



Urbanization and Global Environmental Change



Comments on Habitat III Issue Papers

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Preface

The responses to the Habitat III Issue Papers provided herein are from a growing community of urbanization and global environmental change scholars and practitioners. The contributors represent a diversity of disciplinary expertise as well as geographies and institutions, gender and age. Collectively, the responses reflect the critical need for multi-disciplinary science- and evidence-based understandings of cities and urbanization issues in the formulation of the Issue Papers, which are to provide the basis for defining the New Urban Agenda. A future urban agenda must be grounded in the understanding that cities are not static, rather complex dynamic socio-ecological systems, with many underlying processes that drive urbanization and interact with other Earth system processes. Cities are not isolated geographically, but are regionally and globally connected to create a global system of cities that is interconnected in multiple ways - for example, through resource use, land changes, and financial flows. The responses, as they are presented here, reflect these understandings in the critiques and suggestions for moving forward.

This document is organized thematically by Issue Paper, with each response including general comments and reflections; points to emphasize, gaps and needs; and recommendations and suggested improvements. We hope that this information adds value to future Habitat III preparations and activities, and ultimately adds to the knowledge base which shall inform the New Urban Agenda.

About the UGEC Project

The [Urbanization and Global Environmental Change \(UGEC\) Project](#) targets the generation of new knowledge on the bi-directional interactions and feedbacks between urbanization processes and Global Environmental Change at local, regional, and global scales. Since 2006, the UGEC International Project Office has been hosted by the Julie Ann Wrigley Global Institute of Sustainability at Arizona State University and is financially supported by ASU and the US National Science Foundation.

The project follows a multi-disciplinary approach to develop innovative conceptual and methodological frameworks for the advancement of UGEC science and the comprehensive understanding of the driving and resulting economic, socio-political, cultural and physical processes. An important feature of the project is to provide a platform for learning and knowledge exchange between a broad range of local, national, and regional actors working on urban and environmental issues. It facilitates regional and thematic networks with the goal of creating stronger links between practitioners, decision-makers, and researchers for more successful science-policy-practice interaction.

UGEC, now a Future Earth project, formerly an International Human Dimensions Programme on Global Environmental Change (IHDP) project, along with other partners of the Future Earth Urban Platform (FEUP), is leading the transition of the urban agenda within Future Earth through the establishment of urban flagship activities and the design of an urban platform for facilitating interdisciplinary research coordination and co-design with urban stakeholders and practitioners.

Social Cohesion and Equity

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Issue Paper #1: Inclusive cities

General comments/reflections

As suggested in the issue paper (IP), urbanization provides enormous opportunities for prosperity for all citizens, but urban policies and planning are failing to guarantee inclusive cities. Emerging urban policies, indicators and strategies do not address the real concerns of most urban dwellers. The global drive for urban competitiveness is indeed misleading. Such factors are generally not in accordance with the wants and needs of urban dwellers, which creates disconnect, discontentment and disaffection.

Points to emphasize and gaps/needs

- The paper should incorporate more historical context, such as the European occupation of Africa. Policies enabling segregation in cities have been important drivers in urban settlements in developing countries. These policies have also encouraged and/or laid the foundation for business or political elites and the affluent to create secluded areas in cities for themselves away from the poor.
- The document relies heavily on data published by UN agencies, which often give a skewed perspective. There needs to be further consideration and use of other scientific references, especially from scholars from developing countries.
- The paper overuses jargon and is overly abstract. Many of the arguments have not been substantiated with facts and references.
- The IP does not consider the climate component in the inclusive development of a city, despite the consensus that the impacts of climate change have greatly exacerbated the vulnerability of cities.
- The term 'social inclusion' is used, but it is not clearly defined or explained. The term is quite popular in academia, but it is very difficult to achieve or translate in practice in the development sector. In society, e.g., in India, vast disparity exists in social strata and each may have different needs and socio-cultural norms. In such a situation, it is very difficult without contextual specificity for city actors to address what is truly needed for social inclusivity.
- The term 'city actor' is not clearly defined. The role of the private sector in providing urban basic services should also be recognized.

Recommendations and suggested improvements

The paucity of data for measuring/comparing inequality at the city level should be acknowledged and emphasized. Criminalization of urban informality, whether of economic activities or informal settlements in policy or legislation, must also be addressed in addition to how policy integration can occur.

The role of the private sector and civil society in providing basic urban services should also be recognized. In developing countries and most secondary cities in particular, there is a dearth of funding due to increasing demand and supply gaps in service provision. Civil society and the private sector must play a critical role in bridging these gaps as well as increasing efficiencies and the quality of products and services. Businesses are typically at the cutting edge of innovation and technology in the fields in which they operate, and are more able to respond to the needs of those at the base of the pyramid (BOP) than governmental bodies.

Issue Paper #2: Migration and refugees in urban areas

General comments/reflections

The number of migrants, refugees and Internally Displaced Peoples (IDPs) is growing at an alarming rate. Knowledge of the historical dimensions and patterns of migration and refugees is essential to adequately understand and capture these challenges at the local, national or global level. We need to clearly and effectively address these issues at the places of origin. International efforts could be harnessed for the co-production of effective policies to address migration pathways, rights, discrimination and IDPs. These efforts should emphasize incentives to support development efforts at places of origin and for the host communities to lessen the burden of migrants and/or refugees.

The topic of migration and refugees in urban areas is very relevant in the current context of urbanization and provisioning of services in urban areas. The IP focuses on the positive aspects of migration at the destination and the need to consider it part of the urban planning process. It remarks how the inclusive planning for rapid urbanization, migration and displacement – through improved rights and protection for migrants and refugees, access to adequate services, opportunities and space and regulations – can maximize the skills, resources and creativity of migrants and refugees to achieve sustainable development of the city.

Points to emphasize and gaps/needs

- The new urban agenda overlooks the potential danger of failing to address issues of migrants, refugees and IDPS at their places of origin. It will be important to highlight urban planning and policy measures to promote inclusive growth and urbanization in places of origin so as to reduce the incidents and events leading to mass exodus and displacement of populations.
- Migration has both positive and negative impacts. However, in large volumes, it can create various socio-environmental stresses, e.g., pressure on natural resources or infrastructure.
- Data on migration and refugee influx is very broad. It does not reflect spatial patterns of migration, e.g., from developing to developed countries, small cities to big cities, rural to urban, etc.
- The term ‘Climate Refugee’ is not mentioned in the IP. With the increasing frequency of climate-induced disasters, such mass movement has now become a serious issue world-wide. The IPCC’s prediction for mass migrations owing to the effects of climate change mentions that 200 million people will migrate by 2050.
- The IP does not elaborate on the cause of migration nor the nature of migration occurring in developing countries. Mass migration takes place not by choice, but by as a result of external forces. In developing countries like India, rural-to-urban migration plays an important role in urbanization. Most secondary cities are confronting infrastructure stress due to the mass influx of rural migrants. In this context, long-term strategies are required to slow migration through a re-examination of rural development policies. A target-oriented development intervention that does not question the basic power structures that perpetuate this culture of deprivation will not be able to curb migration.

Recommendations and suggested improvements

Recent protests against migrants and settlers point to the need for the new urban agenda to acknowledge and emphasize the shrinking resources of host communities, and to call for global collaboration and/or assistance.



Issue Paper #3: Safer Cities

General comments/reflections

Social exclusion, injustice, gaps in income and imbalanced settlement patterns are the underlying causes of unsafe cities. Opportunities for citizens to realize life goals and aspirations must be adequately provided and fairly distributed. Local, national and global strategies to eliminate or close these gaps are imperative.

Points to emphasize and gaps/needs

- The failure of urban policy and planning is recognized in the paper, but constitute the missing link that has not been sufficiently highlighted. The concept of informality as it relates to economic activities and settlements are indeed discriminatory and exclusive. Bridging urban competitiveness and inclusive urbanization must be stressed in the context of indigenous peoples.
- The IP is very broad; it talks generally about the issues, but it does not explicitly discuss or elaborate on the intricacies of implementation of safety measures to make cities safer.
- The word 'safe' is used as a relative term. The IP addresses the safety strategy/measures of man-made risks but ignores natural risks.
- Technology is no doubt useful in making cities safer, but its negative impacts should not be ignored.
- The IP notes the role of inclusiveness or social cohesion in resilience building, but does not elaborate on the responsibilities of each actor. For example: the IP does not take on a clear gender perspective, i.e., the role of women as actors is not clearly elaborated on with respect to creating safer cities.
- Under the *Key Facts & Figures*, references beyond UN-based studies should also be utilized.

Recommendations and suggested improvements

The definition of 'social capital' should not overlook local assets particular to indigenous populations in cities. Their local assets should be identified and harnessed to enhance urban resilience. There is also the need for spatial data on indigenous peoples and local assets for integration in city governance.

Issue Paper #4: Urban culture and heritage

General comments/reflections

Urban development and planning has always recognized the place of culture and heritage. This will make policies and planning more robust and acceptable to local populations. Urban policy and planning techniques must avoid over-emphasizing scientific method above traditional knowledge as well as institutions rooted in the local culture and heritage.

Points to emphasize and gaps/needs

- There is no clear definition and assignment of roles of local knowledge, indigenous systems and practices in inclusive urbanization and governance.
- There is no reference in support of the facts and figures
- The gender component in protecting and conserving culture and heritage is general and needs to be explored in detail.
- Climate change and heritage conservation components are not explicitly discussed in the IP.

Recommendations and suggested improvements

The inclusion of indigenous knowledge and systems should be institutionalized for the management of urban resources and environments.

Heritage conservation is an important part of the more general urban economic development strategy of a city as well as a the spatial development strategy. However, it must also be part of an energy conservation and renewable resources utilization strategy. For example: 'solar city strategies' can promote closer integration of economic and ecological systems, such that urban environmental/green economics can be implemented to foster sustainable prosperity and quality of life. A strategy based on renewable energy can positively affect the physical structure of a city, both its form and its building architecture.

