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AND
INTERNATIONAL SOCIETY OF CITY AND REGIONAL PLANNERS



**URBAN DEVELOPMENT AND PLANNING IN THE AGE OF MEGACITIES
- AN OVERVIEW OF GLOBAL TRENDS AND CURRENT PRACTICES**

SYNTHESIS REPORT - EXECUTIVE SUMMARY
(Final Version: Dushko Bogunovich, 16 July, 2016)

Following an agreement between MUF and ISOCARP in 2015, a team of six international experts studied eleven cases of major international cities as a sample of the trends and issues in global urban development. Upon completion of the eleven separate reports, the key findings and conclusions have been compiled into a final, synthesis report. Its main outcomes are summarized here as the *Findings, Conclusion and Recommendations*.

The purpose of this research project was to produce a global overview of the key trends in urban development and urban planning of very large cities in a manner that would assist in the management of Moscow and other big cities in the Russian Federation. The particular focus of this project is the role of mega-projects and mobility in shaping the overall urban form of megacities.

The economic, cultural and environmental significance of very large cities keeps growing. The planning and management of large cities is generally recognized as one of the most difficult and important political and technical tasks imaginable. Megacities dominate all major national economies with their decision-making power and financial levers; they generate the emerging global culture which defines how millions live, work, consume and dream; and they consume the planetary ecosystem faster than any other human creation, while at the same time – because of their concentration of population and know-how - they are our best chance at preventing global ecological calamity.

In the coming decades, megacities will have to invest trillions of dollars into new and upgraded urban infrastructure. Proper targeting of this urban ‘project of the century’ will determine whether humanity successfully navigates the social, environmental and political challenges of the next few decades.

In an attempt to assist MUF and the Government of Moscow to be key players in global decision making about the future of big cities, we present here the *trends, issues and practices* in eleven global cities. They have been carefully chosen to be representative in a number of ways of the global urban scene:

1. Paris
2. Mumbai

3. Hong Kong
4. Wuhan
5. New York
6. Dubai
7. London
8. Johannesburg
9. Gdansk/Gdynia
10. Buenos Aires
11. Auckland

THE KEY FINDINGS are that:

Continued demographic, economic and physical growth is the condition common to all eleven case studies. And while that growth generates an ever greater array of ever more complex problems, the ambition for more growth does not cease. The dominant objective in all cases is economic growth - more investment, more return on investment, more jobs. Social, cultural and environmental agendas are on the wish-list too, and sometimes even highlighted as a prime aspiration. However, the reality is that spatial development is mainly driven by commercial investment, which the public sector readily supports with more infrastructure. Some developments are even plainly detrimental - in the way they exacerbate existing problems – yet, they go ahead anyway. In other cases, there are genuine attempts to produce socially responsible and environmentally restorative forms of urban growth.

Mega-projects are a prominent feature in all large cities, and megacities in particular. They come in two types: mega-projects which are site-defined – sited at a particular location in the city – and mega-projects which are function-defined – planned over the entire city (as is typical of large infrastructure projects, housing programmes, or urban greening and beautification). The role of strategic spatial master planning is critical in these projects. Master planning can either take note of the larger urban context and effectively assist in an overall strategy of polycentric development, or, it can ignore the context and focus on the project's narrow bottom line. The latter approach, however, hurts not only social and environmental agendas, but also the project's own long term viability and attraction. In some cases mega-projects have had a major positive impact on the transformation of the entire city - whether by plan, or accident. These cases show that one of the most effective strategies to implement a city-scale transformation – a notoriously ambitious endeavor because of its gigantic scale – is through a coordinated set of mega-projects.

Urban form and mobility continue to dominate the urban development discourse. Faced with the challenge of reducing their greenhouse gas emissions, many cities are combining their mobility and sustainability strategies. The 'compact city' has become the mainstream paradigm of an urban environment model which ticks all the boxes – liveable, prosperous, sustainable. Overall, *polycentric development* and *compactness* (density) of urban fabric seem to be the most common preferred spatial pattern, along with the aspiration to accomplish such re-configuration within the existing city rather than allowing more urban expansion. But aspirations are one thing, and the reality is another: megacities continue to grow both up and out. In fact, they grow out much faster than up and this is too often overlooked in the official planning's enthusiasm for density and 'intensification'. *Urban sprawl will not go away – most likely, we will see more of it.*

Urban infrastructure projects dominate the scene. The normalized 20th century view that 'you can never have too much urban infrastructure' still rules, despite the calls for recognizing and respecting the limits of the planet. Some projects are about supporting more real estate and little else, others

are about improving public health, greening the city and restoring the ecosystem; yet, all of them invariably increase our cities' ecological footprint. *A radical revision of the whole idea of urban infrastructure is urgent* – the purpose, the spatial configuration and the technologies that enable it. Huge, centralized, fossil-fuel powered systems are increasingly problematic.

