could be followed by a sustainable development plan based on community-led resource management. The judges praised the designs as offering promising approaches to climate change adaptation in Buenaventura, applicable to other coastal cities throughout the region.

Activists and residents in Buenaventura have since lobbied the municipal government to consider these proposals as serious alternatives to port expansion and mass relocation. Current development plans fail to recognise that these settlements are already highly adapted to unpredictable climatic futures, that architectural, engineering, and ecological interventions could make them more so and that livelihood strategies enabled by proximity to the sea are more suitable for economic uncertainty. For example, waterfront access gives people the ability to shift from fishing to construction when a shipment of wood arrives and a house needs to be built, then to transportation when a group of miners needs to travel upriver and to fall back on fishing when there's no more paid work to be found. Without the ability to foresee what will happen next or where tomorrow's meal will come from, work must remain flexible, diversified, opportunistic.

Contrast this to the inelastic official strategy of wagering everything on the port, and on the future of the Pacific basin economy, predicated on the displacement of waterfront residents to the city's landlocked periphery. For Buenaventura's seaside communities, the right to existing livelihoods and sustained access to the sea is the right to remain adaptable in the face of economic and ecological uncertainty.

Unfortunately, pleas from residents and activists repeatedly fall on deaf ears. The intransigent vision of the "world-class port city" forecloses alternative urban futures. While such alternatives are not perfect, they do offer possibilities for adapting to and living with uncertainty. Yet the forces standing in the way of their realisation may be too strong. Urbanists need to look beyond packaged success stories from metropolitan centres. Creative responses to the world's urban challenges may be found in unexpected places – if only one dares to look.

1 Ministerio de Trabajo. 2012. "Buenaventura, ciudad puerto de clase mundial: Plan local de empleo 2011-2015". Buenaventura: Ministerio de Trabajo, Fundación Panamericana para el Desarrollo.

2 The World Bank and The Development Research Center of the State Council, People's Republic of China. 2013. China 2030: Building a Modern, Harmonious, and Creative Society. Washington, D.C., 362.

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KARACHI:

CIRCULATING UNCERTAINTIES

Sobia A. Kaker

Hearing gunshots close to his office on M.A. Jinnah Road, a Karachiite sends a tweet to @Khi_alerts, warning others of potential trouble in the area. A few journalists pick it up in their Twitter feed and call sources in the vicinity to confirm if it's a news-worthy event. For some this is a corner-shop owner, or a tea boy; for others, a policeman. On hearing suspicions that this may have been a targeted attack killing a prominent political leader, these journalists rush to the scene to investigate further and perhaps report the event live. As TV channels sensationally break the news, urban residents predicting violent reprisals to the attack call friends and family to warn them to stay off the streets. Meanwhile, in London, analysts working in risk assessment companies read live news updates on killings in Karachi. Studying news reports, contacting friends in security agencies, and speaking to local security experts, risk analysts attempt to predict how current events will pan out in the future. Reading into real-time updates on violence in the city, risk analysts form a range of anticipated scenarios for the short, medium and long term that help clients consider and plan future investments in Karachi.

The multi-sited events above showcase how, in Karachi, uncertainty is a relational dynamic that is both governed as well as produced by circulating information. In fact, looking ahead to what some are calling the Asian Century, it is uncertain what the future holds for Karachi, a city of approximately 20 million people. The port city, one of the most rapidly expanding in the world, finds itself caught between dual realities. On one hand, as Pakistan's financial, industrial and trading capital, Karachi is widely cited as a global city with potential to be a key player in the Next Eleven, a group of countries that are expected to join BRICS in the near future. On the other, various local and international news and research reports consider the rapidly urbanising city to be at the limits of spatial growth, out of control, and careening toward a dystopian future where violence and insecurity run rife.

With murder rates as high as 13.49 per 100,000 people, local and international news media represent Karachi as one of the most dangerous megacities of the world.[1] Urban residents and governors alike fear the growing spread and influence of criminal and terrorist networks operating in the city, and are especially concerned by the increasingly high incidence of muggings, kidnappings, burglaries, killings, and terrorist attacks. Consequently, the megacity remains in the news as a city in crisis, a city nearing collapse, a city increasingly falling out of governmental control.

In an environment where urban residents and city government officials are keen to ensure that everyday life continues smoothly, sociality is fast emerging as the critical mechanism for survival – and circulating information is its related modality. Residents and officials frequently share information relating to power outages, riots or security alerts in person or through traditional, broadcast and social media. Updates on riots, killings, robberies or muggings provide residents with clues on how to proceed and react, as they review such information through past experiences of having lived through (or having heard others' stories of living through) similar events in the city. Information is therefore a crucial tool for navigating the uncertain city.

In gathering related information, credibility, however, is divested from the police and other official channels who have lost legitimacy due to their inability to provide security and effectively control the city. Instead, charismatic figures and trusted technologies have gained authority and reliability over years of service. Public opinion is increasingly led by information shared by iconic public personalities, charismatic security experts, and popular talk show hosts, which is then shared amongst Karachiites through various media. These actors also play an important role in informing urban authorities and residents alike of critical information, helping them find ways of avoiding crisis and managing the spatio-temporal uncertainties of insecurity in the 'dangerzones' of Karachi.

However, whilst being an essential tool for governing everyday uncertainties in the complex megacity, such circulating information also often perpetuates uncertainties regarding the city's future. For this reason, it is important not to romanticise such alternative ways of managing and governing everyday life in Karachi as a system that always works, nor to gloss over the gritty political realities associated with it. By tracing how particular security-related information is produced and circulates, it becomes apparent that security information may be exaggerated, flawed, biased or simply untrue. Moreover, the politics of circulated information remain murky to the general public, who are often only concerned with using information to manage urban insecurity and other uncertainties.

