



# **URBAN CHANCES, CITY GROWTH AND THE SUSTAINABILITY CHALLENGE**

CHANCE2SUSTAIN: A RESEARCH  
DISSEMINATION REPORT

**UN**  **HABITAT**  
FOR A BETTER URBAN FUTURE



## ABOUT THE RESEARCH

### Urban Chances, City Growth and the Sustainability Challenge - Chance2Sustain

This research programme examines how governments and citizens in cities with differing patterns of urban economic growth make use of participatory (or integrated) spatial knowledge management to direct urban governance towards more sustainable development. Participatory spatial knowledge management is the main concept we use to study this issue, as it reflects a strategic resource, which all stakeholders can contribute to urban governance processes towards sustainable development.

It includes both expert knowledge and several forms of non-expert knowledge, such as knowledge from (working) experience (tacit), embedded sectoral knowledge, and social (or community-based) knowledge at the neighbourhood and city-wide level. Participatory processes of urban planning and management are strategic in eliciting these forms of spatially disaggregated (of specific) knowledge, which are usually not acknowledged in top-down, expert-driven models of urban governance and planning. Utilizing participatory spatial knowledge can make urban governance and planning more effective and gain wider acceptance, by incorporating both expert and local community knowledge. Although participatory spatial knowledge management is increasingly used in urban planning processes, its success depends on external political and economic conditions.

A legal framework providing for fiscal decentralisation and funding, for instance, is a strategic support. The influence of various external conditions has not yet been analysed much locally, and certainly not comparatively across different socio-political contexts, although it is a strategic question, given the inherent trade-offs and potential political conflicts in combining environmental, social and economic goals (within sustainable development). Therefore, the programme focuses on ten cities with contrasting economic and political conditions, with the main scientific objective of developing a model on participatory spatial knowledge management to direct urban governance to sustainable development.

The United Nations Human Settlements Programme (UN-Habitat), Nairobi, Kenya is a dissemination partner. The project is coordinated by the European Association of Development Research and Training Institutes (EADI), Germany.

### Cities & Topics

The Cities are:

**India:** Dehli, Chennai, Kalyan

**South Africa:** Durban, Cape Town

**Peru:** Lima Metropolitana, Arequipa

**Brazil:** Rio de Janeiro, Salvador, Guarulhos

The four-year project was organised around **five major topics:**

- 1. Large-scale economic and infrastructure projects** in fast-growing cities and alternative economic strategies
- Analysing policies and politics to address urban inequality: **CSO networks and campaigns on sub-standard settlements in metropolitan areas**
- 3. Environmental risk assessment** and inclusive scenario building for reducing costs: reconciling the green and brown agenda
- Developing **participatory 'spatial' knowledge models in metropolitan governance networks** for sustainable development and an integrated model of urban sustainable development
- 5. Combining fiscal decentralization, participatory budgeting, and inclusive development:** supporting sustainable development policies, monitoring and implementation

Chance2sustain research publications:  
<http://www.chance2sustain.eu/10.0.html>

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### Chance2Sustain Partners

The Chance2Sustain project combine both research and communication aspects. Its aim is to encourage close collaboration between researchers and policy makers and therefore enhances the co-operation with reputable global development research institutes.

- Amsterdam Institute for Metropolitan and International Development Studies (AMIDSt (UvA)), The Netherlands
- French National Center for Scientific Research (CNRS), France
- School of Planning and Architecture (SPA), India
- Cities for Life Forum (FORO), Peru
- Centro Brasileiro de Análise e Planejamento (CEBRAP), Brazil
- Norwegian Institute for Urban and Regional Research (NIBR), Norway
- University of KwaZulu-Natal (UKZN), South Africa

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Souvenir shops and local handicrafts line the traditional cobblestone streets of the colorful historic tourist district of Pelourinho in Salvador, Brazil. © Lazyllama/Shutterstock



# Chance2Sustain

## Research Findings

WORK PACKAGE WP2

### SECTION 1: A REVIEW OF URBAN CHANCES, CITY GROWTH AND THE SUSTAINABILITY CHALLENGE - CHANCE2SUSTAIN

#### Introduction

The transition towards more sustainable urbanization demands cities to mobilize the requisite adaptive capacities. It is a process that entails policy discourses that engage with the key actors and their networks, across the varied sectors in an environment that promote an all-inclusive approach to urban development. Considering this, sound urban governance becomes indispensable, and to realize it, it calls for the need to focus attention to mechanisms that strengthen local governments. Meanwhile, the role of research and its valuable contribution to developing these policy discourses remains crucial.

#### About Chance2Sustain

This booklet features research done under the project, “**Urban Chances, City Growth and the Sustainability Challenge- Chance2Sustain (C2S)**”, funded by the Seventh Framework Programme of the European Union (EU) and coordinated by the European Association of Development Research and Training Institutes (EADI). The “*research programme examined how governments and citizens in cities with differing patterns of urban economic growth make use of participatory (or integrated) spatial knowledge management to direct urban governance towards more sustainable development.*” The programme covered five main thematic topics or work packages (WPs):

1. WP: **Large-scale economic and infrastructure projects** in fast-growing cities and alternative economic strategies
2. WP: Analysing policies and politics to address urban inequality: **Civil Society Organisations (CSO) networks and campaigns on sub-standard settlements in metropolitan areas**
3. WP: **Environmental risk assessment and** inclusive scenario building for reducing costs: reconciling the green and brown agenda;

4. WP: Developing **participatory ‘spatial’ knowledge models in metropolitan governance networks** for sustainable development and an integrated model of urban sustainable development, and;
5. WP: **Combining fiscal decentralization, participatory budgeting, and inclusive development:** supporting sustainable development policies, monitoring and implementation.

The research was conducted in ten (No.) cities, in five (No.) countries as follows:

- **India:** Delhi, Chennai, Kalyan
- **South Africa:** Durban, Cape Town
- **Peru:** Lima Metropolitana, Arequipa
- **Brazil:** Rio de Janeiro, Salvador, Guarulhos

Drawing from the outcomes of the thematic topics, this section of the booklet highlights some fundamental emerging policy issues. These are research outcomes that UN-Habitat considers critical for policy and decision makers in cities facing similar urbanization opportunities and challenges, as those focused in this research programme. Furthermore, the section recommends areas of further research.

Figure 1.0: **Cities Featured in Chance2Sustain Research Programme**



#### Box 1.0: **Urban Chances, City Growth and the Sustainability Challenge - Chance2Sustain**

This research programme examines how governments and citizens in cities with differing patterns of urban economic growth make use of participatory (or integrated) spatial knowledge management to direct urban governance towards more sustainable development. Participatory spatial knowledge management is the main concept we use to study this issue, as it reflects a strategic resource, which all stakeholders can contribute to urban governance processes towards sustainable development.

It includes both expert knowledge and several forms of non-expert knowledge, such as knowledge from (working) experience (tacit), embedded sectoral knowledge, and social (or community-based) knowledge at the neighbourhood and city-wide level. Participatory processes of urban planning and management are strategic in eliciting these forms of spatially disaggregated (of specific) knowledge, which are usually not acknowledged in top-down, expert-driven models of urban governance and planning. Utilizing participatory spatial knowledge can

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*Adapted from Chance2Sustain website: <http://www.chance2sustain.eu/4.0.html>*



## Summary, Emerging Policy Issues and Recommendations for Future Work

Indications are that urban areas are not just the future “dominant form of habitat for humankind, but also the engine-rooms of human development as a whole”<sup>6</sup>. The quest to position large cities (of developing countries) as centres of economic growth has seen the prioritization of megaprojects; of economic and infrastructure nature, albeit growing demands to address basic services, in these cities. C2S<sup>1,2,3</sup> unpacks this approach, by drawing examples from the cities of Rio de Janeiro, Salvador and Guarulhos (Brazil), Chennai, Delhi and Kalyan Dombvli (India), Durban and Cape Town (South Africa), and Arequipa and Lima (Peru). The findings in this research are critical-they indeed resonate with increasing urgency to innovate sound urban planning practices that can steer urban growth towards sustainability- albeit the plethora approaches that promise policy makers/city leaders increased urban productivity (megaprojects included).

## Large-Scale Economic and Infrastructure Projects

Particularly C2S (WP: **Large-scale economic and infrastructure projects**) findings clearly brings out the politics of undertaking megaprojects, they demonstrate the increasing significance these projects are attracting among policy makers in fast developing countries and the associated debates of their ‘prioritization’, and the ‘new’ forms of urban governance arrangements they introduce. Furthermore, the findings reveal to policy makers and other stakeholders the common outcomes associated with megaprojects. In fact, the findings also provide insights into prevailing policy debates on urban transformations, and the ‘shifting’ role of infrastructure in urban development. This research demonstrates that large-scale infrastructure projects are now at the very core of urban development, unlike traditional approaches where infrastructure was located as an enabler of urban development.



Maracana Stadium in Rio De Janeiro, Brazil. © Marchello/Shutterstock



Therefore, this review draws attention to these main concerns for urban policy and governance:

- The implications of planning and implementation of large-scale urban projects-on the wider context of urban development;
- The impacts of ‘exceptional planning’, as applied to many megaprojects, on existing urban planning law-this necessitates policy makers to ascertain their efficiency, in responding to governance demands generated by largescale urban development projects;
- Anticipating urban transformations as outcomes of locating large-scale urban projects;
- The conflicting logics of investment decision-making i.e. undertaking megaprojects vis-à-vis existing urban inequalities in cities;
- The impacts of megaprojects on urban governance-the likely antagonistic relationship between various levels of government/and agencies, if to go by the prevailing approaches to implementing megaprojects, an;
- Revisiting the role of private sector in urban governance and urban development- ‘replacing’ the traditional mandates (of local governments) as observed in Arequipa case.

Critically, the findings compel cities undertaking megaprojects to comprehensively analyze the associated costs and benefits. Meanwhile, the implementation of projects of this size and scale (although driven by the private sector) offers vital lessons to local governments, particularly on nurturing the capacity to effectively plan and implement, at this scale. Overall, the emerging issues from **WP: Large-scale economic and infrastructure projects** rekindle the impetus for policy makers to rethink alternatives towards a more inclusive, resilient and sustainable urban development.

With this trend (of megaprojects) likely to gain more traction in large cities of developing countries, and could be in varied forms, UN-Habitat considers future research in this topic as essential. Because this will deepen knowledge on these strategies, and particularly relate to more diverse contexts; hence, result

to well-informed policies. In that regard research programmes will find it useful to further knowledge on:

- How city re-imagining through megaprojects impacts on local governments approach towards alternative strategies to urban development e.g. informal settlements’ upgrading. For example, to what level was Rio de Janeiro’s favela improvement programme impacted by megaprojects associated with the city’s mega events (2014 World Cup and 2016 Olympics) e.g. in terms of criterion, prioritization of favelas for improvement, objectives etc.
- UN-Habitat<sup>4</sup> considers effective urban planning law as critical to good urban governance; hence more research on the impacts of using ‘exceptional’ planning approach to the existing urban planning regimes-of law and its practice. Closely related to this is the need to examine the long-term impacts of by-passing local governments in implementing megaprojects.
- It is clear from the WP2 that large-scale infrastructures of transportation nature (e.g. IT expressway of Chennai and Delhi Metro rail) result to urban transformations, mainly in the form of redevelopments, regeneration, and urban sprawl. Therefore, it is important to analyze the potential transformations or spatial-economic impacts that arise from large-scale infrastructures of water and sanitation nature.
- It is vital to build knowledge about the long-term impacts of megaprojects. This includes analyzing post-megaproject/mega events, by examining issues like financial implications to subsequent municipal budgets, infrastructure maintenance costs etc.
- Under **WP: Large-scale economic and infrastructure projects**, UN-Habitat recommends further analysis on the value chains associated with megaprojects. This is critical in guiding more informed decisions about the costs and benefits for megaprojects, and their manifestations among different actors/interest groups (do they matter for public interest?).

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**Online Resources:** <http://www.chance2sustain.eu/85.0.html>

## Environmental Risk Assessment: Water Governance

**WP: Environmental Risk Assessment** clearly brings out the prevailing water governance issues; the complexities, fragmentations, uncertainties, as well as the innovations. It should be noted that to meet the increasing water demands in urban areas and at the same time to meet the imperatives of conserving water resources (including shared resources), sound water governance is indispensable. It is without doubt that a reliable water supply system is fundamentally critical for urban sustainability. This implies that the concept of water governance should consider not only water supply, but also in sanitation strategies of cities, and often it calls for attention on energy for cities, as there are many cities relying on hydro-power (water resources to generate electricity).

From C2S findings, water governance in various cities has witnessed a fundamental shift from state-led approaches to sectoral approaches. This is reported to entail increased involvement of many actors and more attention to river basin management. With the cities studied mainly relying on inter-basin water transfers, the study notes the existence of conflicts and tensions associated with inter-basin water transfers, for instance in Sao Paulo. This is of critical importance to policy that seeks to guide water governance, as well as those designed for balancing inter-regional or rural-urban imbalances in development. Another significant finding from the study is the changing mandates and politics of delivering municipal water and sanitation services; as well as the 'green' and 'brown' agenda tensions prevalent in water governance. Closely related to the 'brown' and 'green' agenda debates are the climate change debates in water governance. The study shows climate change imperatives are yet to gain the desirable attention from policy makers in some cities, despite being reasonably acquainted with the impacts that climate change pose to the future of water governance.

The findings in this theme are quite relevant to both policy and practice, especially relating to issues of:

- Water-basins management;
- Design of municipal water and sanitation systems;
- Stakeholder engagement in water governance and institutional design for water supply in cities;
- Promotion of social-equity in water supply;
- Reconciling the 'brown' and 'green' agendas, and environmental management in urban development;
- Integrating urban planning and water governance, and;
- Integrating climate change agenda in water governance.

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**Online Resources:** <http://www.chance2sustain.eu/84.0.html>

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## Participatory 'Spatial' Knowledge Models in Metropolitan Governance Networks

**WP: Participatory 'Spatial' Knowledge Models in Metropolitan Governance Networks** positions spatial information as cross-cutting concepts that can improve efficiency in vital municipal work processes. The topic frames Spatial Knowledge Management (SKM) as a tool capable of facilitating inclusive urban governance. Specifically, the findings in this theme demonstrate how integrating spatial dimension enhances efficiency in decision making across various urban development process. The examples cited in the study demonstrates the advancements made by various cities, as a result of integrating participatory spatial knowledge systems in decision making processes, mainly related to urban planning and municipal work processes.



Through its Global Campaign for Good Urban Governance, UN-Habitat particularly values innovations and strategies that can advance good urban governance<sup>5</sup>. C2S findings reveal the benefits that accrue to using spatial information systems in decision making, they explain the nature of actors and networks involved, and the challenges local governments face in integrating spatial knowledge and most importantly, the study goes further to recommend measures that local government ought to enact to achieve more efficient integration of spatial knowledge in decision making processes. Essentially, the issues tackled under this theme inform a valid case for local governments to embrace policies that promote an enabling environment for more integration of spatial knowledge systems- See Research Policy Brief 1 in this booklet.

While noting the pivotal contribution of spatial knowledge systems to more inclusive urban governance, UN-Habitat recommends further research on:

- Ways of empowering local governments with adequate information about regarding the costs and benefits of making use of spatial knowledge systems. Precisely, details on the financial implications of developing spatial information systems in relation to the accrued benefits. This also entails unpacking private public partnerships (PPP) and multi-partner arrangements in developing spatial knowledge systems, with the aim of drawing out good practices that result to win-win situations.
- There is need to examine the approaches to better integration of expert knowledge and local (community) knowledge; hence, further studies will likely recast the dynamics of participatory spatial community knowledge in more diverse contexts. This includes analyzing the politics of integrating community knowledge in decision making processes.

- In view of participation as an essential element of inclusive urban governance, it is important for future research to deepen knowledge on methods of enhancing participation of diverse actors in spatial knowledge production and exchange, and its subsequent use in urban decision making.
- Further studies will be valuable towards developing policy and practical recommendations on how municipalities can nurture ‘spatial cultures’ in work processes, beyond spatial planning.

**Online Resources:** <http://www.chance2sustain.eu/82.0.html>

### Combining Fiscal Decentralization, Participatory Budgeting, And Inclusive Development

C2S reveal a seemingly emerging consensus that democratic forms of governance dominate policy on urban governance. Indeed, various countries have gone further to institutionalize fiscal decentralization, and in most cases aiming at Participatory Budgeting (PB) processes in local governments. The findings in these WP clearly reveal that variations exist in participatory governance, among the different cities and countries studied, or the cities are at different stages with regard to advancements in institutionalizing PB processes. The findings also outline the perspectives and principles of decentralization; and the importance of citizen participation in building more inclusive urban governance structures. The role of urban governance in PB processes is indeed profound. This manifests in the legal frameworks and political systems that seem to shape the nature of participation in PB among the cities.

Relating to policy, the research findings demonstrate a strong case for the institutionalization of participation in municipal budgeting processes, the integration of participatory spatial knowledge in PB processes-for more location specific impacts and creation of inclusive structures that promote direct participation of citizens in decision making. This WP is of extreme importance, as it raises issues relating to influencing municipal expenditures and its integration with issues raised in its other Work Packages.

To enrich this theme, UN-Habitat recommends further research on enabling legal frameworks, guidelines for sustaining long-term PB processes in the context of changing political landscapes, and institutional structures that enable more transparent processes and inclusive approaches in PB.

**Online Resources:** <http://www.chance2sustain.eu/86.0.html>

### Linking Research and Policy to Enhance Adaptive Capacities for Sustainability

Having recognized the significant contribution of C2S research towards the knowledge of urban sustainability, UN-Habitat identifies four key perspectives that will possibly enrich these work and related programmes, from a policy perspective. These perspectives relate to: a) integrating urban research topics; b) addressing comparative issues; c) advancing spatial knowledge management as the ‘assembling’ tool (of thematic issues); and d) framing city-specific objectives.

#### Integrating Urban Research Topics

Undoubtedly, urban development is characterized by several sectors, related, but often managed without adequate coordination or efficient synergies being created. Indeed, in practical contexts, the themes studied by C2S could pass as sectors in urban development management (e.g. Spatial Planning, Infrastructure Delivery, Municipal Budgeting etc.). However, urban sustainability demands a holistic approach, albeit the related challenges, in practical sense of it. Therefore, in this context, directing urban growth towards sustainability requires among other imperatives; the appreciation of the diverse contexts under which urban transitions are unfolding, as well recognizing the varying adaptive capacities that cities possess. Reports from the WPs suggest that different cities are at different levels, as clearly indicated by their differences in making use of spatial knowledge systems; delivering essential infrastructure and services, managing urban growth towards sustainability; or even in addressing the challenge of informal settlements.

Multi-sectoral understanding of the underlying factors will, therefore, contribute to a more inclusive policy approach. This implies undertaking a comparative understanding on how issues from a theme relate to those of other themes. Part of the objectives should be to establish the common determining factors (e.g. socio-political landscape, legal frameworks, and organizational capacities). For example, this will entail unpacking the relationships that exists, if any, among participatory budgeting, megaprojects, spatial knowledge management, water governance, and initiatives in addressing informal settlements within a city/country. For instance, it would be of relevance to policy makers to outline why Guarulhos is able to score high on participatory budgeting processes, while the same level of participation is not being reflected on the implementation of megaprojects in the city. Or, what seem to limit the city from integrating spatial information systems in PB processes, despite the latter being well-rooted at the neighbourhood level. It is through this integrative analysis that will likely produce cross-cutting findings that will inform the formulation of enabling policies that seek to advance the adaptive capacities of these cities. This will as well pool together an understanding of the specific urban configurations in these cities; hence, frame or inform a strategy for guiding effective urban governance.

### Addressing Comparative Issues

There is also the need to ascertain to what level the study can draw comparative analysis among the cities or countries, and to what level do findings speak generally to policy in other cities or developing countries. For instance, in this case (C2S), consistency will be decisive, although it is observed that some of the themes have not been studied in all the cities. This may limit the scope of comparative analysis. This endeavour is highly valuable because it is important to comprehend how a set of legal framework or policy framework in a country ends up shaping varied outcomes across cities/municipalities. This closely relates to the adaptive capacities, where we observe some cities exhibiting more advanced institutions than others, despite being guided by the same policies at national level. The comparative aspects will also guide in formulating parameters for sharing knowledge. UN-Habitat finds the transmission of knowledge as vital because of the different phases at which different cities are, about managing urban transitions

towards sustainability; hence exchange of learning experiences remains fundamental but requires contextual analysis to establish what can work where or can work somewhere and fail elsewhere. For example, Guarulhos emerged to have quite advanced PB processes compared to Rio de Janeiro, or even Durban in South Africa. The policy concern would probably be addressed through examining what exactly makes Guarulhos more advanced than Rio de Janeiro in PB processes, despite the two cities being governed by similar national legislation, and probably at international level what legal frameworks seem to be more enabling and can possibly be transferred from one context to a similar one. The aim is to establish possible practices that cities appearing to express a state of institutional inertia can learn from.

Although historical backgrounds and prevailing socio-political environments may perhaps not permit a city like Durban (South Africa) to mimic Guarulhos (Brazil) for example, it is incumbent that they all need to accrue sound urban governance and adaptive capacities to be able to cope and manage their growth towards sustainability. Recently, UN-Habitat embarked on measuring and comparing the prosperity of cities, driven by five key dimensions: productivity, infrastructures, quality of life, equity and environmental sustainability<sup>6</sup>. In this measure, it is evident that cities with strong institutions, and where the five dimensions are “connected, generating a self-reinforcing, cumulative momentum”, have the most solid prosperity factors. This implies that policies for prosperous cities must be mediated by the local context, although at broader level similar factors may inform such policies.

