Opportunities and Risks of the ‘New Urban Governance’ in India: To what extent can it help addressing pressing environmental problems?

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Abstract

The ‘new urban governance’ has made rapid inroads as an approach to govern the transition to more environmentally sustainable buildings and cities. It allows for a broad repertoire of actors and instruments in the governing of this transition and is expected to overcome some of the pervasive problems of mandatory regulation and legislation for urban development and transformation. This article studies six new urban governance practices in India based on a series of interviews with relevant actors. It seeks to better understand the opportunities and risks of this approach to urban governance for governing India’s rapid urbanisation. It finds that the new urban governance holds some promise, but is also critical of it. Particularly, the lack of mandatory urban regulation and legislation, the lack of institutional capital, and a culture of corruption in India undermine the promise that the new urban governance holds in this context.

Keywords

built environment, low carbon development, new urban governance, urban India, urban environmental sustainability

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Introduction

India faces unprecedented urbanisation. This is requiring rapid growth in India's cities in general and its building stock in particular, adding to the nation's already unsustainable levels of resource consumption and carbon emissions. To make things more pressing, building-related resource consumption and carbon emissions in India are projected to grow faster than its urban population. The urbanisation trend is combined with rapid economic development, the rise of India's middle class, and a move towards suburbanisation. It is therefore likely that people and firms in India will demand larger, more luxurious, and thus, more resource and carbon-intensive buildings. This will only amplify the environmental pressures caused by urbanisation (Sen, 2013).

Governing urban growth is one of India's key environmental challenges (Evans, Shui, & Somasundaram, 2009). Fortunately, the technology exists to develop buildings that are more environmentally sustainable than conventional ones—that is, buildings that are resource efficient and less carbon intensive—and much knowledge is available on how to use buildings in more environmentally sustainable ways (Van der Heijden, 2014). This knowledge and technology hold a huge potential for cost-effective reductions of resource consumption and carbon emissions in India (Sen, 2013). Unfortunately, in India, traditional governance instruments, such as building codes and planning legislation, have been unable to accelerate the transition to environmentally sustainable building and city development and transformation (Aijaz, 2012; Roy, 2009).

In seeking to address this issue, India has implemented reforms of its urban environmental governance regime and has begun to experiment with 'new urban governance' processes and instruments (Boyd & Ghosh, 2013; Dubash & Jogesh, 2014). This new urban governance is characterised by, first, a shift away from government as the sole authority in governing urban problems towards the involvement of public and private sector stakeholders for that purpose. Second, there is a shift towards networks and collaborations of stakeholders to address these problems. Third, there is an interest in governance instruments that encourage self-organisation, market solutions, or both as substitutes for or complements to mandatory command-and-control

style instruments. Fourth, there is a shift towards instruments that reward voluntary compliance as opposed to enforcing mandated behaviour (Bingham, 2006; Blanco, 2013; Hohn & Neuer, 2006; Holley, Gunningham, & Shearing, 2012).

This article seeks to better understand the opportunities and the risks of new urban governance practices for environmentally sustainable building and city development in India. The next section sets the scene and addresses the dominant urban governance approaches for sustainable building and city development in India and the complications they face. The article then briefly reviews the literature on the new urban governance and the broader and related literature on the new governance, seeking to understand what may be expected of this approach to governance in governing the expected urban growth in India. Then, it examines six examples of the new urban governance practices to gain insight into the opportunities and risks of this approach to governance in real world settings in India. The article concludes by identifying the main lessons learnt.

Dominant Urban Governance for Sustainable Building and City Development in India

Urban governance in India is a complex patchwork of tasks and responsibilities among national, state, and local governments (Aijaz, 2012; Baud & de Wit, 2009). The responsibility for governing environmentally sustainable building and city development is upon state governments, which can delegate these responsibilities to local governments. The key governance instruments in this area are building codes and zoning legislation. But, there is much variety between cities (Aijaz, 2012); existing codes and legislation generally do not consider environmental sustainability (Murthy, 2010); codes and legislation are often dated or poorly enforced, which limits their effectiveness (Sen, 2013); and, building control is often de facto inexistent in smaller cities because of a lack of funds (McKinsey, 2010).

The National Government of India seeks to influence building and city development through national policies and framework legislation. It has, however, no statutory power to directly govern

sustainable building and city development through building regulation and planning legislation. That being said, the National Government has long sought to govern building and city development indirectly. A first key governance intervention was the National Housing and Habitat Policy of 1998. It primarily sought to address the housing shortage in India, but had, as one of its objectives, increasing the use of then available technology to improve the energy efficiency of the housing sector (Government of India, 2001). In 2001, the Government of India implemented the Energy Conservation Act. This Act promoted energy conservation and efficiency, mandated the foundation of the Bureau of Energy Efficiency, and authorised this Bureau to develop and implement an Energy Conservation Building Code. This Code was established in 2007 and sets minimum energy efficiency requirements for buildings. The Code is, however, voluntary, and state governments are not actively mandating it in their jurisdictions: By the end of 2014, only two states had fully adopted it (Vedela, Bilolokar, Jaiswal, Connolly, & Deol, 2014). Another dominant governance instrument was the Jawaharlal Nehru National Urban Renewal Mission, which was launched by the Government of India in 2005 and completed in 2014. It supported 67 selected cities in the implementation of infrastructure projects and governance reforms. It had a focus, among others, on urban environmental sustainability (Jain, 2010). In 2008, the Government of India launched the National Action Plan on Climate Change, which outlines existing and future policies and programmes addressing climate change adaptation and mitigation (Government of India, 2008; Srinivasan, Ling, & Mori, 2012).¹