For example, evidence suggests that the hugely popular news media is not entirely free of corruption or partisan positions. News is sometimes planted by senior politicians, bureaucrats or security officials in the hopes of generating particular governmental outcomes. Here, the production of news and information tells another story, one where the official and unofficial intermesh in ways that are often opaque to urban residents and other consumers. The political nature of predictive information is further revealed when this is understood in relation to how its circulation produces affective responses in urban residents. Information can not only generate feelings of paranoia, fear or frustration, but also dictate socio-economic outcomes such as urban relationships, movement, opportunities and investment. Travelling across different scales – the local, national and global – the same information can have variant outcomes in different contexts and locations.

The ambiguous politics of circulatory information is further revealed when considering whose viewpoint is considered, who the sources are and what audience it is pitched at, and which channels it is circulated through. Take, for example, a situation in which the security head of a foreign consulate sends an SMS alerting employees to the imminent threat of a terrorist attack on Karachi's shopping malls. This information may have come from the security head's personal network of friends who serve as top-ranking intelligence officers. The information shared in full confidentiality goes viral across Karachi. The SMS stops people from visiting leisure places in the city, bringing down commercial retailers' profits. At the same time, local media reports the existing climate of fear and its related economic effects in online and print newspapers. Foreign journalists pick up this news to report on the insecurity and commercial future of Karachi, projecting a negative investment outlook for the regional financial and business hub. Thus, the entanglement between official and unofficial flows of information and its local and global ramifications not only reveal the importance of security information for managing spatio-temporal uncertainties in Karachi, but also showcase how such circulations may shape the city's future.

Similarly, statistics reporting an exponential rise in extortion threats to businessmen in Karachi, coupled with frequently reported incidences of gang violence, are fed into risk assessment algorithms run by companies based abroad which are tasked with creating abstract projections of risk and uncertainty across global cities. The mundane task of defining uncertainty and risk and hence deciding urban futures of such megacities rests upon the shoulders of experts and analysts based in far-away offices in London, New York, Paris or Tokyo. As mentioned earlier, analysts interviewed in London reveal how they delve into information available from various news media while also tapping into a personally developed register of local informants. The same information is fed back into the city through credit ratings projecting investor confidence, which in turn have a bearing on how the anticipated future is played out in the present: the ensuing speculation and investment have immediate effects on the local economy as the market starts to react to an algorithmically-calculated projected future. In such a scenario, the exercise aimed at ensuring future certainty becomes generative of present-day uncertainties.

Moreover, the political realities of news production are largely invisible to the public. The televised news industry in Pakistan is a business driven by goals of generating profit through increased viewership and sponsorship. Given how channel ratings are configured, Karachi dominates national news simply as it houses a dominant share of rating meters. Meanwhile, news in Karachi remains focused on crime, disorder and militancy in the city simply because statistics show that crime sells. Feeding the viewing public with sensationalised news about Karachi ensures high viewership and therefore increased channel ratings. Although such news helps residents navigate everyday life in the city, it also perpetuates urban fear and insecurity. News information advances an agenda of securitisation which divides urban residents into categories of safe and unsafe based on identity, political affiliation and place. Such processes of identification re-produce urban violence and insecurity in the city by making marginal urban groups more vulnerable to police brutality.

Similarly, the dependency and level of trust placed on print and broadcast news, as well as news circulating through social media is problematic. In the absence of any systematic regulation of information, the system is frequently exploited by political actors or police and security officials. Research suggests that the tight competition for breaking news stories, coupled with poor training of correspondents and weak regulation over news media frequently results in news channels unknowingly publishing and broadcasting stories they have been fed with particular reactions in mind. For example, news of a political worker's killing may be untrue, but may come via a trusted 'source' in the police so as to encourage a violent reaction which could be used as a tactical advantage in making militant political workers reveal themselves. Once in the public domain, news information takes on a life of its own. It forms chains of reactions as it circulates over local and international media, picked up by residents trying to find clues for whether it is safe to head out to meet friends living in a certain locality, or analysts and forecasters at home and abroad trying to gauge Karachi's potential for investment.

Taking the circulation of information as an analytic for understanding uncertainty in Karachi, it becomes evident how the city's uncertain future is both governed and produced by circulating information. The competing futures of Pakistan's largest urban agglomeration – the globally-minded metropolis with a thriving economy, or

the chaotic and insecure city – co-exist in the present, and live through mediated information.

Despite frequent crisis and breakdown, residents are able to navigate spatio-temporal uncertainties and urban life and economy fairly successfully. The violent megacity continues to function and move forward, and urban residents, governors, and planners devise ways to mediate insecurity while business goes on as usual. In the face of prevalent insecurity, Karachi continues to attract and absorb migrants, generate economic value and foster urban life. In the face of unprecedented violence, the otherwise throbbing city may skip a beat, but it is quick to bounce back and carry on. The story of Karachi therefore invokes a mode of urbanism that is reactionary but also opportunistic. Times of crisis reveal how the city finds ways to function through its own logic and urban life within it seems to push forward in organic ways. However, while information opens up possibilities for creating systems that ensure functionality in an otherwise difficult city, it is a volatile medium of governance which can be appropriated by politically-motivated actors to either violently subject urban residents in various ways or create strategic disruptions. Meanwhile, crossing multiple scales and being appropriated by differently-positioned actors for various purposes, such circulated information on Karachi is also generative of negative discourses and bleak future outlooks of the city, thereby perpetuating present day uncertainties in the city.

1 http://www.foreignpolicy.com/articles/2013/09/03/cooking_in_karachi_meth_pakistan

The hype surrounding violence and insecurity in Karachi is paradoxical, especially since the city is considerably less dangerous that Johannesburg where the murder rate is 30.3 per 100.000, or even Bogotá where it is 16.1 per 100,000 people.

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HURRICANE SANDY:

REFORM BY DESIGN

Henk Ovink

Hurricane Sandy left a big mark on the North East region of the USA – the biggest metro region in the USA and a great economic power – destroying and damaging more than 650,000 houses and hundreds of thousands of businesses. Sandy unveiled the social and physical vulnerabilities of this region and their interdependencies. In the Newark floodplain, the industrial facilities flooded, as did the Agent Orange storage facility and the adjacent low-income and social housing complexes, requiring the closure of the playgrounds because the soil lit up at night. In the Rockaways, on Staten Island and all along the shore and coast, homes and lives were and still are at risk. Sandy destroyed thousands of homes on the barrier islands, washed them with sand and water from the ocean and then again from the land-side bays. Manhattan flooded, and some say the tunnels for transit and cars prevented an even bigger disaster, arguing that the tunnels actually worked as storm surge storage capacity. True, the tunnels have the capacity to store the water, but there is no science in place that proves there was less flooding because of it.