Integrating heritage concern in developmental planning is a cross-cutting issue, so it should be mainstreamed with other sectoral plans.

The climate change component (climate change adaption and disaster risk reduction) should also be included in the developmental plan, and departmental coordination is imperative to implement the measures of heritage assets protection.



Urban Frameworks

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Issue Paper #5: Urban Rules and Legislation

General comments/reflections

- It is quite difficult to understand the discussions in its current structure, there seems no build up of arguments that should be developed methodologically.
- The term of 'urban law' is not used consistently throughout the paper.
- The figures/key facts Bullet 1 on small & medium sized cities- how is this linked to law context?
- Is the below a figure or key fact, or is the heading inappropriate? Sounds inspirational without examples, evidence or specifics of how/why. Not sure if term 'good quality' is appropriate either: "Good quality law has the power to promote the inclusion of vulnerable groups in the benefits of urbanization, thereby increasing the value of these benefits for all, contributing to poverty alleviation and promoting social cohesion."
- What are some specific universal urban laws that may be of value to highlight? For example, laws for rights to information? Laws for broad-based participation in urban development plans and processes?
- The section titled 'Platforms and Projects' seems to mainly serve as a list of resources on the urban law in a global sense, without highlighting city networks that are developing platforms/projects.
- The word 'frameworks' is used fifteen times without being defined and without any clear examples.

Points to emphasize and gaps/needs

- Urban law embedded within law at other scales seems to be missing.
- The section currently titled 'Policy' seems to emphasize 'Challenges for Urban Law', which may be a more appropriate section title (at least for the first five points made).
- Discussion on 'carrots and sticks' may be of value within context of law/enforcement of the law.
- Discussion on the role of private sectors is only mentioned in the issue summary without prior discussion.
- Discussion on how currently adopted urban law has contributed to betterment of societies.

Recommendations and suggested improvements

- If good quality law is defined, what is bad quality law? And for whom is it good or bad quality? Suggest using alternative language such as law based on principles of equity (e.g., allowing for broad-based participation), clarity, transparency, accountability, and effectiveness.
- Words that could lead to different interpretation should be avoided - an example is that in point 3 on 'Good Quality of Law', the word 'good' represents a subjective tone that could be interpreted differently.
- More specific 'strategies for implementation' are needed.
- With large segments of cities having informal populations, how to best embrace, recognize, and be inclusive of informal laws, rules, norms, and institutions?
- A need for visuals, e.g., conceptual diagrams, figures, tables similar to the Urban Governance IP.
- How does this issue paper align with urban problems faced in cities, ranging from legal processes, safety, crime, service provision, air pollution, to climate change mitigation and adaptation?
- The discussion on 'Essential Law' can also be framed from the point of view on the need for a law to be adaptive due to complexity of past and future circumstances. Hence, there must be a discussion on recent developments towards the direction of adaptive law processes.
- Discussion on *Figures and Key Facts* could be modified to enable a more logical structure from:
 - Urbanized world
 - Urbanization in Asia and Africa
 - Percentage of informality within the urbanized world
 - Effectiveness of current urban law in dealing with key issues such as informality, participation of multi or non-traditional stakeholders



- Point 6 and 7 are not well suited to be listed in the *Figures and Key Facts* section. A suggested placement is earlier in the *Main Concepts* section.
- The *Strategies for Implementation* might be better suited to be inserted later in the section, such as after *Key Drivers of Actions*.
- Topics on policy, knowledge and operations, and engagement represent the current observation or review of the current achievement through existing rule of urban law. While they discuss some of the most pressing issues and outline the current progress, they seem not to be built from previous discussions.

Issue Paper #6: Urban Governance

General comments/reflections

This paper is essential and promising, yet it has a mostly normative tone. Its credibility, legitimacy and robustness would be enhanced if the recommendations were based on a solid evaluation of empirical studies on urban governance. For instance, why is it that “to be effective, [decentralization] needs to provide the adequate powers and resources to fulfill such responsibilities”? (p.1). It is appealing to say that “effective governance at the local, subnational, national, regional and global levels representing the voices and interests of all is critical for advancing sustainable development”. Still, we need to speak to the how and in which way this has happened. The existing knowledge base indicates that this is not happening in many urban areas. Scholars point, hence, to the gap between policy discourse and the reality of urban governance on the ground. We need to say why this is the case. Otherwise it will be hard for UN-Habitat III to inform policy action.

Points to emphasize, gaps/needs and suggested improvements

While telling, the section on *Figures and Key Facts* does not necessary inform a discussion on how urban governance actually works. Key missing information revolves around:

- The types of policy actions developed and implemented in urban areas;
- The actors and networks involved at multiple levels;
- The nature, opportunities and barriers and limits that multi-level governance poses to local sustainability policy; and
- The institutional factors explaining the gaps between the policy discourse and the challenges that local sustainability action needs to address under real-world conditions.

The section entitled *Five Key Facts* needs more substance on evidence and lessons learned. For example, while leadership – formal or informal – is often a key factor in effective urban governance, leadership alone is not enough to achieve effective policy responses. Our work on urban governance [see references] shows that other factors at play include:

- The interplay between the actors at multiple levels, each following different mandates and values and stakes;
- The mechanisms in place for actor engagement and participation; and
- Differentiated access to resources, information and decision-making power.

The section on *Figures and Key Facts* needs precision. For example:

- Depending on city situation and sociopolitical context, local governments can (or can't) be institutional drivers for development and levers of change in the promotion of inclusive growth;
- To be more telling, the numbers on local authorities' share of national expenditure in Latin America and Sub-Saharan African need to be compared with those of Europe and North America (you can use the Figure in p.4 to add this info);

- Most of the growth of cities (at least 90 per cent) will take place not only in low-income countries, but also in smaller urban areas. The governance implication of these is given by the fact that smaller urban areas have fewer institutional resources and decision making power to address sustainability challenges

The concept of governance can be refined particularly if we want to be up to speed with the state of the art on urban governance. We suggest the following concept: Governance can be defined as the set of formal and informal rules, rule-making systems, and actor-networks at all levels, both in and outside of government, established to steer urban stakeholders towards managing sustainability issues (e.g., housing, water and flood risks).

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Issue Paper #7: Municipal Finance

General comments/reflections

In its present form, this IP appears to be sufficiently well-informed about the most prevalent challenges and opportunities surrounding municipal finance. It does mention some specific areas that tend to recur in the literature: the need to explore and develop endogenous financial resources, the need to strengthen comprehension and capacity at the local level regarding funding transactions, and the need to refine specific systems related to taxation, budgeting, and procurement.

On the other hand, the paper gambles by making sweeping declarations about, for example, incoherent urban institutions, inadequate structures for integrated urban planning and inter-governmental fiscal management, etc. This could have been—or rather, can still be resolved by first breaking down the problem into different world regions. For example, municipal finance concerns in relatively democratic Latin American and European countries might have some features distinct from those in centrally-controlled China, Vietnam, or former Soviet Socialist republics, not to mention a different set of dynamics in parts of Africa and the Middle East. In order for the Issue Papers to contribute more forcefully to the global discourse, the hues of the urban spectrum need to be differentiated more clearly, as we suspect that some “best practices” in the Global North simply won’t translate to success in the Global South, in their present recommend form. This is just as true for municipal finance as for other facets of urban frameworks.

Missing discussion of alternative and innovative financing mechanisms external to government – from private sector, civil society, international development banks, foundations, microfinance, social impact investing, and new entrepreneurship models.

No mention of real estate developers--key to municipal finance and sustainable urbanization.

Public-private partnerships needs to be expanded on as only mentioned without any details.

Specific context of financing sustainable/resilient urban infrastructure systems development missing despite critical links between sustainable urbanization and infrastructure development.

No mention of climate finance mechanisms despite cities being central to climate challenge.

Points to emphasize and gaps/needs

- Lack of capacities and institutional coordination to deliver impact at larger scales.
- Importance of domestic credit rating/credit worthiness of cities especially in global south - only 4% of 500 cities in global south have a credit rating; only another 17% have domestic credit rating.
- List of current and future funds available to support cities, by geographic region, may be helpful to provide in this issue paper, so to know where doing well and where there are deficiencies.
- Discussing balance of financing/funds at national versus city level (e.g., UNFCCC adaptation funds).

On Figures and Key Facts

Page 1 - Some clarification may be needed, because GDP is normally understood to apply to state economies: “Globally, cities generate over 80% of the GDP of their respective countries, with similar shares in developing economies.”



Page 2 – One measurement that would be useful here, but is perhaps difficult to obtain in aggregate, is the portfolio of international lenders (bilateral or multilateral) that is specific to cities/urban areas. By showing how much of the world’s development portfolio has been spatially invested in cities—perhaps over the last two decades, then the reader can appreciate more the need to do municipal finance right.

Some points raised in this section are important and interesting: pressure at the local level to do more with less, the importance of leveraging endogenous advantages.

On the Issue Summary

Drivers of Global Municipal Finance (or: Drivers of Municipal Finance Around the Globe)

This can be written with more focus; the sentences declare certain aspirations, to be followed immediately by “However... (problem)”. The contrasting statements are therefore not drivers of municipal finance, but are barriers...which can be lumped under another section or paragraph.

Improving Outdated Governance Systems

As written, this section can also be placed in the issue paper on Urban Governance. In order to adhere more closely to municipal finance, we suggest that the ‘incoherence’ be discussed more finely in terms of its effects on local financing. For example, one can say local investment decisions can become sectorally and geographically incoherent when and where they are biased towards certain interest groups and fail to reach others, especially in remote parts of the municipal territory. Also, the cycle of local elections or changes in appointed leadership can interrupt, delay, and halt cash flows for development. The examples from Germany and South Africa can be correspondingly fine-tuned.