Whilst scholars, practitioners, and policymakers are generally positive about the ambition of the Government of India to address environmentally sustainable building and city development, they are critical of the practicality of the governance instruments introduced and governance processes followed. First, they do not address the key problem of the weak and poorly organised government agencies responsible for urban affairs, including environmentally sustainable building development and use, nor do they address the problems of poor (law) enforcement and corruption in the construction and property sectors (Aijaz, 2012; KPMG, 2011). The instruments are further

considered lenient in terms of energy efficiency and other environmental sustainability requirements (compared to other countries), were introduced fairly late (again compared to other countries), and were introduced as voluntary, rather than mandatory, requirements (IEA, 2013; Vedela et al., 2014). They are expected to achieve minimal results, especially because government officials, as well as individuals and firms in the construction and property sectors, often lack knowledge about how to construct, maintain, and use buildings in an environmentally sustainable manner (IEA, 2013). A final point of critique is that these governance instruments only address future buildings, but do not apply (retrospectively) to existing buildings in India (Sen, 2013; TERI, 2009). This is problematic because India's current building stock is already causing pressing environmental challenges.

The New Urban Governance: Characteristics and Expectations

In response to these complications, governments at different levels and throughout India have begun to experiment with alternative governance processes and instruments for environmentally sustainable building and city development. They fit a broader international trend that has become known as the 'new urban governance' (Bingham, 2006; Blanco, 2013; Hohn & Neuer, 2006)—an approach to governance that itself fits broader changes in the governing of societal risks, which has been theorised as 'new governance' and 'new environmental governance' (Holley et al., 2012; Lobel, 2012; Wurzel, Zito, & Jordan, 2013). Broadly speaking, this new urban governance includes the addressing of urban problems through networks and collaborations of public and private stakeholders, and allows for the inclusion of a broad palette of governance instruments—including market-based instruments and voluntary programmes (Bulkeley & Betsill, 2013; Van der Heijden, 2014).

This new urban governance has achieved much acclaim for what it is potentially able to achieve in terms of effective urban governance, particularly in the area of urban environmental sustainability. Whilst scholars typically avoid drawing up a fixed definition for the phenomenon of

the new urban governance, they have introduced a range of conditions that typify the processes and instruments of the new urban governance. In terms of the new urban governance as a process, scholars argue that it is less hierarchical and less government-centred than traditional governance processes. In the development of (new) urban governance instruments, governments are more open to collaborating with non-governmental actors, consulting with them, or even allowing non-governmental actors to take the lead in developing instruments (Bingham, 2006; Hohn & Neuer, 2006).

Such heterarchical processes are expected to come with a number of advantages over traditional hierarchical processes. By involving a wide range of stakeholders in the development of governance instruments, their tacit knowledge can be used. This is expected to result in instruments that are 'smarter' than those developed by somewhat distant bureaucrats (De Búrca & Scott, 2006; Lobel, 2012). Also, by involving a range of stakeholders, instruments can be developed through a consensus-building process that allows for a reflection on the advantages and disadvantages of the instrument for the various parties involved. This is expected to bridge their diverse and sometimes rival views (Bulkeley & Mol, 2003; Holley et al., 2012). It is further expected to increase the acceptance of the instruments that are developed and implemented, and correspondingly, to improve compliance with them (Scott & Trubek, 2002; Walters, 2004).

In terms of the design of the new governance instruments, scholars focus particularly on the move away from traditional deterrence-based hard law instruments that penalise non-compliance, such as building codes, to soft law instruments that reward compliance and provide positive incentives. Such positive incentives come, for example, in the form of information, the ability to market compliant behaviour, or some form of financial compensation. These positive incentives are, again, expected to increase compliance (Scott & Trubek, 2002). Scholars further point to a move away from mandatory governance instruments towards those that ask for voluntary commitments, again expecting that compliance is more likely when individuals and firms commit voluntarily to instruments than when they are mandated to do so (Borck & Coglianese, 2009; Van der Heijden,

2014). Finally, they highlight a move away from prescriptive rules that specify how compliance should be achieved towards the use of performance-based standards that allow those subject to these instruments (some) flexibility in how to comply. This is expected to make those subject to these instruments more willing to move beyond mere bottom-line compliance (Carrigan & Coglianese, 2011; Jänicke & Jörgens, 2006).

That being said in praise of the new urban governance, an emerging empirical body of literature is critical of its capability to deliver on these normative expectations (Holley et al., 2012; Van der Heijden, 2014). Empirical studies have often found that new governance arrangements are not able to attract large numbers of participants, fail to change the behaviour of their participants, or are captured by self-interested private actors (Gupta, Pfeffer, Verrest, & Ros-Tonen, 2015; Read & Pekkanen, 2009). The effectiveness of the new urban governance appears to depend strongly on the design of the instruments, as well as the context in which they are implemented. In addition, the literature on the new urban governance is biased toward studying cases in the Global North and lacks an understanding of the promise of this approach in governing rapidly developing countries in the Global South, such as India (Blackman, 2008; Blackman, Uribe, van Hoof, & Lyon, 2013; but see, Boyd & Ghosh, 2013). In the following sections, six new governance practices (instruments and processes) for sustainable building and city development in India are assessed in light of the expectations regarding new urban governance that have been expressed in the literature.