Sandy highlighted the region's vulnerability, it exposed its tensions, the disconnect between politics and people, and emphasised that there was no clear path forward. The socially vulnerable live in the most vulnerable places, where they were hit hardest by the storm's devastating power, and were fully dependent on others to get back on their feet. Some say resilience is all about the capacity to bounce back after a disaster. But that is not enough: resilience is a progressive term, it is about bouncing back differently and smarter, through collaboration, innovation and the best of science. Sandy not only connected the social with the physical, it also revealed the manmade ecological disaster we are actively provoking. As yet, there is no true understanding of this ecological downfall and its impact on our economy.

How can we better understand the issues of climate change, their connection with our economy and the overall impact on this particular metropolitan region? And how are we to respond when there is no clear direction? Understanding what is really at stake and what really did happen informs a path forward that could re-establish the connection between the social, the economy and the ecology. This is not about making a plan, this is about changing a culture.

In the midst of this turmoil, the Sandy Task Force started Rebuild by Design. Why? Because we had no choice!

A better understanding

It is all about the 'region'. But politics is bound by borders defined by jurisdiction and not by the right response. The well-being of the people that elect the mayor, the governor or even the President is not defined by political borders. It is defined by the ecological and economic developments and processes, and their regional interdependencies. These cut across nations, states and cities. Understanding this complexity, perceiving the issues on this larger scale, is where good politics starts.

We have to take the time to gain a real understanding of what is going on. But taking time is perceived as hesitant, and research is perceived as a handicap to response, not an asset. When Hurricane Sandy hit the New York-New Jersey region, it was all about fast response, getting help and assistance on the ground as quickly as possible. Next came repair, and only then came rebuilding.

When thinking of the future, the past and present are mostly dominant; rebuilding becomes a cut-and-paste of what was destroyed, or at best a re-imagining of it. We fail to exploit our disasters. We need true resilience to infuse our thinking, and we need courage and new knowledge to rethink the rebuilding effort from tomorrow's perspective, all the more since we know that tomorrow will always be different. Scientific reports address climate change, rising sea levels, demographic and economic variability, and cultural change as the big and certain challenges of our time. Constant change is the new paradigm, and brings with it a lot of uncertainty in how best to respond. Change is often hard to embrace – but it is also our most vital asset when it comes to development and growth. Embracing change as a way towards greater resilience opens up a range of opportunities.

Rebuild by Design

When Hurricane Sandy hit, it created facts on the ground that we cannot ignore. Moreover, it showed that our physical challenges are very much tied to our social and cultural needs. A regional and comprehensive understanding is a necessity when it comes to defining the right responses, and this understanding can only be developed by a strong coalition of partners. Partners of all backgrounds and with both the best professional skills as well as specific regional ties and personal convictions, who are dedicated to this collaboration aimed at getting the best understanding possible.

With Rebuild by Design, just such a large and inspired coalition of stakeholders joined forces, with the ambition to set a new standard for resilient development. Ten teams were selected – teams of engineers, scientists, architects and activists from all over the world – and joined forces with agencies from all levels of government: federal, state and local. Supported by research partners and a group of dedicated funders such as the Rockefeller Foundation, Rebuild by Design became more than a programme: it evolved into a movement for resilience.

This movement of 'reform by design' has over 250 professionals working collaboratively, supported by dozens of partner organisations, together with an active network of universities, community groups and funders. Instead of looking for quick answers to local problems, Rebuild by Design started looking for the right questions on this regional scale. Organised by New York University's Institute for Public Knowledge and its Research Advisory Group, the research phase became a complete exploration of the region in science and practice, connecting the places and people with the data and research, and envisioning these insights in maps and graphs, making tangible what is hard to address in words. Rebuild by Design talked and worked with community groups, citizens and politicians. This process of interaction, the research by design, and the collaboration across all disciplines in the region, delivered viable responses for intervention.

The research phase resulted in one comprehensive regional survey out of which the ten design teams selected 41 opportunities for possible intervention. Each team was then tasked to develop an innovative design approach for one intervention, working with a strong and local community-based coalition on an innovative yet feasible plan for implementation. Supported by the Municipal Arts Society, the Regional Plan Association and the Van Alen Institute, the teams worked on their designs. For the implementation, the Federal government allocated so-called disaster recovery block grants (CDBG-DR), but only for those designs that really created a new reality on the ground, in terms of policies, politics and culture, and that aimed to bring about reform on all levels. $920 million was dedicated to six winning proposals that, over the course of the next few years, will become the examples – the facts on the ground – that showcase the resilience of a comprehensive regional approach.

The process of Rebuild by Design started from the acknowledgement that complexity needs to be embraced to get a better sense of how to deal with it. And that design, research and collaboration go hand-in-hand with politics, policy development and investment strategies. There is only one world to work in for innovation, resilience and reform – and that is the real world.

Governance by design

Rebuild by Design created alliances for change, pushed for research by design and connected with real projects, linking design to politics and advocating reform through new perspectives and cultural change. These collective actions are no frame or set boundaries but more of a movement, like a school. This school is no metaphor but real; it is the cultural change through strong coalitions, a network within institutions and the design world, that can create better places and policies through design and collaboration, and a process of reform. Governance in the most adaptive and robust way possible, connected with people and places, inclusive in both process and outcomes, and through this process and its collaborative capacity also informed by the people and informing politics. It is governance on the edge of all stakeholders, people and organisations, that adds time to think, room for progress without negotiation and a frame for decision-making. This is not about a free ride for all, nor for back-room plans. This is governing by design, through a collective, inclusive, collaborative approach.