THE KEY CONCLUSIONS after reviewing the eleven case studies are that there are some salient *similarities*, as well as some prominent *differences*, among the study's megacities:

The Similarities are:

- The enormous complexity of both the problems and the solutions. They involve multiple aspects and agents - political, governance, management, legal, economic, social, cultural, aesthetic, environmental, and security issues. This is why, typically, urban problems fall into the category known as 'wicked problems'.
- Almost everywhere, urban political and economic leaders desire to be big players on the global stage and compete for investment and talent in the global race for a 'smart (knowledge) economy'.
- Declarative promotion of social and environmental agendas along with the economic agenda is also a common practice. But the aspiration to attain balanced development rather than crude economic growth is rarely achieved in reality.
- Dilemmas over compact growth vs urban sprawl, and public transport vs private mobility are common. In most cases the former is the norm and aspiration, but the latter is still dominant in reality.

The Differences are mainly about the preference for, or the dominance of:

- horizontal vs vertical growth;
- planned vs organic development;
- short-term interest and pressures vs long-term considerations and concerns;
- the economic/commercial vs environmental/resilience agendas.

It may be generally observed that the more mature megacities - which generally belong to the more developed nations and economies - prefer, and encourage by employing various planning instruments:

- intensification over expansion;
- strategic over ad-hoc planning;
- long-term vision over short-term gain;
- a serious concern about the environmental impacts of urban growth.

An additional point in this discussion is the uneven relevance of the eleven cases for Moscow. Arguably, cities need to be at least of similar size, shape and age to be comparable. Based on such criteria, it is probably fair to say that Paris, Wuhan, New York, London, Johannesburg and Buenos Aires have more significance for Moscow's conditions, than Mumbai, Hong Kong, Dubai, Gdansk-Gdynia and Auckland. Having said that, it is equally true that even these cities which are either smaller, or younger, or have a different topography, have something to offer Moscow (particularly Hong Kong with regard to transport, and Gdansk-Gdynia regarding what to do with derelict industrial sites and perhaps even Auckland with how *not* to plan for intensification!).

THE KEY RECOMMENDATIONS for the planning of all of the main subjects of this report – mega-projects; mobility strategies; urban metropolitan form; megacities themselves - are:

1. REGIONAL APPROACH - Adopt a regional scale metropolitan master plan with explicit, balanced sustainable development goals and a clear spatial strategy. Megacities are not just cities - they are also regions. This is why the terms '*urban regions*', '*regional cities*' and '*city-regions*' are ever more in common use. Planning for the full extent of megacities' territorial influence is the only way to maximize benefits and minimize costs – particularly social and environmental. Planning *satellite settlements* at well-connected locations outside the city proper is an important component of regional urban planning.
2. URBAN FORM - The *compact city* and *polycentric development* are the key concepts. They are not in contradiction; rather, they are complementary. They cannot eliminate urban sprawl, but they can ameliorate its excesses. We should let sprawl do what it can do well - a house-and-garden lifestyle for those who want it, and a high degree of self-sufficiency which the distributed technologies now make possible. Large cities need many centres; hence intensifying selected, well-connected locations makes sense economically, socially and environmentally. Some of these centres should be outside the city proper, as well-connected, but essentially independent satellite towns and villages.
3. REGENERATION - Focusing on reshaping the city inside the existing urban area is an option superior to urban sprawl but neither will this stop urban expansion, nor should it exclude self-sufficient satellite towns. Urban planning should identify and mobilise brownfield opportunities and foster capacities for triggering redevelopment projects in existing urban areas, as well as outside of them. A word of caution: redevelopment of disused urban sites is fraught with obstacles which are not obvious in the beginning. It requires an enormous amount of rigorous analysis before construction can begin.
4. MEGA-PROJECTS - Large urban development projects are key tools in driving the overall megacity transformation, not just projects in their own right. When *coordinated across the city* and when master planned in harmony and synergy with the local context, they can achieve much more than just a short-term profit for the developer. They can regenerate areas much larger than their actual size; they can help in financing the public infrastructure; and they can act as models for progressive design agendas. However, it is possible that their golden era is over and that they need to be replaced by comprehensive strategies that engage with all sectors and scales of change in the city.
5. SUSTAINABILITY AND RESILIENCE – Climate change is a serious and growing concern. The *sustainability (mitigation) agenda* is being superseded by the *resilience (adaptation) agenda* as the paramount concern in urban planning. This strengthens the case for polycentric development and a high degree of self-sufficiency in all decisions about urban form and urban infrastructure. At the same time, this shift weakens the argument for higher density, as compactness and concentration of people and assets in principle mean higher risk and more dependency on centralized provision of vital services. From an economic point of view, the sustainability-resilience shift opens new opportunities for innovation and business in the areas of technology, design and planning of decentralized infrastructure and distributed generation.

Overall, the effectiveness of urban planning largely depends on how well integrated the planning of land use is with the planning of transportation and other vital infrastructure. Coordination between all sectors and aspects of urban and regional planning is crucial, as is collaboration between the

public and private sectors. A genuine balance between the economic, social and environmental agendas is crucial. *The environmental agenda is growing in importance and complexity.* It is showing a tendency to split into two distinct, though overlapping, agendas: Sustainability and Resilience. Until now, cities were the engines of ecological destruction. In the 21st century, they must become the engines of ecological restoration. Megacities have taken from nature more than other cities, so they should give back more. In the not too distant future, cities might become our principal vessels of survival on a damaged planet.