Six New Urban Governance Practices in India

The six examples of new urban governance practices for sustainable building development and use were studied as part of a larger research study on new governance for sustainable building development and use globally (Van der Heijden, 2014). The examples were identified through internet searches and desk research. They can be understood as illustrative of the broader trend of new urban governance practices (cf., Yin, 2003). By no means, however, does this article claim that the six examples are representative of all possible process and instrument designs and contexts of

such new urban governance practices in India. The six examples were selected because they each show some or all of the key characteristics of the new (urban) governance: reliance on voluntary compliance mechanisms, inclusion of non-governmental actors in their development and implementation, and the inclusion of market-based mechanisms and other incentives.

The relevant data for analysing the practices was obtained from websites, existing reports, and other sources. Novel data was obtained through a series of interviews. They were aimed at filling in gaps in the data from other sources, resolving conflicts in the data from other sources, and gaining additional insight into the practices under scrutiny. The interviewees were traced through internet searches and through social network websites, particularly LinkedIn. This resulted in a pool of 40 interviewees with various backgrounds, including policymakers, bureaucrats, property developers, architects, engineers, and academics. Table 1 provides a brief overview of the interviewees' backgrounds.

TABLE 1 ABOUT HERE

The interviews were recorded, and based on the recording and notes taken during the interviews, a summary report was drafted that was sent back to the interviewees for validation. The interviewees were often aware of and involved in more than one new urban governance practice. It is expected that this (partly) helped to overcome a sampling bias of the administrators (and the participants) who were overly enthusiastic about their 'own' example (Sanderson, 2002). The interviews lasted approximately one hour each and were generally conducted at the interviewees' work locations. The interview data and additional data were processed by means of a systematic coding scheme and qualitative data analysis software (Atlas.ti). Using this approach, the data was systematically explored, and insight was gained into the 'repetitiveness' and 'rarity' of experiences shared by the interviewees.

Each interviewee was asked the following questions: What initiated the new urban governance practice? Who are the main actors involved? What new network or collaboration has evolved, if any? What are its opportunities and (potential) risks? These questions follow those used in other studies of the new urban governance (e.g., Boyd & Ghosh, 2013; Hohn & Neuer, 2006). Table 2 presents a broad overview of the examples studied.

TABLE 2 ABOUT HERE

LEED India, GRIHA, and Eco-Housing

The dominant new governance instrument for sustainable building and city development in India is certification. It allows the resource consumption of buildings, their carbon intensity, or both to be made visible and helps building developers and property owners to market the environmental sustainability credentials of their buildings. Often, certification is introduced as a voluntary alternative to existing mandatory governance instruments such as building codes—and around the globe, this is the prevailing design of new governance instruments for sustainable buildings (Van der Heijden, 2014).

Various such voluntary certification instruments have been implemented in India. The government-supported Energy and Resources Institute (TERI) introduced the Green Rating for Integrated Habitat Assessment certification scheme (GRIHA) in 2007 (Ministry of New and Renewable Energy, 2012). The Pune Municipal Corporation (the building authority in the city of Pune) introduced a certification scheme for environmentally sustainable housing development in 2004 called Eco-Housing. This instrument was developed in collaboration with the United States Agency for International Development (USAID), the University of Pune, the University of Ahmedabad, the International Institute for Energy Conservation (IIEC), and TERI (IIEC, 2009). Finally, the Green Building Council of India, a construction and property sector peak body, adopted a widely used international certification instrument, Leadership in Energy and Environmental Design (LEED),

and adapted it to fit the Indian context (IGBC, 2013). It was introduced under the name LEED-India in 2001, and the Green Building Council of India was initially supported by the United States Green Building Council and USAID.

All of these instruments were introduced because of the lack of mandatory requirements for environmentally sustainable building development in India—and all of the instruments build on international examples of certification instruments. At the outset, these instruments produced promising performance. LEED-India has, for example, been applied to close to 3,000 building projects, with a total built up space of over 2.5 billion square feet throughout India (IGBC, 2015), and the local Eco-Housing instrument has certified some 16 million square feet.² But what do these numbers actually mean? If we scratch a little under the surface of the performance reported, it becomes clear that the answer to that question is ‘not much’. As the interviewees explained, the numbers presented by instrument administrators reveal wishful thinking at best, and they often illustrate a reality that is only on paper. First, these instruments allow for the certification of building designs, as well as buildings that are built. The majority of certificates issued are awarded to building designs, but it remains to be seen whether these buildings will actually be constructed. Eco-Housing is illustrative here: Less than 3 per cent of the certified buildings have been completed. The interviewees mentioned similar numbers for LEED-India. ‘These programmes show intention,’ the principal of an architectural firm mentioned, ‘but not actual performance. Probably less than one per cent of new buildings in India are certified’ (int. 154).^{3, 4}