The assertion that the metropolitan governments of Bangkok and Jakarta “do not encompass the full urban areas of these megacities” needs to be clarified. Does this mean there is no financing that can be mobilized for their peripheries? Why?

Paragraph 2 is generally clear; the Philippine example refers more precisely to the ‘Performance Challenge Fund’, which provides counterpart funds to local governments that already have a good initial record, to complete their developmental (not just environmental) projects.

“Inadequate support to building an effective and financially viable process of urban development” – this statement seems to assume a single, or at least an ideal process, when in reality there are multiple economic players that build up cities, and government increasingly finds itself as a partner or a belated regulator of pioneering multiple processes that alter cities. Perhaps inadequate institutional capacities for building an effective and financially-viable platform for administering multiple urban development processes, might say it better. At this point the World Bank has already been cited three times. What about Municipal Finance experiences from other big players like the Asian Development Bank and the African Development Bank?

Bridging Shortfalls in Endogenous Resources

Maximizing the power to levy and collect local revenues is certainly a major issue and target, but one could add that this should be done in a socially-equitable and just manner. Local governments that become overzealous when granted taxing powers are just as undesirable as local governments that fail to efficiently draw from their revenue sources.

Bullet 2: Good point, although rather short. Some local tax systems, it may be added, are still little-evolved carry-overs from colonial times that need rethinking.

Again, there is much support here for raising taxes. A cautionary statement may be needed that with too much frequency and ubiquity—especially when and where coupled with local corruption that persists in developing countries, such municipal finance may become a source of subtle leakage and social injustice.

Building Better Local and Financial Asset Management Systems

[There is no more numbering in this section. Numbering would have helped.]

Page 5, second paragraph: “There are both regional support facilities (for example, the Cities Development Initiative for Asia) and national systems to develop prioritized investment plans, but they are not automatically integrated with city-wide financial and asset management.” It is doubtful whether automatic integration is practical or always desirable, especially with bodies external to the state. Perhaps the adverb should be ‘readily’. On the other hand, this paragraph makes a good point on the importance of budgeting and procurement.

Better Systems for Infrastructure Finance

On page 6, first bullet point: the term ‘Land based financing’ does not seem self-explanatory. Does this refer largely to land registration, as mentioned in page 4? Or can it include funds obtained from the sale of land? Or against the mortgage of land? Some clarification, please.

On page 6, second bullet point: this is important, and may deserve a section by itself not exclusively under the Infrastructure Financing Discussion. Local capacities to understand and handle financial transactions need to be enhanced.

Developing Systems for Effective Use of Exogenous Sources of Finance

On page 7, the “recent” case of Dakar probably needs to be dated, and may leave the reader wondering why its bond issuance was suspended. If the final editor does want to keep that detail about Dakar, some additional narrative might help.

On Key Drivers for Action

[The first subsection and the next major section should perhaps be interchanged, logically: summary of the preceding discussion first, then way forward later.]

The Way Forward – On pages 7 & 8, it seems that these bullet points summarize the previous discussions, and therefore should constitute the Summary.

Summary

Similarly, the items under this section seem more like exhortations pointing to future directions, and can be placed under The Way Forward, which should follow the summary.

Platforms

Are there more? These platforms will be used for referring to Municipal Finance Best Practices? Guidelines? Statistics? The purpose of this section should be clarified with a sentence, at least.

Additional Issues or Gaps That May Be Considered

In relation to municipal finance in particular and urban frameworks in general, the author would like to propose that the following topics be at least mentioned:

The paper can be balanced by acknowledging a concern for the social—and possibly even the cultural impacts of municipal finance done well, or done poorly. Equitable and well-targeted financing manifests in built-up projects that have rapid spillover benefits, even to the economically marginalized and state minorities. On the other hand, local leaders and bureaucrats may succumb to the temptation of revenue generation almost as an end in itself, leaving citizens beleaguered by fees and charges for every little transaction, oft in the name of funding development or recovering project costs.

There seems to be a gap or a need for more detailed discussion regarding the mechanisms for deployment and tracking of financing in a more interconnected world whose cities will come to embody most of the world's developmental triumphs as well as its wickedest of problems. For example, lateral city-to-city exchanges can involve municipal funding indirectly as an enabler of idea and technology exchange, rather than a means of direct infrastructure construction. Similarly, filtering of funds through sociopolitical hierarchies engenders varied responses from local governments as well as end-of-line beneficiaries, depending on how the mechanism is “marketed” and which conditions are attached. Governments would also react to whether they have formal obligations to repay, or psychological perceptions associated with certain givers/donors/lenders, or even the fact that it is possible to engineer anonymity and dissimulation of the provenance and destination of aid in the web of electronic fund transfers that will be a foreseeable feature of the world in the next 20 years.

With all due respect to the World Bank, which was an initiator of this Issue Paper series, the country examples cited probably need to be broadened to include the portfolio of other development agencies. There are, in all likelihood, other notable experimentations with sub-sovereign lending and financial intermediary arrangements that try to bridge the regulation-saturated world of global finance with the informalities of municipal cash transactions and development needs at the grassroots.

Finally, it is important to remind oneself about the more basic and crucial global developmental roles of municipal finance: (1) as the beneficiary-proximate articulation in a chain of greater financial efforts that have evolved over the last 40 years, as pushed by both nation-states and international organizations to end or significantly reduce poverty and structural injustices, (2) as an enabler of uncommon physical and socioeconomic growth at the local level that allows citizens to take responsibility for their own place-specific improvement where formerly, such options were limited by the restraints of central government or the simple lack of local resources to do anything beyond basic infrastructure provision and the operation of a rudimentary bureaucracy. Beyond such essential roles, resource flows coming from properly executed municipal finance can then be allocated to idiosyncratic preferences for quality-of-life, rather than just survival needs shared by urban dwellers all over the world and across the decades.

Notes on Format and Style

- Decide whether to capitalize some terms: “Developing countries” and “industrialised countries” (p.1), as well as whether to use U.K. or U.S. English standards.
- There are a few typographical errors and words probably leftover from a previous editing.



Recommendations and suggested improvements

- Mention of future research areas (e.g., direct sub-sovereign lending), roles of research community.
- If cities are such an imperative, there's a need to revisit current institutional rules, financing.
- Evaluations of pilot approaches to new rules and support mechanisms for cities moving forward.
- Suggestions for how to improve transparency and accountability in context of financial management; rather than only mentioning one World Bank tool.
- Financing for urban systems operation and maintenance often overlooked with financing often left only for initial implementation – cities globally will face challenge of ageing infrastructure with no funds to address the issue.
- Rapid population growth and urbanization in the coming decades will impose enormous stress on existing and future urban systems, infrastructure services, ecosystems, and well-being.

Spatial Development

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Issue Paper #8: Urban and Spatial Planning & Design

General Comments and Reflections

- There is a clear position being taken, and to the detriment of the argument, key counterpoints are missing. It is necessary to present a well-rounded view to support the position of this paper or it loses credibility.
- The paper could be improved if the authors parse out how different aspects of urban form relate to the different aims of sustainable development (health, reduced emissions, economic prosperity, quality of space/life).
- It is important to specify that, in isolation, increased connectivity or increased density may do very little to achieve any sustainable development aims if they are not coupled with a more comprehensive urban form strategy—(e.g., walkable streets, mixed use neighborhoods, transit, etc.).

Main Concepts

- Bullet 4: *Urban sprawl* is a normative term and is strongly associated with development patterns studied in the United States. Furthermore, there is no accepted definition or metric for urban sprawl. The term urban expansion can be used in its stead to describe the physical growth in the extent of the built environment, involving a land use transition from forest, agricultural, or undeveloped areas. It is unclear what is meant by lack of access to public infrastructure/services. In the US, apart from public transportation, most public infrastructure/services exist for suburban areas.
- Bullet 4: Terms like *city* and *urban* imply different boundaries. Whereas cities refer to administrative areas, urban refers to a type of land cover. In the discussion of spatial planning and design, the term urban is more useful since full agglomerations (and not just bounded metropolitan areas) must be considered to develop effective solutions.
- Bullet 5: The term *overexploitation* is also normative and difficult to define. Compactness is one of many aspects of urban form that have been tied to reduced energy and emissions, (see IPCC AR 5 WG III, Ch. 12). Compactness refers to efficiency in urban form, usually in the sense of controlling the urban extent and maximizing land use efficiency within an urban boundary. Whether residents benefit from this measure depends on whether compactness is coupled with mixed-use development, walkability, and highly accessible residences. It is unclear what is meant by “(shape, density and land use).”
- Bullet 6: *Permeability* is not a term often associated with the transportation network. It is necessary to define what is meant by this or use a standard term such as accessibility. In any case, accessibility is also related to connectivity and mixed-use development. Discussing accessibility and its relationship to connectivity here may help to address some of the other comments presented in this response. “Density of connections and nodes” may be changed to “density of links and nodes” to clarify the meaning of this sentence.
- Bullet 8: Mixed-use development reduces (in theory) the travel demand for purposes other than commuting as well. People often live in mixed-use areas, not to be close to work, but rather to be close to other amenities (shopping, child care, etc).

Figures and Key Facts

- Bullet 1: Is this statistic for cities or urban areas/agglomerations?
- Bullet 2: Urban expansion (and declines in density) should not necessarily always be avoided, since many urban areas in developing countries start with very dense initial conditions. Urban expansion is not inherently bad and density is not inherently good. Could the “6 of 7 countries” statistic be contrasted with a comparable statistic for developed countries? What is the timeframe for this decrease? What is meant by *higher-income* cities? Are these “higher-income” cities in developing countries?