Rebuild by Design has created its own political space. With the launch of the National Disaster Resilience Competition, we take this approach all across the US, to tap into talent on the ground and connect it with the talent of the world, and to build a US alliance for resilience reform. The Grand Challenge we launched with USAID and the Rockefeller Foundation brings this approach to the world, starting in the Sahel, the Horn of Africa and parts of Asia. The model of reform by design is no blueprint, but adaptive, based on the described principles of inclusiveness, collaborative power, design drive and production. The research network of Design and Politics that launched this September – with the help of politicians, designers and scientists on all continents – will develop this approach further and will connect politics and design to build coalitions for resilience across the world for a new culture of reform. Reform by design.

Henk Ovink is Principal of 'Rebuild by Design' and Senior Advisor to the Hurricane Sandy Rebuilding Task Force, the Secretary of Housing and Urban Development and the Executive Office of the President of the United States.

UGANDA:

WASTE(D) INFRA-STRUCTURES

Jonathan Silver

Uncertain climate futures

Responding to climate change is increasingly being positioned as a key dimension of urban governance. Cities are framed as sites for necessary adaptation and mitigation action over the coming decades. Whilst significant progress is being made, such new imperatives are generating unexpected governance arrangements as they respond to the need to grapple with an indeterminate future and multiple forms of uncertainty. From the uncertainty inherent in atmospheric modelling, through to the imprecise knowledge about expected impacts, and the lack of consensus on appropriate responses, a fluid landscape of uncertainty pervades attempts to address climate change at the urban scale. Central to these shifting forms of governing climate uncertainty are issues of finance; that is, how to fund the significant transformations across urban infrastructure systems required to respond not just to today's imperatives of poverty, sustainability and development but also to tomorrow's carbon and climate unknowns. These have been estimated at up to $175 billion per annum in mitigation spending and up to $100 billion per annum in adaptation spending[1]. Such large sums suggest transformation of (urban) infrastructure systems at a planetary scale are urgently required. However, flows of finance remain woefully below these estimated levels and instigate a further series of uncertainties for politicians, policy-makers and communities as to how they might realise such significant infrastructural investment.

Responses to the financing of climate change mitigation at an urban scale are partly being orientated around the promise and allure of carbon markets and instruments such as the Clean Development Mechanism (CDM). Since the Kyoto Protocol in 1997, these markets have become integral to global responses to climate change and suggest a reconfiguring of cities and capitalism more widely around the needs of decarbonisation. Yet these financial pathways for infrastructural investment remain uncertain in their effectiveness and riven by ongoing debate about whether markets can help mitigate the worst effects of climate change. As such, attempts to address climate futures predicate a cascading uncertainty across towns and cities, because as Whitington asserts, "they invite speculative anticipation of the future" based on ongoing uncertainty about measurement, use, price and longetivity. The instability and speculative nature of carbon markets, in which market efficiencies are framed as the solution to global warming offering opportunities for profit, have thus provoked severe criticism in terms of the logics informing this response to climate change, and confusion in relation to urban areas securing such investment. Such an uncertain financing landscape prompts the need to reflect on the potential futures generated by travelling such carbon finance pathways.

Thinking beyond the mega-city

With over half the world's urban population living in cities of less that 500,000[2] the experience of urbanisation in such urban centres may be different from the high profile mega-cities that have come to dominate visions of our urban future. In India, for instance, much of the country's rapid urbanisation is taking place outside of the global gaze on cities such as Delhi, Mumbai and Bangalore, with estimates that 64% of the urban population is based in towns and cities of less than 1 million.[3] These dynamics pose multiple challenges for addressing climate change imperatives within urban contexts. Thus, whilst high profile cities across the global South and North are enrolling in city-to-city learning networks such as C40 – through which they attempt collectively to navigate the landscapes of financial, climate and infrastructural uncertainty – smaller towns and cities remain excluded from these conversations. Although global networks and relationships might be playing an important role in navigating and negotiating financing landscapes elsewhere, actions in these 'off-the-map' cities are less visible, perhaps even invisible, in these debates, flows of investment and emerging experimentation. Such cities and towns are often hindered by a lack of finance, strategic planning capabilities and access to expertise, whilst simultaneously facing the need to deliver basic services, address widespread poverty and emerging biophysical dynamics. They therefore occupy a tentative, undetermined position in wider discourses concerning urban mitigation. Their unfolding responses to these futures, taking place across much of the urbanised world yet often hidden from global debates, offer valuable reflections, not just for similar-sized urban areas but across a range of different urban contexts.

Mbale's waste(d) infrastructure

Mbale, in eastern Uganda is one such town that may offer some insights into urban life beyond the mega-city. As climate change increasingly becomes part of the present, rather than future, cities scramble to secure financing to underpin responses to these uncertain landscapes. Whilst Mbale is the third largest urban area in the country, with a population of around 100,000 living under the shadow of Mt Elgon, it remains outside the current global and regional debates about climate change, barely registering on maps of learning, knowledge exchange and production, and peripheral to attempts to urbanise the climate change agenda. Furthermore, with limited local government financing and a series of ongoing development issues – including often abysmal roads, slums without basic sanitation or water networks and outbreaks of disease such as cholera – Mbale faces multiple uncertainties as its aspires to city designation and regaining its historic status as 'the cleanest town in East Africa'.

Recent investments in a waste management project place Mbale at the forefront of experiments in carbon financing that present opportunities to address a series of wider urban imperatives. As it joins other Ugandan towns and cities in a new form of infrastructure investment aimed at addressing waste issues in the town, mitigating Green House Gases (GHG) and generating ongoing financing through the CDM (Clean Development Mechanism), Mbale is in many ways at the forefront of questions about how urban authorities navigate multiple forms of climate-driven future uncertainty and generates a cautionary pause for thought about the direction in which towns and cities may be traveling

On the surface the Uganda Municipal Waste to Compost Program appears to offer the best of all worlds. The municipality is provided with an opportunity to upgrade its waste infrastructure through the development of new ways in dealing with the management of this urban metabolism. This is predicated on the collection of waste at 25 points across Mbale on a regular basis, with the waste being taken to a nearby facility and transformed into compost rather than the GHG methane that would be emitted if the waste was just dumped. Such waste infrastructure should help to manage the piles of rubbish, often named after local politicians by frustrated residents, perhaps even help Mbale regain its reputation as a clean (or even the cleanest) town, together with addressing the health and poverty issues that emerge from its inability to process up to 100 tonnes a day of waste. The transformation of waste into compost would seemingly add value to Mbale's rubbish, and, crucially, stop methane emissions from leaving the waste site. Furthermore, these savings, converted into so called 'carbon credits' could be traded, via the CDM, on global carbon markets and generate a form of revenue to be reinvested in the town's infrastructure, another apparent benefit of connecting to this form of investment.