Further scaling-down, C2S underscores the necessity for more spatially disaggregated information, if more inclusive and responsive decision-making processes will be tenable in urban development. This draws attention to the notion of ‘scale’. At this point, it is important to analyse the performance of various policies based on their scale, with a purpose to establish what scale is more effective to direct policies in order to advance the adaptive capacities of cities/municipalities. It also entails establishing the factors that enable certain cities (local governments) to have more advanced uptake of national or regional government policies (e.g. Guarulhos implementation of Brazil PB policies)-is it that Guarulhos exhibit stronger adaptive capacities, with respect to PB? Besides, we also real-

ize from C2S that a city like Kalyan-Dombvli (India) is a pioneer of e-governance in the country; in fact, to an extent of informing a national policy on the same. This means that in some contexts, potential for building, and, or, strengthening adaptive capacities manifests more at the city level.

In that regard, three main levels are of great relevance; city level, state/provincial level and national level/central government. Therefore, it would be useful for the analytical framework to attempt and capture the dynamics of framing policies at these different levels, and probably attempt to compare outcomes across cities or countries. Overall, research of C2S design can aim to establish the degree to which comparisons across the countries and cities/municipalities can be done. This is considering their varying historical backgrounds, or development policy trajectories, as well as likely socio-economic and socio-political differences, the global North- global South differences or similarities, and likewise, the South -South variations.

### Making Spatial Knowledge Management (SKM) as the Integrative Tool

The finding on SKM use in the cities studied, reveal its potential as an integrative tool in urban management. This is because spatial knowledge can facilitate location-oriented decision-making processes, across key sectors, which can increase impact of public investments by enhancing synergy and providing awareness on where investments have been directed (to reveal forms of inclusion and exclusions). This way, actors become aware of the issues at the very local level, and in the process, they develop the capacity to inform better decisions/interventions that best suit the specific contexts and challenges, while building towards a common goal, at the city-wide level. Spatially disaggregated information is thus important for undertaking comprehensive analysis of urban investments especially for infrastructure, in directing participatory budgeting processes, in water and natural resources management, and addressing the challenge of informal settlements. It is also within this theme where greater opportunities lie for linking local information (informal) and expert information (formal) of the main urban configurations (economic growth, environmental, urban governance etc.) - as mutually reinforcing for urban sustainability.

### Value in Context-Dependent Policy and Research Agenda

Cities can contribute towards sustainability- they are the localities where transitions happen. That in mind, it demands tailoring research and policy analysis to specific problems/challenges faced in each city; e.g. a problem-solving approach to water governance challenges, property revenue challenges etc. This mainly draws from the perspective that coping with the unfolding urban transitions; specific contexts can or must demand locally adapted solutions. Meaning that the problem framing of say water governance challenges in Delhi, are likely to be different from that of Kalyan-Dombvli; hence, policy makers may find more value in findings that specifically speak to their respective cities. Cities will need the threshold level of good urban governance to direct urban transitions towards sustainability. UN-Habitat observes that various cities are at various levels of institutionalizing effective urban governance, capable of managing effectively the unfolding urban transitions<sup>4</sup>. In addition, the spatial context of a city dictates that local actors have better understanding or are likely to relate better to what is at stake.

It is therefore important to establish the most appropriate scale for targeting policies. However, the issues raised in C2S indicate that although cities will need specific policies, some of the policies will have to be linked to national and regional/state/ provincial levels. An example of this are the issues brought out in water governance, where management of river-basins and addressing the complexities related to inter-basin water transfers demands policy at a higher level beyond a city/municipality jurisdiction. Likewise, in most cities of the developing countries the challenge of informal settlements is perhaps beyond the capacity of local governments; hence, more enabling policy environment will emerge from central governments-fiscal arrangements, consultative decision making etc. Moreover, requisite adaptive capacities of cities require empowering not only the local governments, but all the key actors. This is an inducement for the public sector, private sector and civil society to cooperate towards building a sustainable urban future.

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## Endnotes

<sup>1</sup>Kennedy, L. (2013). Large-Scale Projects Shaping Urban Futures: A Preliminary Report on Strategies, Governance and Outcomes Based on Eight Case Studies in Four Countries. Bonn: Chance2Sustain EADI. / <sup>2</sup> Kennedy, L. et al. (2011). The Politics of Large-Scale Economic and Infrastructure Projects in Fast Growing Cities of the South: Literature Review. Bonn: Chance2Sustain EADI./ <sup>3</sup> Varrel, A. and Kennedy, L. (2011). Megaprojects and Mega-events: Policy Brief. Bonn: Chance2Sustain EADI. / <sup>4</sup>UN-Habitat (2013). Urban Planning for City Leaders. Nairobi : UN-Habitat. / <sup>5</sup> Global Campaign on Good Urban Governance. 6UN-Habitat (2013). State of the World Cities 2012/2013: Prosperity of Cities. Nairobi: UN-Habitat.



# Chance2Sustain

## Research Policy Brief 1

DECEMBER 2019

### Participatory Spatial Knowledge Management for Municipalities

Urban governance continue to evolve, with increasing participation of multiple actors in decision making. This has necessitated the urgency to create instruments that can capture various types of knowledge and integrate such in decision making processes. Linking these knowledge types to geographical areas has enabled greater efficiency and impact in decision making processes, not to mention that this advances inclusivity. It is therefore important to examine the benefits of integrating spatial knowledge management in various decision making processes in urban development. This brief discusses the importance of spatial knowledge management, its application in urban planning and municipal work processes, and the associated benefits. It also recommends ways for increasing participation in spatial knowledge management, and the co-production of spatially embedded knowledge. In order for local governments to advance towards better integration of spatial knowledge systems in urban governance, the brief recommends various measures that local governments ought to take. The brief draws from Chance2Sustain research and UN-Habitat work.



## 1.0 Participatory Spatial Knowledge Management for Municipalities

### 1.1. Why Participatory Spatial Knowledge Management

In the wake of more democratic regimes, urban governance has been compelled to engage multiple stakeholders in policy making processes<sup>1</sup>. At the same time, good urban governance continues to be the focus of policies seeking to guide a more sustainable urban development. Such is the UN Habitat Global Campaign on Good Governance that identifies nine (No.) key principles as benchmarks for good governance, namely: sustainability, subsidiarity, equity, efficiency, transparency and accountability, civic engagement and citizenship, and security<sup>2</sup>. But in order to attain such wider involvement of many actors in decision making, urban governance must be prepared to accommodate diverse knowledge, including recognizing non-expert knowledge, and be able to mediate different interests. Further, the geographical aspect of decisions remains imperative in ensuring that decision making is more inclusive and with location specific impact. However, this will not be achieved without participation.

A research by Chance2Sustain<sup>1</sup> singled-out participatory Spatial Knowledge Management (SKM) as an fundamental tool towards realizing sound urban governance that is capable of directing a more Sustainable Urban Development (SUD).<sup>3,1</sup> The study conceptualizes SKM as the configuration of a) discourses about spatial knowledge management, b) actors involved in its production and use, c) the networks among these actors, including their power relations, d) the spatial knowledge platforms and products which are produced and utilized (e.g. ICT-GIS), and e) the changes in processes and outcomes from using spatial knowledge. Based on this framework, good governance would mean that decision makers integrate participatory spatial knowledge so as to promote more inclusive, resilient and sustainable urban development. The study focused on five cities; Callao (Peru), Durban and Cape Town (South Africa), Guarulhos (Brazil), and Kalyan-Dombivili (India).<sup>3</sup> From this study urban planning and work processes in local governments emerged as key areas where cities have managed to integrate spatial knowledge systems to improve decision making. Although this has not been without challenges (see Table 1).



*To enhance involvement of many actors in decision making, urban governance should accommodate diverse knowledge and ideas, including recognizing the value of non-expert knowledge.*

## 2.0. Spatial Knowledge Management at Work

Both urban planning and local governments work processes are no doubt two crucial areas that ought to be executed in the most effective way, considering their importance to sustainable urban development. These two areas rely on different datasets for decision making. With increasing technological advancements, spatial knowledge systems have attained the capabilities to assemble these datasets and visualize them in geographical interfaces, resulting to thematic spatial products that can by far sharpen decision making processes<sup>4</sup>. To a large extent, sound urban planning is guided by such information.

### 2.1. Urban Planning

Without sound urban planning, urbanization challenges will likely overwhelm policy makers, and cities will not harness fully their transformative potential. Besides, it should be noted that it's planning that can better inform: a) urban infrastructure and amenities investments, b) demarcation of municipal boundaries and urban edge, c) distribution of economic development for inclusiveness, and generally the production of functional cities that flourish.<sup>3,4</sup> Such features underscores the importance of spatial planning tools in urban development

processes<sup>4</sup>. Chance2Sustain study identifies the use of Geographic Information Systems (GIS) as a common spatial knowledge management tool for strategic urban planning and integrated land-use planning, in Durban, Cape Town, Callao, Chennai and Guarulhos cities. For example, to contain urban sprawl, the city of Cape Town employs GIS tools to develop spatial development frameworks (SDFs) that seek to promote ‘compact city’ development, and conserve agricultural land, with clearly demarcated ‘urban edge’. In Callao, the regional government has since 2009 led the integration of a GIS based system for land-use planning for the municipalities in the region. Guarulhos has over 10 years managed spatial data for urban development policy.<sup>3</sup>

These approaches, among others have enabled such cities to accomplish several objectives. First is to plan better the integration of peri-urban and peripheral areas to urban development. Secondly, is to better monitor and manage urban spatial growth, which indeed resonates with the UN Habitat approach to planned city extensions and in-fill developments as methods of promoting more ‘compact’ and manageable urban growth<sup>4</sup>. Thirdly, SKM has enabled cities to demarcate municipal boundaries more effectively e.g. in Durban. Fourthly, spatial knowledge management has proved useful in environmental resources management such as water resources and wetlands, urban forests and green parks. The city of Cape Town is reported to have improved environmental management by relying on GIS based information to mainstream environmental conservation in urban planning processes. Lastly, SKM is capable of informing better urban strategic development plans. By analyzing digitized spatial information to trace certain trends, planners are able to identify nodes, corridors and urban development edges. The product of this is, but not limited to, better informed urban development policies that promote inclusivity, better prioritization of public investments, and good urban planning for more sustainable urban development. This is rather quite useful to decision makers dealing with complexities of megaprojects. So to speak, through spatial knowledge management they are likely to make better decisions.



*Spatial information systems have been reported to improve efficiency in municipal work processes. e.g; Land administration, infrastructure delivery, land development management.*

By using spatial knowledge systems that support enhanced interface between communities and planners, participation would further enrich urban planning; noting the emphasis that most urban planning regimes direct to participatory urban planning. Through spatial community mapping, these participatory planning processes are likely guide priorities for local budgets. Likewise, spatial information systems have been reported to improve efficiency in municipal work processes.

## **2.2. Municipal Work Processes<sup>3</sup>**

The quality of prevailing urban governance underscores the efficiency in work processes of municipalities. But many local governments lack the necessary capacity to direct urban governance towards a more sustainable urban development. ii To improve this capacity, Chance2Sustain established that several local governments have embraced e-governance systems, including ICT-GIS tools to improve their decision making processes. For example, faced with rapid urbanization, India’s government prioritized “ICT-based administrative processes and the use of e-governance”. Today, Kalyan-Dombivli (KD) municipality is a leading example, whose e-governance approach has brought about improved service delivery, accountability and increased municipal revenues, among other benefits. KD is just one the cases where spatial knowledge systems have greatly revolutionized municipal work processes. These work processes includes: land administration and property management, infrastructure delivery, development approval processes, municipal budget processes and urban poverty and needs assessment.

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*With spatial knowledge management systems, decision makers are able to make better informed and targeted decisions concerning infrastructure investments.*

### – Land Administration and Property Management

Efficiency in land administration means increased revenue streams, from land and property rates. Local governments are also able to restrain corruption and improve transparency in land administration. However, to enjoy these benefits local governments will need among other things, geo-referenced data e.g. for cadastre, land and property inventories. An example of such approach is in Durban where the municipality has developed a geo-referenced land database, which has made land transactions easier and increased efficiency in property taxation schemes.

### – Infrastructure Delivery

Infrastructure remains a key pillar of urban development, but whose adequate universal access still remains a major challenge for cities in developing countries. Although among the key mandates of municipalities is to deliver basic services,<sup>4</sup> they often have to deal with complex trade-offs, concerning the right choice of infrastructural investments. But with spatial knowledge systems, decision makers are able to make better informed and targeted decisions concerning these investments. The result is increased efficiency in spatial coverage and in the process more inclusive infrastructure delivery that targets priority locations such as informal settlements.<sup>5</sup> In addition, SKM systems such as ICT-GIS based ones have been found quite useful in improving utility revenue collection and managing the respective infrastructures. The outcomes are improved revenue streams from utilities, and more efficient service delivery, as well as improved monitoring of resource consumption and asset management. This adds-up to better resource management, for sustainability. Kalyan-Dombivli (India) municipality has experienced

these benefits, one of it being significant increase in water billing revenue after integrating SKM systems in billing process.<sup>3</sup>

### – Land Development Management Processes

While SKM remains crucial in urban planning, likewise, various tools are useful in managing urban growth by enhancing efficiency of the associated work processes. Such is the management of development approval processes. By availing digitized spatial information such as city development plans, zoning maps and guidelines accessible to public, various local governments have managed to engage developers and public in more transparent and efficient manner. For example, the city of Guarulhos is developing a public WebGeoportal that will integrate approving, licensing and monitoring of building projects. This will as well seek to improve service delivery and transparency in governance by enabling citizens to print reports, pay bills and track status of applications. In Lima (Peru), a number of municipalities have developed GIS based urban development plans, and enabled the public access information about land use and zoning.

### – Municipal Budgeting Processes

Another key area where SKM has proved vital is in municipal budgeting processes. Clearly, the spatial dimension in municipal expenditure is crucial in the sense that it has capabilities of directing more *spatialised* budgets, thus enhancing inclusivity. Where participatory budgeting (PB) processes have been institutionalized, these processes can be improved by integrating spatial knowledge systems to guide more *spatialised* allocation of budgets. These systems help municipalities to geographically visualize budget allocations. Indeed, cities with well-designed PB processes such as Guarulhos in Brazil<sup>6</sup> can guide local communities in making more informed priorities by combining PB with spatial community mapping. Such local communities include deprived informal settlements.

## – Urban Poverty and Needs Assessment

Urban poverty has spatial manifestations, common among this is existence of poorly serviced informal settlements that are characterized by unemployment, and deprived households. One vital way of enhancing co-operation between governments and citizens, and other stakeholders in addressing informal settlements is through integrating spatial knowledge systems, and indeed local spatial knowledge in decision making. For example in Pune (India), authorities have used spatial community maps as basis for designing relocation projects, and in South Durban (South Africa) community maps on air pollution helped experts undertake more comprehensive analysis of the problem, than if they purely relied on official records. Further, digitized spatial information systems have enabled some cities to map impoverished areas, merge and spatially visualize composite data, and based on that,

directed targeted expenditures to address specific challenges. Durban is one of those cities, which uses a composite deprivation index (CPI) to direct budget allocations for infrastructure in its 17 zones. Combined with two spatial modeling tools; access to services model (demand and supply) and cost surface models, allocations through CPI have better targeted deprived neighborhoods.

In addition, local governments will benefit more by ensuring participation and strategic partnerships prevail. It means that the systems local governments develop must ensure wider accessibility by various types of actors in urban development processes. Otherwise without appreciating these various actors, their interests and power relations, spatial knowledge management systems will have little impact in enhancing more inclusive urban development through participatory urban governance. Table 1 highlights spatial knowledge systems at work, their benefits and challenges in select cities.

Table 1: Examples of Spatial Knowledge Systems at Work<sup>3</sup>

City	Examples Of Spatial Knowledge Systems At Work	Key Challenges
Guarulhos	The city embarked on building ICT-GIS system for public policy and urban strategies e.g. a WebGeoportal development. The city is also using geospatial information for urban development and civil defense.	The use and integration of spatial information in participatory budgeting is minimal. Compatibility of content, protocols and standards across line departments is yet to be achieved.
Callao	Spatial information has been useful in Callao regional land-use planning, regional spatial management plans, demarcation and promoting e-governance through ICT-GIS tools.  The regional government has succeeded in generating multidisciplinary information through participation. This information is used in urban planning, environmental planning and water resources management. Overall, increased coordination and exchange of information has improved management in the region.	Legislation on spatial planning is not explicit, and there lacks regulations that guide adequately, integrated spatial planning.
Kalyan Dombivli	The municipal has taken an initiative to install spatial information systems for e-governance. The city has also developed a GIS based database with 26-33 thematic layers, including, land and properties, infrastructure and informal settlements. Spatial knowledge systems are also used in Anti-poverty programmes. The results have been increased revenue streams, improved service delivery, improved citizen-government relations and accountability.	Securing data remain a key challenge, and transparency of some databases is questionable. Linking databases to GIS is faced with several obstacles, limiting reliability. Overreliance on private sector for data production has limited capacity building among municipal staff.

City	Examples Of Spatial Knowledge Systems At Work	Key Challenges
Durban	Spatial information is used in: land administration, boundary demarcation, developing Spatial Development Frameworks (SDFs) & Plans, ward profile mapping, zone maps, poverty mapping, interim services delivery maps, and spatial modeling for housing & infrastructure investments. The application of these knowledge products have resulted to increased revenue streams from land and property rates, efficient land administration. Municipal boundary demarcation has become less politicized owing to use of visualized composite spatial data to guide the process. Regarding infrastructure, spatial modeling tools has guided the municipal to expand infrastructure coverage, mostly targeting deprived areas.	There is minimal integration of community knowledge in these initiatives. The over reliance on expert GIS knowledge has limited applicability and use of spatial information to just specified processes, mainly the hard physical structures e.g. infrastructure and housing.  Integration of sectors is not built into the system, limiting it to project level.
Cape Town	The city of Cape Town employs SKM in formulating SDFs, in drafting urban edge and densification policies, managing the coastal edge and environment and in locating low-cost housing. These applications have "revolutionized" planning practice in the city. Extensive participation is reported to be part of SDF processes in the city. After delineating the urban edge, the city successfully formulated a densification policy; towards a more 'compact city' urban development. Coastal line planning has improved risk management and disaster preparedness and better production of coastal urban space.	The shift from the older spatial discourse of spatial redistribution, towards neoliberal urban development continues to elicit tensions.  Inadequate integration of sectoral data and in some instances available data is outdated.

### 3.0. Enhancing Participation in Spatial Knowledge Management and Decision-Making Processes

Notably, SKM comprise of networks and actors, and tools<sup>3</sup>; therefore, the aspect of participation must feature prominently in both knowledge construction and in decision making processes. But it must be noted that these many actors have varying capacities in the manner they interface and interact with SKM systems. The implication is that governments will have to invest in user-friendly systems that provide easy communication and with the capacity to engage many and diverse actors. This will limit possible discrimination of those short of specialized skills, and in the process ordinary citizens will be able to participate in knowledge production and decision making processes, and be able to experience ease of access to various local government services. Also, it should be noted that user-friendly systems double as platforms to integrate spatial local knowledge in decision making. For example, such systems enable local governments to spatially visualize where complains are emerging from, understand the areas raising special interests, and monitor municipal processes through location-specific citizen feedback. This will enable municipalities make more informed decisions<sup>3</sup>.

However, most decision making is still dependent on expert spatial knowledge such as the use of GIS based systems. Synergy between expert and local spatial knowledge is, therefore, a key area of interest to policy makers. This means that decision makers using expert SKM systems ought to find ways of enriching their content with local knowledge and ways of expanding room for participation. Such ways include discussing generated content such as maps with communities and other actors, with the aim of integrating varying opinions in decisions<sup>1</sup>. Technological advancement has nonetheless enabled development of new tools, as well as modification of some pre-existing expert tools with the aim of engaging a wider range of actors; expert and non-expert. Examples of these systems and tools are Participatory Geographic Information Systems (P-GIS), ease-to-use WebGeoportals e.g. the WebGeoportal of Guarulhos city<sup>4</sup>, and open source platforms e.g. Google Earth and Maps, and Open Street Maps. Even much simpler tools and methodologies like sketch mapping and similar spatial community mapping tools have become basis for producing geo-referenced spatial information. The essence is that integrating

both expert and local knowledge amounts to knowledge co-production; which in turn enriches spatially disaggregated data for decision making; hence, towards more inclusive urban development. Indeed, incorporating this local knowledge facilitates “more strategic planning and monitoring in urban areas”.<sup>13</sup> It also enhances transparency and accountability in municipal processes, resulting to improved citizen-government relationships.



*Integrating both expert and non-expert (local) knowledge amounts to knowledge co-production; which in turn enriches spatially disaggregated data for decision making.*

At the same time, policy makers should be cautious of confidentiality and security implications associated with some digitized spatial information. Meaning they should filter through to ensure that information availed in the public realm doesn't infringe individual rights or pose risks to municipal work processes. For example, in Durban the eThikwini municipality ensures that geo-referenced layers of the city's database are not accessible online, to prevent corruption of data<sup>3</sup>. Actually, KD (India) has experienced manipulation of databases due to limited security. These kinds of measures instill confidence in public; hence, provides a better environment for participation and developing strategic partners.