- Bullet 3: Accessibility may have a stronger relationship with GHG emissions than compactness. There is robust evidence that VKT (vehicle kilometers travelled) reduction is most strongly related to high accessibility to job destinations (see Ewing and Cervero, 2001 , 2010)
- Bullet 4: There are many drivers for the increase of informal urbanization, and it is true that many informal settlements have low connectivity. However the location decisions of informal settlements often have much more to do with accessibility to employment than they do with connectivity.
- Figure 1: There should be commentary somewhere that addresses the assumption that decreased density is inherently negative. Also, this figure is not introduced/mentioned anywhere in the text. There should be some analysis of this graph to clearly state what the desired conclusion is.
- Figure 2: *LAC* is not defined anywhere.

Issue Summary

- Paragraph 2: *Sprawl* is ill-defined in this section and ill-defined in the scientific literature. See Main Concepts, bullet 2, on the use of the term *sprawl*. Compactness and connectedness do little to curtail energy use without also including mixed use development. Each of these elements of urban form is important, but less so in isolation. Their relationship to each other in creating sustainable neighborhoods should be mentioned. *Sprawling* cities are also not solely a product of no, or limited, planning. In the United States, these development patterns were in fact planned and encouraged by policy for decades. The last sentence of this paragraph does not say anything about the importance of connectivity. It contrasts the land allocated to streets but makes no statement on what that means for connectivity or its importance. Using percentage of land allocated to streets as an adequate metric of connectivity is unfounded. Connectivity is usually measured by the density of links and nodes (as discussed in the Main Concepts).
- Paragraph 3: What is meant by appropriate densities? How can appropriate densities be determined?
- Paragraph 4: It is not clear what should be implemented to improve efficiency or increase value. The final sentence suggests a correlation between benefits of planning and the GDP but this relationship is not made explicit or explained clearly.
- Paragraph 5: Planning itself does not create integrated spaces. Suburbs were planned and exclusionary zoning was used as a planning tool. Also in many countries where no planning mechanisms are in place, economic policy can be just as powerful in shaping the urban structure and morphology. It is important to emphasize that planning must incorporate social equity and not assume that it does.
- Paragraph 8: To further support the case, it can be noted that the majority of urbanized areas are in coastal areas, making them more susceptible to sea level rise, hurricanes, tsunamis, and other such extreme weather occurrences.
- Paragraph 11: There should be a note about tracing equity of outcomes as well. Public involvement does not mean that all voices are actually heard and even if they are, it does not mean the outcomes will reflect them.
- Paragraph 12: Is there evidence of this stronger link?
- Paragraph 14: *Mixity* is not a word or term that has a meaning unless it is defined. Use land-use mix.

Key Drivers of Actions

- Bullet 2: In providing planning responsibilities to local authorities, are there also safeguards suggested to ensure synergy?
- Bullet 11: Urban patterns?
- Bullet 23: Zoning is an effective planning tool. Limiting restrictive, single-use zoning is what is being implied not limiting zoning in general.

References



- Need to incorporate more academic references instead of just government documents. See IPCC AR5 WGIII Chapter 12, “Human Settlements, Infrastructure, and Spatial Planning” for a good list of resources.

Further Comments

- Cities in different regions grow through differing trajectories. In fast urbanizing regions like Africa, urban and spatial planning should be looked at the systems that will couple economic transformation while maintaining a level of ecosystem services and utilize minimized resources.
- In respect to systems of cities, one important issue to highlight is that although many cities are demonstrating improved efficiency in resource use and began to work on efficient infrastructure systems, new cities will most likely follow the historical paths. This will have negative impacts of degrading environments, limiting economic opportunities, accentuating inefficiencies and affecting wellbeing. In view of current and possible future trends of urban development, a ‘system of cities’ should be comprehensive enough to address the challenge of resource efficiency in cities and human settlements overall. Such a system would have to incorporate as focus areas minimization of resource use intensity, transformation of lifestyles, spatial reconfiguration and creation of economic opportunities.
- As regards spatial planning as a participatory a key inclusion in the issues paper is opportunity creation for all categories of the urban population. This should be highlighted due to the increasing dominance of institutions and key actors whose interest revolve around appropriation of resources, services and infrastructure thus separating social groups but also limiting opportunities for the social groups
- The process if urban planning should also systemically take into consideration equity issues and the distribution of benefits as well as risk. With increasing natural hazards and exposure, risk redistribution systems unfairly treats urban poor in terms of risks more than in terms of benefits in urban development. This should be integral to urban planning.
- For effective urban planning that integrates spatial plans with institutional and financial planning, little has been done to explore local, voluntary mobilization of resources in whatever form to finance urban development. Whereas the resource base challenge exists, issues of transparency intervene to curtail this alternative mobilization.
- Resource minimization in cities relates strongly with lifestyles and the spatial configuration of cities. Three linkages of resource flows to and from cities are described as: (a) Resources flow between cities and their hinterlands. Such flows can be in immediate hinterlands or rural environments; (b) Resources flow between cities and cities that are largely characterized by finished products or inputs into other production processes; and (c) the flow of resources between cities and other rural environments that are distant from the consuming cities. Often such flows can pass through other cities as conduits to the final destination. Minimization of intensive resource use in cities would have to directly develop strategies that reduce flows through substitution with locally available resources. Without putting a complete stop on current flows, creating incentives for use of city-regional resources in a sustainable manner is important. Thus local economic development strategies should be part of urban planning especially through the territorial planning framework. Focus Areas for this may include: mining resources from shrinking cities, old cities or derelict areas, efficiency of in-city resource flows, waste-energy nexus, innovation in utilizing local resources including ecosystem services.
- Planning and design of cities and human settlements would be useful if the design would create opportunities for all categories of urban dwellers upfront. Current infrastructure systems, service systems in cities are based on economics of profit maximization, which in turn limits opportunities for the urban poor. In many cities of developing regions, the urban poor are the majority and face the brunt of inequalities due to social, economic, environmental and political factors. Yet there are numerous micro-scale interventions (for example waster-to-energy, resource-based jobs, innovation) which don’t feature in spatial plans but can be integrated systemically that have demonstrated possibilities for creating opportunities that can contribute towards improved wellbeing.
- Spatial planning should be designed to harness the opportunities. Key drivers for this may include; harnessing opportunities related to scalable resource efficiency, decentralized services and infrastructure, local employment and expanded markets, strategies that deal with urban poverty through livelihood opportunities.



Issue Paper #9: Urban Land

General Comments and Reflections

- This paper should be edited for ease of reading. Sentences were often long and unclear and would benefit from being more concise. Additionally, punctuation, namely commas, were used in ways that could confuse the reader to the meaning of the sentences (for example: “This has caused enormous problems for example in cities, where over one billion people live in slums without proper water, sanitation, community facilities, security of tenure or quality of life.”—suggesting that cities are places where over one billion people live in slums). Additionally, many statistics or facts are listed (especially in the Figures and Key Facts), but conclusions, relationships and links are not clearly stated and are left to the reader to determine.
- The use of a line in the conceptual diagram is confusing, given that “the rights do not lie on a single line and may overlap with one another.” The choice of a different conceptual diagram would more usefully match the message.
- Definitions need to be clearer and more concise.
- “Security of tenure can be defined as an agreement or understanding between an individual or group to land and residential property”. Security of tenure is the right to remain on one’s land and make use of that land, not the agreement to land itself.

Figures and Key Facts

- Point 1: The “link between poverty and land” could be clarified by changing the phrase to the “link between prosperity and land tenure.” Is this meant to say “tenant”?
- Point 2: Awkward wording— The phrase “70% are covered under social tenure” is unclear. Do you mean: In developing countries, only 30% of the population has legal land tenure?
- Point 3: It is stated that there is a strong link between poverty and hunger and female land ownership. This relationship is not cited or explained. The farming statistic also doesn’t seem relevant to this section since it is titled “Urban Land.”
- Point 4: The term “squalor” is normative. There is large variation in the conditions amongst different slum settlements. It would be more fair to discuss variations in the lack of infrastructure or quality of life in parcels that are not formally registered, or to highlight commonalities caused by their ownership status. Also, many slums are owned by private entities where landlords hold titles, so the implication that slums are always on unregistered parcels is incorrect. A large percentage of the unregistered parcels are also in developed countries, so the link between unregistered parcels and slums is weak.
- Point 5: IDP and IDMC are not defined prior to use. Discussing the theoretical link between climate change and conflict may be useful here (see Kelley et al., 2015).
- Point 6: This first sentence implies that population increases cause increased agricultural demand, and that poor and vulnerable populations are thus displaced by this increase in agricultural land. In the second sentence, the three drivers of urbanization are not comparable. The first two discuss urbanization as a demographic process (changes in the number of people who are urban residents), while the second discusses urbanization as a land use process (change in the classification of land). In actuality, the demographic process is intrinsically linked to (and overlaps with) the land use process. Therefore, attributing a percentage of urbanization to migration and a separate percentage to reclassification is confusing.



- Point 7: It is not useful to quote an estimate of urban terrestrial land surface from 2000, given that the first sentence states massive population increases have occurred between 1995 and 2015. Include more recent estimates (such as Lui et al., 2014). It is unclear from this paragraph how the demographic process of urbanization (rapidly increasing) is resulting in a land use transition since no estimates of growth in urban land use are cited. To include estimates of urban land use change, (see Seto et al., 2011). The phrase “land delivery and management implications” is unclear.
- Point 8: No source is provided for the estimate in growth of urban land cover. This bullet should be rewritten. It may be possible to combine with Bullet 6 to create a more coherent argument. As it stands now, both points are just a listing of facts. The reader is not provided a conclusion. For instance, the implications mentioned in this point should be stated.