In reality, a visit to the site reveals workers on strike and waiting for unpaid wages, no compost processing being undertaken, few deliveries of collected waste from around the town and a project that seems to have partly collapsed. Such a scene provides a visible indication that this attempt to marshal CDM financing for infrastructure investment is sadly failing. Such difficulties in implementation, but also the wider market logics of the investment that mediate its delivery, reveal the problematic nature of mobilising carbon markets to not only address mitigation but also the wider urban imperatives that are being invoked in promoting such investment.

The intervention in Mbale was designed by the World Bank and Uganda's National Environmental Management Authority as urban Africa's first Programme of Activities (POA) under the CDM[4]. The motivation for the development of POAs is to address the difficulty that towns and cities such as those in sub-Saharan Africa have in accessing financing through carbon markets by including replicable projects with low and distributed GHG reductions into the CDM. Yet, from the very start, the competing logics of seeking to address mitigation objectives with the transformation of waste collection within the context of Uganda's under-resourced municipalities created conflicts. As the project was very much initiated by the World Bank, the emphasis on mitigation and the need to show the value of the increasingly discredited CDM shaped the parameters of the project, meaning that the main focus was not on waste management *per se*, (which was the priority for Mbale). Primarily, the problems in implementing the scheme concerned the ability of the under-resourced municipality to operate the scheme and to generate the revenue to keep it operational, meaning insufficient resources such as collection vehicles and resulting in piles of rubbish (if smaller than previously) characterising the urban landscape. These dynamics have caused periods of inactivity in which waste has not been collected and thus projected methane emission savings have not been attained, meaning the project now faces the reality of failing to either produce mitigation action or significantly improve waste management in Mbale. Furthermore, the displacement of former waste-pickers from the site, the failure of the contractor to pay either on time or an adequate wage for the workers and continued waste issues in informal settlements have meant that the project enfolds new uncertainties into the existing everyday uncertainties for some of Mbale's most impoverished residents.

What begins to become clear when reflecting on Mbale's carbon experiment is the problematic nature of markets to address the uncertainties around managing climate change. The marketisation of the atmosphere, the need to address multiple policy imperatives and the difficulties of towns and smaller cities in not just accessing but implementing this form of financial investment do not seem to offer any resolution in forging a more certain future. The over-riding logic of creating value from waste through compost and the carbon market shapes a particular form of investment in Mbale's infrastructure; one that signals a commodified vision of climate change response which the municipal government is, due to a lack of alternative options, forced to adopt. As such, the autonomy of the municipality is severely curtailed in its attempts to find local solutions, as the World Bank seeks to explore ways to make good on the promises of an increasingly discredited carbon financing system. Here, we see how particular logics around the commodification of the atmosphere (from which the carbon markets have sprung) foreclose other potential non-market and more localised ways to address an uncertain climate future.

Carbon futures

Having to navigate the contradictions and complexities of this CDM investment and the particular agenda it embeds in local governance are not challenges Mbale is facing in isolation. Across the global North and South, towns and smaller cities are experiencing multiple forms of uncertainty concerning carbon financing as an option for funding mitigation and addressing other urban imperatives. Unable to rely on the financial options open to mega-cities (including taxation, loans, large-scale grants and so forth), towns such as Mbale remain at once hesitant, overawed and reactive to the shifting, uncertain global landscapes of carbon financing. Through the need and even desperation to welcome all types of investment, despite the potentially problematic nature of funding such as the CDM, the urban futures of places such as Mbale becomes deeply entwined with the logics and objectives of global institutions such as the World Bank

rather than the concerns of communities and the agenda of local policy-makers. This is a milieu in which a speculative, commodified approach to climate change is generating new geographies of investment and forms of urban governance, yet failing to offer a more certain future.

1 World Bank
2 UN-Habitat
3 Indian Census (2001) and http://infochangeindia.org/urban-india/cityscapes/indias-small-towns-symbols-of-urban-blight.html
4 Under a programme of activities (PoA) it is possible to register the coordinated implementation of a policy, measure or goal that leads to emission reduction. Once a PoA is registered, an unlimited number of component project activities (CPAs) can be added without undergoing the complete CDM project cycle.
5 40,000 shillings a month payment to the 23 workers on site (around $15 per month and well below the official poverty line of $1 a day).

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CHINA:

INFORMALITY IN URBAN VILLAGES

Yue Zhang

From Beijing to Mumbai, from São Paulo to Johannesburg, Southern metropolises have become the frontier of urban growth. In many cities in the developing world, older modes of urbanism are being replaced by "new", informal types of urban transformation. Urban informality – including informal employment, informal housing settlement, and informal politics – casts major challenges for both long-standing and contemporary approaches to urban planning and urban governance. How well policy-makers are able to respond to the challenges will have a significant impact on the lives of billions of city-dwellers as well as affecting the urban future of the world.

As the largest developing country in the world, China has experienced rapid urbanisation since the economic reforms of the late 1970s. China's urbanisation rate increased from 17.9% (1978) to 39.1% (2002) over a period of 24 years. It took Britain 120 years, the United States 80 years, and Japan more than 30 years to accomplish this. In the past few decades, China's urban population growth has been higher than that of Asia as well as the world. More than 200 million Chinese have moved from rural areas to cities since the late 1970s. Another 250 or 300 million people are expected to follow in the coming decades. By the end of 2012, China had a total urban population of 712 million that accounts for 52.6% of the entire population.