A second problem with these instruments is that they are prone to abuse—intended or unintended. During construction, a builder may deviate from the certified building design, or the occupants may use a certified building in ways that go against its sustainability credentials. This problem has been widely documented for building certification (Van der Heijden, 2015). The interviewees warned that, particularly in contexts where corruption is the rule, rather than the exception, such as the property and construction industries in India (Vittal, 2012), these voluntary certification programmes run the risk of being violated. For the administrators of GRIHA, this was the

reason why buildings should be certified only after completion, when the real performance of a building can be measured. 'It is all about mindset. People here are used to getting away with violations', a GRIHA administrator said. 'This is why GRIHA measures performance in operation and not expected performance as designed. This is especially important in a culture where lenient compliance is often the norm', she continued (int. 199). This structure of checks and balances appears, however, to be appreciated less by property developers and owners: Less than a hundred GRIHA-certified projects have been realised throughout India since 2007.⁵

A final problem pointed out by the interviewees and the additional data is that these instruments are only applied to the absolute top-end of the property sector—new flagship office buildings and housing projects in major cities—but not to ordinary buildings. This is where property developers see a market in which (future) property owners and occupants are willing to pay a premium for sustainable buildings. But in other areas, they do not see this profitable market. In addition to the limited uptake of this type of instrument, it may also result in a situation in which environmentally sustainable buildings and city districts are only achievable for a very small portion of the Indian population: The housing units developed under the Eco-Housing programme in Pune sell at 10 million Indian rupees (US\$ 150,000), a sum that is well out of reach for most of Pune's citizens.⁶

PEARL

The Peer Experience and Reflective Learning Network, or PEARL, is India's first formal network of cities. It served as a knowledge-sharing platform contribution to the implementation of the Jawaharlal Nehru National Urban Renewal Mission and has been continued as a capacity-building and knowledge network (PEARL, 2010; Vaidya, Dhar, & Dasgupta Sur, 2010). PEARL brings together the 67 selected Jawaharlal Nehru National Urban Renewal Mission cities and seeks to ensure that these cities share knowledge and learn from each other, and by doing so, ensure that the goals of the Mission are achieved. It was launched in 2007 by the National Institute of Urban Affairs and is

supported by the Ministry of Urban Development, the World Bank, and Cities Alliances. One of the most innovative aspects of PEARL is the twinning of cities. This is a concept in which a better performing city is paired with a less-well performing city, and it aims to transfer the lessons learnt by the former city to the latter.

PEARL collects and communicates lessons about the implementation of the Mission through a regular newsletter, documents best practices in reports, regularly organises workshops and seminars for participating cities, and maintains a website that further communicates lessons about the implementation of the Mission. By 2015, close to 150 best practices were available on the PEARL website, and the website itself had been accessed close to 90,000 times.⁷ The broad and easy availability of information relevant to city officials is especially considered to be one of the key successes of the PEARL by the network's administrators and participants. As a public official in New Delhi explained: 'One of the most positive outcomes is that it has set a lot of changes into motion. It has changed mindsets that a reform-linked funding scheme has the potential to achieve systemic changes in the way cities are governed and managed in India' (int. 198; see further, Vaidya et al., 2010).

Yet again, if we scratch a little deeper under the surface of this new governance practice, a different story emerges. The Jawaharlal Nehru National Urban Renewal Mission sought to invest US\$20 billion into the development of the 67 cities and allowed them considerable freedom in allocating the funds (Jain, 2010). PEARL was introduced partly as a programme to generate and share knowledge, but also as a programme to increase accountability through peer-to-peer monitoring. Whilst it may be argued that it has achieved the former goal, it has not been able to achieve the latter. In 2012, the Comptroller and Auditor General of India carried out an audit of the implementation of the Mission and found considerable shortfalls. This highlights that whilst some successes have been achieved, many original Mission goals have not been accomplished (CAP, 2012). For instance, the Mission had set ambitious goals for housing development—in qualitative and quantitative terms. Yet by the end of the Mission's first seven year cycle, in 2012, out of the

intended 1.6 million planned dwelling units, only 26 per cent had been realised and only half of those dwellings were occupied. The Comptroller and Auditor General critiqued the Ministry of Urban Development for not having an adequate administrative apparatus in place to handle a scheme of the magnitude of the Mission. It particularly advised the Government of India to put stronger enforcement of the scheme in place to prevent ‘diversions [of funds] to ineligible beneficiaries’, which was found to be a persistent problem, and to ‘introduce a zero tolerance policy at all levels in respect of irregular expenditure and division of funds by way of greater financial discipline’ (CAP, 2012, vii-viii).

With this critique of the Comptroller and Auditor General in mind, it is somewhat surprising to see the praise that PEARL has received as a successful example of a new urban governance practice in rapidly developing economies by a range of international civil society organisations (ICLEI, 2011; Rockefeller Foundation, 2010; UNDP, 2009), as well as by scholars and the media within and outside of India (Maher, 2012; Sharma, Nagar, & Sodhi, 2014; Sivaramakrishnan, 2011). Whilst the complications of implementing the Jawaharlal Nehru National Urban Renewal Mission highlighted by the Comptroller and Auditor General were not caused by PEARL, it is relevant here to remember that PEARL was set up, among other things, specifically to prevent such complications from occurring in the first place. The general positive attention given to PEARL often lacks any form of critical inquiry in terms of whether, how, and what sort of success the programme has achieved. The broad narrative of success, whilst arguably somewhat flawed, has nevertheless attracted the attention of international organisations such as the World Bank and Cities Alliance, which have been willing to provide financial support for PEARL (Cities Alliance, 2008; World Bank, 2011). Keeping in mind that these organisations have their own targets to meet, it makes sense for them to support a practice that has been evidenced to be ‘successful’, rather than an unknown one (Hughes & Hutchings, 2011; Jepson, 2005).