Issue Summary

- Point 2: Clarification is needed—is the problem that the land administration systems aren't functioning properly, or the urbanization process is outpacing the systems in place?
- Point 4: Sprawl is normative, replace with urban expansion. It is not clear how “urban sprawl” is distinguished from “sustainable urban expansion.”
- Point 5: Repword “Cities all over the world need to adapt to pro-poor land administration in urban expansion using participatory and inclusive approaches. There is an urgent need to prepare for urban growth and related land needs, which requires realistic projection of urban land needs based on current land information and population growth thus develop innovative responses.”
- Point 6: The pace (rate) of urbanization is not expected to accelerate any more in the next 15 years than in the past 15 years. Misplaced commas and incorrect verb conjugations should be corrected.
- Point 7: Land lost due to sea level is often both occupied by vulnerable populations and more accessible to jobs in the city center, since many cities are coastal. The challenge of addressing urban land loss due to sea level rise is one of providing new settlement space that is accessible to jobs in the city center.
- Point 9: The demand is for serviced land that is close to employment. Increasing competition for land resources often results in the poor being pushed out to the exurbs away from employment centers.

Key Drivers for Action

- Securing tenure rights of people and communities will not necessarily achieve environmental priorities. Perhaps change “sustainable” to “equitable.”

Issue Paper #10: Urban/Rural Linkages

General Comments and Reflections

- Missing discussion of how *rural* or *urban* is defined, classified, and implications of alternative approaches. It is important to cite academic research on diversity of definitions of ‘urban’ and ‘rural’. These definitions often relate to population density and aspects of the built environment, which vary considerably city to city. Definitions are important as they relate to problem definition, solution identification, and policy development.
- Food is mentioned throughout the piece, though it is not often clear how these issues raised relate back to the urban-rural linkage. For example, Point 25 states needing greater data on the four dimensions of food security in general. More relevant to the overall paper topic would be a call to evaluate how access to food and instances of food insecurity differ depending on rural and urban settings.

- There is no mention of supply chains outside context of agriculture, many of which are key to sustainable urbanization (electricity, fuel, water, other materials, etc.).
- There needs to be added emphasis on resource flows and ecosystems that cross urban/rural boundaries. Critical ecosystems, beyond food systems mentioned, include 1) watersheds for the purpose of both access to water and control of urban flooding, and 2) biodiversity, forests and habitat as they relate to land degradation, flooding, and food production.
- Missing from the discussion is how cities can present pathways for rural-to-urban migration addressing issues of access to urban services, and resident status. It would be valuable to include evaluations of pilot approaches to new rules and support mechanisms for rural-to-urban migrants.
- Social issues related to urban migration need to be highlighted, including: families facing separation due to men migrating to cities while females and children left at home in rural areas; migrant construction worker families moving together to slums; and burdens placed on families, especially women and children.
- Tools should be presented in order to gather the data needed to quantify urban-rural linkages and understand the urban-rural interdependencies. This could include resource footprinting and mapping of supply chains (water, food, electricity, etc). This is necessary in order to make cities aware of risk to supply as well as take ownership of environmental impact and prevent urban growth at the expense of rural environments.

Figures and Key Facts

- Point 10: It would be useful to make the distinction between food waste in developed versus developing settings, adding to the list poor consumer and retail practices and norms.

Issue Summary

- Point 15: Expand the last sentence to promote city awareness of the resources (nutrients, land, water) required to support changing food supply as a result population growth and diet change, and the effect that this consumption may have on the rural environment.
- Point 19: Include links between rural and peri-urban areas for climate. For example, urban growth and peri-urban areas matter significantly for urban heat island mitigation.

Drivers of Action

- Point 23: Do national urban policies actually foster better cities? Where is the evidence for this?
- Point 24: Governance alone fails to recognize the informal nature of peri-urban growth, especially in the Global South. There is a need to include hybrid partnerships to recognize this element of governance institutions.
- Point 25: A further suggestion that would address waste, quality and safety would be increased supply chain transparency.
- Point 27: Green infrastructure should also be promoted as an opportunity to preserve the natural ecosystems upon which the cities are built.
- Urban agriculture is stated as beneficial, (Point 27 and Point 32), however, it is important to discuss barriers of localization and potential drawbacks. Examples include: zoning and lack of land access for farming and livestock; lack of clean irrigation water; competition with other urban water demands.

Recommendations and Suggested Improvements

- More examples of urban-rural partnerships should be explicitly stated. These could include families and communities, and could be classified as formal or informal.
- Include a point on urban boundary distinctions (both formal and informal) and how boundaries actually function with respect to politics, ecosystems, and socio-economics.



- Include more suggestions for future research. These could include: emerging role of mobile phones for rural-urban interaction; understanding dynamics particularly in developing countries of ‘floating / informal populations; and scenario mapping to understand resource requirements of future population growth and urbanization.
- It would be valuable to include a list of current and future funds available to support urban and rural areas together, by geographic region, in order to identify sufficiency and deficiencies.

Issue Paper #11: Public Space

General Comments and Reflections

- Defining the nature of the problem, as related to open space, is needed early on in this issue paper. The paper needs to be reframed to look at benefits and challenges of public space, different functions of public space types, and relevant interventions.
- Definitions and distinction between public space, open space and green public spaces are missing. While streets can be part of public right-of-way, important distinction is whether they are for cars and traffic, or for people/places. ‘Streets’ are frequently mentioned as public space. This, however, conflicts with the notion that public space takes different forms in different areas. In many places, particularly the United States, street design does not achieve the sentiment of what public space should be (i.e., open and accessible to all), but rather a passage for cars only.
- What about use of the terms, parks and [outdoor] open space, that are used by city departments? Recreational space is another term used, yet this is not mentioned in text so far.
- The meaning of “public” needs to be clarified, as it has differing definitions depending on governance models. Need to acknowledge a diversity of governance modes and hybrid models of public/private space (i.e. public parks that are privately managed and regulated) in order to better understand what this means for use and design of public space.
- Public spaces for resilience is not mentioned—examples worldwide of public spaces are key in resilience, having interdependencies with emergency shelter, food and water distribution, communications for future recovery efforts, etc. They also have various health/economic/social/environmental co-benefits and can serve as natural buffers and protecting ecosystems, people, and various critical infrastructures in context of floods, and other natural hazards.
- Unclear case development: Starts with facts on percentage of land occupied by streets and then jumps to crime. The flow of the paper needs to be better organized.
- What about Global South/developing country cities? This perspective is missing from the section, especially in relation to data gaps and areas for future research.
- There should be greater discussion of benefits of public space—health, exercise, refuge, community gathering and activities, biophilia, biodiversity, ecosystem services, tourism, urban forestry (clean air, mitigation, etc.).
- Community participation is mentioned a few times, but could be given greater importance in the paper.

Main Concepts

- Equality should not just be framed in terms of benefits of distribution from growth and development but should be discussed also from a structural point of view. Remove “equal playing field” and include proactive government laws and procedures to include the poor. Include procedural and distributive equity for decision-making processes and outcomes.
- Public space should also include vertical space - including sunlight and air rights, especially in reference to “urban commons.” There are also arguments extending these to climate rights and justice.
- Placemaking seems to be out of place here. What is the justification for inclusion?



Issue Summary

- Paragraph 1: Begins with unsubstantiated normative statement. Remove “the character” of a city -- there are many things that go into a city’s character.
- Top of Page 3: The importance of maintenance is mentioned, yet should be given greater prominence along with the need of community support and involvement.
- Page 3, Paragraph 2: Needs to be rewritten. “Public space generates equality” is a normative claim without sufficient explanation or evidence cited. Insufficient evidence to explain the linkages between public space and poverty reduction.
- Page 3, Paragraph 3: Includes unsubstantiated causal claims between crime and public spaces. No citation or data to back up these causal claims. The passage should provide data on public space in downtown areas versus low-income neighborhoods or urban periphery, which creates unequal access.
- Page 3, Paragraph 4: If economic value is to be used as the motivator of public space, mention should be given to monetizing storm water management, and ecosystem services.
- Page 3, Paragraph 4: Promotes that cities propose public as creating economic value, referencing increased property value and gentrification. However, if increasing housing costs price lower income residents out of their homes, this conflicts with the objective of equal access to public space. Not only should public space selection be made carefully and in lower income areas, as mentioned in the paper, but effort should be made to ensure that creation of public space does not contribute to concentration of poverty from gentrification.
- Cities highlighted include insufficient information to be of added benefit (i.e., Johannesburg, South Africa). Furthermore, Berlin, Germany examples actually highlights unequal access because high property values near public parks.
- Top of Page 5: A possible addition to the benefit of green space would be food production.
- Top of Page 5: “The compact city is the only environmentally sustainable form for a city” – what is considered a compact city? Is this associated with a definition? Statement on ‘compact city as only environmentally sustainable form for a city could be argued.
- Page 5: Mentions a lack of data on quality of public space. This is very important to guide effective design. Also of research value, would be how to explore how open spaces can be designed to achieve multiple of the diverse benefits listed in the paper.
- Page 5: Good examples are given, but need to be explained more and drawn into text above.

Recommendations and Suggested Improvements

- Mention of future research areas (e.g., role of public space in informal settlements), best practices for planning public spaces, and roles of research community in quantifying multiple benefits/benchmarking across cities to incentivize competition and new financing mechanisms.
- Rapid population growth and urbanization in the coming decades will impose enormous stress on existing and future urban systems, infrastructure services, ecosystems, and well-being. How can prioritizing public space infrastructure help to improve public health and how can new small pilots be developed in context of Habitat III sustainable urbanization agenda?
- Include additional information on metrics and indicators available to evaluate cities.
- Lack of incentives to deliver public space at larger scales within context of urbanization.
- Evidence-based research and a framing of public space issues, benefits and co-benefits needed. Need to make link between formal and informal role of public space, especially in Global South cities. Additional discussion on how open space systems fit within larger configurations of buildings and transportation.