Such rapid urbanisation has significant spatial, economic and social consequences. One of the most important and visible products of this are China's urban villages. When you walk around in big Chinese cities, you often see villages appearing on both the outskirts and in the downtown areas. They are surrounded by skyscrapers, transportation infrastructures and other modern urban constructions. As a form of informal spatial development, urban villages provide a unique lens to understand the urban land regime, territorial politics, and urban governance in China.

There are two institutional factors that directly contribute to the creation of urban villages: the dual land-ownership and the household registration (*hukou*) system.

China's land reform in the 1950s established two types of land-ownership – the urban land is publicly owned by the state, while the rural land is collectively owned by villagers. In the vast rural areas, village committees – self-governing bodies elected by people in each village – make critical decisions about their land. After China launched the economic reforms of the late 1970s, a Collective Economic Organisation (VCEO) was established in every Chinese village. The VCEO of the village represents villagers exercising their ownership right over the land, whereas individual villagers are endowed with land use rights to conduct agricultural activities. Meanwhile, they also retain a portion of the land for self-residential use. Neither VCEO nor villagers can change the ownership or the designated purpose of rural land. Only the government can transform collectively-owned rural land to publically-owned urban land through expropriation. After paying compensation to villagers, the government can lease the land to private developers for redevelopment.

In the process of rapid urbanisation that began in the late 1970s, local governments all over China participated in a competition of land requisition in order to accommodate urban sprawl and increase local revenue. They actively took over rural land and converted it into urban land for redevelopment. When expropriating, the government preferred (and still prefers) cropland to villagers' residential land. This is partly because the ambiguous concept of rural collective land-ownership legitimises the expropriation of green land. However, it becomes more complicated and difficult when expropriation targets residential land. To avoid paying higher compensation or having potential disputes, local governments tend to avoid claiming residential land whenever cropland is still available. This expropriation preference results directly in the emergence of urban villages, where the residential areas of villages are left standing while the surrounding green land is converted to urban land for urban development.

If the dual land-ownership provides a basis for the creation of urban villages, the household registration system is a critical social dimension that further consolidates and complicates the situation. Established in 1958 as a means to control population mobility, the household registration system classifies everyone in China as either urban or rural population according to the status of his birthplace. Rural and urban populations are subject to different welfare systems. Urban residents' welfare (housing, education, healthcare, pension, etc.) is provided by work units (*dan wei*), whereas that of the rural residents is provided by village collectives. As a result of wild rural land requisition, however, many rural collectives have dissolved. Meanwhile, villagers are deprived of land, the primary means of livelihood, but their household registration status remains rural so that they cannot enjoy any of the welfare benefits offered to urban residents. To help themselves and enhance their levels of income, villagers in urban villages begin to rent their spare rooms to migrant workers.

Rents soon become the villagers' primary source of income. To maximise land use and increase rent, urban villagers build housing on their reserved residential land. Most of the buildings are four or five storeys in height, and unregulated by any formal planning policy. Inside urban villages, it can be dark and damp all year round. One has to use electric lights even during the daytime. The buildings are substandard and most urban villages are short of basic infrastructure, and the density of the buildings is extremely high. The building density in some villages is as great as 70%. People call buildings in urban villages "shaking-hand buildings" – the buildings are so close to each other that neighbours can shake hands through their windows. The buildings recently got a new nickname: "kissing buildings" – the buildings have become even closer so that you can kiss your neighbours through the windows!

The informal housing market in urban villages is fueled by the increasing demand for cheap housing from migrant workers. Due to the household registration system, migrant workers are not eligible to apply for publicly subsidised houses or to buy houses in the city where they work. Many of them cannot afford to rent a house in the formal housing market, either. Therefore, to rent a place in the informal housing market of the urban villages becomes the only possible choice. In other words, under the current dual land-ownership and household registration system, urban villagers' need for a new source of income and migrant workers' demand for affordable housing have jointly enticed and sustained the rapid expansion of the informal housing sector. Their collective demands have consolidated the development of urban villages. But besides providing an affordable place for migrant tenants to live, urban villages have increasingly become the breeding grounds for social problems such as crime, drug addiction, alcoholism, and prostitution, thus presenting serious challenges for urban governance.

While urban villages can be found in many major cities in China, they are more prevalent in Southern China, especially in the cities of the Pearl River Delta, such as Guangzhou and Shenzhen. In Shenzhen, one of China's first Special Economic Zones (created in 1980), there were 241 urban villages in 2005. In Guangzhou, the capital city of Guangdong Province, the urban villages account for 22% of the built-up urban areas of the city and are home to 700,000 indigenous villagers and 1.2 million migrants. Meanwhile, it is evident from the census data of different cities that migrant workers are the majority population in urban villages. In Guangzhou, for instance, while the population of migrants varies in different urban villages, the ratio of indigenous villagers to migrants ranges from 1:1.5 to 1:30.

While rents collected from the informal housing market are the primary source of income for indigenous villagers, there are also other forms of economic activity in the villages. For instance, many urban villages lease their land to factories, and collect money in that way. At the same time, migrant workers who work in those factories also contribute to the villages' economy. In addition, almost every urban village has a main market street, where small businesses including grocery stores and service shops become the third pillar of village economy. These stores are normally started by indigenous villagers and then leased to migrant workers as the original occupants become richer. It is through the various economic activities that urban villages have become economically self-sustaining systems.

The Chinese government has placed the redevelopment of urban villages among the priority issues on its agenda. In *The Report on the Work of the Government* delivered at the Second Session of the Twelfth National People's Congress on March 5, 2014, Premier Li Keqing contends that one major task of the government is to redevelop the urban villages in China, where around 100 million people live. To follow the direction set by the national government, many cities have created new institutions and policy initiatives to redevelop urban villages. In Guangzhou, for example, the municipal government has recently identified 138 urban villages as targets for redevelopment. The redevelopment process is highly contested, involving constant negotiations over compensation between developers and villagers, with the local government as mediator. The most commonly used approach to redeveloping urban villages is to demolish all existing structures and build high-rise apartment towers. Some of the apartment units are distributed to the villagers to compensate them for their loss and the rest is sold on the market for new projects. Under such a redevelopment approach, most migrant tenants are displaced. They are forced to move to a more remote location, and form a new enclave – until their new home is "redeveloped" again.