#### 4.0. Conclusion

Moving forward, participatory SKM will most likely emerge as the lever for directing urban governance towards more inclusive, resilient and sustainable urban development. But it is observed that SKM will be more useful in local governments that have institutionalized participatory and devolved financial processes<sup>3</sup>. In addition, several strategic measures will have to be taken, in order for SKM systems to produce the desired impact. As a first step, local governments must access and understand their work processes, which will guide ascertaining data needs and the best SKM practices that would improve these processes. Secondly, a budget has to be set aside for

investing in the right equipment e.g. computers and software programmes. This has to be continuous as technology changes, meaning such equipment and software will have to be upgraded at some point. The third measure is invest in building staff capacity, by initial training and through continuous professional development programmes<sup>4</sup>. Importantly, local governments must nurture and sustain a conducive work environment prevails so as to motivate staff retention. This is because frequent turnover among experts or highly trained staff translates to extra costs in building capacity, and also slows down processes; in worst case scenarios, high turnover rates can collapse SKM systems. Hence, for sustainability purposes local governments must realize a strategic management of information system infrastructure. Regardless, policy makers cannot completely rule out the involvement of the private sector in developing these systems. In fact, the limited capacity (even to hire and retain professional staff) in most of local governments, necessitates the demand to outsource from the private sector. Where this happens, policy makers should ensure that win-win arrangements emerge. Of course, the private sector will remain focused on profits, but most importantly, local governments should ensure that the contracted private firms pass skills to their technocrats for sustainability and better operationalization of these systems within municipal decision making processes.



*Municipalities need to develop capacity to manage and uptake SKM systems initially outsourced to private firmsservices contracted private firms.*

Finally, all these measures must be guided by enabling policies and legal frameworks that promote the use and building of SKM systems in the respective local government(s). It is through this environment that compatibility of content, coordination across line departments, and between levels of government, can be achieved. For example, in Peru, the National Geographic Institute (IGN) defines the platform for national geo-data, and in South Africa, the government created the Spatial Data

Infrastructure Act (2003) to set certain guidelines<sup>5</sup>. These frameworks are vital because they ensure that information is comparable, and guided by standards and protocols. Still with policy framework, for better results and improved urban governance, the institutional set-up must ensure participation and the integration of local *spatialised* knowledge in urban

development processes. This must be comprehensive enough to address vital issues such as gender mainstreaming in decision making processes. Overall, the adaptation towards a 'spatial culture' in local governments implies that the presence of a strong and visionary leadership is indispensable.

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## Endnotes

**This briefing note refers to the following research publications:**

<sup>1</sup> Baud et al (2011). Developing Participatory 'Spatial' Knowledge Models in Metropolitan Governance Networks for Sustainable Development: Literature Review. Bonn: Chance2Sustain EADI. / <sup>2</sup> UN-Habitat (2007). Towards Norms of Good Governance. Nairobi: UN-Habitat. / <sup>3</sup> Baud et al (2013). Spatial Knowledge Management in Urban Local Government: E-Governance in India, Brazil, Africa and Peru. WP5 Fieldwork Reports. Bonn: Chance2Sustain EADI. / <sup>4</sup> UN-Habitat (2013). Urban Planning for City Leaders. Nairobi: UN-Habitat. / <sup>5</sup> Baud et al (2011). Knowledge Production in Urban Local Governance Systems: Policy Brief. Bonn: Chance2Sustain EADI. / <sup>6</sup> Lavelle et al (2013). Urban Chances in Brazil: City Reports, Guarulhos, Salvador, and Rio de Janeiro. Bonn: Chance2Sustain EADI.



# Chance2Sustain

## Research Policy Brief 2

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### Enhancing Implementation of Urban Plans

Policy makers are increasingly focusing on cities as main centres for structural transformation. This has seen the emergent of alternative growth and development strategies, such as the megaprojects approach, whose impacts have nonetheless been varied; often resulting in both positive and negative impacts. Although their impacts are varied, megaprojects continue to shape urban futures in large cities of developing countries. As this unfolds, many cities and municipalities lack the requisite capacity to effectively plan and implement, not just megaprojects but urban plans in general. Rather, we see higher levels of governments, sometimes in partnership with private sector, taking the lead in planning and implementation of largescale urban projects. But for cities to prosper, they must nurture the capacity to effectively plan and implement plans or be able to coordinate these processes, even at the scale of megaprojects. Also, if the respective services are outsourced to the private sector, a city's effectiveness as an oversight institution depends mainly on its capability to manage implementation. A strong municipal government is needed to complement the private sector, for sound project management, better decision making and improved mediation of interests. This policy brief is designed to speak to city leaders with regard to implementation of plans. The brief stresses the importance of the concept of implementation in urban development, and goes further to underscore vital lessons that city leaders can learn from the implementation of megaprojects; mainly the importance of institutionalizing participatory processes. The brief draws from Chance2Sustain study on megaprojects, complemented by UN-Habitat work.



## 1.0. Enhancing Implementation of Urban Plans

### 1.1. Attempts to Harness the Transformative Potential of Cities

The fact that cities carry a transformative potential is increasingly attracting the attention of policy makers in developing countries<sup>1</sup>. Various alternative strategies to economic and infrastructure development have emerged, notably among them megaprojects. Large cities are seen as the focus of economic growth strategies by provincial and national governments and the private sector which attempt to establish them as competitive platforms for attracting global capital or as centres for specialised infrastructures<sup>1, 2</sup>. Guarulhos and Rio de Janeiro (Brazil), Arequipa (Peru), Durban and Cape Town (South Africa), and Delhi and Chennai (India) are examples of large cities where such initiatives have been undertaken. But the outcomes of this approach are a paradox; on one hand they accrue economic gains, whereas on the other hand some of the outcomes restrain advancements towards urban sustainability, and even their mere prioritisation in urban development vis-a-vis other strategies is debatable<sup>2</sup>. Despite variable outcomes, evidence indicates that megaprojects continue to shape urban futures; hence, policy makers must take the initiative to understand the implications they pose. A study by Chance2Sustain on megaprojects which drew examples from the cities of Rio de Janeiro, Salvador, Guarulhos, Chennai, Delhi, Kalyan-Dombivli (KD), Durban, Cape Town and Arequipa (See Table 1), revealed critical policy issues that speak to practices of urban planning and implementation of plans.

*Large cities are seen as the focus of economic growth strategies by provincial and national governments and the private sector which attempt to establish them as competitive platforms for attracting global capital or as centres for specialised infrastructures.*

### 1.2. Why Implementation Matters

Although cities aspire to prosper, their ability to effectively “plan and implement” is of particular importance in realizing such aspirations<sup>1</sup>. Surprisingly, the majority of cities lack necessary capacity to successfully formulate and implement plans. Traditional urban planning has also actually become inadequate in guiding a more sustainable urban development (SUD)<sup>2</sup>. It is observed that the private sector often takes lead in implementation of megaprojects. But local governments must as well develop adequate capacity to complement the private sector. Moreover, it is apparent that local governments engage services of the private sector, including the delivering of megaprojects (e.g. KD city case); hence, to exercise its oversight role and be able to engage the private sector in a more constructive way, decision makers in the local government must acquire the requisite capacity. This will also ensure public interest is fostered (more inclusive development), and accountability and transparency, where public resources are utilised in implementation. In a context where plan formulation is a lengthy and complex process, effective plan implementation demands planners and decision makers should think of implementation right from the start. In doing so, decision makers must be prepared to deal with mainly a), institutional, b) technical and c) financial complexities.<sup>3</sup> Implementation should also align with the geographical context. Indeed, the magnitude of impacts and outcomes arising from implementation of plans of the size and scale of megaprojects is greatly related to context. It implies that implementation must be adapted to the local context, and policy makers must unpack the actual costs and benefits of megaprojects, for public engagement. This is purposely to promote and prioritise rational investments; to avoid waste of public resources, limit environmental degradation, and distribute benefits to the wider public<sup>4</sup>. That said, for the purpose of better informed decisions (on the right choice investments), it is imperative to enlighten policymakers on some of the reported outcomes of megaprojects.

## 2.0. Understanding the Outcomes of Megaprojects<sup>1</sup>

Feasibly, the near future will witness cities building significant amount of infrastructure and promoting alternative economic development projects in efforts to incentivize productivity. In order to be more responsive and to stay ahead of the associated challenges, policy makers must appreciate the importance to plan and “build right”. This implies optimising use of resources and prioritising vital investments. This demands undertaking comprehensive analyses of costs and benefits to curb wasteful use of public resources. Evidence shows that despite the associated economic gains, various megaprojects have accrued benefits to just a few, mainly private sector. Chance2Sustain<sup>2,5</sup> reports that megaprojects are mainly associated with: economic productivity, urban transformations, shifts in land markets, socio-economic exclusion, environmental challenges, dynamics in urban governance, and complexities in urban planning regulations.

First, megaprojects generate revenues and create employment; directly, indirectly and through spin-off effects, as well as boosting growth of new or other sectors. For example, the Chennai IT Corridor is reported to have created thousands of jobs, spurred real estate markets, and increased foreign exchange earnings. With regard to infrastructures, megaprojects have enabled cities like KD and Arequipa to address backlogs of basic services at scale. However, inclusive and sustainable urban development demands decision makers to ensure more equitable distribution of these economic benefits.



*Chance2Sustain<sup>2,5</sup> reports that megaprojects are mainly associated with: economic productivity, urban transformations, shifts in land markets, socio-economic exclusion, environmental challenges, dynamics in urban governance, and complexities in urban planning regulations.*

Secondly, urban transformations often arise from implementing megaprojects. Experiences from Chennai IT Corridor and the Port Maravilha projects demonstrate that the spatial impacts of megaprojects tend to extend beyond the confines of their planned physical site. But rarely do most megaprojects undertake comprehensive analysis to anticipate these impacts. Decision makers must note that placing mega projects usually reconfigure existing urban form, and could trigger urban sprawl and unanticipated land developments. Preference for megaprojects should, therefore, rely on comprehensive analysis so as to minimise negative impacts and optimise on the positive features of urban transformations such as revitalisation of ‘run-down’ urban spaces.

Thirdly, and which relates to urban transformations, megaprojects elicit shifts in land and property markets. This includes land speculation, which ends-up distorting land markets, and prompting displacements of low-income households through buy-outs, compulsory acquisitions or even evictions. The urbanization of rural localities along the Chennai IT corridor is a case in hand, where some of these impacts have been reported. But depending on how plans are formulated, urban growth could either result in positive increase of land values or be counter-productive to inclusive development.

This leads to the fourth main outcome; social-economic exclusion. Exclusion unfolds through gentrification, evictions and displacements. Port Maravilha Project (PMT) in Rio de Janeiro is an example, where low-income households are threatened with exclusion owing to redevelopment of the area with upmarket properties. In Chennai, the low-income indicated that the residential properties developed for the IT clusters were unaffordable to them; hence they opted for alternative housing, elsewhere.

The fifth main outcome is that implementing megaprojects is observed to reconfigure urban governance. The reliance on special agencies or decision-making by higher levels of governments has side-lined the respective municipal governments. The result is institutional tension and conflicts;

consequently, limiting the effective coordination of overall urban development. In addition, lack of transparency and public accountability, and absence of meaningful public participation in the planning and implementation of megaprojects, has demeaned inclusive urban governance. Public protests in Rio de Janeiro against megaprojects are some of the implications of this kind of approach.

Lastly, it is observed that 'exceptional' planning rules and regulations employed in a number of megaprojects present significant impacts on pre-existing legal frameworks. Indeed, enabling rules and regulations are indispensable for successful implementation. But the precedence reported; fundamentally compel policymakers to revisit the relevance of existing urban planning regulations to urban development. Rather than undertaking comprehensive reforms in urban planning legislation, this precedent is seen to undermine existing legislation, which is to a large extent is not sustainable. Furthermore, this precedence casts doubt on the sustainable urban development rhetoric propagated by some megaprojects. Unfortunately,

the imperatives to environmental sustainability tend to be ignored or underestimated in environmental audits, purposively to foster a positive public image. The Varzea de Tiete Park (PVT) in Sao Paulo is promoted as an environmental compensation project for the Marginal Tiete highway that violates several environmental conservation imperatives.

The above outcomes locate public participation at the core of defining the successful implementation of megaprojects, because they command huge public investments and their outcomes have profound consequences for inclusive urban development. Besides, their implementation presents vital lessons to decision makers with regard to improving implementation. It should be noted that owing to their large scale and size, managing their implementation is complex; hence it commands certain level of capacity. Earlier, this brief had stressed on implementation, as major challenge facing urban policy makers today, particularly in developing countries. Hence, experiences from megaprojects are of relevance to cities prepared to undertake reforms in urban planning and implementation.

### 3.0. Drawing Policy Lessons from Megaprojects

More than ever citizen engagement in urban development processes has become critical, just like the significance to comprehensively understand the key features of implementation. Most approaches to megaprojects leave little room for participation. Yet it is important to note that participation manifests in various aspects of implementation-e.g. in project politics, organisational structure and legal framework.



*Decision makers must note that placing mega projects usually reconfigure existing urban form, and could trigger urban sprawl and unanticipated land developments.*

#### 3.1. Why Participation in Implementation

Participation in implementation remains vital because: a) where public resources are involved, citizens have a right to active consultation; b) transparency demands that the right information is presented to the public c) and through participation, some of the negative impacts of megaprojects can be minimized. However, this depends on the institutional set-up governing implementation. Chance2Sustain<sup>1</sup> reports that authoritarian and mainly top-down approaches dominate megaprojects; only countable megaprojects recognise active participation, e.g. the Planning for Old Centre of Salvador project (see table 1).

Table 1: Implementation of Megaprojects<sup>1</sup>

City	Project Scale and Dominant Purpose	Lead Agency in Implementation	Participation
Guarulhos	<b>Tiete de Park Project</b> This is the “world’s largest” linear park stretching 86 kilometres in Sao Paulo region. It’s planned for basic services and transportation.	Department of Water and Electricity (DAEE), of the Sao Paulo state government. (main funding from Inter-American Development Bank)	No meaningful public participation. Threats of evictions and displacements compelled citizens to form lobby groups.
Rio de Janeiro	<b>Porto Maravilha Project</b> This is an economic development project aiming to regenerate the port region.	The Port Region Urban Development Company (semi-public). This mediates between public-private sectors in the implementation. (funding is mainly through Public-Private-Partnership-PPP)	No meaningful participation, but reported public resentment towards the project.
Salvador	<b>Historic Centre</b> A Planning project for improvement of the Old Centre of Salvador.	Reference Offices for the Old Centre of Salvador (ERCAS) -created by the Bahia State government.	High-level of stakeholder engagement: municipality, citizens and civil society, and private sector.
Chennai	<b>Expressway &amp; IT Corridor</b> Special Purpose Vehicle Highway for economic development zones.	Tamil Nadu Highway Development Corporation- a parastatal. (A PPP was established to raise project funds).	There is little room for participation.
Kalyan-Dombivli	<b>Water Supply and Treatment</b> Large-scale infrastructure for basic services; water and sanitation for the municipal.	Kalyan-Dombivli Municipal Corporation (KDMC)  (KDMC funds 50% of the project, and the rest from central and state governments).	There were attempts to consultations with most affected communities although not satisfactory.
Delhi	<b>Shastri Park Metro Station &amp; Depot</b> A rapid rail infrastructure network for transportation and economic development in Delhi Metro region.	Delhi Metro Rail Corporation (DMRC), but final decision making sits with the central government.	Tension and conflict between local government, communities and DMRC have been reported.
Durban	<b>King Shaka International Airport</b> Conceptualized as an aerotropolis economic development project.	Provincial Government	Piecemeal public participation and a side-lined municipality.
Arequipa	<b>Water and Sanitation System</b> Large-scale infrastructure for basic services; water and sanitation	A mining company, “Sociudad Minera Cerro Verde” The company coordinates with SEDAPAR, the metropolitan water company. (The company is a major funder of the project).	Little room for public participation, although the project is ‘acceptable’ to public.

From Table 1, it is evident that most megaprojects are either led by higher levels of government or by special agencies with semi-autonomous powers, or the private sector e.g. Arequipa Water project. These are mainly structured as top-down approaches, meaning participation is partial. In rare cases like the KD water project municipal government is taking the lead, but that is not a guarantee of meaningful public engagement. However, by comparison, both top-down and bottom-up approaches possess significant benefits and weaknesses that decision makers ought to consider before deciding on a preferred approach. Such comparison is summarised in Table 2, below.

Table 2: **Top-Down and Bottom-Up Approaches in Implementation of Plans**<sup>1,2,3,4</sup>.

TOP-DOWN APPROACHES	BOTTOM-UP APPROACHES
<b>BENEFITS</b>	
<ol style="list-style-type: none"> <li>1. Top-down approaches are faster, owing to their involvement of few actors; hence limiting distractive politics or delays of public engagement.</li> <li>2. Public-Private-Partnerships (PPP) is easily supported by this approach, because of the highly structured approach.</li> <li>3. The authoritarian aspects limit political risks associated with projects and enables faster decision making.</li> <li>4. Organisational structure created is likely to sustain the project, as planned.</li> </ol>	<ol style="list-style-type: none"> <li>1. They are drivers, towards the 'Inclusive City' as they facilitate better adaptation of plan proposals to the local context</li> <li>2. They help build local capacity-e.g. in planning and implementation for local experts, and professionals</li> <li>3. They possess the potential to mitigate against negative socio-economic impacts of large-scale projects e.g. displacement and evictions</li> <li>4. They widen the scope of transparency and accountability in projects</li> <li>5. Meaningful participatory processes enhance acceptability and proper implementation of plans.</li> </ol>
<b>WEAKNESSES</b>	
<ol style="list-style-type: none"> <li>1. Little room for participation; hence accommodating varying agendas and opinions on alternatives is not possible.</li> <li>2. Likely to limit efficient adaptation of plan proposals to local reality, due to lack of engagement with local constituencies.</li> <li>3. With increasing democratisation, top-down approaches will likely continue to spark public backlash and resentment among those actors locked out.</li> <li>4. The approach offers fewer opportunities for advancing inclusive urban development.</li> </ol>	<ol style="list-style-type: none"> <li>1. Participatory processes are often slow owing to mediation of vested interests; hence could result to project delays, which in implementation such delays are extremely costly.</li> <li>2. Conducting public participations demands additional costs to the project.</li> <li>3. Certain practices may not be able to capture the bottom-up dynamics effectively.</li> <li>4. A slow process that requires time for implementers to adapt to local context.</li> <li>5. Unsustainable in the long-term, where resources are not allocated to sustain the local expertise in implementation</li> </ol>

With either approach presenting opportunities or challenges, it is incumbent to foster inclusive urban governance. This is because despite their top-down approach, megaprojects in urban development may be the preferred alternative to meet infrastructure backlogs at scale, as observed with Arequipa and KD cities. For the purpose of sustainability, urban development will find it valuable to accommodate different opinions concerning projects or varying proposals for alternative strategies. Essentially, what Chance2Sustain study shows is that with increasing democratisation of urban governance, participation cannot be overlooked; therefore, sound approaches that integrate participation in planning and implementation processes ought to be designed<sup>2</sup>. Recognising the critical role of private sector in megaprojects, more inclusive approaches would mean aligning their practice to public interest.

Although it is challenging for private sector to align their business interests with principles of sound urban governance, for the purpose of attaining long-term enabling business environment, their engagement with local governments and the public is critical. That will necessitate compromises from each side.<sup>6</sup> Taking into account the infrastructure back-logs facing most cities in developing countries, cities must strive to develop the requisite capacity to undertake implementation in more inclusive approaches, including large-scale projects. Actually, the near future is likely to present megaprojects (of different kinds) as attractive to municipal governments in developing countries (e.g. to deliver at scale: basic infrastructures, social housing etc.). This would demand more empowered municipal governments; that apart from being able to effectively engage the public in implementation, they must be able to fully

comprehend, and effectively manage the key features of implementation, whether through their direct involvement or as oversight roles. Indeed, the success of implementation is essentially determined by how these features interplay and are managed.

### 3.2. Understanding the Key Features of Implementation <sup>2, 3, 5</sup>

From the Chance2Sustain, and borrowing from UN Habitat's experiences; politics, finances, organisational structure, urban planning rules and regulations and the 'time' factor, are the major components of plan implementation.

#### – Urban politics

If poorly managed, Urban politics can derail; inject new dynamics (e.g. the change of project scope in the PVT project in Sao Paulo, Brazil) or even make implementation a complete flop. Therefore, it is essential for decision makers to design a solid political strategy, which must be aligned with the different levels of government, with a political champion and able to mobilise public support. The Port Marivilha Project in Rio de Janeiro is strongly supported by the country's three levels of government, but its lack of public participation has triggered public resentment. Plans have vested interests from a multiplicity of stakeholders, thus it is vital to mobilise long-term political support, especially public legitimacy. Again, this emphasises the significance of public engagement in planning and in continuity of implementation processes.

#### – Finances

Plans command significant financial budgets. By their size and scope, megaprojects attract substantial financial risks. Without a well-articulated financial plan, implementation becomes infeasible. Furthermore, encountering financial constraints in implementation causes delays, whose knock-on effects include cost overruns e.g. the case of the IT Expressway project of Chennai, India. One approach to countering this is by undertaking lifecycle cost planning and formulating detailed financial strategies/plans, including operation and maintenance (O&M), financial sourcing and putting in place a sound management practice, and avoiding delays between planning and implementation, and during implementation itself.