Urban Economy

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Issue Paper #12: Local Economic Development

This issue paper is not about local economic development. It is about Local Economic Development (LED), a particular approach which the paper is promoting and claiming great things. The paper states a lot of sensible things, as well as making questionable generalizations, and makes the LED approach look easier and better than it is ever likely to be. Rather than making comments on the overall paper, this note will comment on the approach being promoted from the perspective of environmental and sustainability goals.

Local economic development, and urban economic development in particular, has major implications for local, regional and global environmental change. Given the goals of Habitat III, and the recent agreement on the SDGs, one might expect this issue paper to explain how the approach being promoted contributes to environmental sustainability and resilience, as well as to economic success and social inclusion. If the approach does not contribute to these goals, then at very least one would expect some explanation of how environmental goals can be achieved despite not being explicitly considered in the local economic development strategy – perhaps through national policies that would also help to guide local economic development. Unfortunately, there is no such explanation.

The paper does refer to the final objective of the approach as “a resilient and sustainable city with decent jobs and stimulating economic activity”. Superficially, this sounds as though it brings environmental, economic and social goals together. After all resilience and sustainability came into the development discussions courtesy of the global environmental debates, and suggest a city that can cope with environmental disruptions and doesn’t create heavy environmental burdens for those beyond the city boundaries.

However, the paper hardly mentions anything that an environmental scientist would understand to be an environmental issue. Of the 12 mentions of “environment,” 8 are in the context of business-enabling environments. The two mentions of environmental degradation relate to local environmental degradation, which is justified as important because it is one of many conditions that can arise from uncontrolled urban population growth, and contributes to “diseconomies” that will “affect a city’s efficiency, productivity and competitiveness in a negative feedback loop”.

Much interesting work has been done on local economic development, and it would be possible to fit most of the important insights into a discussion of how to achieve a flourishing urban economy in ways that do not conflict with environmental (and social) goals. Instead, the approach being promoted looks decidedly unfriendly to the environment, and not just because it is very friendly to business, but because it neglects the need for businesses, along with others, to take account of the environmental consequences of their activities, even if they fall beyond their locality. Probably inadvertently, it is setting up economic development in opposition to environmental goals, and global environmental goals in particular.

The approach is described as “a participatory development process that encourages partnership arrangements”, and helps “the main private and public stakeholders” jointly design and implement a common development strategy that “makes use of local resources and competitive advantages in a global context”. There is a great deal of emphasis on the economic strengths of cities, and how they need to be given more powers to compete globally. The ultimate aim would seem to be cities or city regions competing economically, and serving the needs of their citizens, but largely unconcerned with the global consequences of this system of cities. For the world, this sort of approach could be disastrous.

Recommendation

Ideally, this paper would be rewritten as a balanced paper on local economic development as a process, and how it can be made to contribute more effectively to sustainable development. Where there is evidence or powerful argument, some of the same points already in the paper could be in this revised version. However, the risks as well



as the advantages of decentralization, and encouraging inter-city competition, would need to be considered.

Alternatively, if a paper on the LED approach is necessary, then it is important to frame the paper in terms that indicate how this approach is consistent with pursuing the environmental goals, in ways identified in other issue papers – or to acknowledge that it isn't.

Issue Paper #13: Jobs and Livelihoods

Main Concepts

- Gender pay gap: this definition is not strictly accurate. It should start with a more general statement, thus: “The phenomenon whereby people face gender-based differences in pay for work of equal value, which almost invariably favour men.”
- Inclusive growth: Should be strengthened by including mention of reduced wage/income inequalities – the very essence of inclusion.

Figures and Key Facts

- As stated, it sounds as though SMEs are essentially only a formal sector phenomenon, whereas in reality most ‘informal’ jobs are in SMEs.
- A separate but crucial point is that the final 2 bullet points perpetuate the severely outdated formal/informal dichotomy in a simplistic and problematic way since there is extensive research evidence from all regions over decades on the shortcomings of the falsity of such a dichotomy and the extent of interrelationships and hybrid forms most appropriately characterised as a continuum of income-earning opportunities with differing characteristics.

Issue Summary

- Page 3, first line of Item 1, below the graph: Needs a comma after “planning”.
- Page 4, second line of Item 2: Infrastructure deficits affect all job creation, not just “formal”.
- Page 5: Does Figure 2 include all workers or only those defined as ‘formal’? Also, the penultimate paragraph needs updating to delete ‘proposed’ SDG and to update the wording of Goal 11’s title (reversing the order to ‘sustainable and resilient’).
- Page 6, final paragraph: The first sentence is an overgeneralization; insert “generally” after “women” since there are examples where this is not the case.

Key drivers

- Bullet 2: This will be interpreted as favouring densification. This may be true in many or even most cases but not all: in some, excess density becomes a negative driver. That aside, the integration of the other items in this bullet point is excellent.

Recommendations and Suggested Improvements

One key omission is explicit attention to the implications of climate/environmental change on employment and jobs and the importance of ‘green employment’ in broad terms. This is strategically vital in terms of challenging many conventional views that greening the economy costs jobs, whereas it also creates numerous

new opportunities and the net effect will vary contextually. Equally important is to point out and demonstrate that employment creation and sustainable development are not mutually exclusive/contradictory – well-targeted (urban) sustainability initiatives actually generate employment opportunities and have many other co-benefits, including health and leisure.

Issue Paper #14: Informal sector

General features of the issue paper

- Given the importance of the informal sector, and the challenges it poses for sustainable urban development, an issue paper on this topic is very welcome.
- Much of the paper is devoted to defining terms (using official definitions that tend to emphasise the deficiencies of informal employment arrangements) and providing summary data and maps on the sector (which emphasise its large size and the importance of the informal sector to women and youth).
- The issues section is short, starting with bullet points on the problems that workers in the informal economy face, mentioning a few particular problems, and noting that municipalities face challenges managing the informal economy.
- The section on key drivers for action is well organized and clear, and includes an outline of steps that a country or city with a large and problematic informal sector could do to address the challenges informality poses, starting with developing a good understanding of the local situation, and going on to develop a tailored response, plan for spatial and social inclusion, build partnerships and learn from innovative solutions developed in other cities and countries. This is presented as steps towards formalization.
- The paper makes no mention of the relevance of the informal sector to achieving urban climate resilience and environmental sustainability, which are so central to the recently agreed Sustainable Development Goals. It is very hard to imagine a successful sustainability transition without the effective engagement of the informal sector.

Key comments

The first sections of the paper are set up in such a way that informality is almost inevitably seen as a bad thing, with a transition to formality emerging as the solution. While informality may involve a failure to conform to or to implement official regulations and policies, the problems of informality can only rarely be solved simply by applying those self-same official regulations and policies. It is clear from the proposed actions that the authors recognise this, but the preceding sections suggest it. Also, all of the areas for action are presented as parts of a formalization process, which is a mistake (formalization may not be a mistake, but treating formalization as the singular route to improvement is). Especially given the preponderance of own-account workers, and the lack of formal employment opportunities, it is also important not to give the impression that formalization is a straightforward response, and a clear means for improving working conditions.

The concept of informality ought to help focus attention on the gap between what is officially recognised and condoned, and how certain sectors of the economy actually operate. A more balanced approach would devote more attention to why this gap emerges, and what can be done to improve things given this gap.

The paper does not convey the diversity of the informal sector, not only in terms of the activities involved, but more important the nature and consequences of the informality. For example, there are cases where the problems associated with informality would be solved with more vigorous enforcement of regulations, and others where this would make matters worse. And there is no mention at all of diversity of the contributions of informal activities to environmental sustainability, with for example transport activities that are at both extremes of the scale in terms



of greenhouse gas emissions.

The failure to take any account of the implications of informality for achieving urban climate resilience or environmental sustainability is a very serious omission, though it reflects a broader neglect among those working on both issues of the informal sector and those working on issues of environmental sustainability (and perhaps to a lesser degree climate resilience).

From the perspective of climate resilience and urban environmental sustainability, it is critically important to understand the opportunities and obstacles that the informal sector provides. Informality, including informal settlement, is having profound consequences on how and where cities develop, particularly in rapidly urbanising countries, but is not readily amenable to conventional policy instruments. Strategies for sustainable urbanization that neglect the informal sector are likely to be rendered irrelevant. Strategies that try to formalise the informal sector in order to protect the environment, without developing a thorough understanding of the informal systems and their dynamics, are likely to create sharp trade-offs between the well-being of those dependent on the informal sector and urban environmental sustainability.

While there is virtually no mention of the role of informal enterprises in either contributing to or undermining urban sustainability, the involvement of informal sector waste pickers in formal waste recycling is mentioned as a good practice in the final paragraph of the paper. Organized waste pickers have managed to improve their reputation in many countries through highlighting their contribution to environmental sustainability. Some have made the transition for formal waste recycling successfully. There are lessons to be drawn from this example, even if it only represents a very small share of the informal sector.

On a more pedantic note, the presentation of the statistics on gender and informal employment is confusing. Statements such as that “Women often form a greater share of the non-agricultural informal economy workforce than men” will be taken by many to imply that women make up more than half of the workforce non-agricultural informal economy, though this is not the correct interpretation. The same applies to the label on the map “Non-Agricultural Informal Employment: Women’s Share” – which is actually the share of women’s employment that is informal, not, as the title suggests, the share of informal employment that is women’s. Since women make up less of the overall workforce, formal and informal, in many places women are a minority in informal employment and an even smaller minority in formal employment, making the share of women’s employment that is informal larger than men’s.

Selected recommendations

Considerably reduce the space devoted to definitions and statistics of size and composition, and slightly increase the space devoted to how the informal sector operates and the features of informal enterprises and work/workers that actually arise because of their informality (rather than because the enterprises are small and the markets unfavourable).

Add a paragraph in the issues section on the role of the informal sector in urban environmental sustainability and climate resilience, as well as an environmentally-oriented area for action in the following section.