Mumbai First

Mumbai First is a collaboration between local businesses and government in Mumbai. It was founded in 1995 by a number of major businesses, then under the name Bombay First.⁸ It builds on a similar initiative in the United Kingdom, London First, and during its start-up period, it received support from the British Council. This was a period of economic downturn in Mumbai. One of the key administrators of Mumbai First explained: 'Back then, the textile industry had collapsed, and the initiators of Mumbai First realised that Mumbai had lost its place as an area for investment, both nationally and internationally. The question then was: How can we get Mumbai back on the map?' (int. 168). The initiators of Bombay First expected that the liveability of the city, including urban environmental sustainability, would significantly improve if the city attracted (international) investors who would invest in the city's built environment (Nayar, 2010).

In its first five years, Mumbai First predominantly focussed on promoting the city as an international hub for investment, but it did not receive much response from local authorities. It then sought a change of course, and instead of trying to affect the government through reports and media campaigns, it sought to directly engage and collaborate with it. A group of private sector representatives started a conversation with the Chief Minister of the state of Maharashtra, of which Mumbai is the capital, to discuss the state of the built environment in Mumbai, including its environmental sustainability. In collaboration with the government (especially the Ministry of Planning), a research study was started to seek a future development strategy for the city (Mumbai First, 2014; Nallathiga, 2005). In 2003, together with the government of the state of Maharashtra, Mumbai First commissioned McKinsey, an international management consulting firm, to prepare a study that assessed Mumbai's strengths and opportunities, and it created a vision for transforming the city. This vision document, 'Vision Mumbai – Transforming Mumbai into a world-class city' (McKinsey, 2003), was endorsed by the government of the state of Maharashtra and the World Bank. With this endorsement, its transition from a private partnership into a private-public collaboration with international support was made (Nayar, 2010).

The vision document identified housing, among other things, as one of Mumbai's most serious problems—in terms of quantity and quality. It addressed the problem of the city's slums and called for a reduction of them. The document made a further call for the creation of urban housing zones with public housing for the urban poor over a ten year period (Mckinsey, 2003). By transforming the slums, it was expected that higher levels of built environment sustainability could be realised—through better designed and constructed housing, better city planning, and modern amenities. Unfortunately, the vision document was acted upon all too swiftly in 2004: In what has become known as the 'Indian Tsunami', government authorities demolished a range of slums in Mumbai before providing alternative housing possibilities. This rendered 300,000 people homeless (Roy, 2012).

Building on the vision document, the Government of Maharashtra developed an Action Plan, 'Transforming Mumbai into a World-Class City' (Government of Maharashtra, 2004). The goals and ambitions of the action plan largely overlap with those of the vision document, but formalise them. The Action Plan, in turn, lies at the base of the 'Mumbai Transformation Program', which is a formal policy comprising more than 40 projects to improve economic growth in Mumbai, reduce poverty, and improve the quality of the built environment (Cities Alliance, 2013). The Program was financially supported by the Jawaharlal Nehru National Urban Renewal Mission. It further receives financial, administrative, and technical support from Cities Alliance, the World Bank, and USAID. These organisations are further involved in documenting progress, and they serve as an interface between the various stakeholders involved. Particularly, the relatively short time to develop the Program, and the inclusion of local firms, local government, and international stakeholders in its development and implementation are considered key successes of Mumbai First (Chattaraj, 2012; Cities Alliance, 2013).

That being said in praise of Mumbai First, it goes without saying that the participants in Mumbai First also have a very strong private agenda. After all, if their vision of Mumbai as an international hub for investment is realised, they will be the first to welcome private investments.

Whilst this is the main incentive for participants to collaborate with governmental actors, there is a risk that the latter will be too easily captured or that Mumbai First will lack the level of public accountability and transparency that may be expected from public and governmental organisations. Particularly because this is a business-to-government collaboration, there is a risk that the business actors involved, rather than the governmental actors, will drive the agenda (cf., Gupta et al., 2015).

Open Mumbai

A final example of a new urban governance practice for environmentally sustainable building and city development in India is Open Mumbai. Open Mumbai is an ongoing project that seeks to highlight the link between formal city development, informal housing development, and environmental degradation in Mumbai (Das, 2012). Particularly Mumbai's green corridors, such as its waterways and mangroves, were traditionally not considered to be formal spaces for development or other planning activities in Mumbai's planning documents. These informal spaces logically became the areas where slum dwellers set up their settlements. Yet in doing so, they added to urban sprawl, water and soil pollution, and the clearing of green space for housing (Shah & Joshi, 2010).

It has long been unknown exactly how many urban poor live in Mumbai and exactly how much of the city's land is taken up by informal housing and slums. The Mumbai Development Plan, the statutory document that lays out land use and development control in the city, did not adequately represent the urban poor and slum areas. This provided the Municipal Corporation of Greater Mumbai, Mumbai's primary agency responsible for urban governance in the city, with a unique opportunity to 'play with the data' and to deny that the urban poor and slums amounted to a serious problem in Mumbai (SDI, 2014). The reality in Mumbai is, of course, different. Even when flying in to the city, one can see its slums spilling over onto the airport grounds. When taking a rickshaw, taxi, or train from the airport to the city centre, one begins to get an idea of the amount of informal housing in the city. It appears to line every train track, border every highway, and take up

much public and green space in the city (see also, Mahadevia, Joshi, & Sharma, 2009; Shah & Joshi, 2010).