#### – Organizational Structure

Successful implementation cannot be without a sound management. Here, decision makers should be sensitive of governance and institutional issues, including legal framework, the nature of institutions in charge, their management and coordination, and how other actors are managed. Apart from government institutions and the private sector, also involve the public. In most megaprojects, a top-down approach, devoid of meaningful participation is applied. In other cases, special agencies or higher levels of government that side-line local governments take lead in implementation, but often these practices aim to overcome bureaucracies and institutional fragmentation common with local governments. Yet inclusive and sustainable urban development demands processes guided by good governance, with the active participation of all key actors.

#### – Urban Planning Rules and Regulations

"A sound legal framework is indispensable for the implementation of plans...many cities that have had major successes in planning also have progressive legislation".<sup>3</sup> Chance2Sustain demonstrates that 'exceptional planning' legislation is prevalent in megaprojects. In light of that, the efficiency of prevailing urban planning regimes in cities should be put to test. Formulating 'exceptional planning' laws and regulations partly imply that prevailing regimes are 'inhibitive' and not flexible enough to the changing contexts, although city governments should be wary of the precedents such approaches present in the long-term. These include institutional conflicts and tensions, as witnessed between local government and the autonomous agency created to implement the Delhi Metro and Shastri Park, Delhi, India. Faced with such challenges, plan-making processes should consider legislative reforms, so as to foster an *empowering* policy environment and to set the right precedence for future plans.<sup>3</sup> Also, plan proposals for megaprojects must fit within wider city development plans or strategies, which must also be accompanied by adequate rules and regulations.

*Planning making is often lengthy and complex, and delays tag along cost overruns. Similarly, political dynamics, purpose of plan and technology are likely to change with time.*

### – Time Factor

The time factor has a direct relationship with planning, finances, politics, and technology, and problem context. As earlier indicated, planning making is often lengthy and complex, and delays tag along cost overruns. Similarly, political dynamics, purpose of plan and technology are likely to change with time. To avert the associated costs and to ensure plans remain relevant, timely execution between and within planning and implementation is requisite.

Understanding these features implies that decision makers must build effective management mechanisms for implementation; together with performing apt and comprehensive analyses of every feature; laying down the right strategies to detail and having well-articulated mechanisms for their effective coordination. For example, politics should be managed in a manner it contributes to strong organisational structure. Accordingly, participation should be institutionalised in a manner that expedites effective implementation, so as to enhance more inclusive urban development.

## 4.0. Conclusion

Without doubt, implementation of megaproject has significant impacts on urban development. The implementation of megaprojects has emerged as paradoxical, where in some cases the costs outweigh the benefits or may be incoherent where adequate analysis is lacking. This policy brief has sought to shade light on these outcomes, and has addressed the importance of implementation by unpacking its critical features and emphasising the significance of participation. While noting that in the short-term megaprojects meet certain objectives, policy makers should be more concerned by the long-term impacts they pose on urban development. Although the Chance2Sustain research<sup>1</sup> was not able yet to

examine the long-term impacts in detail, it is clear that megaprojects requires more than just planning for the project per se, but better urban planning practices capable of analysing their full impacts on existing urban patterns. City leaders and the relevant decision makers must then understand the actual costs and benefits and use the right information to consult with the public, before embarking on a megaproject. Part of this entails analysing the transformations associated with megaprojects; noting that those placed on urban fringes often trigger unplanned urban expansion, rural-urban transformations, without efficient integration and connectivity with existing urban form; and those involving redevelopment often result to regeneration, gentrification, disruption of existing urban pattern and neighbourhoods. Thus, reforms in urban planning practice remain vital in planning for megaprojects, so as to limit the negative impacts and optimise on the positive impacts.

*Cities and governments should prioritize investments with the most positive impact; “build right” infrastructures through public engagement and informed by adequate investment analysis.*

Cities will have to develop the right capacity in terms of skills and discipline in leadership; and sound institutions directed by sound governance, together with responsive legal framework and financial capabilities<sup>3</sup>. They will also need to promote urban planning that can better integrate land-use planning and megaprojects-for a more integrated urban development<sup>3</sup>. This should be accompanied with designing for the right densities and land use-mix, and promoting ‘compact city’ development to limit the associated costs of urban sprawl, which some megaprojects prompt<sup>3</sup>. Cities and governments should prioritize investments with the most positive impact; “build right” infrastructures through public engagement and informed by adequate investment analysis. Essentially, to advance towards a more inclusive and sustainable urban development, megaprojects should align with city development plans; supposing inclusivity originally informed the objectives of these city-wide plans.



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## Endnotes

### This briefing note refers to the following research publications:

<sup>1</sup>Kennedy, L. (2013). Large-Scale Projects Shaping Urban Futures: A Preliminary Report on Strategies, Governance and Outcomes Based on Eight Case Studies in Four Countries. Bonn: Chance2Sustain EADI. / <sup>2</sup> Kennedy, L. et al. (2011). The Politics of Large-Scale Economic and Infrastructure Projects in Fast Growing Cities of the South: Literature Review. Bonn: Chance2Sustain EADI. / <sup>3</sup> UN Habitat (2013) Urban Planning for City Leaders. Nairobi : UN Habitat. / <sup>4</sup> UN Habitat (2010). Planning Sustainable Cities: UN Habitat Practices and Perspectives. Nairobi : UN Habitat. / <sup>5</sup> Varrel, A. and Kennedy, L. (2011). Megaprojects and Mega-events: Policy Brief. Bonn: Chance2Sustain EADI. / <sup>6</sup> UN Habitat (2009). Good Urban Governance: Towards an Effective Private Sector Engagement. Background Paper Draft-0. Nairobi: UN Habitat. Background Paper Draft-0.

# SECTION 3.

## SUMMARY OF WORK PACKAGES



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## SUMMARY OF WORK PACKAGES

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## Section 3: Summary of work packages

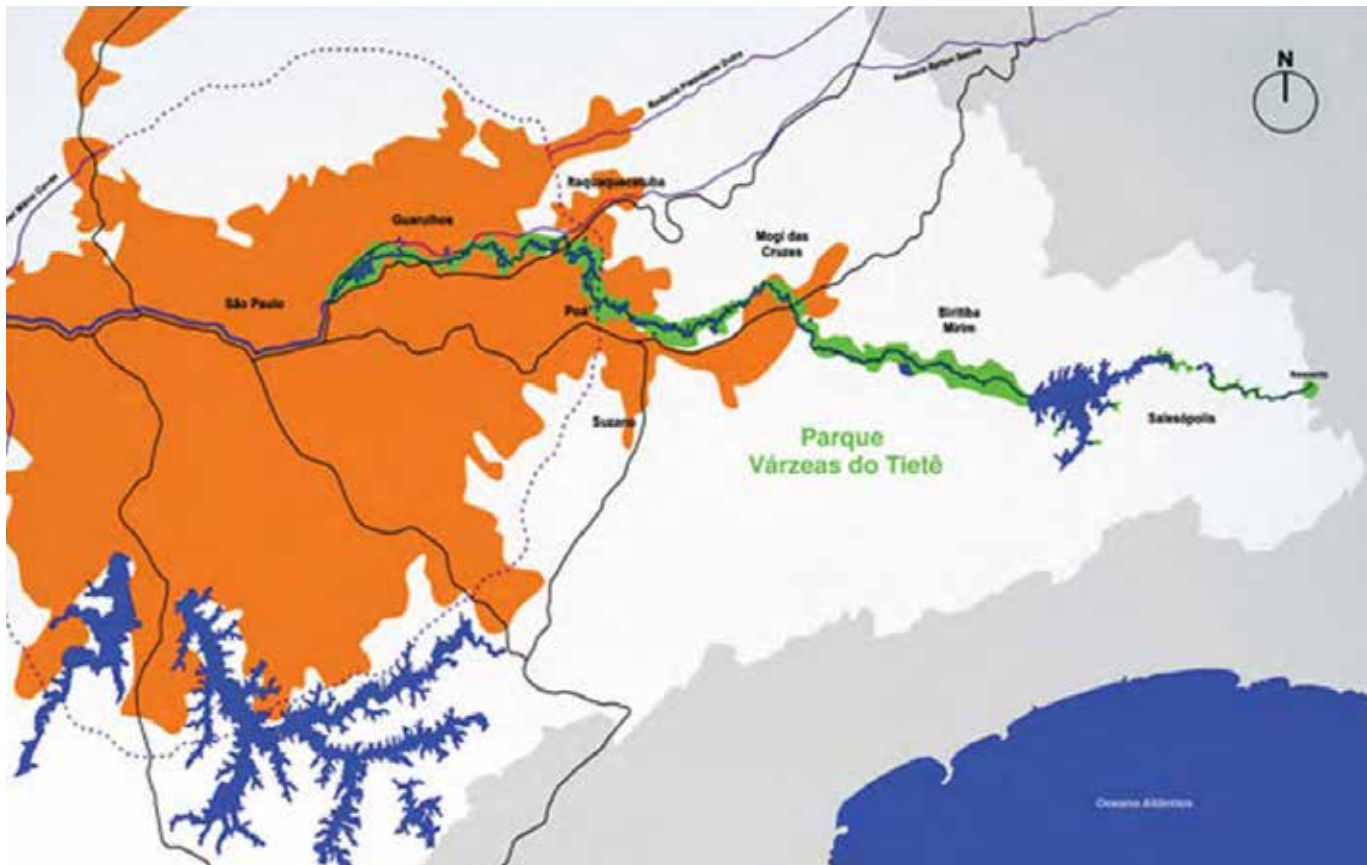
### Large-Scale Economic and Infrastructure Projects in Fast-Growing Cities and Alternative Economic Strategies



The growth of large-scale economic projects in fast-growing cities in India, Brazil, Peru, and South Africa is documented, contrasting the processes among three categories of urban economic bases in the selected cities (industrial, administrative, service-based). The policies promoting these specialised spaces strive for maximum global connectivity without necessarily favouring linkages with the local economy, thereby creating risks for spatial fragmentation and social exclusion. They are analysed in relation to the traditional economic base of the cities, and alternative strategies are explored.

Source: <http://www.chance2sustain.eu/5.0.html>

- Urbanized area of the SP metropolitan region (in orange) and area designated for the implantation of the Várzeas do Tietê (in green). © DAEE



## Key Issues Addressed:

WP2's objective is to contribute to our understanding of how economic development strategies, expressed through megaprojects, articulate with other types of urban policies to shape urban futures. It aims to evaluate the relative importance of large-scale projects compared to other strategies in urban development politics.

### Work package main research questions:

1. How much importance is given to large-scale economic and infrastructure projects in different types of cities, in relation to alternative strategies for economic development?
2. How do we characterise the politics of these projects with relation to governance patterns and in terms of actors and institutions?
3. How are megaprojects contributing to the spatial dynamics observed in the city, shaping its present and its future, with regard to urban landscapes (production of space, social segregation) and the urban economy (employment, income)?
4. How is the question of land for urban megaprojects managed?
5. To what extent are social and environment impacts of mega-projects taken into account by policy-makers and project promoters?
6. How can we characterize qualitatively the major social, spatial and environmental impacts of mega-projects in our case studies (in collaboration with other WPs)?

## KEY FINDINGS

## BRAZIL



### Guarulhos

#### Varzea do Tiete Park project

- This park development covers a linear site that stretches for 86 kilometres, involving 8 municipalities in Sao Paulo State, and was conceptualised and partially implemented in the 1970s as the Tiete Ecological Park-driven by local issues, only to be redesigned again in 2000s with a neo-liberal approach.
- The state government brands the project as “the world’s largest linear park”. Indeed it is going to be an environmental compensation project for the Marginal Tiete Expressway.
- The project is incorporated into the water management policies of the Sao Paulo metropolitan region.
- The project will reconfigure the social-spatial character of the area, where inadequate housing and infrastructure services are common challenges.
- Over 5000 families are affected by the project and threatened with eviction/displacement, but surprisingly, there is no precise policy offering a desirable alternative or compensation to these affected families.
- Eviction threats have seen the civil Society staging opposition to the project and criticising the government for using the media to promote the project, to the public, as favourable development project.
- Although the project is not committed to the high-profile policy of marketing Sao Paulo, its manner of execution is aimed at portraying a positive image of the metro region.
- The project employs the rhetoric of environmental preservation and modernisation.
- Inter-American Development Bank (IADB) funds the project.

- Unlike the 1970s version, the current project has less social engagement and local dimension as observed with the lack of transparency in the manner the project is being executed. The 1970s project did not present a global image of the project, rather as one that sought to promote local citizenship.
- The researchers note that projects of this kind of ecological appeal face little opposition, even when they involve evictions and displacements, or the sale of green public space to the private sector.

The mass clearances from low-income districts demonstrate how the park development is much more related to interests of the elite class than the daily life of the resident local population, majority who are low-income.



### Rio de Janeiro Porto Maravilha project

- This is a port revitalization project, which is also associated with the mega sporting events of the World Cup 2014 and the Rio Olympics 2016 in Brazil.
- It is marketed as the “gateway” to Rio. The project is likely to ‘unlock’ a large section of Rio’s urban centre, and in the process expand the property market in the city, by creating new frontiers of urban expansion in Rio.
- Financially and to large extend politically, the project is undertaken through a private-public partnership (PPP), involving the largest construction companies of Brazil, which are said to have considerable political and economic influence in the country.
- Its legitimacy is derived from Rio’s successful bid to host the 2016 Olympic Games and a base for 2014 FIFA World Cup. Thus the justification for investing in sporting facilities, transport networks, real estate (hotel and apartments) etc.
- To ensure a smooth running with regulations, the project is aligned to the three levels of government; federal, state and the municipalities.



### Salvador Integrated and Participatory Regeneration Plan for Old centre of Salvador

- Three years after the project launch, there was observed significant transformations in the area, with constructions reconfiguring traffic, street being changed and redevelopment of run-down buildings.
- However, the transport project associated with this mega-project does not resonate with the needs of the locals.
- Authoritarianism and exemption from existing planning regulations drive the project. There is no participation at all.
- A lobby group, the Port Community Forum (PCF) has focused on the violations and the ‘myths’ that the developers and the authorities have propagated.
- This project and other large-scale transport and sport infrastructure projects undergoing in Rio de Janeiro are expected to cause evictions and displacement of the locals and overall disruptions in the existing urban pattern.
- This is Participatory Regeneration Plan for the Old Centre of Salvador, which is overseen by the Reference Office for the Old Centre of Salvador (ERCAS).
- This project has brought together different levels of government, UNESCO, the civil society, the private sector and citizens to come-up with regeneration plan.
- In this project, a participatory methodology was adopted, with numerous engagements with stakeholders at all phases of drafting the plan.
- Series of Thematic Forums were conducted between 06/2008 and 12/2009, and in July 2010 the Participatory Regeneration Plan was delivered.
- The Thematic Forums resulted to establishment of 14 action guidelines, namely:
  1. *Stimulation of economic activities.*
  2. *Increased competitiveness of economic activities.*

3. *Preservation of the hillside area and facades.*
  4. *Incentives towards housing and institutional use.*
  5. *Galvanize the commercial district and revitalize the seafront.*
  6. *Improvement of the cultural spaces and monuments.*
  7. *Structuring Cultural Tourism.*
  8. *Improvement of actions and services attending the vulnerable population.*
  9. *Optimization of the environmental conditions.*
  10. *Recuperation of transport infrastructure.*
  11. *Reduction of insecurity.*
  12. *Valorisation of the Old Centre through heritage*
  13. *Creation of the Bahia Culture Reference Centre.*
  14. *Management and implementation of the Regeneration Plan.*
- The work has already begun, and the plan became the new base of the Bahia State government-promising its high level of visibility.
  - Private sector interests although not formally recognised in the plan per se, are observed to derive benefits of adopting the plan, such as real estate expansion projects-mostly tourist/ recreational oriented property investments that are notably gentrifying rundown neighbourhoods.
  - Tension is brewing between the City Council and ERCAS, over the city's move to approve incentive laws that will see private developers protected from ERCAS regulations, as they seek to develop the 'upmarket' Sante Tereza development.
  - These investments are projected to profoundly impact on the "pattern of habitation" in the area.
  - Only one low-income housing project (New Hope Village) is part of the regeneration project, and it will target to accommodate just 66 low-income inhabitants and will be built by the Bahia State Urban Development Company.
  - The action of the city council of promoting 'corporate urbanisation' seem inspired by the Porto Maravilha kind of projects, which is observed as the city council's aspiration to transform the historic centre into a middle class and elite district.

## KEY FINDINGS

## INDIA



### Chennai The Information Technology Expressway Mega Project

- Chennai is considered as an IT hub of India, with it hosting headquarters of the top 10 IT companies in the country.
- The Second Master Plan for Chennai Metropolitan Region of 2008 envisioned Chennai's urban development to take shape in the form of corridors of circulation with economic specialisation. The Old Mahabalipuram road became prioritised by the state government as an IT Corridor.
- This megaproject includes a highway infrastructure that supposed to form the transport framework of an IT cluster/zone in the making.
- The project conceptualised as a Special Purpose Vehicle expressway was created in 2003 through a Private-Public Partnership (PPP) between the Tamil Nadu state government and the Tamil Nadu Road Development Corporation.
- A special Land Acquisition legislation, with different rules than those in pre-existing Land Acquisition Act of 1894; the Tamil Nadu Highway Act 2001 was created to facilitate land acquisition. This law fast-tracks land acquisition for public undertaking, actually within only 30 days after notification. In less than 2 years, 48 acres of private land were acquired, through a process which affected 20 localities.



Women-Only Subway Cars in Delhi, India © Shutterstock

- There is institutional fragmentation. The existence of numerous and uncoordinated government agencies, and local governments has resulted to the absence of integrated development in the area.
- The State Government also commissioned Metrowater (Chennai's water supply company) to undertake a special water supply project for the IT corridor area. Another incentive to investors.
- Delays resulted to a significant increase in the project costs, from 21.3 million euros in 2006, to 56.8 million euros, by March 2011. By 2012 Phase 1 of the highway construction was complete.
- Exceptional planning corridor was also created. All new developments, within 500 metres linear buffer from the expressway and are related to the economic growth strategy of the corridor are exempted from certain planning regulations (e.g. leeway to have extra Floor Space Index); as an investment incentive.
- The above incentives, among other factors, have resulted to rapid constructions and constructions of the area resulting to a construction boom of 2008 which saw an oversupply of office space. Other impacts have been displacement/ gentrification of pre-existing localities and unplanned urban expansion.
- Three IT parks, developed at 10 kilometre interval have come up; the TIDEL Park, ELCOT Park and SIPCOT Park. These are major employment areas.
- The urban sprawl that followed saw residential, commercial and IT developments competing for the limited space allocated for developments (500 metres linear buffer 'economic zone')
- ELCOT Park entailed restoration of a marshy land and where numerous urban localities and rural settlements pre-existed. Heightened social tensions followed that, owing to the pressure to accommodate different income groups, activities and buildings in the available land.



- Unlike the expectations, the area has not entirely benefited from economies of agglomeration. Frequent traffic congestions at some sections and the diverse range of traffic hamper its efficiency.
- It is noted that majority of the IT clusters' workers reside further from this area, more than 5 kilometres away and especially support staff (e.g. drivers) who cannot afford the housing costs in the area.
- The road maintenance is also becoming a financial burden and the construction of secondary infrastructure is also lagging behind.
- Also, the relatively high water and power costs are said to limit the financial sustainability of the IT companies located in the corridor.



### **Kalyan-Dombivli** 150 MLD Water Supply Project in Kalyan-Dombivli Municipal Corporation (KDMC)

- The 150 MLD Water Supply Project in Kalyan-Dombivli Municipal Corporation is funded under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) of the Indian government.
- The Central Ministry of Urban Development (MoUD) and the Mumbai Metro Region Development Authority (MMRDA) approved the project in February 2009. Other influential institution in the project is the Kalyan Dombivli Municipal Corporation (KDMC) and the central government Ministry of Urban Development (MoUD).
- The plan was to build a water supply system of 150 MLD from the banks of River Ulhas, with construction activities having commenced in July 2009.
- The Detailed Project Report (DPR); design parameters, O&M, tariff structure and implementation schedule, was drafted by the Consulting Engineering Services (CES), a private firm.
- Public participation in the planning was quite limited, with consultations happening under the City Development Plan process, as per JNNURM guidelines. No meaningful engagements were

conducted per se, directly related with the water project.

- The project did not entail acquisition of vast land, except some land belonging to a local village, Mohili whose acquisition was through a negotiated approach. This deal saw the municipality commit 1.5 hours of water to the village, and provide local employment during the construction.
- Another section of the land belonged to the municipality but occupied by slums, which resulted to their eviction, with majority resettling just on the periphery of the project.
- The funding of the project (estimated to be 38 million euros) was distributed among the national, state and local government, with KDMC having to finance 50% of the project.
- After completion, the water supply will be operated and maintained by the water supply department of KDMC.



### **Delhi** Shastri Park Metro Station and Depot

- This case study particularly looks at the “politics of the planning, building and financing the Mass Rapid Transit System (MRTS)”.
- The project is being implemented by the Delhi Metro Rail Corporation (DMRC), and comprise of the rail infrastructure, apartment and office buildings, and a theme park.
- DMRC was purposely created to develop the metro park, with decision making sitting with the central government, where by the Ministry of Urban Development play an active role in the project.
- The Delhi Development Authority (DDA) and the urban local municipalities committed to provide planning support towards the project, during its early years.
- Delhi Municipal Corporation (DMC) was opposed to the development being exempted from property taxation did not stop the project.