Do not use formalization as the umbrella under which all the areas for action are put. This implies that nothing can be done where progress towards formalization cannot be achieved, which is simply wrong. Indeed, many of the actions suggested could be very valuable regardless of whether or not it was decided to undertake them under the banner of formalization.

Urban Ecology and Environment

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Issue Paper #15: Urban Resilience

General Comments and Reflections

- The paper should not just inform other issue papers as stated, but also be informed by them in a much more structured and transparent way if the concept of resilience is to be used as an overarching framework. The issue paper sets out resilience thinking as a holistic approach to understanding of the urban system, however, as currently set out, is very top-down and overly technocratic with very little emphasis paid to people, culture or communities. Issues of governance are also not sufficiently covered in the text.
- Issues of equity, as well as poverty, will be critical to a resilience agenda.
- The resilience of cities cannot be discussed in the absence of their supportive hinterlands.
- Inside the city, there needs to be consideration of issues of scale – from individuals, communities, wards through to the urban system.
- Rapid urbanization is a major challenge in many parts of the Asia-Pacific region – these challenges need to be highlighted.
- Land tenure is a critical issue that is not touched on in this issue paper and is a major oversight. This is most obvious in countries where customary land is prevalent (Pacific, parts of Africa etc.) but also has an important role to play in resilience actions elsewhere (public versus private land ownership). As an example, many municipal councils may not own significant amounts of land in their jurisdiction and are therefore limited in their ability to undertake urban greening initiatives without the support of private landowners.
- There is no mention of the Rockefeller Resilient Cities campaign and other important international initiatives, which should be remedied.

Main concepts

This section must clarify that resilience remains a contested term with multiple definitions; however, it can be considered a useful ‘umbrella’ for better integration of previously discrete communities of practice (disaster risk reduction, climate change adaptation, development, resource efficiency etc.). It is also important to note that the emphasis will differ geographically, i.e., Europe is more likely to consider climate change adaptation actions, those already exposed to extreme events may emphasize disaster risk reduction, whilst developing countries will target more immediate development needs.

- Page 1: Emphasis is placed on ‘transformational development’. Why is ‘transitions’ not included? Do all cities need transformation to achieve resilience?
- Page 2: An institutional heading may be better than organizational to take account of both formal and informal processes.
- Page 2: Example of flooding is introduced before a discussion of the different types of hazards. Setting out what is meant by resilience, definitions of key concepts etc., is needed at the beginning of the issue paper (e.g., vulnerability – see later in response). It would be useful to delineate between climate and non-climate hazards under the natural hazards category. It is also useful to use the shock and stresses categorization more explicitly as this differentiates between extreme events and longer term change that will need to be accounted for. Whilst hazards are set out as natural, technological and socio-economic-political-cultural the overwhelming emphasis of the paper is on natural hazards. If an all hazard approach is appropriate there needs to be a greater balance in the narrative.
- Figure 2: The classification table needs to be reconsidered, and natural hazards can usefully be broken down into climate and non-climate. It is questionable whether pandemic is wholly ‘natural’ given human vectors (human influenced), and also whether mass movement is not better categorised under socio-economic. Furthermore, longer term stresses such as sea level rise (and associated impacts such as salinization) are missing.



- Page 3: The concept of resilience has a long history and was used in many other disciplines before being taken up in ecology.
- Page 3: The text addresses exposure and vulnerability separately, highlighting the need for clear definitions to underpin the issues paper. Vulnerability can be understood as a function of hazard, exposure, and sensitivity, offset by adaptive capacity. Therefore exposure is a sub-component of vulnerability not separate. Also, it may be useful to think of responses in terms of process (adaptive capacity) and outcomes (actions reducing exposure / sensitivity).
- Page 4: The three pillars of the new urban agenda appear very limited, top-down and technocratic (planning, legislation and finance). It is a very limited conceptualisation of resilience. Principles of equity, good governance, inclusion etc. should have a higher profile when considering the resilience of cities for example.
- Page 4: Positive models of urbanization need informed planning and good urban design but don't necessarily have to be 'compact'.
- Page 5: 'Slums' might better be replaced with 'informal settlements'. Not all informal settlements would be considered slums, however a lack of access to services does impact their sensitivity to shocks and stresses over time.
- There is mention of large coastal cities being major trading hubs with implications for supply chains, however most major cities in the world are either coastal or riverine and therefore highly exposed to future climate change (beyond just trade).

Figures and Key Facts

As previously noted, the overwhelming focus is on natural hazards. This is a key challenge when considering all hazards under a resilience banner (i.e., flooding, pandemics, and terrorism all have very different characteristics).

- Page 7: There is a claim that significant progress has been made to operationalize resilience – this is arguably not the case as it is often likened to the sustainability agenda and that it can mean all things to all people. Whilst it can be argued to have useful potential it needs to be set out as an emerging concept, not one that has displayed significant progress. The text also makes mention of the SDGs – it would be very helpful to showcase how resilience links to these new international goals in a more explicit way.

Key drivers for action

Many of these could be classified simply as 'adaptive capacity'.

Issue Paper #16: Urban Ecosystems and Resource Management

General comments/reflections

For the most part, this IP presents a balanced overview. We have identified a few points that either were left out but deserve mention in this IP or would benefit from a stronger emphasis. Throughout the IP, references are given to select success stories but these are still few far between. There is still need for more evidence to support several of the statements put forward in the IP as in the case of density issue. In addition, the roles of cities in the global environmental change should be more strongly emphasized. While this last point applies to several other IPs under the six themes, it is especially pertinent to this IP since ecosystems play important roles in several biogeochemical cycles which urban areas affect through both changes in land cover and through resource extraction and consumption.



Points to emphasize and gaps/needs

The relation of the points raised in the IP to the broader global environmental change context needs to be highlighted (e.g., contribution of urban areas to climate change which in turn put cities to harm's way in front of natural hazards).

The relationship of cities with biodiversity is complicated. Cities can serve as conduits for the spread of exotic species but they can also serve as refugia for certain native species, especially when other land changes such as expansion of agricultural lands also contribute to loss of native habitats (Kantsa et al., 2013). Emergence of novel habitats within cities deserves mention as well (Faeth et al., 2005). Cities do not only decimate existing habitats but in the process they form novel habitats and ecosystems. In some cases, these novel habitats can serve as refuges but they also provide education opportunities for urban residents.

There is no mention of tradeoffs involved: For example, proximity of urban areas to protected areas may be good for urban residents but urban activities may interfere with ecological processes that also sustain the biodiversity and ecosystem services within these protected areas. Another example is the density: there is a limit to the benefits of a densely populated urban setting; at some point the costs of increasing density would likely exceed its benefits as pollution, difficulty of evacuation, and congestion increase.

Teleconnections with distant places - rural, urban and those in-between - should be emphasized: This is alluded to but there needs to be some emphasis on the importance of uncovering the linkages from the site of extraction to the site of consumption (Seto et al., 2012). This is important since such knowledge would give the city managers the ability to act upon these resource flows to make their cities more sustainable and resilient to any outside shocks. Under disaster risk reduction, there needs to be some mention of how urban areas are putting themselves at risk by building in exposed areas to natural hazards. Recent studies show that, solely due to urban expansion, urban exposure to floods and droughts has been increasing (Swiss Re, 2014) and expected to increase around the world even if there were no climate change (Güneralp et al., 2015).

There needs to be a more-forward looking perspective. For example, mention of how urban areas grew at the expense of natural and agricultural areas in the past 50 years is given but there is no mention of the trends into the future. There are now several studies that predict huge direct impacts on ecosystems and biodiversity due to urban land cover change over the next couple of decades or so (McDonald et al., 2008; Güneralp and Seto, 2013).

Recommendations and suggested improvements/solutions

Encroachment towards habitats critical for biodiversity conservation and creation of novel habitats or remnants of the existing habitats is a dynamic process. It should be recognized as such in planning for these because delays in biodiversity in response to changes in habitats may confound well-intentioned efforts to ensure the wellbeing of both urban residents and biodiversity.

A solution to safeguard ecosystem services may be treating such services as a utility similar to the provision of electricity and water; then, cities can structure their governance and urban planning processes to ensure adequate ecosystem service provision (McDonald et al., 2014). For the protection of biodiversity hotspots from urban encroachment, the local level solutions can go a long way in the conservation of biodiversity at the global level. Nevertheless, the well-being of biodiversity and the sustainability of ecosystem services in the face of humanity's massive urbanization require coordination by governments at all levels.

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Issue Paper #17: Cities and Climate Change and Disaster Risk Management

General Comments/Reflections

The statement provides a significant discussion on how cities can respond to the demands of disaster risk reduction (DRR). The broad and basic elements urban DRR are presented including the key terms and definitions, issues, and the potential drivers of actions. Key issues are defined as knowledge, engagement, policy, and operations, and when these four work together the opportunity for meaningful disaster risk reduction is present. More specific drivers of DRR action include 1. urban planning and design, 2. urban governance, 3. urban economy, finance, and investment, 4. conditions of participation and inclusion, and 5. information and communication technologies.

Points to Emphasize – Gaps/Needs

The document achieves what it intended but it also has many gaps and needs that must be noted. A central issue is that the statement does not focus on the importance of new science in promoting effective disaster risk reduction. Given the condition of climate non-stationarity, new science (physical, social, and engineering) needs to be regularly developed to best promote a flexible approach to DRR management and planning as well as associated climate change adaptation.



The piece also suffers from a general lack of discussion of the connections between urban form, urbanization, and DRR. These connections are highly complex and can play out in a variety of different ways. For example, high-density urban form might have advantages in response to specific hazards but might also enhance the vulnerability to other hazards. High-rise buildings are vulnerable to cascading infrastructure failures while conversely low-rise development can promote conditions of urban sprawl and expansion of housing in high exposure sites along flood prone riverine settings. In general cities and urbanization are presented as somewhat static in the piece.