Open Mumbai influences the development process of Mumbai's planning process through interactions with policymakers and the general public. For some 15 years, it has been led by a Mumbai-based architect. Along with a team of people, he has mapped and documented Mumbai's slums, and has written extensively on the relationship between urban development, slums, and environmental risks. In 2012, this work was brought together in an exhibition held at the National Gallery of Modern Art in Mumbai, as well as in a book (Das, 2012). This was during the period when the Municipal Corporation of Greater Mumbai was developing the current Mumbai Development Plan, which will be in force from 2014-2034 (MCGM, 2013)—the development of this plan was a requirement under the Jawaharlal Nehru National Urban Renewal Mission (Mahadevia et al., 2009). Open Mumbai has been able to clearly point out and make the living conditions of the urban poor widely visible: It concludes that more than 50 per cent of Mumbai's population, close to 6.5 million people (as per the 2011 census), live in slums; further, it has developed a number of maps that clearly point out the locations of informal housing in Mumbai.

These maps have become known as the 'Mumbai Slum Maps'. Intriguingly, they illustrate that not only is there a need for a comprehensive master plan for slum redevelopment, but that it is also possible to house the urban poor in affordable housing and in an environmentally sustainable manner (Das, 2011). One of the major achievements of Open Mumbai is that, through the maps, 'for the first time [the bureaucrats see] Mumbai the way we [the people involved in Open Mumbai] see it' (Nair, 2012, p. 8). The Slum Maps were the central aspect of the 2012 exhibition and attracted much media attention. This resulted in a counter media offensive by the Municipal Corporation of Greater Mumbai. A top bureaucrat of the Municipal Corporation, accompanied by 75 of his staff, attended the exhibition, an event that was well-covered by the media, at which he publicly stated: 'The study [Open Mumbai] is useful for all the stakeholders in the development of Mumbai, especially the Municipal Corporation, to alert them about where urgent attention is required'

(Gurav, 2012, p. 10). The current Mumbai Development Plan was notably influenced by the Mumbai Slum Maps, and it now includes the city's various slum areas. The Municipal Corporation has further entered into dialogue with the people involved in Open Mumbai to discuss the various solutions that they have in mind to improve the housing conditions of the urban poor, as well as improve the environmental sustainability of the city as a whole (Rangwale, 2013).

Discussion

This concluding section discusses the details of the relevant similarities and differences and lessons learnt across the six new urban governance practices. It assesses, in more depth, the newness of this new urban governance, its major opportunities for low-carbon building and city development and transformation in India, and its main risks.

What is new about the new urban governance in India?

Any concept coined with the term 'new' ultimately loses its newness. Particularly in the Global North, where most of the theorising on the new urban governance has emerged, this approach to urban governance appears to be the rule rather than the exception (Bulkeley & Betsill, 2013; Van der Heijden, 2014). This appears to be less the case in India, where the type of new urban governance practices discussed in this article are still seeing only marginal application (see also Boyd & Ghosh, 2013). Particularly new about this approach to urban governance in the Indian context is that it seeks and helps to overcome the shortfalls of the formal institutional setting for environmentally sustainable urban governance—currently a complex patchwork of tasks and responsibilities that are allocated to governments at all levels.

Another novelty with respect to the examples discussed is that they are, often, driven by more than environmental sustainability at the building and city level. The certification instruments are built on market forces—buildings that are certified under these instruments are expected to

yield higher sales or rental prices. PEARL seeks to align a wide range of city development goals—including environmental sustainability, housing and infrastructure development, and modernised public service delivery. Mumbai First combines market forces—the personal interests of participating firms—with the overall development of Mumbai. Finally, Open Mumbai links urban environmental sustainability with informal housing in the city. This breaks away from the tradition in Indian policymaking of developing environmental sustainability policies in isolation from other policy areas and interests (Boyd & Ghosh, 2013; Jayal & Mehta, 2010).

That being said, the six new urban governance practices studied appear to operate in isolation from each other. For example, whilst TERI is involved in both GRIHA and Eco-Housing, the certification instruments themselves do not overlap. Or, whilst Mumbai First and Open Mumbai aim to achieve broadly similar aims, there is no evidence—from the interviews and additional data—that the two work together.

Opportunities: a repertoire of actors, innovative collaborations, and complementary instruments

Following the literature on new urban governance, one of the main strengths of this approach to urban governance in India is that it allows for a broad repertoire of actors in the governing of urban environmental sustainability. LEED-India is almost fully driven by private sector actors and has resulted in a voluntary governance instrument for environmentally sustainable building design and development that reaches well beyond the ambitions of mandatory building regulation in India. The inclusion of private sector actors in Mumbai First and private and civil society actors in Open Mumbai has allowed for the inclusion of valuable tacit knowledge in the Mumbai Development Plan—knowledge that the Municipal Corporation of Greater Mumbai would otherwise not have obtained.