- The project is expected to promote Transit Oriented Development (TOD) in the metro region, where private developers and government derive benefits of higher Floor Area Ratio (FAR), and simplified zoning regulations for land along the metro network.
- The Shastri Park development faces conflicts, arising from local area demands towards the project, as well as issues of social and environmental injustices.
- Two planning instruments; “change of land use” and “zoning” have shaped development in the Shastri Park project on the banks of Yamuna River. At the same time these instruments have been areas of contestation between DDA and DMRC.
- Despite the associated urban sprawl, DMRC is yet to produce a long term vision or ways of integrating the metro station development into the urban sector of the area, only a focus on enhancing a metropolitan network.

## KEY FINDINGS

## PERU



### Arequipa Water and Sanitation System for Metropolitan Arequipa

- This large-scale water and sanitation system aims to improve the services in the whole metropolitan area.
- The target is to meet a deficit of about 250,000 households (“brown agenda”) and to decontaminate the highly polluted Chili River (“green agenda”).
- A mining company, “Sociedad Minera Cerro Verde” (SMCV) is the main actor in this project. Other actors are the metropolitan water company (SEDAPAR), government agencies, local governments, private consultancy firms, and civil society organisations.
- A stakeholder analysis reveals a “conflictive nature” of the relationship between SMCV and the rest.
- Only until 2011 when the SMCV made public the plans to develop the project at its mining camp, did the project gain approval. This happens at the same time when the company’s announced its planned expansion of 3500M USD of its mining activities. The decision was delayed from 2006.
- At the same time, SMCV was already presumed to have the solution to the city’s water and sanitation problems.
- SMCV assumed a public service provision role, which legitimised its operations before the local population, and at the same time this gave the firm room (a public negotiation tool) to expand and to safeguard its interests in the context of growing future water demands.
- The inability of the local government to invest in such a vital infrastructure provides private firms with an effective tool to win the support of the locals, in circumstances that would otherwise have been contested.

## SOUTH AFRICA

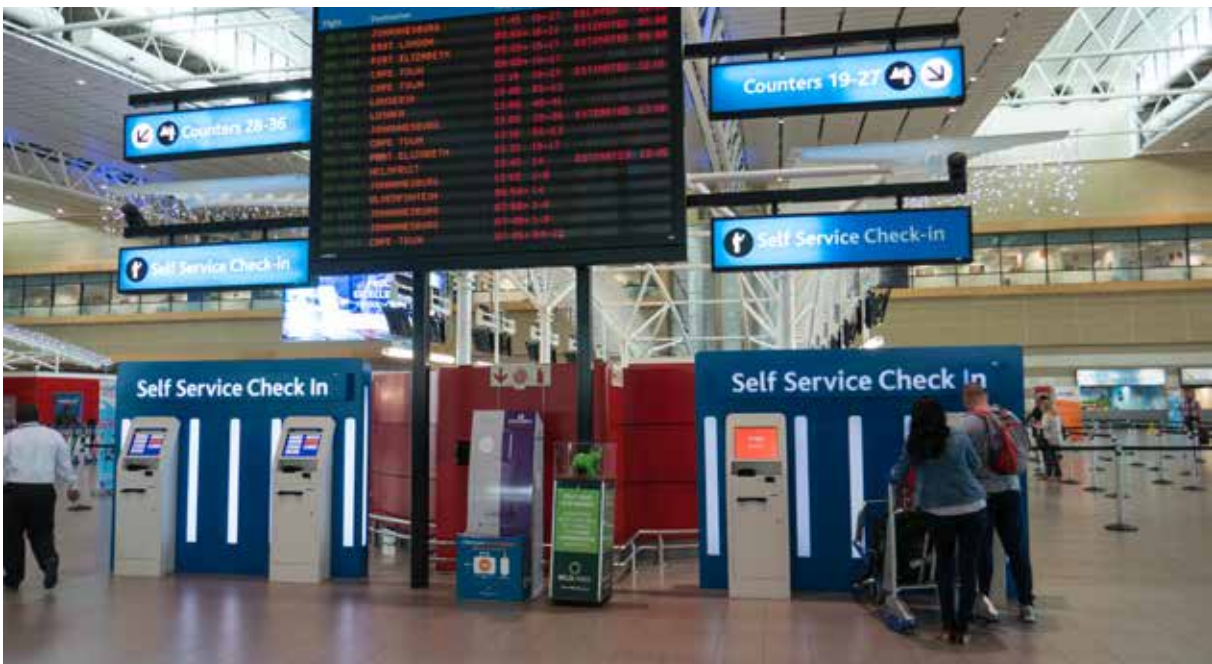


### Durban King Shaka International Airport (KSIA) and Dube Trade Port

- The provincial department of Economic and Tourism Development expressed considerable interest for a new airport in Durban. In that process a working group which later became the Dube Trade Company was formed to engage with Airports Company of South Africa (ACSA) that was initially opposed to the idea.
- Through the National Minister of Transport and after a national cabinet resolution, the project was given the green light in 2006 and construction began in 2007.
- South Africa lacks a formal policy for mega-projects, but the actions of the governments seem to endorse and provide political backings for these projects.
- The KSIA opened for flights in May 2010, and replaced the old airport which was located in the industrial zone of South Durban.
- The implementation of the KSIA was tied with other infrastructures and services that aimed to position Durban in the global market.
- The mega-project caused significant disruptions to the urban planning process in the municipality, compelling the municipality to adjust its planning and resource allocations for the benefit of the project. The provincial government was driving the process.
- There is a challenge of balancing between meeting basic local needs of infrastructure and housing, against the quest for mega-projects that seeks to market Durban globally.
- Political backing, involving deal makings have been the key drivers of implementing these projects in Durban.



King Shaka International Airport, Durban, South Africa. © Shutterstock



- No meaningful participation of the locals in the project.
- The project advances the interests of the private sector, although its implementation lacked an institutionalised structure for the private sector to participate actively.
- About 12, 000 jobs are estimated to have been created by the project-direct and indirect.

## CRITICAL ISSUES AND POLICY CONCERNS

The Chance2Sustain Case studies on megaprojects has brought out critical policy issues relevant to urban planning and development in contemporary Brazil, India, Peru and South Africa. And also relevant to developing countries exposing similar trends- Indeed this is increasing shaping urban development strategies of numerous cities in other countries of the global south. Specifically, these case studies raise issues, related to, and that are important to policy making with regard to the following:

- 1. Implementation Of Urban Development Plans.** The scale of these projects, their institutional set-up, financing and management present critical lessons that policy makers ought to take note of concerning implementation processes. What are the drivers of successful plan implementation? From the findings, key features of implementation are: finance, governance/ organisational structure, politics, urban planning legislation, and the time factor.
- 2. Urban Inequalities and the distribution of growth benefits.** Most of these projects have resulted to unequal distribution of the growth opportunities they offer. This is as well associated with their eviction and displacement aspects, as observed in many of the projects.
- 3. Alternative Strategies to Economic development.** The politics of megaprojects, as witnessed in these cases cannot negate the debate of 'prioritisation' of development programmes. In cities where basic infrastructure and housing needs are yet to be fully addressed, what rationale can policy makers use to promote

megaprojects? The Special water supply project for the Chennai IT Corridor is an example of how megaprojects can shift spending priorities in municipal budgets, and consequently result to reinforcing inequalities in urban development. Alternatively policy makers ought to respond to questions about what possible alternative strategies to economic development exist in their cities.

- 4. Participatory Governance and Inclusive Development.** Governance of mega-projects and the role of participation demands policy attention. In most of the projects, participation is quite limited and public transparency is not a priority of the project managers.
- 5. Urban Governance Relations.** Mega projects are observed to significantly disrupt local urban governance. The formation of special agencies (e.g. ERCAS in Salvador and DMRC in Delhi) or a higher level of government implementing the project, and with overriding powers above the existing local governments is likely to: a) sideline local municipalities in the decision making processes- weakening their mandate, and b). Cause tension between the agency/higher level of government and municipalities; consequently resulting to poor coordination of overall development plans in municipalities.
- 6. Re (de)fining the role of the Private sector in urban development.** The role of the private sector in urban development is transforming. The power and influence of large construction firms in Brazil, large mining companies in Arequipa, Peru and the influence of private developers over Salvador city council to the point of undermining ERCAS are worth noting.
- 7. Re(de)fining the role of Infrastructure in urban development.** Infrastructure development and its relation to economic growth have to be reconsidered in contemporary urban development. The case of Porto Marivilha project clearly indicates that infrastructure is no longer a facilitator of growth but it's at the very core of this growth.

**8. Megaprojects and Urban Transformations.**

As observed mega-projects have the capacity to reconfigure the social-spatial character of cities, but their planning and implementation is not always aligned to existing development plans of these cities. The product is urban sprawl and unplanned urban expansions that are characterised by the traditional challenges; environmental, infrastructural, socio-economic etc.

**9. Financial Sustainability and Impact on**

**Municipal Budgeting.** The long-term impacts of these projects on city budgets are vital to be understood at the planning phases. As observed, the Chennai expressway is already demanding a substantive budget to maintain and provision of water and electricity to the IT clusters is becoming expensive for businesses. This raises the issues of cost-benefit analysis of promoting this kind of projects. The long-term impacts of these projects on city budgets are vital to be understood at the planning phases.

**10. Impact on Planning Laws, including**

**Environmental Laws.** The exemption of megaprojects from full regulations as provided by existing planning and environmental laws is major policy concern. First, this calls for the evaluation of the efficiency of current planning law regimes and secondly the need to understand the future impacts of these 'exemptions' to urban growth management. Policy makers ought to clearly understand the impact of the precedents so far.

**11. Urban Land Policies.** The land acquisition processes and the impacts on land markets, causing land speculation are fundamentally important to policy makers. The plight of displaced indigenous communities cannot go unresolved if megaprojects really mean to meet the imperatives of sustainable urban development.

**12. The environmental impact of mega-projects is not adequately understood.** This is because their audit is subjected to exceptional regulations and with little public scrutiny.

**13. Mega projects either are planned on green fields or involve urban redevelopment.** It is this placement that becomes a major challenge to manage in the context of exiting urban patterns.

**Sources:**

<sup>1</sup>Kennedy, L. (2013). Large-Scale Projects Shaping Urban Futures: A Preliminary Report on Strategies, Governance and Outcomes Based on Eight Case Studies in Four Countries. Bonn: Chance2Sustain EADI. / <sup>2</sup>Kennedy, L. et al. (2011). The Politics of Large-Scale Economic and Infrastructure Projects in Fast Growing Cities of the South: Literature Review. Bonn: Chance2Sustain EADI. / <sup>3</sup>Varrel, A. and Kennedy, L. (2011). Megaprojects and Mega-events: Policy Brief. Bonn: Chance2Sustain EADI. / <sup>4</sup>Lavelle et al (2013). Urban Chances in Brazil: City Reports, Guarulhos, Salvador, and Rio de Janeiro. Bonn: Chance2Sustain EADI. City Report. / <sup>5</sup>Chance2sustain (2014). Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: Chennai City Report. Bonn: Chance2Sustain EADI. City Report. / <sup>6</sup>Baud et al (2013). The Development of Kalyan-Dombivili; Fringe City in a Metropolitan Region. Bonn: Chance2Sustain EADI. City Report. / <sup>7</sup>Sara et al (2014). Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: City Report-Metropolitan Lima and Callao. Bonn: Chance2Sustain EADI. City Report. / <sup>8</sup>Surtherland et al (2014). Durban City Report. Bonn: Chance2Sustain EADI. City Report.

### Combining Fiscal Decentralisation, Participatory Budgeting, and Inclusive Development



*The main concern is to find out to what extent fiscal decentralization has opened up opportunities for including local knowledge and spatial information in participatory budgeting processes, what local political and institutional factors influence them, what aspects of sustainable development are incorporated, and what trade-offs are made.*

Source: <http://www.chance2sustain.eu/5.0.html>

Community meeting. Woman raises hand to speak. Aurangabad, India.  
© Simone D. McCourtie/World Bank



## Key issues Addressed:

1. What are the types of constitutional mechanism/ arrangements for decentralisation and participation?
2. Do knowledge flows (GIS/SDI) affect processes of (de- or re-) centralisation in budget making?
3. What forms of participation exist in budget making and who can participate and how?
4. What kinds of network organisations are involved in budget making and what kinds of scalar arrangements exist?"

## KEY FINDINGS

## BRAZIL



### Guarulhos, El Savador, Rio de Janeiro

- In Brazil, the research work established that participatory governance is institutionalised with a legal framework at each level of government.
- Brazil is a leading example of participatory budgeting (PB) in Latin America, but this achievement varies from city to city.
- The Civil Society Organisations (CSOs) in Brazil rather than the government have been more instrumental in participative institution design. This is important as through this, they have mobilised the vital social capital that is imperative for sustaining PB processes.
- The ability to sustain a participative institutional context for PB in Brazil has been achieved through: a) having an institutional design, where councillors do not deliberate, b) strong local civil society, and c) political will of the executive.
- Existence of numerous CSOs in Guarulhos has made PB more successful than in Rio and Salvador, where CSOs are few(er). In addition, the lack of sufficient political will has worsened the PB performance in Rio and Salvador.
- Guarulhos citizen participation in PB processes is decentralised to the neighbourhood level and the city encourages the growth of popular organisations.
- The PB process in Guarulhos has resulted to council's passing more Acts, active involvement of citizens in municipal budgeting processes and improved citizen-government relationships.
- Informal networks of vested interests have captured PB processes and in turn managed to influence decision making in El Savador and Rio de Janeiro local governments.
- A combination of strong CSOs mobilisation process, with strong political will is thus critical for successful PB processes as witnessed in Guarulhos
- At national level, the country has a PB network, which is chaired by the city of Guarulhos, which has the most advanced PB process in the country. This network has enabled the spread of PB practices across the country, where cities have become the incubators of PB.

## INDIA


**Kalyan-Dombivili,  
Chennai and Delhi**

- India constitution stipulates expenditure and resource responsibilities as the mandate of the Union and State governments.
- The country has two main commissions; a) the Finance Commission-FC (union and state level) and b) the Planning Commission-PC (union and State level). FC ensures there is equity and efficiency in state allocations by undertaking constitutional transfers, while PC undertakes discretionary transfers to states.
- This discretionary transfer, of grants and loans, are determined by political agents at 30:70 (Grant: Loan) % ratio general states and 10:90 (Loan: Grant) % ratio for special states.
- The states have been assigned developmental roles, but major taxes remain as the domain of the union government.
- At national level there is the Fiscal Responsibility Management Act and every state has the State Finance Commission (SFC) for allocating funds to local governments within.
- The government also allocates every elected official a development fund: Members of Parliament-MP LADf, Members of the legislative Assembly-MLA LADf and Ward Councillors-Councillors LADf.
- The cities have a high dependency on higher levels of government for their funding capital and revenue expenditure. This reduces autonomy of the cities; and hence affecting budgeting and expenditure.
- There is a high political influence in budget investments and the outcomes. In this eventuality, long-term goals are likely to be traded-off with short-term goals or implementation of projects that do not address the pressing needs of the citizens, at a particular period and location.
- The form of participation in budget making is through political participation. The people are represented by elected representatives and very minimal direct participation by the citizens.
- The people's needs for infrastructure highly deviate from those in budget estimates-in terms of sectors and spatial distribution. Assuming that people needs are mostly basic, e.g in line with MDGs the chances of piling the backlog and deviating investments to none-pressing needs would mean limited efficiency of municipalities in addressing universal access of basic services.
- The elected representatives have little knowledge on national and international goals e.g. MDGs or benchmark indicators for services or inclusive budgeting. This lack of awareness by these representatives undermines the attainment of the overall goals of participation that have been set at higher levels of government. To recast this, it will need concerted efforts of capacity building among elected representatives in these cities or even the strengthening of oversight institutions.



## PERU


**Callao, Lima,  
Arequipa**

- In July 1992, Peru created the decentralisation Framework law, and additional laws came in 2002: the organic law on regional government, district and provincial municipalities in 2003.
- Democracy introduced mechanisms for citizen participation-regional and local coordination councils, 'concerted' development planning, PB and accountability and oversight schemes.
- A PB framework law was also created.
- The government is still yet to have in place the organic law for executive power, which will allow fiscal decentralisation to the lower levels of government
- Over the years, the government's share to local governments has decreased, while their expenditures have increased.
- Participation in PB is mainly through elected representatives, with little improved performance at local level.
- The Peruvian PB is best described to be at the developing stage, because it's still structured in a top-down approach.
- Local authorities have to align with annual national budget, they lack clear responsibilities or own source revenues and have no efficient monitoring and evaluation mechanisms, as well as having no incentives to prioritise.
- Accountability and oversight schemes have been inefficient. The absence of clear appreciation of their risks, limited access to public information and inability to self-fund has limited the success of the accountability and oversight schemes.
- The city of Lima, Callao and Arequipa have experienced budget increases between 2005 and 2010, as well as increase in capital expenditures. This is however not accompanied with higher efficiency.
- Overall, clear fiscal decentralisation, adequate political will, regional consolidation and expenditure efficiency undermine the achievements of PB in Peru.

## SOUTH AFRICA


**eThikwini/Durban**

- Key Findings-Country Level
- Municipalities are the key decentralised units in South Africa
  - The country has three levels of government; national, provincial and local governments (municipalities).
  - The municipalities are by law required to formulate Integrated Development Plans (IDPs). IDPs are associated with the country's focus on resource or revenue redistribution after independence (1994), which was followed by the formulation of the Inter-governmental Fiscal Relation Act (1997), provides the framework for determining equity in revenue allocation among the three levels of government.
  - The provincial governments have no law making powers; this is the mandate of the national government.
  - The historical background of the country has permitted very little revenue autonomy for municipalities. This means that financially, the local governments heavily depend on national government budget.
  - Most of the central government funds to local governments are conditional funds-which limits spending autonomy and consequently limiting active participation of citizens in budgeting.

- The country constitution encourages participatory processes in public policy, but at local level citizens lack direct control of budget funds, although the Municipal Finance and Management Act (2003) legislates participation in budget making processes.

eThekwini Municipality Experience in PB:

- eThekwini is known as a leading example of “effective government and PB experiment in Africa”.
- The municipality have 3 main models of participation: a) government conducting public consultations, b) through elected representatives (councillors) and b) through active participation in the ward committees.
- Wards committees are inefficient because they simply are grouping of various interests and which political parties have captured; hence limiting their efficiency in articulating citizen agenda in policy making.
- The ward committees are merely “advisory bodies and have no executionary powers”; hence, participation is more of consultation.
- eThekwini municipality has no institutionalised and integrated structure for participatory governance.
- The barriers to active participation in eThekwini: lack of capacity building, technical walls (lack of clarity on matters for discussion), lack of transparency in review of inputs, and centralised “block” allocations that lack space content (except in large projects).
- The municipality has devolved service provision but this is constrained by limited revenue. Housing, which is a key policy priority in South Africa, is more of a devolved function than a decentralised one.
- The grants from national and provincial governments dominate the expenditure of the municipality. Most of these grants are conditional, which reduces the municipality’s autonomy on spending.
- The efficiency of the municipality is limited by, among other factors: corruption in procurements, inadequate capacity resulting to reliance on consultancies and negative influence by party politics.

## CRITICAL ISSUES AND POLICY CONCERNS

Fiscal Decentralisation, Participatory Budgeting and their relation with inclusive development vary among countries and even cities, as revealed by the Chance2Sustain research work. However, despite these variations, each case presents critical policy issues that inform urban governance policy in various contexts. The following are the emerging policy concerns:

- 1. Effective level of decentralisation.** The research show that efficiency vary at different levels of decentralisation and among countries, and success is not just guaranteed by legislation alone, but the manner in which each city/local government approaches decentralisation as provided within certain legal frameworks.
- 2. Stakeholder Mobilisation.** The contrasting indicators among cities in Brazil calls for a reflection on whom should policy target for successful PB processes. Key stakeholders include political leaders (e.g. councillors), CSOs, local government bureaucrats. Stakeholder mobilisation can possibly make the difference in PB process among cities under same national policies.
- 3. Political Process and Participation.** Active/ direct citizen participation works well in cities with a history of embedded political processes.
- 4. Capacity Building and Accountability Checks.** Specifically, for elected representative model e.g. in India and South Africa, this demands adequate capacity building among the elected officials, and a structure for integrating public views is necessary, as well as an accountability mechanism. Encourage strong CSOs in this model, as reinforcement to oversight mechanisms.
- 5. Sustaining PB Processes.** For long term sustainability of PB, strong participative institutions that are grounded on citizen process rather than short-term political gains ought to be promoted. The dependence on electoral cycles as witnessed in India’s case, is a clear indication on how such approach is vulnerable as opposed to PB processes that are institutionalised and driven by citizens e.g. in Guarulhos, Brazil.