The case of China's urban villages demonstrates the prevalence of urban informality in the rapid urbanisation in developing countries. Similar to other types of informal spatial arrangements, urban villages in China were created under specific political, economic, and social conditions. They cannot be disentangled from local politics and policy discourses. Hence, the redevelopment of urban villages needs to take into account political factors as well as the bigger picture of China's urban transformation. It is important to identify more equitable and sustainable design and policy solutions to improve the lives of both migrant tenants and villagers. This would require a better understanding of the mechanisms of urban informality and a more inclusive approach to urban governance.

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JOHANNESBURG:

CORRIDORS OF FREEDOM

Edgar Pieterse

It was a typically balmy evening in Melville, a suburb of Johannesburg. The community hall was packed to the rafters with local residents, most of whom held professional occupations. They were well equipped with facts, market rationality and self-interest. On this February night, the object of their scorn and frustration was a panel of planning consultants and senior managers from the City of Johannesburg metropolitan government. The agenda was the proposed "Corridors of Freedom" that are meant to snake through their neighbourhood, which will translate into an intensification of land-uses triggered by the BRT trunk route infrastructure.

Like many other cities around the world, Joburg metropolitan government has come to the conclusion that the most strategic way forward is to intensify key nodes and arteries in the city to optimise land-use and to facilitate more efficient patterns of growth through better public transport infrastructure. However, in the case of Joburg, the political stakes are considerable because this agenda is meant to deliver, according to Mayor Parks Tau, "…a comprehensive transformation of our spatial destiny, and a break from our Apartheid past of spatial, social and racial segregation; a past premised on prejudice and division."[1] The mobility corridors are seen as the essential catalyst to drive a long-term spatial and social transformation process across the city.

The residents and businesses of Melville and surrounds were having none of it. They could see the reasons behind the Corridor approach but they could not understand why they had to be the first site of experimentation. In other words, a classic NIMBY response: "go ahead, experiment – but not in my backyard!" Whilst the public consultation dragged on, a tall, quiet observer sat in the back rows taking it all in. At a certain moment, the figure rose from his seat and made his way to the stage and it was only at that point that the participants, including the officials, realised that Mayor Mpho Parks Tau had been in attendance for some time. Once he had the microphone, he made an impassioned plea to the attendees that they had to realise that the status quo was simply untenable; that it was impossible for middle-class residents to think they could live out their days undisturbed whilst the state had a duty to right the generational wrongs of the past. Tau asserted that they should be appreciative of the fact that the City of Joburg was being thoughtful and strategic and not resorting to populist techniques such as land expropriation. In fact, the self-same residents complaining stood to benefit, according to Tau. They would receive additional land rights and benefit from the massively consolidated public investment into the area. According to officials present, his intervention decisively shifted the tone of the meeting.

This small anecdote reminds one that long-term strategic thinking demands clear strategic intent rooted in evidentiary analysis, matched by bold incremental interventions that create a definitive pathway, plus inspiring leadership, public persuasion and the resources to act. This is a tall order in most cities, but particularly difficult in the context of South African urban legacies and contemporary obstacles to social and spatial transformation.

Twenty years after political freedom was attained, South African city governments are trapped in a wicked bind. The more they make strides in reducing material poverty by attending to basic needs through investments in water, waste, sanitation, energy and housing, the more spatial and income inequalities are exacerbated. In light of the Apartheid-era racist politics of deliberate under-development and exclusion of black populations, the democratic government had to prioritise attending to basic services and public housing. The public housing programme involves the provision of a fully subsidised 42m^2 free-standing house for all households below an income poverty line of ZAR3200 p/m (£180). Beneficiaries acquire the house and the title deed associated with it. However, the subsidy must cover the costs of the internal services, land and materials for the structure. Since land is at a premium, the only affordable location for these housing estates is low-value peripheral land.

The public housing programme has been extremely successful on its own terms. Since 1994, more than 3.8 million subsidies have been processed and more than 2.8 million public houses have been built. The net effect has been an intensification of an already sprawled urban form; greater barriers between working class and middle-class suburbs; greater disjunctures between work opportunities and where the working classes live; and an entrenchment of monofunctional and low-quality urban environments for the poor. At the same time, middle-class and elite areas have undergone the clichéd transformation of consumption spaces across the world: a concentration of shopping mall retail combined with a proliferation of overpriced coffee shops and boutiques, reinforcing narrow cultural aspirations.

This patterning of the built environment and urban landscape is further over-determined by a number of profound structural trends. Most importantly, unemployment remains stubbornly above the 30% mark, reaching 50% for youth. Inequality is stark: the Gini-coefficient for South Africa is 0.69 and reaches 0.75 in metropolitan centres. The economy is essentially post-industrial, which makes it almost impossible for the majority of young black people to access formal employment, reinforcing a cycle of economic exclusion, spatial isolation, cultural alienation and intensifying urban divisions – inter-linked dynamics that do not lend themselves to quick-fix or populist solutions.

As a consequence, urban governments in South Africa are confronted by a number of competing imperatives: to reduce material poverty, enhance economic growth, facilitate access to urban opportunities, maintain and expand infrastructural investments for the parts of the city that keep the formal economy turning over and for those excluded from economic opportunity, to ensure democratic participation, confront environmental sustainability imperatives, and act with speed and focus so as to improve the city. These pressures are further complicated by an endless and contradictory set of legislative and policy demands placed on city governments, making it virtually impossible to act with strategic intent in relation to an argument about long-term imperatives. However, this is exactly what the Corridors of Freedom initiative of the City of Joburg represents.