Another key issue that should be explained more is the distinction between loss and damages and the different types of each. The statement presents a series of statistics and it is not clear whether primary (direct) impacts or secondary (indirect) impacts are being discussed. This is a significant issue with the DRR community, and highly relevant for cities.

Recommendations and Suggested Improvements

The piece could include a greater focus on the promotion of basic climate risk assessments and scenario-based risk projections, as well as the related science (scientist)- policy (stakeholder) connections. These connections can be especially meaningful in situations where there is a clear and meaningful focus on the co-production of knowledge between disaster risk scientist and DRR policy makers and stakeholders. These present significant opportunities for the development of new innovative approaches to disaster risk reduction as well as for the engagement of a wider set of stakeholders into the policy development process.

On a more minor point, the document's two graphics are of poor quality and not particularly useful, especially illustration 2 that focuses on greenhouse gas emissions and climate mitigation opportunities – not the main focus of the piece.

Urban Housing and Basic Services

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Issue Paper #18: Urban Infrastructure and Basic Services, including energy

General Comments

This IP explores key issues in the sector, using overall architecture of the networks of assets, knowledge and institutions. It has rightly pointed out linkages between them; however, some of the important issues related to urban infrastructures and basic services are been discussed, for instance, inequitable supply of urban infrastructure and basic services.

Points to emphasize

Energy usage such as electricity and cooking fuels are nearly absent from this paper. These sectors need sufficient amount of energy for themselves and are major sources for the greenhouse gas emissions. Therefore, these issues need more in-depth discussion, including role of infrastructure on improving quality of life.

There is also a need to emphasize the social inclusion in private agencies laid supply of urban infrastructures and basic services in cities. Today the role of private players becomes important in providing basic services. However, maintaining social inclusion becomes challenging and somehow, inbuilt social exclusions are created. This paper should emphasize this aspect and present tentative solutions using existing literature.

Recommendations and suggested improvements

Include concept of willingness to pay among disadvantaged communities, especially from Global South. Often low-income households pay a large share of income and even more (in absolute terms) for the basic services, as discussed in the paper.

The role of this infrastructure for improving quality of life, especially among disadvantaged communities, should be emphasized. At the same, it has been experienced that public agencies laid infrastructure provisions are more inclusive. Therefore, this issue paper should emphasize how inclusion can be embraced within increasing role of private players in provision of these basic services.

Issue Paper #19: Transport and Mobility

General Comments

This IP is well written and explored all major aspects related to transport and mobility in cities. This document also uses recent literature on transport and mobility and has rightly highlighted the bias in urban planning for individual motorized transport.

Points to emphasize

Though it touched on governance related to transport and mobility, the governance dimension must be further explored, particularly focusing on developing economies. The role of funding agencies should also be explored. Cities spend large amount of money for major infrastructure projects such as mass rapid transit systems (MRTS), but are not doing enough for simple interventions for encouraging non-motorized transportation (NMT).

Recommendations and suggested improvements

Empirical evidence shows that there is variation of demand and supply for transport and mobility by city sizes/classes. Therefore, we recommend including these aspects (city sizes/classes effects) in the paper, particularly emphasis is needed in secondary and tertiary cities/towns.

Issue Paper #20: Housing

General Comments

This IP addresses major challenges concerning housing and gives a good overview on the current situation of global housing problems. The crucial role that housing plays in human well-being as well as its impact on global environmental change are highlighted. The proposed key drivers for actions reflect on the two-sided challenges regarding housing: Curative (slum-upgrading) and preventive (new provision). The paper argues rightly that the focus of action in the housing sector should be on the provision of dwellings for the urban poor and most vulnerable. It would be helpful to address the situations in developed and developing countries and highlight the differences as well as similarities concerning housing issues. The challenge in all cities is to guarantee adequate housing – “affordable housing is inadequate and adequate housing is unaffordable”.

Points to emphasize

- The relation to the Informal Settlements issue paper is mentioned but a greater emphasis on the synergies between the key drivers for action in the both issue papers would be helpful.
- The paper also depicts the limited success of current mortgage approaches, as lending is only accessible for middle and higher income groups. A task for future housing policies at the local but also national level is the development of alternative instruments which focus on renting or experimental forms of tenureship. As cities and states worldwide are faced with this challenge, an exchange of experiences on successful and failed approaches is important. In this context, the science community could be key in evaluating the feasibility and transferability of these often very local initiatives.
- Housing contributes greenhouse gas emissions to a high degree and is therefore regarded as a driver for global environmental change. At the same time, low-income households are highly affected by global environmental change. Initiatives to mitigate greenhouse gas emissions from housing and to assist inhabitants of low-income housing to adapt to climate change need to be implemented at the city level.
- Issues of climate change and possible risk exposure should be considered during the construction of new housing. Development should not take place in areas which are (or will be!) exposed to climate change related natural hazards and other risks.
- While national governments have certainly played and will continue to play a leading role in the provision of low-income housing, strategies to involve the private sector in the construction of low-income housing also need to be developed and implemented.

Recommendations and suggested improvements

- Highlight the importance of the exchange of housing strategies for the urban poor.
- Include strategies which reflect on the fact that housing is a driver of, but is also affected by, global environmental change, especially for inhabitants of poorer neighborhoods.



- Evaluate how the private sector can contribute to the provision of low-income housing and in renting or alternative forms of tenancy. The involvement of the private sector in slum upgrading strategies also needs to be discussed, including the danger that private-led slum upgrading may lead to forced evictions.
- In addition to incremental housing there is need to highlight the importance of self-created housing.
- Further evidence regarding issues of housing supply and management should be given.
- Mention of evidence-based demand assessment is missing and should be incorporated.

Issue Paper #21: Smart Cities

General Comments

Beginning with the title, the issue paper on Smart Cities contains a strong normative bias and is therefore an exception among the issue papers of the thematic area Urban Housing and Basic Services. The paper presents different definitions on the concept of the smart city. The use of information and communication technologies (ICTs) is key in all of these definitions. Still, a more critical view on the smart city would have helped to demonstrate that this concept is not without contradictions. As a general remark, the paper uses very few references. In order to strengthen the arguments in the paper, the support of bibliography on smart cities from the scientific community, policy papers, reports, etc., is needed.

Points to emphasize

ICTs are seen as a possible tool to implement smart and sustainable cities, which contain smart energy, smart buildings, smart transportation, smart water, smart waste, smart physical safety and security, smart health care and smart education. While it can be acknowledged that ICTs have indeed already demonstrated how they can contribute to more sustainable cities, crucial aspects like the protection of privacy from data collection, or data security are not mentioned in the paper. Possible trade-offs between the concept of the smart city and data privacy should be discussed.

Other challenges of the implementation of smart cities are hardly mentioned. How can all urban dwellers benefit from smart city approaches? How to prevent the digital divide between rich and poor households from widening?

The paper contains some figures but reference to the figures in the text is missing.

The IP has a broad understanding of the smart city. This systemic view on urbanization issues is very useful and avoids a narrow, disciplinary restricted perspective on urban development. Nevertheless, issues like planning principles and smart governance modes on participation have a strong linkage to other issue papers. These linkages should be mentioned in order to create more coherence among the different IPs. Furthermore, the need to combine technical and social innovations in smart city approaches should explicitly be mentioned.

Be more specific on the potential of smart and/or ICT-related approaches. For example, urban resilience is mentioned in the paper as a principle for 21st century urban development. Examples on how ICT and/or smart city approaches can increase urban resilience would strengthen this argument.

Smart Cities and ICT are often related to private-sector initiatives and company engagement. Governance approaches on how to balance between public and private interests are crucial in this context and should be included in the paper.



Recommendations and suggested improvements

- Mention the potential contradictions or trade-offs between the smart city approach and other aspects of urban development.
- Be sensitive on the role of multi-national ICT companies in implementing the smart city concept.
- Emphasize the need for technical and social innovations.
- Include more references on the smart city concept.

Issue Paper #22: Informal Settlements

General Comments

The IP depicts different aspects and the main challenges of informal settlements. It also highlights the key drivers for action as well as the stakeholders which need to be involved in order to improve sub-standard housing and slums. Still, there is potential to sharpen the arguments and emphasize the governance modes which are needed for implementation.

Points to emphasize

The IP states that informality is a global phenomenon, which takes place predominantly – but not only – in cities of the Global South. Furthermore, it is argued that informal settlements as a form of real estate speculation is not restricted to low-income households but can be a form of housing for other income levels – a fact which has been also highlighted in recent research papers on these issues.

Regarding the definition of informal settlement it would be helpful to clarify if slums are considered as a sub-category of informal settlements or if also slums exist, which cannot be classified as informal settlements. It needs to be clarified that the presented key drivers for action focus mainly on these informal settlements which are home to low-income groups.

The key drivers for action mention the need for risk-sensitive land use planning to avoid the exposure to environmental hazards, but other forms of adaptation to climate change are not mentioned. Nevertheless, the creation of climate-resilient slums and informal settlements will become a crucial issue.

The role of slum-dwellers is rightly emphasized; in order to find appropriate governance modes, one should recognize also the existence and the capacity of slum dweller organizations. Without the involvement of these organizations, many of the key drivers for action will fail. Governance forms on how to involve slum dwellers organization are challenging, especially in weak institutional contexts. The peer learning platform should therefore also contain municipal experiences on governance and cooperation with slum dwellers organization.

Recommendations and suggested improvements

- Clarify definitions of *slums* and *informal settlements* and explain which kind of informal settlements are the focus of the presented key drivers for action.
- Involve climate adaptation and the creation of climate-resilient slums in the list of key drivers for action.
- Involve slum dweller organizations in governance modes for slum upgrading processes.
- Cite more Non-UN sources in the IP.
- Clarify how data collected by slum dwellers will be used and by whom as well as the objectives of the data collection and include the scientific community in the elaboration and the analysis of the data.





Urbanization and Global Environmental Change

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