6. **Institutionalising PB Processes.** It is important to create and develop participative institutions at all levels of government structure, and certain principles have to drive the process. Creating a supportive legal framework, which outlines the spaces for participation, creates oversight mechanisms and delinks PB processes from the electoral cycles, is the departure point for implementing PB in governments.
7. **Importance of Social Capital in PB.** This is related to social mobilisation. Social capital is a key ingredient for a successful PB process; hence policy makers should encourage the work of CSOs in social mobilisation for PB. Only a solid socially mobilised constituency is able to counter elite interests in city budget making processes
8. **Accountability and transparency mechanisms.** These are imperative where forms of fiscal decentralisation exist. The Peruvian experience raises fundamental policy concerns regarding oversight mechanisms. In this case it implies that oversight mechanisms should be tied with a clear mandate, with access to public accounts information, adequate funding and supportive legislative framework. An oversight mechanism without the requisite capacity (resources, skills and legal backing) is a redundant one.
9. **Balancing Interests:** All actors have vested interests in PB. The mediation of this interests if what defines the success that PB processes can achieve in specific contexts. The successful institutionalisation of participative processes in Guarulhos mean that PB processes can also be successful in large cities, given that all actors share a common vision and are guided by shared principles of: -accountability, transparency, inclusiveness etc.
10. **Capacity of Local Governments to Uptake Budgets.** It is critical for local authorities to be capacitated to improve their efficiency, if their uptake of budgetary allocations has to increase to desired level.
11. **Historical Background and its relevance to decentralisation policies.** The specific experiences of Peru and South Africa ignite issues of historical backgrounds and how that influences the nature of governance structures, including PB processes, financial autonomy, and institutionalised participation.
12. **Spatial Dimension in Participation.** The Chennai case unpacks fundamental policy concerns and which speaks to the impacts of boundary merges and extensions, to urban governance. It is evident from this case that municipal mergers and administrative demarcation in cities is likely to hamper active participation, if such is not accompanied by forming participative institutions, with a spatial dimension.
13. **Quality of Political Leadership.** Political leadership is another area of policy concern. Without building the capacity of these elected officials, who represent citizens in policy and budget making, there will be little success in participatory development.

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## Sources:

<sup>1</sup>Sridharan et al (2012). *Fiscal Decentralisation, Participatory Processes & Inclusive Development. WP-6 Combined Field Report*. Bonn: Chance2Sustain EADI. City Report. / <sup>2</sup>Lavelle et al (2013). *Urban Chances in Brazil: City Reports, Guarulhos, Salvador, and Rio de Janeiro*. Bonn: Chance2Sustain EADI. City Report. / <sup>3</sup>Chance2sustain (2014). *Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: Chennai City Report*. Bonn: Chance2Sustain EADI. City Report. / <sup>4</sup>Baud et al (2013). *The Development of Kalyan Dombivili; Fringe City in a Metropolitan Region*. Bonn: Chance2Sustain EADI. City Report. / <sup>5</sup>Sara et al (2014). *Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: City Report-Metropolitan Lima and Callao*. Bonn: Chance2Sustain EADI. City Report. / <sup>6</sup>Surtherland et al (2014). *Durban City Report*. Bonn: Chance2Sustain EADI. City Report.

### Spatial Knowledge Management in Urban Local Government: E-Governance



*Utilizing spatially disaggregated community knowledge to address needs in a more integrated fashion is still rare and contested by governments. This approach is being developed within the research program on urban poverty currently undertaken by the GID (AISSR-UvA) with SPA in several Indian cities. This model will be used in the 10 participating cities to analyze the factors contributing to (or preventing) sustainable development, and integrate the issues included in this research project: economic analysis, the poverty / inequality analysis, the environmental risk assessment issues, and the funding patterns and exigencies analyzed in this project.*

Source: <http://www.chance2sustain.eu/5.0.html>

 Guarulhos municipality, Brazil. © Thomas Brinkhoff



## Key Issues Addressed:

Knowledge management systems combine various processes: first, the actors who produce socio-spatial knowledge and the types of information and knowledge that form part of this knowledge system; second, how knowledge management is embedded in decision-making processes (including aspects of power, sharing, and exclusion); and third, the way knowledge management influences work practices and outcomes”.

Focus: specifically on knowledge management in which local and regional governments play a steering role, both within government itself (G2G- government to government-) as well as in relation to their citizens or from citizens to government (G2C-government to citizen, C2G citizen to government). And also on how knowledge institutions and civil society work with governments to employ various types of knowledge in governance processes.

### KEY FINDINGS

## BRAZIL



### Guarulhos

#### Strategic Urban Planning and Integrated Land-use Planning

- In Brazil, Guarulhos city has for last 12 years given priority to the use of spatial data for decision making in urban development.
- This has resulted to increased municipal investments in the peri-urban and poorly serviced areas, with the aiming of reducing social segregation.

#### The Demarcation and Changing of Municipal Regional Boundaries

- Recent initiatives to formulate a new development plan have employed more use of spatial data, than before. In doing so, cross-sector consultations (government, private sector, and other actors) found this integrated spatial data as reliable for decision making.
- The city is developing a WebGeoportal that is accessible to the public. This portal will have spatial data linked with administrative procedures, which will become an instrument for facilitating an effective implementation of the zoning plan.

- GIS alone, is however not sufficient to determine the intricate issues of municipal boundary demarcations. Tiete River got rectified and in the process the Sao Paulo and Guarulhos municipal boundaries shifted, as well as creating an environmental hazard area. A political mediation approach, aided by the GIS knowledge resolved this.

#### Work processes in Local Government: Administrative Efficiency and Effectiveness

- In Guarulhos, plans are underway to incorporate the administrative procedures of approvals, licensing and monitoring of building projects in the WebGeoportal.
- Guarulhos is a model for web services in service delivery to citizens. These services include paying bills, accessing reports and tracking status of projects/services.

#### Poverty and Needs Assessment Mapping and Location of Facilities

- Poverty mapping was undertaken in early 2000s but after a new government that had a different policy approach, did not follow this work.
- The previous work was disseminated to the public and to an extent used to inform policy.

## INDIA

**Kalyan-Dombivili**

## The Demarcation and Changing of Municipal Regional Boundaries

- In Kalyan Dombivili (KD), the integration of the spatial dimension is mainly appreciated by policy makers, because detailed local level spatial information is not publicised.
- KD City Development Plan (CDP) is said to integrate a spatial component, but largely at city level, with minimal focus on spatial (re)-distribution of service provision.
- The KD CDP mentions spatial dimensions of for example; slum improvements and road works, but these were found not to have been directly communicated to the public domain; hence limiting efficiency of this knowledge in urban governance.

## Work processes in Local Government:

## Administrative Efficiency and Effectiveness

- Strategic urban planning in India has focused on physical expansion of cities-with land-use zoning and building infrastructure for services and transportation. It is only recently when through a central government initiative, urban development authorities and local governments (with the exception of KD) started integrating sectors such as housing, water and transport into City Development Plans (CDP).

- The success of this system has been the well-received by the urban local governments since it has the potential to improve municipal revenue collection, monitor developments and help improve government services to citizens.
- KD had initiated its own programme before the entry of the JNNURM programme, and the successful results of this municipality are being replicated to other municipalities in the Maharashtra state.
- Target areas for the KD programme have been properties and utility billing, which has had significantly impact on increasing water billing revenue and have streamlined property rate assessments.
- Nationally, India's e-governance programme is constrained by inadequate integration of spatial techniques, inadequate security to the systems-leading to data corruption and poor coordination of the programme implementation.
- Poverty and Needs Assessment Mapping and Location of Facilities
- In India, there is a recent national programme on poverty reduction and slum eradication, which incorporates GIS-based slum mapping. This mapping is supposed to be participatory, but in KD and Chennai where the work was undertaken (by consultants), it emerged that the locals did not actively participate.

## KEY FINDINGS

## PERU



## Callao

## Strategic Urban Planning and Integrated Land-use Planning

- In Peru, since 2009, the Callao regional government started a programme aimed at integrating ICT and GIS (ICT-GIS) knowledge management (KM) systems in regional planning.
- The Callao ICT-GIS process is driven by the regional government and involving government line departments, municipalities, NGOs and knowledge institutes.
- The process is aimed at advancing land-use planning and making spatial data available for decision making in the region.

## The Demarcation and Changing of Municipal Regional Boundaries

- The establishment of physical limits in boundary demarcations is a sensitive issue in Callao. This necessitates the extensive application of technical surveys and carrying out public consultations.

## Work processes in Local Government: Administrative Efficiency and Effectiveness

- In Lima, thematic GIS information cadastral data with zoning information is available to the public for sections of Lima and other districts.

## KEY FINDINGS

## SOUTH AFRICA



## Cape Town and Durban

## Strategic Urban Planning and Integrated Land-use Planning

- In South Africa, the post-independence era has been characterised by government's efforts to restructure the segregated apartheid city.
- The spatial dimension has remained central focus to the country's urban development, which has compelled local governments to undertake Spatial Development Frameworks (SDF), where integrative policies are prioritised, to promote 'compact city' development and containment of urban sprawl.
- In Durban and Cape Town, the cities have advanced into integrating spatial data with other databases, whose product have been crucial in decision making.

- The success of these efforts has been limited by counterproductive developments (neo-liberal developments) that have gone against approved local development plans. E.g. the City of Cape Town approved the development of Century City and in Durban the Gateway development was approved.
- Integrated Development Plans (IDPs) have by large also diluted the spatial discourse in South Africa's urban development.
- In the city of Cape Town, the spatial structuring elements include: urban edge with densification, open space system, system of centres and nodes, and public transport corridor.
- In Durban the private sector development has compelled the city to expand the urban edge to accommodate large scale projects, including the recent 'aerotropolis'-King Shaka International Airport and Dube Trade port.



#### The Demarcation and Changing of Municipal Regional Boundaries

- In South Africa, municipal boundary demarcations are often a contested political process; making such processes lengthy and involving series of stakeholder consultations.
- Through linking census data and GIS base maps, inequalities were spatially represented during the 2002 demarcation of the Durban municipal area, which aided in arriving at a conclusive decision among all key stakeholders.

#### Work processes in Local Government: Administrative Efficiency and Effectiveness

- Durban has managed to create a geo-referenced database for all properties in the city, and the property register data to public through the eThikwini municipality website.

#### Poverty and Needs Assessment Mapping and Location of Facilities

- In Durban, the infrastructure branch has developed a composite deprivation index (CDI) for each of the 17 planning zones in the city. This index is reported to determine budget allocations for infrastructure.
- Through the support of Council for Scientific and Industrial Research (CSIR), Durban has developed spatial modeling tools: a) Access to services model-the demand and supply, and b) the cost surface model, which calculates cost of servicing land for development purposes.
- They both provide vital support information for planning infrastructural investments.

## CRITICAL ISSUES AND POLICY CONCERNS

The analysis in this theme reveals the importance of participatory spatial knowledge management in urban governance for sustainable development. The findings demonstrate the various aspects of policy that policy makers ought to pay attention to. These includes the following:

### 1. Spatial Dimension in Municipal Decision Making.

The spatial dimension of urban development can significantly be transformed by the use of ICT-GIS based tools to map issues like, municipal investments, inequalities/poverty, and land use patterns and for conducting public-engagement in plan making processes.

This use of ICT-GIS tools can also be used for enhancing efficiency of decision making relating to boundaries and administrative areas' demarcation in cities.

Spatially specific data is useful in determining more efficient budgetary allocations to infrastructure and services that targets the urban poor.

### 2. Improving Service Delivery and Revenue Generation in Utilities.

The use of ICT and GIS based knowledge management in urban managements has its inherent advantages, mainly improving service delivery and increasing revenue collection in utilities e.g. water, electricity etc.

### 3. Improving Land Administration and Property revenue Generation in Municipalities.

ICT-GIS systems can be deployed to manage data for land and property records, e.g. geo-referenced cadastral maps which can aid in effective management of land processes and collection of revenue from properties.

4. **GIS In Integrated Urban Planning.** The use of spatial GIS models for urban development planning, that combines land-use planning, infrastructure and housing development planning makes it become a vital tool for guiding sustainable urban development.

5. **Enabling the Integration of Spatial Knowledge Management in Municipal Processes.** It is vital for policy to consider; incorporating local knowledge, co-production of knowledge and creating participative structures for mobilising the people to participate in generating the data.

The use of spatial GIS models for urban development planning, such as infrastructure and housing developments is one of the several applications of spatial knowledge management in improving urban governance for sustainable development.

6. **Participatory Spatial Information and Incorporation of Local knowledge in expert knowledge.** There is need to expand the room for participation in producing spatial knowledge, and exchange of spatial knowledge across diverse set of actors.

7. **Addressing the Challenges to Spatial Knowledge Use in Municipalities**

a. Sharing of information across line departments in municipalities need to be improved and efficiently coordinated.

b. Copy right issues, where private firms are engaged to develop networks, need to be interpreted as one of the limitations to sufficient uptakes of networks in municipalities; hence, capacity building in local government need to be prioritised.

c. It is vital to ensure good governance prevail in local governments, to avoid 'sabotage' of ICT-GIS based systems by corrupt officials.

d. Increasing input of community knowledge

e. Using ICT-GIS technologies that are user-friendly and that can permit actors of different kinds to interact with.

f. GIS knowledge is still debated whether it offers the desired validity and reliability. In that regard involve all key stakeholders is vital in developing spatial knowledge and its management in local governments.

#### Implications for Future

8. **Spatial Knowledge management is observed as strategic tool for guiding urban development and more productive where it is combined with participatory processes and devolved financial processes.**

9. This way, **prioritisation of budget allocations can potentially be linked to spatial locations;** hence, promoting inclusive development.

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## Sources:

<sup>1</sup> Baud et al (2011). *Developing Participatory 'Spatial' Knowledge Models in Metropolitan Governance Networks for Sustainable Development: Literature Review*. Bonn: Chance2Sustain EADI. / <sup>2</sup> Baud et al (2013). *Spatial Knowledge Management in Urban Local Government: E-Governance in India, Brazil, Africa and Peru. WP5 Fieldwork Reports*. Bonn: Chance2Sustain EADI. / <sup>3</sup> Baud et al (2011). *Knowledge Production in Urban Local Governance Systems: Policy Brief*. Bonn: Chance2Sustain EADI. / <sup>4</sup> Lavelle et al (2013). *Urban Chances in Brazil: City Reports, Guarulhos, Salvador, and Rio de Janeiro*. Bonn: Chance2Sustain EADI. City Report. / <sup>5</sup> Chance2Sustain (2014). *Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: Chennai City Report*. Bonn: Chance2Sustain EADI. City Report. / <sup>6</sup> Baud et al (2013). *The Development of Kalyan Dombivili; Fringe City in a Metropolitan Region*. Bonn: Chance2Sustain EADI. City Report. / <sup>7</sup> Sara et al (2014). *Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: City Report-Metropolitan Lima and Callao*. Bonn: Chance2Sustain EADI. City Report. / <sup>8</sup> Surtherland et al (2014). *Durban City Report*. Bonn: Chance2Sustain EADI. City Report.

# Chance2Sustain

## Research Findings

WORK PACKAGE WP4

### Water Governance in Times of Uncertainty Complexity, Fragmentation, Innovation



*Urban environmental issues are often portrayed in terms of two distinct agendas. Research on the 'unfinished' or 'brown' agenda encompasses the conventional environmental health issues. Research on the 'green' agenda focuses on the other environmental dimensions of urban sustainable development, nowadays often with a focus on its potential impact on climate change. This research will map out complementarities and conflict arising from integrating the green and the brown agenda across fast-growing cities, with a focus on water and related energy issues. In scenario-building exercises with relevant local stakeholders in the relevant cities the predicted consequences of climate change will be taken up.*

Source: <http://www.chance2sustain.eu/5.0.html>

 A water tap. © Melody Lee/World Bank



The first phase of this study, where these findings and their implications are derived, was purposely done to address these questions:

1. Who are the major actors involved in water governance in metropolitans, cities and what capacities do they have that allow them to deal with water related climate change vulnerabilities?
2. What are the socio-economic and environmental conflicts and power relations between these actors in relation to water and water related issues?

3. Which participatory practices and processes of knowledge construction in water governance are currently in place in the case study cities, and to what extent are the expected effects of climate change already taken into account?

The study selected five (No.) cities, of which three are located in countries with abundance of water resources, but with inequalities in water distribution. These are in Brazil and Peru. The other two case study cities are located in countries that experience water scarcity; India and South Africa. In Guarulhos, the Tiete Linear Park project affects the local community.

## KEY FINDINGS

### BRAZIL



#### Guarulhos

- Among the four countries studied, Brazil has the most elaborate structure of water governance at basin level.
- Brazil has created basin management committees and sub-basins respectively.
- Guarulhos is among 9 municipalities within the Tiete' Cabeceiras sub-basin.
- The country has an established Integrated Water Resource Management (IWRM) and water supply in some cities entails inter-basin water transfers.
- Inter-basin water transfers have been associated with conflicts and tensions. Between Sao Paulo and Guarulhos, the bulk water supplier (SABESP) had to evaluate other sources of water, over heightened tension in the PCJ basin.
- The national water company (SABESP) is a privately run, but with a majority stake owned by government.
- Brazillian municipalities are allowed to opt for other service providers. Guarulhos has its own water and sanitation company (SAEE) but relies on bulk supply from SABESP.
- In Brazil, the government's efforts to conserve water basins is characterised by a "clear correlation between territory under the conservation code, and level of development". E.g. low economic development in Saleopolis compared to that of Guarulhos is associated with the formers sitting squarely in a water basin, where development is restricted by conservation laws.
- The shift from sectoral to networked approaches has widened the participatory scope in water resources management. Brazil and Peru focuses on multi-stakeholder participation in water governance,
- A variety of stakeholders are involved in knowledge construction. Brazil has an institutionalised structure for participation in water resources management.
- The role of the Brazil River Basin councils include:
  - a. They are platforms for participatory construction of knowledge;
  - b. They provide avenues for exchange of knowledge on various approaches to water governance;

- c. They provide a shared knowledge base that is critical for creating climate change awareness in water resources management
- Guarulhos water sector has four main players:
  - State of Sao Paulo Sanitation Company, which provides water and sanitation services in 350 municipalities.
  - Department of Water & Electricity, the regulatory state agency that grants water concessions.
  - Environmental Regulator (CETESB), and
  - Secretary of Sanitation and Hydrological resources.

## KEY FINDINGS

### INDIA



#### Dwarka/Delhi

- In India, there is a shift towards an Integrated Water Resource Management (IWRM),
- Delhi Jal Board cater for bulk water supply in Delhi/Dwarka-Parastatal body co-owned by government and private sector
- The function of drinking water provision and sanitation was decentralised to the municipals since 1970s
- Dwarka, India has a differentiated service provision
- The city's formal systems of water and sanitation provision have become unproductive, owing to collapsed planning processes.
- To fill the large gap between the city's supply and demand of water and sanitation services, informal water service provision has chipped in.
- A move to clear a slum, Yamuna, to promote a 'green Delhi' was contrarily to the Delhi Slum Policy, which promises to address the unfinished business of the brown agenda.
- Water tables in Delhi have dramatically declined, as phenomenon associated with increased borehole drilling for alternative water supply.
- Multi-stakeholder participation and citizen participation in water governance are rare in India
- An assumption in Delhi/Dwarka has been created that climate change is a concern of the Western countries.
- In Delhi, private water companies operate in parallel to the municipal service provision.

## KEY FINDINGS

### PERU



#### Lima and Arequipa

- Peru's system of water governance borrows from the Brazil experience.
- The Peruvian water law of 2009 created water basins and their respective authorities. E.g the River Chili from Arequipa is under the local water authority of Chili.
- Peru has an established Integrated Water Resource Management (IWRM).
- Inter-basin water transfers have caused conflicts and tensions- The regions of Cuzco and Pun, in Arequipa are in conflict over inter-basin water transfers.
- Responsibilities in water and sanitation provision are highly fragmented in Lima. The results are inefficiencies and inadequate provision of the services.

- The Lima parastatal SEDAPAL is under the national Ministry of Housing and depends on the government for its infrastructural investments (the only water company in Peru without municipal representation on its board of directors).
- The implications of SEDAPAL institutional design have been: a) sidelining of the municipal from decision making regarding water and sanitation investments in the city, and b) SEDAPAL, with discretionary powers, have prioritised service provision to real estate developers, indeed even “invaders”, while undermining the municipal planning and ecosystem needs.
- The electricity company (EDEGEL) runs the dam system; hence it determines water supply and water flows.
- The national entity SUNASS sets the tariffs in Lima.
- Conflicts between mining and environmental conservation are evident, with some mining concessions being located in the headwaters. A mining company controls the water sector in Arequipa, and recently the company has invested in the city’s waste water sector.
- The shift from sectoral to networked approaches has widened the participatory scope in water resources management, to allow multi-stakeholder participation
- Peru created national and provincial water authorities in 2009, but the country’s form of participation is mainly in water governance and not in drinking water supply.
- Arequipa has formed basin committees and the city has started an initiative to develop a shared knowledge base.
- Arequipa authorities recognise the threats of climate change, but instead, they choose to advance infrastructural fixes as solutions.

## KEY FINDINGS

## SOUTH AFRICA



### Durban/eThekwiini

- South Africa is also experiencing the shift towards an established Integrated Water Resource Management (IWRM)
- However, water management still remains a key function of the central government, under the Department of Water Affairs (DWAF).
- The function of drinking water provision and sanitation is decentralised to the municipalities, as from the year 2000. Indeed all basic services are the mandate of municipalities.
- This municipality approach is a combination of a) human rights approach, b) ‘differentiated’ services approach and c) cost-recovery approach.
- Guided by the social equity agenda, the eThekwiini municipality pioneered the provision of free water to the low-income households, starting with 6000 litres/month to the current 9000 litres/month.
- The free water is provided through a variety of level of services (LOS). The areas within the Urban Development Line (UDL) receive full services, and the peripheral and rural areas have been branded as not cost-effective by EWS and thus subjected to ‘differentiated’ services, could be communal taps and tanks, yard taps etc.
- The Civil Society Organisations (CSOs) has criticised this approach, for being discriminative, because the free water is said to be insufficient and the neoliberal approaches of cost recovery implies that adequate water becomes unaffordable to select households.

