Within the context of the activities of the Community of Competence on Metropolisation\(^1\), INTA and Deltametropool Association joined forces to design the programme In-between Metropolitan Strategies pursuing earlier discussions and exchanges on metropolitan strategies ongoing in a worldwide spectrum.

During the first phase, a series of interviews have been realised to several metropolitan cases covering various themes: the scale of the metropolitan area, the governance and cooperation, new forms of urbanity and metropolitan environments, the innovative economical sectors within the metropolitan area and how to develop the metropolis sustainability.

**Metropolitan Mumbai, India**

Interview with Hubert Nove-Josserand former World Bank specialist in India on urban transport

1. **The metropolitan area**

*How extensive is the metropolitan area and how are the metropolitan values and identity formed for this the area? What makes your metropolitan area internationally attractive?*

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Metropolitan Region satellite view
The metropolitan area of Mumbai, formerly called Bombay, is together with Greater Delhi, India’s most populous metropolitan region. In this area of 4400km² live twenty million people. The region consists of 20 municipalities and 982 villages. In the heart of the metropolitan area the municipality of Greater Mumbai occupies almost the entire peninsula including, in 2001, 2/3 of the population of the region with 12 million inhabitants on the 10% of the area.

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<th>Greater Mumbai</th>
<th>rest of the region</th>
<th>Whole region MMR</th>
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<tbody>
<tr>
<td>area (km²)</td>
<td>438</td>
<td>3917</td>
<td>4355</td>
</tr>
<tr>
<td>Population (million)²</td>
<td>12</td>
<td>6</td>
<td>19</td>
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<tr>
<td>Density (hab./km²)</td>
<td>25500</td>
<td>1540</td>
<td>4340</td>
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The urbanization of Mumbai has grown steadily northward from the southern tip of the peninsula where there are still magnificent buildings of Victorian architecture and where the financial, commercial and touristic city centre is located. The urbanised area now extends beyond the peninsula, mainly along the rail corridors in the valleys. It includes some large municipalities, such as Thane, Navi Mumbai or Kalyan, with more than one million inhabitants each. Geographical limits like the sea break of the bay and several mountainous reliefs restrict further eastbound urban development towards the periphery of the region.

Mumbai is growing rapidly at around 3% per year and expected to reach a population of 34 million people within the next 20 years.

The population growth is largely due to the migratory flows from the rest of the state and the country, especially from rural areas, but also from smaller urban areas. The rural exodus and consequent urbanisation process began in India some years ago and is expected to continue on a steady basis. Geographical constraints (water, nature reserves and mountainous reliefs) together with a lack of infrastructure and town planning regulations leading to building height limitations and the real estate market’s reduced flexibility make the housing development difficult.

Correlatively a large part of the population lives in slums or squatter settlements mainly located in the central part of the agglomeration. To give some figures, it was estimated in 2001 that 54% of the Greater Mumbai population lived in slums.

In addition to being the capital of the state of Maharashtra, the region of Mumbai is the financial and economic capital of India and its main harbour (handling 30% of India’s international shipping). GDP for the Mumbai region is the first among Indian cities, even above that of the Delhi region, the national capital. Mumbai provides 40% of Maharashtra’s GDP and 6% of the national GNP. One third of the income tax and 60% of Indian customs duties are generated in Mumbai.

The suburban rail network is essential for life in Mumbai, as it secures 50% of motorized commuting. It is also incredibly overloaded, with a density of up to 16 individuals per square meter in some conditions. Less than 10% of motorized commuting trips are made by car.

**Metropolitan values and identity**

Mumbai is India’s leading financial centre - home for the Reserve Bank of India, the main stock exchange, and many private companies. It is also India’s entertainment capital. The

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² Data from 2001 Census. Data from 2011 Census are not yet available.
film production centre in Mumbai, known as Bollywood, is flourishing and becoming globally recognised. Delhi, being the federal capital, is also growing rapidly. Making a comparison with the United States, we may say that Mumbai is similar to New York and Delhi to Washington DC.

The ambition behind the regional strategic development efforts of the recent years is to make Mumbai a world capital, often taking as reference models Singapore and Shanghai.

The international attractiveness is primarily linked to a very dynamic and concentrated private financial sector. There is also a certain amount of tourism, but that is not really a major factor. The weight of Mumbai in the Indian manufacturing sector has declined over the past decade while other sectors emerged to support the development of the region, in particular financial services and those related to the information technology, media and the entertainment industry.

2. Governance & Cooperation

Is there a form of metropolitan strategy in place and what fields of policy does it entail? Which stakeholders are involved and what is their role and responsibility in this metropolitan strategy? How are the different territorial levels associated to the metropolitan governance? And how is the cooperation of different territorial levels maintained in the planning process that is increasingly subject to a rapidly changing economic, social and technological environment?

The willingness to consider the development of Mumbai on a scale that exceeds the limits of the municipality dates back several decades and was made clear by a law dated 1966 on regional development in the state of Maharashtra. Since then, several development plans in the region of Mumbai have been implemented. The most recent ones are the Regional Transportation Plan of Mumbai and the Mumbai Business Plan, which have been jointly drawn up in the late 2000s. These plans are intended to guide the metropolitan development for the planning horizon 2031 and clearly place the process in the context of the regional space. The transportation plan, called TransForM, recognizes that development can take several different paths and proposes a strategic investment plan designed to be resilient. It therefore addresses the challenges of multiple scenarios of urban development, more or less geographically concentrated and focuses its recommendations on giving priority to public transport.