"Corridors of Freedom" is an evocative title for the flagship initiative of the City of Joburg to systematically drive spatial transformation over the medium- to long-term. It is essentially a transit-oriented development approach that attempts to steer future growth along specific corridors that connect a variety of interchanges and nodes. At these mobility nerve centres, the intention is to aggressively promote "mixed-use development such as high-density accommodation, supported by office buildings, retail development and opportunities for leisure", according to the city's promotional materials.[2]

The title obviously plays on the idea that twenty years after democratisation, the majority of city-dwellers do not experience complete freedom because they remain spatially isolated from urban opportunities. It taps into the ideological discourse of the ruling African National Congress party and is meant to pre-empt deep-seated frustration about the lack of visible change in the built environment to benefit poorer communities.

CoF is significant in the larger South African urban management landscape because all municipalities have been claiming a commitment to spatial transformation for the past two decades but hardly any have been able to demonstrate how they can achieve it. This is largely because of the cluster of interwoven factors discussed earlier, but also due to an inability to engage pragmatically with real-estate and infrastructural investment dynamics. CoF reflects a maturing confrontation of urban growth dynamics and it is for this reason that the initiative may yield more positive results than efforts that have gone before it.

Since 2008, the City of Joburg has been producing and updating a unique urban management technology called the Growth Management Strategy. The GMS is primarily designed to capture a fine-grained understanding of land-value shifts. The Planning Department maps all new planning applications, including rezoning or subdivision, onto a geographical information system of the metropolitan area. This data makes it possible to correlate where demand clusters in space and how it correlates with need. This dataset is then correlatedagainst a series of investment and development priorities that stem from the long-term Growth and Development Strategy and the term-of-office Integrated Development Plan of the metropolitan government. Based on a detailed analysis of the contrasts and disjunctures between these two dynamics, the GMS proposes a "prioritisation hierarchy" that seeks to support both market demand where it coincides with the spatial corridors of the municipality and spatial pockets that require urgent investment to alleviate chronic poverty or establish investment bridges to the economic core of the city.

The kind of analysis and prioritisation provided by the GMS makes explicit political choices and trade-offs possible. Most importantly, it compels the municipality to confront how it engages pro-actively and critically with market dynamics, without losing sight of how best to sustain regional economic dynamism. Through such engagement it is able to shift the debate away from "creating an enabling environment" for private capital, to one where representatives of the private sector are asked to indicate how they are contributing to long-term integrated development objectives. Conversely, this tool also makes it explicit that it is not possible to invest everywhere in the same way. This is of course always the case but with a tool such as the GMS, it becomes possible to have a democratic debate about the reasons for ranking, which in theory enhances accountability and strategic focus. Significantly, Joburg has so far kept the GMS as an internal tool instead of opening it up to public access and scrutiny.

There is of course great political risk associated with being transparent. It invites all of the constituencies who feel they are not adequately prioritised to come to the fore. Those who are "lucky" enough to fall within the priority zones may disagree with the nature of the investments being proposed. For Mayor Parks Tau, opposition to his agenda is not confined to the predictable interest groups who are used to benefiting from the status quo, but also comes from a number of constituencies within his own political home. His party is divided on how best to effect redistribution and empowerment of the poor. Some argue vociferously that the lion's share of the metropolitan government's investment should be restricted to areas of abject poverty and inadequate services. Furthermore, greater taxes and redistributive measures should be imposed on elites and the middle-classes to pay for such a programme. They find his nuanced argument for doing both unconvincing and distracting. These dynamics are rendered even more volatile by a proliferation of public demonstrations – and sometimes riots – to protest against the alleged lack of service delivery and/or unresponsive government in the townships of Johannesburg.

There can be little doubt that the Corridors of Freedom initiative of Joburg is one of the most important and thoughtful public interventions to systematically transform the spatial dynamics and trajectories of South African cities. It is based on a suite of long-term diagnostic and forecasting instruments that contributes to more astute planning and urban management. Specifically, it is able to cohere diverse sectoral investments and agglomerate them in specific territories that could induce new spatial path-dependencies for the city. This makes Joburg one of the most significant test beds for experimenting with a new generation of governance technologies on the African continent. However, it is too soon to speculate about its societal traction and popular appeal. Regrettably, long-term imperatives such as spatial transformation are difficult to evoke and those who advocate for short-term gratification will always find an outlet in our sound-bite era.

1 Tau, P. (2014) 2014 State of The City Address by the Executive Mayor of Johannesburg Clr Mpho Parks Tau. Johannesburg: City of Joburg.

2 Tau, P. and Bloomberg, M. (2014) Green cities can help breathe new life into a nations' growth. *Business Day,* 13 October 2014.

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The Urban Age programme, jointly organised with and supported by the Alfred Herrhausen Society, the international forum of Deutsche Bank, is an international investigation of the spatial and social dynamics of cities. The programme centres on an annual conference, research initiatives and publications. Since 2005, twelve conferences have been held in rapidly urbanising regions in Africa and Asia, as well as in mature urban regions in the Americas and Europe.

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LSE Cities is an international centre supported by Deutsche Bank whose mission is to study how people and cities interact in a rapidly urbanising world, focusing on how the design of cities impacts on society, culture and the environment. Through research, conferences, teaching and public lectures, the centre aims to shape new thinking and practice on how to make cities fairer and more sustainable for the next generation of urban dwellers.

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The non-profit Alfred Herrhausen Society is the international forum of Deutsche Bank. Its work focuses on new forms of governance as a response to the challenges of the twenty-first century. The Alfred Herrhausen Society seeks traces of the future in the present, and conceptualises relevant themes for analysis and debate. It works with international partners across a range of fields, including policy, academia and business, to organise forums for discussion worldwide. It forges international networks and builds temporary institutions to help to find better solutions to global challenges. It targets future decision-makers, but also attempts to make its work accessible to a wide public audience. The society is dedicated to the work of Alfred Herrhausen, former spokesman of the Deutsche Bank board of directors, who advocated the idea of corporate social responsibility in an exemplary manner until his assassination by terrorists in 1989. The Alfred Herrhausen Society is an expression of Deutsche Bank's worldwide commitment to civil society.

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Unless otherwise noted, all sources for the data analysis in this document can be found at http://delhi2014.lsecities.net/

Back cover: South Extension Market, New Delhi: A busy road runs parallel to an even busier construction site, as the Delhi Metro gets underway

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