- In Durban, the Umgeni Water supply, a private company, sell bulk water to EWS
- eThikwini, South Africa focus on citizen participation in water governance. EWS convenes public forums; they call Water Dialogues, which provide citizens and the service provider with an interactive platform. This has resulted to a few incidences of service protests, compared to other municipalities in South Africa.
- The municipality encourages innovation in water and sanitation options among its staff and has an integrated knowledge management system, with a well-developed GIS system. However, the municipality approach is still strong on technical and sectoral aspects, with problem solving aimed at technical and infrastructural fixes.
- Climate change is received by scepticism, although some line departments are trying to integrate climate change responsiveness in their plans e.g. the Environmental Planning and Climate Change Department, and the Storm Water and Catchment Management Department.

## CRITICAL ISSUES AND POLICY CONCERNS

Water Governance in times of uncertainty; where the vital resource is facing increasing demand from multiple user demands in both urban and rural developments. And at the same time the effects of climate change are increasingly adding-up to the unfolding complexity in water governance. The cases studies by Chance2Sustain reveal an urgent call to policy makers to address water governance in a more effective and holistic manner towards sustainable development. In that regard, these policy issues emerge as critical:

1. **Water Governance Policies at all Levels.** The diverse endowment of water resources among countries and regions within countries, as well as having shared water basins requires effective policies at all levels; international to local level.
2. **Key actors and Competencies.** Regarding key Actors and competencies- Evidence show that water governance has shifted from the hierarchies of state-led and sectoral approaches, towards an integrated approach, inclusive of participation and involving a diversity of stakeholders.
3. **Reconsider Integrated Water Resource Management and its principles.**
4. **Importance Of Participation In Water Governance.** Institutionalise multi-stakeholder committees as a tool for improving coordination in water governance.
5. **Megaprojects and Crisis of Inter-Basin Water Transfers.** Mega-projects have environmental aspects e.g. water supply and hydro-power infrastructure. Without the involvement of citizens, and their continued exception from existing planning laws, then chances of sustainability becomes slim.
6. **River Basin Approach to Water Governance.** Consider promoting river basin management, and establishing multi-stakeholder committees/ bodies for basin management.
7. **Water Supply Institutional Design.** It is the institutional set-up of water provision that largely determines how decentralised services are executed; hence, promote an institutional design that integrates water management and is participative.
8. **Environmental Compensation and Urban Development.** Consider compensation for environmental services offered by municipalities that are subjected to conservation laws, as these has been found to slow development in such areas, while providing water resources for other municipalities. The equitable distribution of urbanisation opportunities has to be promoted.
9. **Implications for the Commodification of Water Resources.** By all means, the complexity of balancing between cost-recovery and attaining universal access to water in unequal urban society cannot escape policy redress. Policy makers will have to diverse means of progressing towards sustainability.
10. **Alternatives to Municipal Water Supply Services.** The role of informal water service provision in cities needs to be revisited.



- 11. Importance of Urban Planning to Water Governance.** Specifically, the failed water supply system in Dwarka India is largely attributed to poor planning matched with rapid urbanisation. For that reason, it implies that policy makers ought to appreciate urban planning as a tool capable of guiding sustainable delivery of urban water and sanitation services in municipalities. Such planning facilitates fiscal planning for investments in adequate water and sanitation infrastructure, by informing optimization of such investments. For example it is unclear (from this research) to what level are the water and sanitation projects in Arequipa and Kalyan Dombivli informed by integrated urban development plans.
- 12. Social Equity in Water Supply in Cities.** The case of Chennai in WP2 reveals that the Metro government commissioned the Metrowater company to prioritise water supply for the IT corridor, meaning special treatment to a

megaproject supposed to cater mainly middle and upper class was given special treatment over other areas in the city. The result is a likely escalation of the existing inequalities. Thus, a policy framework that incorporates the simultaneous attainment of the two or even more urgently, concluding the unfinished business of the brown agenda is fundamentally critical for global south urbanisation.

- 13. Green And Brown Agendas In Water Governance.** The clashes between the green and brown agendas imply that there cannot be a green agenda, without first responding to the demands of the brown agenda.
- 14. Create Awareness about Climate Change Impacts on Water Resources.** Moving to the future, cities and populations in these cities will need access to facts and information regarding climate change, and its impact on sustainability including, the provision of water services.

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## Sources:

<sup>1</sup> Hordijk et al (2013). Water Governance in Times of Uncertainty: Complexity, Fragmentation, Innovation. WP 4 Fieldwork Reports. Bonn: Chance2Sustain EADI. / <sup>2</sup> Lavelle et al (2013). Urban Chances in Brazil: City Reports, Guarulhos, Salvador, and Rio de Janeiro. Bonn: Chance2Sustain EADI. City Report. / <sup>3</sup> Chance2Sustain (2014). Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: Chennai City Report. Bonn: Chance2Sustain EADI. City Report. / <sup>4</sup> Baud et al (2013). The Development of Kalyan Dombivili; Fringe City in a Metropolitan Region. Bonn: Chance2Sustain EADI. City Report. / <sup>5</sup> Sara et al (2014). Metropolitan Lima and the Sustainability Challenge Growing Cities in Growing Economies: City Report-Metropolitan Lima and Callao. Bonn: Chance2Sustain EADI. City Report. / <sup>6</sup> Surtherland et al (2014). Durban City Report. Bonn: Chance2Sustain EADI. City Report.

### Addressing Sub-Standard Settlements

“Urban governance studies show that territorial scale, and type of stakeholders involved in local governance networks may differ from those involved in political party work. Poor people networks are crucial to understand local mechanisms in place for reproducing or reducing poverty. The project will map urban inequality (poverty and segregation), the urban political-administrative system, and campaigns for social inclusion and environmental upgrading of sub-standard settlements. Taking the various country contexts into account, the project will analyse how the interaction between the various types of social and political actors – poor people networks, CSO networks, government – can promote social / environmental aspects of sustainable development.”

Source: <http://www.chance2sustain.eu/5.0.html>

Imizamo Yethu Hout Bay, Cape Town. © John Hogg/World Bank



Questions Addressed by the Fieldwork Study:

1. What role do poor people networks and civil society organisations play in order to upgrade sub-standard settlements?
2. What are the contents of government policies towards these settlements
3. Are the policies responses to social mobilisations?
4. Do they cause demobilization or increased mobilisations?
5. Do the policies result in sustainable improvements of sub-standard settlements and in reduced social spatial segregation in cities?

## KEY FINDINGS

### INDIA



#### Delhi

In recent years, India's ambitions to turn her metropolises into a "global cities" have witnessed major restructuring of cities, including Delhi-the capital city. Several city re-imaging projects have been associated with mega-events, for example, the Commonwealth Games of 2010, which led to major urban renewal projects and large-scale infrastructure projects such as the Delhi Metro rail. In addition, the Delhi Master Plan of 2021 recognized more involvement of the private sector in urban development, including the reclamation of spaces-affecting slums and ecologically sensitive areas.

#### Policy Approach

- The national government introduced the 'Slum Free Planning' policy in 2010.
- India has had ad-hoc interventions to sub-standard settlements, mainly provision of basic services as part of poverty alleviation programmes. These programmes are mainly initiated and funded by the central, state governments and international organisations. The programmes include:
  - a. New Strategy for Slum Free City Planning (2011)**
    - This seeks to redress shortage of land, amenities and shelter that lead to slum development (a preventive approach).
    - There is also attention to the upgrading of existing slums, by recognizing property rights and with options for resettlement.

- The programme advocates for strong community involvement. However, financing still remains a major puzzle.

The city of Delhi has had several strategies:

#### *Environmental Improvement of Slums*

- Under this strategy, focus is on basic services and infrastructure. This is mainly through the national programme of JNNURM. This strategy utilized an in-situ approach, which is largely short-term in nature, with no rights of occupancy granted or the protection from evictions.

#### *Site and Service Programmes and Other Resettlement Schemes*

- Beneficiaries are allocated serviced plots. The size of this plot has evolved; in 1960 a plot measured 18.59 sq.km, which reduced to the size of 12.5 (sq.km) during the 19990-2010 period.
- Notably, a significant policy shift is emerging, with the allocation of flats and not plots as before. This is largely attributed to the limitation of site and services, which was noted by the Delhi Master Plan 2021-calling for in-situ rehabilitation.
- The main challenge to these allocations has remained the eligibility criteria.
- The resettlement to peripheral areas has also been criticized, mainly because of the negative impact on employment and access to city opportunities, and social networks. The result is that some of the beneficiaries end-up selling the allocated plots/flats.

- During the preparations for the 2010 Delhi Commonwealth games, demolitions happened along the Yamuni River, which affected more than 40,000 households in 2004 alone. Most of them were not resettled, accordingly.

#### *In-situ Rehabilitation*

- This stems from a national policy, which advocates for the use of the “Mumbai Model”. The approach employs public-private sector engagements in developing multi-storey housing for the low-income, but most importantly with a cost recovery element.
- In Delhi, the adoption of this model has involved various actors: mainly the public sector, the private sector, courts of justice-for public interest litigation, and non-court regulators.

#### **b. Civil Society Organizations (CSOs) in Delhi City Politics**

- Delhi has CSOs engaged in anti-slum demolition campaigns, social mobilization. However there is no significant impact of NGO actions, with regard to slum demolitions, mainly because of: a) initiatives are sporadic and fragmented; NGOs are not strong unified social movements despite having coalitions; c) the CSOs have lost significant support for middle-class political cadres; d) inadequate media support; e) inadequate following from slum households-who are rather busy with daily livelihood survival than keeping up with social movement activities, and f) mobilizations are not responsive enough, as they at times not resonate with social dynamics of the settlements.

#### **c. Case study Settlement 1: Kathputli Colony (KC) (In-situ rehabilitation case)**

The case is presented as an example of an in-situ rehabilitation project in Delhi, done by the Delhi Development Authority (DDA). This follows the Delhi Master Plan for 2021 which prioritized in-situ rehabilitation. In 2009 a tender was awarded to a private firm-Raheja Developers to utilize 60% of 5.22 hectares to develop flats, of which 40% of the flats will be property for real estate markets. The project targeted 2800 families. The work involved temporary relocation to a transit camp, a move that has been a centre of political issues surrounding the project.

#### *Key Issues:*

- Design of the flats: A group of artists from the settlement fear that the flats will have no adequate space allocated to their activities.
- Flat design vs. plots-some families opt for plots rather than flats as the later offers room for expansion, to accommodate growing families.
- Temporary relocation to transit camp-this has elicited fears of ‘never relocating back’ among some families.
- Gender issues-Despite the ‘fears’ and contestations, women appear to be more supportive of the project than men.
- Mobilization-there are numerous challenges facing the scaling-up of mobilization in the settlement. These are mentioned below.

#### *Obstacles in Scaling-up mobilization*

- Lack of unity and strong leadership in the settlement.
- Existence of social dynamics such as caste prejudices and lastly there lacks adequate mobilization at the city level, where to voice stronger opinions and reactions to government policies.
- The above issues and obstacles facing the project have contributed to its slow process. By the end of 2012, the families were yet to move to the transit camp, almost five years after the project commenced. The inadequate consultation with the community characterizes the project, albeit policy stipulations that adequate community consultation should be done.

#### **d. Case study 2: Rajendar Nagar Slum & Motia Khan Municipal Shelter for the Homeless**

During the metro rail constructions in 2000, cases of slum clearance were reported. Resettlements were not accompanied by this event. A second clearance came in 2009, which affected a group of homeless families-from the previous evictions, who had settled at the IARI roundabout space.

This second eviction was largely attributed to the preparations for the Delhi 2010 Commonwealth games. The reason for demolitions was to pave way for the 'beautification drive', an eviction which cost the community 2 lives. This was a pretext of using an international event to advance the cost of the "green agenda" at the expense of the "brown agenda". This triggered a protest movement and the intervention of the judiciary in January 2010.

#### *Social mobilization*

- The social mobilizations triggered by evictions contributed towards the shift from entitlement citizenship to activism's citizenship, as well as more visibility of the homeless. Evicted families were resettled in Motia Khan municipal shelter.
- The social mobilization was relatively successful. This was achieved through: combined effort/action of various CSOs; the use of media-to publicize grievances; and judicial support.
- Although this success was not without the questionable commitment of certain public officers and concerns over community participation and representation, which specifically raises issues of:
  - Who should be consulted in the community?
  - Whose voices are heard?
  - Who speaks in the name of whom?
- The study observed that women voices tend to be ignored; hence, gender representation and internal power relations in communities should be recognized, and caution should be exercised to avoid elite capture of social mobilization processes.
- The invitation for CSOs to work closely with governments has been faced with mixed reactions; (a) it provides an opportunity for governments to recognize grassroots issues and concerns, while (b) it is possibly a move to weaken the CSOs; "co-option of NGOs in the implementation of government schemes".

#### **e. Case Study 3: V.P Singh Camp-Past Successful Struggle and Stalled Rehabilitation Process.**

The settlement is located in the southern periphery of Delhi. The settlement had an estimated population of between 6000-7000 residents in 2011. This is one of the settlements that have been successful

in resisting eviction attempts-"in the name of development". Indeed, the events associated with the Delhi Commonwealth Games 2010 contributed to heightened tension in the settlements-fears of eviction. This is evidence that megaprojects for mega events do impact immensely on sub-standard settlements. This mainly linked to 'beatification' and re-imaging rhetoric, and land speculation which threaten mainly settlements that are centrally located.

In 2006, the DDA had invited bids by private real estate developers to build 3,500 tenements. This resulted to a public-private-partnership (PPP). Subsequently, 14.3 acres were allocated to the qualifying company. What ensued were numerous obstacles in the implementation including: a) environmental compliance issues (since 2009); b) conflicts of interests and c) lack of strong CSO action to support the development.

#### *Factors Hindering Social Mobilisation*

- Lack of urgency-this is mainly because of the nature of social fragmentation in the settlement. The disadvantaged are unable to voice their opinions.
- Social fragmentation-mainly based on caste and 'region of origin'. It is also complicated by the fact that many leaders have political affiliations. The division has played-out well for the interest of the politicians.
- Lack of knowledge-Local leaders became the 'carriers' of information in the settlement.

#### *Emerging Issues and Policy concerns-Delhi*

- Interventions have remained ad-hoc
- Slum demolition and evictions without resettlement continues
- How does the entry of the private sector into slum upgrading change the way projects are undertaken-particularly the impact on participation
- The process of planning and implementation-how can policy makers ensure public good is fostered and how can minority concerns be addressed?



## CHENNAI

Chennai has focused on “sector specific corridors along road infrastructure with heavy investments... as a means to attract investment at the national and international level”. This has directed growth in Chennai, resulting to land speculation. Large-scale projects such as the mass rapid transport and ‘beautification projects’, are common. Part of the results of these strategies is slum demolitions and evictions.

### Policy

- Notable policy interventions in Chennai, have originated from the provincial government-the Tamil Nadu government.
- In 1971, the provincial government formulated the Tamil Nadu Slum Areas Improvement and Clearance. Subsequently, the Tamil Nadu Slum Clearance Board was formed, with a mandate to undertake: in-situ development, in-situ reconstruction, rehabilitation and resettlement.

### Infrastructure Projects and Slum Evictions

- India’s construction of “world class infrastructure” has associated with slum demolition and population displacements. Significant large-scale infrastructure in Chennai City include: Mass Rapid Transport system which began in 1990, Chennai high-speed circular transport corridors (contained in the second master plan of 2008), and Chennai port-Madura royal 19km expressway, which began in 2009 and is likely to displace 12,000 squatter families.
- The restoration of water bodies in Chennai attributed to environmental concerns. This quest for beautification (the ‘Buckingham canal beautification project’) is connected to slum clearance, whereby, an estimated 35, 000 slum households will be displaced- 15, 354 households from the Buckingham Canal.

### a. Case study 1: Buckingham Canal: The case of Arignar Anna Nagar settlement

This settlement is on the canal banks, making it prone to flooding despite local efforts to militate against this. Initially of thatch roof and mud walled housing units, which have significantly been “improved and consolidated over time”. With regard to power and politics, the main actors in this settlement are: elected politicians, political parties, public institutional actors, actors under public-private partnership, and community-although not through structured representation.

### Politics and Social Mobilization

- In July 2002, an eviction from the canal bank affected 2300 families, 500 from AAN settlement. The evictees relocated to the Kannagi Nagar resettlement colony.
- However, these families relocated in flats that were yet ready for habitation. Nevertheless, the families staged little resistance to the eviction and relocation process, mainly because of (a) lack of accurate information on the eviction (although preceding years were characterized by oral warnings), and (b) weak social organizational structure of the settlement.
- Importantly, relocation within the same fringe meant less disruption compared to inner city displacements-where families often get resettlement at the urban periphery.
- Having observed that the evictions were inevitable, the households focused on getting a sort of compensation-in this case in the form of a resettlement flat, which they conceptualized as more strategic than mere confrontation.
- Consequently, a more complex process ensued-that of selecting beneficiaries. In such as process transparency was a major issue of concern.

## SOUTH AFRICA



### Durban Policy Framework in South Africa

- South Africa is among the most progressive country in delivering low-cost housing. Post-apartheid (1994) government has delivered to date more than 2.7 million low-cost housing Units.
- The government is a major player in the housing sector-through delivery of low-cost subsidy housing to the low-income.
- The country has a rich history of collective action-most prominent in the events leading to independence-1994-the struggle against apartheid.
- Post-1994-the ANC set to demobilise the civil society, resulting to the weakening of the later.
- Subsidy housing was a priority for the independence government-ANC
- Reconstruction and Development Programme (RDP) embarked on provision of low-cost housing through a capital top-down model.
- This was followed by Growth and Redistribution Policy (GEAR)-neo-liberal macro-economic policy
- The Department of Housing was renamed to Department of Human Settlements –in 2009 as a shift from housing delivery to more large-scale approach.
- In 1994-2004-Approach to informal settlements was that of ‘eradication’.
- Breaking New Ground (BDG) Policy-2004-2007-focus on in-situ upgrading.
- 2007-2010-back to ‘eradication’
- 2010-National Upgrading Support Programme (NSUP) was set-up, with target to upgrade 400,000 informal settlement units.

### Durban

- City falls within the KwaZulu Natal (KZN) province and managed by the eThekweni Municipality.
- Informal settlements and sub-standard housing is mainly found in areas with distinct geography-hilly terrain, flood-zone areas etc.
- Sub-standard housing is broadly categorised into 3: township housing, peri-urban housing, informal settlements-with insecure land tenure and poor levels of services.
- Informal settlement interventions are highly politicised.

### *Civil Society Organisations in Durban*

- Main CSOs are: Anti-eviction Campaign, landless People’s Movement, Informal Settlement Network, Federation of Urban Poor (FeDUP).
- They rose as a result of dissatisfaction with the ward system and challenge of poor services.
- Main Challenges are: power struggles, political competition, unequal support of NGOs, and ANC top-down structure of Ward structure which demobilises.

### *Implementation of Policies*

- The BNG implementation in Durban has been minimal mainly owing to lack of political will.
- The KZN Department of Housing Strategic Plan for 2004-2007 “ignored ‘innovations’ made by BNG”, rather the strategy passed the ‘Elimination and Prevention of Re-emergence of Slums Act’ in 2007.
- eThekweni Municipality is highly focused on delivery basic services in informal settlements.



**a. Case Study 1: Cornubia-Large-scale Housing Investment in the North**

- One of the presidential lease project for large-scale projects, located 7 kilometres from the King Shaka International Airport
- A product of BNG
- It is an integrated mixed income development of 15-20,000 people, and was developed to counter spatial-economic inequalities at around the airport area.

**b. Case Study 2: Ocean Drive In-Formal Settlement**

- Located close to the new Dube Trade Port
- The community was earmarked for relocation to Hammonds Farm-a low cost housing project. This was the disaster risks posed by the airport activities.

*Actors*

- The main actor is the ANC ward committee for Ward 58-the main community organisation.
- Members of the committee were selected by the councillor
- Churches
- Municipality-housing and delivery of services.

*Critical Issues , Politics and Social Mobilisation*

- The settlement was established through a violent struggle.
- Relocation to Hammonds Farm is main issue of mobilisation\
- Other issues have led to strikes and street protests like lack of jobs
- Political divisions in the community makes it hard to mobilise-lack of collective action

**c. Case Study 3: Russia, Ngqolosi-Peri-Urban Housing in the Outer West**

- A rural area, with distinct terrain and increasing densification.
- Most residents were restricted from urban life by the Group Areas Act of 1950.

*Actors*

- Traditional Authority, ward committee, and municipality.
- Critical Issues , Politics and Social Mobilisation.
- Most residents are satisfied with level of services.
- Little engagements with ward committees.

**d. Case study 4: Low-cost housing and peri-urban housing on the Periphery of the city-The outer West**

- This is an area of RDP housing and traditional housing
- Large population that is faced with increasing unemployment.
- Its growth is characterised by violent confrontation.

*Actors*

- Traditional Authority and Ward system.
- Critical Issues and Social Mobilisation.
- Violent history has defined critical issues that have shaped the settlement.
- Dominance of the traditional authority and ward system in decision making.
- No strong collective action exists.
- Distrust between residents and the councillor, then.
- Various residents fear participation in social protests because of councillor's 'wrath'.-intimidation.