Second, innovative and sometimes unexpected collaborations have emerged. The collaboration between Open Mumbai and the National Gallery of Modern Art turned out to be an extremely strong way to reach out to the citizens of Mumbai, the local press, and finally, the

Municipal Corporation. More conventional collaborations are those which include international organisations such as USAID, the World Bank, and Cities Alliances. These organisations may have more interest in supporting new governance practices than traditional policy and governance practices in India. Such processes resonate well with these organisations' (normative) vision of contemporary governance, which are often inspired by governance innovations that have proven to be successful in the Global North (Hughes & Hutchings, 2011).

Third and finally, different governance instruments have developed under these new governance practices as complements to the existing ones. Most illustrative are the various voluntary certification instruments—a national private instrument, a national public instrument, and a local public instrument—that complement the building codes in India. But the city network PEARL has also provided some insight into novel instruments—such as city-twinning and a publicly accessible website with city performance data—that provide promising complements to more traditional governance instruments for low-carbon building and city development and transformation in India.

Risks: no shadow of hierarchy, weak institutional capital, and potential inequalities

Whilst providing some potential to improve low-carbon building and city development and transformation in India, the new urban governance should not be relied on to an excessive degree. The six practices point out a number of related risks.

The first of these risks seems somewhat paradoxical: Whilst the new urban governance has emerged to overcome the weakness of formal urban governance in this area, it is exactly this weakness that limits the performance of the new governance practices studied. The literature on new governance often discusses the role of formal and mandatory regulation and governance as a necessary backbone for new governance practices to be effective; this is often referred to as 'the shadow of hierarchy' (Héritier & Eckert, 2008). The idea is that formal and mandatory regulation and governance act as a benchmark which the new governance seeks to improve, or that they can come

into play when the new governance fails. In the Global North, certification instruments often require limited improvement over the benchmark set by mandatory building regulation (Van der Heijden, 2015); yet in India, instruments such as LEED-India and GRIHA ask for major improvements, compared to the virtually absent building codes. Also, it is often argued that, in the Global North, voluntary certification instruments are introduced and committed to, particularly by firms, to prevent the introduction of mandatory governmental regulation (Borck & Coglianese, 2009). Yet in India, with its complex governance patchwork for urban environmental sustainability, it is unlikely that any mandatory governmental regulation will be implemented in the short or medium term.

Second, the new urban governance practices hardly address the problem of the weak institutional capital in the area of urban development in India. The interviewees were generally critical of a lack of compliance with mandatory building regulation and planning legislation—often due to a lack of staff at government agencies—and a culture of corruption in the construction and property sectors (also Vittal, 2012). New urban governance practices rely strongly on self-regulation by the regulated actors and introduce incentives that may result in deviant behaviour—in particular, financial incentives may be accompanied by this risk. Such practices provide a poor patch-up for the situation of weak institutional capital (cf., Short, 2013). It remains, of course, a question as to whether other forms of governance are capable of overcoming these problems of corruption, capture of regulators, and weak institutional capital (cf., Mitnick, 2011).

Third and finally, new urban governance practices may result in (unintended) inequalities. The example of Eco-Housing is telling—Eco-Housing certified homes are unaffordable for the average citizen of Pune—but Mumbai First also points to this risk. The firms that make up Mumbai First have strong personal interests in seeing specific urban development realised. Through Mumbai First, they actively lobby for such development. Other citizens and firms in Mumbai do not have such direct access to policymakers. This may result in situations in which the interests of the firms that make up Mumbai First are served over those of others—the ‘Indian Tsunami’ provides a tragic illustration.

Concluding Remarks

The new urban governance provides some solutions for governing the rapid urbanisation of India, particularly in the area of urban environmental sustainability. The opening up of governance processes to non-state actors allows for the utilisation of their tacit knowledge and expertise; further, the shift to less traditional and non-coercive governance instruments has allowed for a relatively speedy implementation of instruments that respond to local urban conditions. The new urban governance also comes, however, with considerable risks. Particularly, the lack of a mandatory urban sustainable development and transformation legislation and regulation to fall back on when the new urban governance fails to achieve its goals, as well as the persistent problem of corruption, make this approach to governing urban development and transformation play out differently in India than in the countries in the Global North, where it originated. Whilst the new urban governance has global appeal—politically and theoretically—it should not be expected to act as a global panacea for the problems in urban environmental governance. This is not a novel insight. The new urban governance is being critiqued more and more for not living up to its normative promises (Holley et al., 2012; Van der Heijden, 2014).

The six examples from India add to this growing critique of the new urban governance. At first glance, all of the examples hold much promise in terms of reducing the carbon intensities of the cities, but in practice, they do not reveal a large number of participants who are interested in joining the new urban governance practices, or they face complications in changing the behaviour of their participants. The six examples also provide novel insights into the (critical) literature on the new urban governance. They indicate that specific contextual conditions have a strong impact on how new urban governance practices play out in real world settings. Specifically in contexts in which there is a lack of institutional capital and mandatory regulation and legislation (the ‘shadow of the law’), there is a culture of non-compliance with building codes and planning legislation, and

corruption is rife, the problems of the new urban governance that have been identified in the Global North will likely be amplified. This raises questions about the desirability of the new urban governance in countries in the Global South, including India. Future scholarship may wish to focus more on the conditions that explain the successes and failures of the new urban governance, and specifically, the critical differences in contextual conditions between countries in the Global North and Global South. International non-governmental organisations such as the World Bank and Cities Alliance may, in turn, wish to reconsider their strong support and promotion of new urban governance practices in India and other rapidly developing economies. The six examples studied in this article indicate that simply because a governance innovation achieves promising results in the Global North, it should by no means be expected that it will also achieve promising results in the Global South. Policymakers, finally, may wish to call for strong democratic accountability processes when entering in new urban governance practices.