### Emerging Issues and Policy Concerns

- Participation is a highly politicised and contested terrain in Durban; hence social mobilisation is “everyday lived world” of the residents.
- Participation is also controlled- indeed an ‘invited space’ of the state.-The ward structure.
- Councillors act as gatekeepers and often control views and decisions within community.
- There are evident community misconceptions about the role of the politicians and municipality officials; the former is often perceived as the service provider.
- Megaproject developments-King Shaka International Airport and the Dube Trade Port have contributed to relocation of informal settlements, and also said to have created employment opportunities.



### CAPE TOWN

- In 2004, the City of Cape Town (CoCT) launched the Framework for Upgrading Informal Settlements. The first phase of this Programme is the delivery of emergency services to informal settlements.
- This Programme is aligned with the provincial government policies. Other initiatives of the city have been the Violence Prevention through Urban Upgrading (VPUU).

### Actors, Power and Politics in Cape Town

- Apart from the public and private sector actors, the civil society organizations have also been active in improving Cape Town’s informal settlements. Notably is the Slum Dwellers International (SDI), whose Alliance in Cape Town have been involved in social mobilization and partnerships with CoCT in upgrading about 20 listed informal settlements.
- The focus of this partnership is on delivering basic infrastructure through a settlement re-blocking approach.
- Addressing informal settlement is usually a centre stage for party politics, partly because of the nature of informal settlements in Cape Town, where by racial lines are evident.

- It is observed that the Democratic Alliance (DA) party attracts following from mainly the white and colored communities, while the ANC attracts significant following from the black community.
- N2 Gateway project was launched (2004) when the ANC was in power-at national, provincial and local levels.

### a. Case Study 1: Joe-Slovo Informal Settlement-The N2 Gateway Project

- This project is conceived as a megaproject-provide 22,000 housing units, which pulled together all the 3 tiers of government in one operation.

#### Main Actors:

- a. *Government* - through the National Ministry of Housing-Now Department of Human Settlements, Western Cape Provincial Government and CoCT, which is the main Implementing agency. – excessive bureaucracy among these three levels has limited their efficiency in the project.
- b. ANC politicians formed a steering committee, “M3”. *Politics have significantly affected the implementation of the project, notably, after the political shift of 2009; the CoCT was pulled off as the main implementing agency.*
- c. *Sub-contractors* - A private company, Thubelisha Homes, was awarded a tender as the project manager, but in 2009, the Housing Development Agency (HDA) took over this role.
- d. *Developers and Financiers* - Sobambisana Consortium was awarded the role of the developer.
- e. CSOs: the Joe Slovo Residents Association, Joe Slovo park team and SANCO. These have specific interests as well as political interests.
- f. *Social movements* - this include the Western Cape Anti-eviction Campaign and the Informal Settlements Network (ISN).
- g. *NGOs* - Community Organization Resource Centre (CORC).
- h. Local political structures

## Politics and Social Mobilisation

This has been characterised by numerous challenges:

- Relocation-Resistance because this has often been associated with defacto permanent;
- residents-in the form of Temporary Relocation Areas (TRAs);
- Selection process-of beneficiaries and eligibility criteria;
- Communication-absence of effective communication has negatively affected the project;
- Quality of Housing- Often the first completion didn't meet the quality expectations of the community.
- Labour issues in the construction-resulted to poor workmanship and theft of materials-mainly attributed to poor compensations.

The project has undergone through several phases with regard to its social mobilisation:

- The first phase was the confrontational phase-residents demanding details of the project through demonstrations at the N2 highway. This and a fire disaster led to the formation of a Task team.
- This was followed by legal process in the courts, simultaneously with NGO-CORC coming to aid the community in profiling the settlement (unusual 'collaboration' from the NGO).
- 3<sup>rd</sup> phase-Hostile confrontations and politics of entitlement; hostile relationships had developed between the Joe Slovo residents Association and the Settlement Task team, as residents took sides.

Overall, the main implementation challenges of the project were:

- Tension between target groups: "between social movements and authorities", and "contractors and between spheres of government".
- Slow release of funds-resulted to delays and budget overruns.

- Lack of community participation in the planning and implementation.

## Key Issues and Concerns

- The case brings out the concerns of opting for megaproject approach in upgrading-this presents both challenges and opportunities; on one side it is an opportunity to upgrade settlements at scale, but it also presents complex challenges of implementation, relocations etc.
- Policy makers and decision makers opting for megaproject approach in upgrading should be ready to face complex project management; trying to mediate participatory dynamics with demands from megaprojects delivery.
- The need to revisit the structure of partnerships in upgrading projects-government agencies, private sector, residents etc.
- The role of local knowledge in project planning and implementation.
- It is also critical to understand the power relations in communities-the forces behind both mobilization and demobilizations.

### ***b. Case Study 2: Europe Informal Settlement***

This settlement is also located along the N2 highway, but it was not a target project for the N2 gate way programme. The settlement is located on what used to be a landfill; hence, exposing the residents to various risks- this scenario has been at the centre of politics and contestations between the community and policy makers about interventions.

## Actors and Politics and Social Mobilisation

The community has engaged in various strategies to address the challenges facing the settlement, including the involvement with social movement activities (the Informal Settlements Network-ISN) and seeking support of NGOs and researchers.

ISN claims to be bottom-up but it is increasing compelled to constant negotiations between top-down policy transfer and bottom-up community engagement. Its main activities include: enumerations, partnerships with governments, community planning exercise, and engagement with politicians.

ISN and NGO-CORC collaborated with planning students-University of Cape Town to undertake a community planning exercise in the settlement. However this exercise did not meet the expectations it raised in the community.

The main issues reported in the settlement because of this process were:

- ISN-CORC initiatives couldn't fulfill the expectations raised in early 2012.
- The engagement of the partners with the city did not yield to concrete improvements along the N2 strip.

- Although the approach was participatory the outputs did not resonate with the urgencies of the community-they didn't see direct benefits.
- There is a general assumption among the policy makers and planners that Europe is undevelopable.
- Community dynamics in Europe, owing to groupings and party politics, causing power struggles.

## KEY FINDINGS

## BRAZIL



### RIO DE JANEIRO Favelas and Policy

In 2010, about 22% of the residents in Rio lived in favelas. In response to this, the post-dictatorship policies in the city have sought to address urban poverty and inequalities, most prominent being:

1. Favela-Bairro Program-this focused on in-situ rehabilitation-1993-1997 and 2001-2008. The focus was initially infrastructure and later incorporated tenure regularization.
2. Program for Acceleration of Growth (PAC)
3. Morar-Carioca Program-launched in 2010, with a primary focus on upgrading. The Programme was aligned to the preparations for two mega events; the FIFA World Cup of 2014 and the Rio 2016 Summer Olympic Games.

This time also saw the introduction of the Units of Pacification Police (UPP). However urban 'integration' in Rio, as envisioned by policy, has been met by popular resistance.

#### a. Case Study 1: Morro da Providencia

- This is the oldest favela in Rio, and is centrally located within the city centre, making it a 'hot zone' for property markets.
- Housing is mainly occupied through squatting, with vertical growth of housing happening-some up to 4 floors. Infrastructure is largely self-constructed, and informal service delivery is pronounced.
- In 2010, the settlement was marked for renewal (part of the morar carioca program), at the same time the Porto Maravilha megaproject project was underway.
- This was succeeded by series of protests-against relocation and its approach. However, despite this protests in mid-2012, public works proceeded despite not having community consent. The absence of organized and well-coordinated mobilization resulted to community lacking a legitimate association to represent its interests. Consequently, relocations including 'self-relocation' ones ensued.

- The morar carioca program plans to undertake infrastructure projects in the settlement; a cable car, a funicular (special railway) and multipurpose IT centre (Knowledge square). The cable car infrastructure will result to relocations, affecting 800 dwellings.

#### Politics and Social Mobilisation

- The above is characterized by clientelism in politics-exchange of favors for votes. The neighbourhood association is reported to strike deals with project managers and politicians.
- The criminal and drug gangs, which have a strong foothold in the community, is also influential in social mobilization activities.
- The local state-community encounter is mainly through the implementation of the morar carioca program. The concerns and areas of conflict in this program are:
- The program increased the No. of people without places to live.
- Relocation did not favour the affected families-e.g. Children education was disrupted as relocated families couldn't afford enrolling their children in the schools around the relocation areas.
- The attraction of the real estate capital after the upgrading started has elicited fears of 'planned'/'forced'- gentrification.
- The cable car construction will have severe impact on public spaces.
- The above issues seem to have been ignored as the project is being run like any other modern engineering project; with little room for participation.

#### c. Case Study 2: The Case of Mangulhos

- This settlement is part of a cluster of the neighbouring favelas of around 50,000 inhabitants.
- Self- construction and physical transformation has shaped the growth of the settlement. Service delivery is a combination of both legal and illegal, with UPP police presence in the settlement.

#### Politics and Social Mobilisation

- Disasters like flooding have shaped precedents for mobilization.
- In 2007, the announcement that the settlement is part of the Program for Acceleration of Growth (PAC) initiated new mobilization, but with little impact on the implementation of PAC.
- Social housing projects have remained a paradox. Evictions and relocations, e.g. the Embratel lands eviction of 1,239 families, was done to pave way for social housing blocks.

#### d. Case Study 3: Vila Autodromo

- This settlement is located on the western zone, an area experiencing significant municipal expansion. It is prone to flooding, and has poorly developed infrastructure and absence of essential amenities within.
- The settlement mobilization structure is reasonably well organized, with two main organizations; the Residents Association and the Fisherman vila Autodromo.
- Initially, the state government recognized the area for housing and regularization, but later this changed to calls for eviction; a scenario which rather reinforced the social mobilization within the community.

#### Politics and Social Mobilisation

- Collective action is present; the two organizations coordinate well in mobilizing the community.
- These organizations have networked the settlement citywide, even internationally, which has enhanced cohesion and organization in the community.
- The settlement's "viva vila Autodromo" campaign resulted to a "people's plan", which was delivered to the mayor in August 2012, as a response to government plans for eviction and relocation.

### Emerging Issues from the Rio de Janeiro Cases

- There seem to be a public commitment to address poverty and sub-standard settlements in the city.
- Lack of meaningful participation of the residents has limited the intended impact of government interventions; instead, this has raised tensions between communities and government, as the former senses “hidden agenda”-by the government.
- The involvement of the private sector-through real estate developers- in favela improvement programs have resulted to capitalist-bureaucratic logics, as the driver of settlement upgrading in Rio.
- It is inevitable that to counter the above emerging trend (capitalist-bureaucratic), communities will have to forge a strong mobilization, network with other groups and stakeholders, as witnessed in Viva Autodromo settlement.
- ‘Urgency’ dictates mobilization and demobilization in some of the settlements; hence, sustaining social mobilisation becomes a challenge.



## SALVADOR

### a. Case Study: Old Centre of Salvador

This case study focused on the issues surrounding social mobilization of communities at the old Centre of Salvador. This place has witnessed numerous government interventions since 1960. The Centre was listed as UNESCO World Heritage Site in 1985. The research made reference to the 7th stage of the area’s revitalization. The old centre is prioritized by the government a central space and a tourist destination.

#### Implementation of the plan: Socio-political Problems and Conflicts

- This has been characterized by conflicts and socio-economic dynamics. The community read suspicion and fears of exclusion should the regeneration plan be implemented (gentrification).
- The tourist attraction has made the Centre a target for government interventions-preservation and its promotion as a tourist destination; events that have affected housing development in the area.

- In July 2001, during the 7th stage of the Historic Centre revitalization, a collective organization to protect the affected families was formed.
- 7<sup>th</sup> Stage of Revitalisation was done in a participatory manner. This collective organization- Association of Residents and Friends of the Historic Centre (AMACH) - has been undertaking awareness campaigns; media outreach, lobbying, and creating awareness among the citizens.
- Social mobilisation has be up and down; mobilization and demobilization (2001-2002-greater participation; 2003-2004-less participation of residents (demobilization); and 2005-2006-consolidation of a more representative group to participation).
- Over 250 groups have been formed-although not all are active. These are dominated by issues of education and culture. However, there lacks coordination among these groups and some do not trust the public authorities.
- It is also evident that conflicts exist within the community and between the community and the government and private sector. The government has promoted tourism-often resulting to policies that are not favourable for the community. In turn the private sector has used government’s tourism promotion to justify extension of high-end residential properties in the area.

The main issues emerging from the participatory planning process are:

- Civil society angered by the lack of implementation of the proposals from the restoration plan.
- The opening of new urban development frontiers and its impact on the Old Centre has not been addressed.
- Local interests have been overcome by globalization interests-promotion of tourism.
- Private sector interests (commercial) have resulted to developments constructed in a manner that socially excludes-to favour tourist tailored real estate investments.



## GUAROLHOS

The city of Guarulhos has more advanced participatory governance-through participatory Budgeting (PB), among Brazilian cities. Informal settlement communities use this platform to advance their settlement demands such as land tenure regularization and delivery of infrastructure services and amenities. In the city, neighbourhood associations have developed across party lines to provide a voice for the underrepresented and lower socioeconomic tiers. In the process, political parties have institutionalized participatory spaces and processes.

### **a. Case Study 1: Tuninamba: The Legacy of Pascoal Thomeu**

#### Social Mobilisation

- This settlement has leaders with strong connection to the political elites, mainly those who governed Guarulhos before Workers' Party's.
- Community action has been instrumental in upgrading the infrastructure and services of the settlement. Initial initiatives were the community-led paving of streets, which was succeeded by state delivery of electricity.
- Community work is hampered by political party interests. PB process is however seen as a space where it is not easy to push community demands.

### **b. Case Study 2: Sítio Sao Francisco**

#### Social Mobilisation

- This is settlement profiled for relocation because it's prone to landslides. Drug trafficking is rampant in the settlement.
- Party politics have greatly influenced mobilization in the settlement.

### **c. Case Study 3: Vila Any: On the Edge of Networks**

#### Social Mobilisation

- This is located at the banks of Tiete River, and it's prone to flooding, a risk exacerbated by precarious infrastructure.

- Politics and social mobilization revolves around religious groupings, political parties and the PB process.
- Community delegates in the PB process argue that PB process has helped bridge the gap between the municipality officials and the community; hence they are able to voice their concerns directly to the authorities.

#### Emerging Issues:

- Citizens are much aware of the channels within councils, and they expect these councils to scale-up the demands of neighborhood associations.
- Issue-oriented community organizations tend to press the councils for resources.
- The socio-partisan networks link the councils to neighborhood level demand and politics, and there is evident gradual relationship emerging between politicians and politicians.
- Community leaders with political links could be associated with their political ambitions.

## CRITICAL ISSUES AND POLICY CONCERNS

The country or city approach presented in this study, as well as the individual case studies present vital lessons to city leaders, policy makers/decision makers. It quite evident that cities in the developing world have a huge task of meeting the growing needs of low-cost/affordable housing, infrastructure services and amenities, employment and social-justice. In other words, cities must strive towards more sustainable and inclusive urban development. It is evident that informal settlements or slums are a major socio-spatial and economic manifestation in most developing countries' cities. To address this, better planning that recognises the vital contribution of participation, is imperative. We see that cities are shaping policies and programmes geared towards addressing sub-standard settlements, but importantly, it is the specific planning and implementation of the programmes/projects that largely has contributed to limited desired impacts. Therefore, the findings and issues raised from these case studies demand policy makers to be aware of, and take note of the following issues:

1. **The importance of citizen participation** in intervention targeted at sub-standard/ informal settlements. Cases from Rio and Cape Town have shown that no matter how 'good' intentions are, without involving the people, it can result to resentment and violent confrontations.
2. **Information and Awareness** in key to successful interventions. This has the potential to influence a more inclusive process.
3. **Agencies within governments ought to coordinate** more effectively to better policy implementation.
4. **Socially mobilised communities** are more effective in influencing a more inclusive and sustainable interventions. In all cities, settlements without collective action were observed to lack ownership of processes, and fragmented to a level of missing out in meaningful participation. Hence, authorities should approach community collective action as an imperative for sustainable interventions.
5. **The lines between politicians and community leaders can at times be fickle and arbitrary.** This particularly common in highly politicised contexts e.g. the case studies from South Africa, India, and Brazil.
6. **Consequences of Ad-hoc interventions.** This is often attributed to shifting policy goalposts, as witnessed with cities that shift from 'slum eradication' to slum upgrading, and vice versa. The result is poorly coordinated strategies to address long-term issues.
7. **Slum demolition and evictions without sound resettlement plans is detrimental.** Relocations to peripheries or without any form of resettlement have profound impact on social systems, livelihoods and even political.
8. **The partnership of public sector with private sector in upgrading informal settlements** should be well thought-out. This is to avoid the associated capitalistic-bureaucratic elements overriding the imperatives of participation to sustainability of interventions. However, best practice ideas/models of this approach ought to be promoted, as one way of up scaling interventions.
9. **Therefore, partnerships for improving informal settlements ought to be guided by principles of accountability, mutual trust and transparency in decision making.**
10. **There exist significant power relations and dynamics in social mobilisation.**
11. **Community planning projects**-where not tied to tangible outputs could result to raising high and unnecessary expectations in communities.
12. **There is need to understand the impact of NGO involvement in social movement activities.** Does this result to vested interests infiltrating precedent issues?
13. **In incremental and participatory approaches,** it is critical to examine to what level the urgencies of the community are considered in these processes.
14. **To What level does community/local knowledge matter?** It is critical to understand the best framework under which community knowledge can be utilized towards decision making processes, as interventions/policy have profound impact on targeted communities.
15. **Different cities could have different approaches to Participation.** It is noted that in South Africa, this is a controlled- indeed an 'invited space' of the state. In India, it is highly representative.
16. **Megaproject Approach to addressing sub-standard settlements.** This is evident in Delhi-using the "Mumbai Model", in Rio de Janeiro through the Morar Carioca programme, and in Cape Town through the N2 Gateway Project. The implications of these are somehow obvious, with regard to public participation-it is not meaningful as the approach tends to be highly top-down
17. **Megaprojects and displacements.** This is common with cities undertaking large-scale infrastructures projects, and city 're-imaging'/ urban renewal projects. In Durban, the King Shaka International Airport and the Dube Trade Port have contributed to relocation of informal settlements, and also said to have created employment opportunities. The preparations for mega-sporting events in Rio de Janeiro, Delhi and Cape Town resulted to large-scale redevelopments of informal settlements-resulting to cases of displacements and relocations.



- 18. Also, National/state interests-of re-imagining and globalization vs. local interests,** (“brown” and “green agenda” debates) if not well mediated could result to conflicts as witnessed in Providencia-Rio, Old Centre of Salvador, beautification programme of Delhi, etc.
- 19. It is critical to understand the role of informal structures and even illegal structures in communities.** The case of drug gangs providing basic infrastructure services-sanitation system-in Providencia Settlement, Rio de Janeiro is an indication that the absence of the state can create an opportunity for criminal elements to gain legitimacy in communities. Likewise with the informal systems of service provision. This has profound socio-political repercussions.
- 20. Self-constructed housing should be understood as accumulated capital/investments by households in informal settlements;** hence, policy makers ought to appreciate the value attached to these investments when designing interventions-provide interventions to replace, improve/better, than to destroy these investments; since, doing so could easily result to violent and fatal confrontations, and mistrust between citizens and authorities.
- 21. Party politics and social mobilization in communities can result to ‘hijacking’ of issues oriented mobilizations.**
- 22. Social mobilisation and participation has fatigue; hence.** Policy makers/decision makers should make sure such processes end with tangible positive transformations, as a way of building social capital-critical for incremental approaches.
- 23. Although cities could be committed to addressing informal settlements and urban poverty-**it is the planning and implementation of these programs that largely determines the success level in attainment of set targets and the impact to affected communities.
- 24. Upgrading as a paradox;** it could result to relocations that have negative impact, trigger gentrification and displacement, but also is instrumental in improving living conditions-improved access to infrastructure services and amenities and decent housing.

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# URBAN CHANCES, CITY GROWTH AND THE SUSTAINABILITY CHALLENGE

CHANCE2SUSTAIN: A RESEARCH  
DISSEMINATION REPORT

## Urban Chances, City Growth and the Sustainability Challenge - Chance2Sustain

This research programme examines how governments and citizens in cities with differing patterns of urban economic growth make use of participatory (or integrated) spatial knowledge management to direct urban governance towards more sustainable development. Participatory spatial knowledge management is the main concept we use to study this issue, as it reflects a strategic resource, which all stakeholders can contribute to urban governance processes towards sustainable development.

It includes both expert knowledge and several forms of non-expert knowledge, such as knowledge from (working) experience (tacit), embedded sectoral knowledge, and social (or community-based) knowledge at the neighbourhood and city-wide level. Participatory processes of urban planning and management are strategic in eliciting these forms of spatially disaggregated (of specific) knowledge, which are usually not acknowledged in top-down, expert-driven models of urban governance and planning. Utilizing participatory spatial knowledge can make urban governance and planning more effective and gain wider acceptance, by incorporating both expert and local community knowledge. Although

participatory spatial knowledge management is increasingly used in urban planning processes, its success depends on external political and economic conditions.

A legal framework providing for fiscal decentralisation and funding, for instance, is a strategic support. The influence of various external conditions has not yet been analysed much locally, and certainly not comparatively across different socio-political contexts, although it is a strategic question, given the inherent trade-offs and potential political conflicts in combining environmental, social and economic goals (within sustainable development). Therefore, the programme focuses on ten cities with contrasting economic and political conditions, with the main scientific objective of developing a model on participatory spatial knowledge management to direct urban governance to sustainable development.

The United Nations Human Settlements Programme (UN-Habitat), Nairobi, Kenya is a dissemination partner. The project is coordinated by the European Association of Development Research and Training Institutes (EADI), Germany.

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