Tables

Table 1—Overview of interviewees

Interviewee background	Number
<i>Policy maker (government)</i>	2
<i>Administrator (government)</i>	2
<i>Administrator (non-government)</i>	6
<i>Architect, engineer</i>	8
<i>Advisor, consultant</i>	7
<i>Contractor, developer</i>	3
<i>Academic</i>	6
<i>Other</i>	6
Total	40

Table 2—Broad overview of new urban governance practices studied.

New urban governance practice	What initiated it?	Who are the main actors involved?	What new network or collaboration has evolved?	Opportunities	Risks
<i>LEED India</i> : Building certification instrument. Aims to stimulate developers and property owners to build and retrofit buildings with high levels of environmental performance. Originally started in the United States. Dominant focus on top-end commercial property.	Actors in the construction and property industry realised there is a market for environmentally sustainable building development.	Green Building Council of India.	Collaboration with United States Green Building Council and USAID.	Incentive for property developers and property owners to voluntarily bring environmentally sustainable buildings to the market.	Marginal uptake, enforcement problems, environmentally sustainable buildings may become status symbols that are unaffordable for the majority of citizens in India.
<i>GRIHA</i> : Building certification instrument. Aims to stimulate developers and property owners to build and retrofit buildings with high levels of environmental performance. Dominant focus on government-owned property.	Inspired by international examples, the Government of India sought a voluntary certification instrument for the Indian market.	Government of India and TERI.	No new collaboration or network.	Same as for LEED India, but government maintains a steering role in how GRIHA relates to the Energy Conservation Building Code.	Marginal uptake—likely because of stringency of enforcement process.

Table 2—continued

<i>Eco-Housing</i> : Building certification instrument. Aims to stimulate developers and property owners to build and retrofit buildings with high levels of environmental performance. Focus on multi-family residential property.	Inspired by international examples, the Government of Pune sought a voluntary certification instrument for the Pune housing market.	Government of Pune, the University of Pune, and the University of Ahmedabad.	Collaboration with USAID, IIEC, and TERI.	Same as for LEED India, but government maintains a steering role in how Eco-Housing relates to local housing policies.	Same as for LEED India.
<i>PEARL</i> : City to city action network. Seeks to support cities in generating and sharing knowledge on city development and transformation.	Government of India sought a means to share knowledge amongst Jawaharlal Nehru National Urban Renewal Mission cities.	Ministry of Urban Development.	Network of 67 selected Jawaharlal Nehru National Urban Renewal Mission cities; and collaboration with the World Bank and Cities Alliance.	Database of best practice city development.	Too much reliance on the effects of city-to-city peer review in achieving the goals of the Jawaharlal Nehru National Urban Renewal Mission.
<i>Mumbai First</i> : Business to government action network. Seeks to generate information on city development and transformation.	Local Mumbai-based businesses that sought to attract international capital for the urban development of Mumbai.	Local Mumbai-based businesses organised in the organisation Mumbai First.	Network of Mumbai First, the Government of Maharashtra, and the Municipal Corporation of Greater Mumbai; and collaboration with the British Council.	By including local Mumbai-based businesses in city development, their tacit knowledge and networks can be utilised.	The businesses that make up Mumbai First have a strong financial interest in seeing specific issues included in city development plans.

Table 2—continued

<i>Open Mumbai:</i> Collaboration of Mumbai-based individuals. Seeks to improve urban environmental sustainability and the housing conditions of the urban poor by making problems and possible solutions visible.	An architect (P.K. Das) who is concerned about the interaction between Mumbai's informal housing development and the city's environmental sustainability.	Architect Das and his architecture firm.	Collaboration with the National Gallery of Modern Art; and collaboration with the Municipal Corporation of Greater Mumbai.	Same as for Mumbai First.	The collaboration with the Municipal Corporation of Greater Mumbai is highly media driven. It remains questionable whether this collaboration will continue without (ongoing) media attention.
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Notes

¹ For recent changes in urban and housing policy in India, see <https://india.gov.in/topics/housing>, <https://india.gov.in/topics/housing/urban-housing>, and http://mhupa.gov.in/User_Panel/UserView.aspx?TypeID=1414 (24 February 2016).

² Data from www.igbc.in and www.ecohousing.in (6 October 2015).

³ The interviewees were promised anonymity in research publications. The interviewees are numbered consistently throughout all of the publications resulting from this project.

⁴ The number mentioned by this architect is supported by other data, see, for example, www.urbannewsdigest.in/green-cities/ (24 February 2016).

⁵ Data from: www.grihaindia.org (6 October 2015).

⁶ Data from: www.commonfloor.com/nyati-environ-pune/povp-8zixq8 (28 August 2015).

⁷ Data from: www.indiaurbanportal.in (26 August 2015).

⁸ On the history of Bombay/Mumbai First, see: www.mumbaifirst.org/history.php (17 March 2014).

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