As regards institutions there are no elected representatives at the regional level. Municipalities or villages have elected assemblies. The main municipalities are also organized in corporations. At the regional level the metropolitan authority in the region of Mumbai, MMRDA (Mumbai Metropolitan Region Development Authority) is responsible for the infrastructure development of the region. It is an authority constituted by the state of Maharashtra chaired by the Chief Minister of Maharashtra, which is the elected head of state.

Created in the 70s to prepare the first development plan for the area, MMRDA has gradually increased its role. MMRDA prepares development plans for the region, formulates policies and programs, conducts certain projects and arranges financing for regional investments. MMRDA has a large financial allocation, especially in the form of public land and building rights.

The transportation plan and the business plan were prepared by MMRDA in consultation with several agencies and departments, as well as the municipalities concerned. The Chief Minister has also consulted other bodies to ensure better participation in the decision making process on development projects, mainly the "Citizens Action Group" (with...
representatives of government agencies as well as of civil society). Besides The City of
Greater Mumbai, whose territory covers nearly the entire peninsula and accounts for 12
million people of the 19 million in the region, is definitely a key partner on development
issues.

The issue of transports coordination becomes even more important with the creation of a
metro network in addition to the strengthening of the suburban rail and bus network. One
of the main reforms proposed relates to the creation of a regional transportation authority with
the power to plan, coordinate and finance the regional transport, more or less along the lines
of the Transport for London model. Moreover the coordination between several agencies for
the planning and implementation of regional projects has led some actors to advocate for a
more representative and strong regional government. However, this aspiration is not without
political impact and may weaken the power of the state itself in view of the heavy economic
weight of Mumbai vis a vis the state of Maharastra.

3. New forms of urbanity and metropolitan environments
What are the key development projects (flagships, major infrastructure, social or cultural
equipment, etc.) and programs (information, incentives, investments), of your metropolitan
strategy? How is the dialogue carried between the specific ambitions of local key projects
and the ambition of the metropolitan territory?

Some major projects realised or underway that can be mentioned:

**Mumbai Urban Transport Project:** The project aims to upgrade the framework of the
agglomeration transport network, mainly the suburban rail network and some major
highways. This project, whose implementation is almost achieved, has led to slightly
reduced congestion on commuter trains while increasing the frequency of trains and
improving energy efficiency.

**Mumbai Urban Infrastructure Project:** This project has improved many primary or
secondary road axes, mainly in the city of Mumbai.

**Subway:** MMRDA has initiated the construction of two subway lines in a private concession,
the first subway line in concession in India. These two lines are the beginning of an
ambitious subway programme to serve the city of Mumbai.

**Resettlement** (not a project on its own, but linked to all the other projects that have been
mentioned so far). Achieving these major transport projects required the moving of a large
number of homes and small businesses. The MUTP project alone required the relocation of
about 100,000 people, mostly squatters and slum dwellers. Mumbai had to adopt an
approach that integrates consultation procedures to facilitate such a massive
rehousing operation. MMRDA is now in charge of a large part of these resettlement programs.

**Mithi River:** This project aims to clean and widen Mithi River that runs through the Greater
Mumbai at the centre of the peninsula. Due to garbage blockage and illegal constructions,
the overflow during the great flood of 2005 had very adverse effects.

**Bandra Kurla Complex:** This project aims to create a new business centre in the middle of
the peninsula replacing the traditional centre located at the tip of it. This project started in
the 70s. After having cleaned and installed urban services in some wetlands, MMRDA has
facilitated the development of many office and service buildings in the area.
**TransForM**: This is the strategic plan to meet the challenges of the coming decades. This is the MMRDA strategic plan for transportation for the horizon 2031. The plan clearly places the development process in the context of regional space, while most of the investments remained within the Greater Mumbai area. The objectives of this plan are ambitious and require institutional and financial reforms to make it succeed.

**Dialogue between the ambitions of specific local projects and ambition of the metropolitan area:**

Projects of regional interest are run by MMRDA, which consults with and maintains relations with the local communities. The municipalities run local projects. Trade-offs between competing interests on major regional projects are often solved at the government level that controls MMRDA. The state also operates with the help of ad hoc advisory committees, to address coordination issues that arise during the implementation phases of the projects. Further reforms are needed to give regional institutions such as MMRDA more authority to avoid the need to involve higher levels of state government in coordination issues that reforms, as mentioned above.

The coordination challenges also exist between the regional and federal level because many federal agencies have the authority to intervene locally, either because some federal agencies own the land (as it the case of an important part of the historical centre of Mumbai owned by the harbours federal government administration) or are in charge of the management system (as it is the case for suburban railways which depend on the federal Ministry of Railways). To solve a large part of the difficulties inherent to suburban railway development, the state of Maharashtra and the Federal Ministry of Railways have established a joint agency, MRVC, which is in charge of developing the Mumbai suburban railway network.

**4. Innovative economical sectors**

Is the regional level competitive enough in a globalized economic and innovation-led system clusters and does it remove the obstacle of the vertical organisation of public policy?

Mumbai is a dynamic and ambitious global metropolis. It seeks to innovate in areas where it already has a comparative advantage such as finance, information technology and entertainment. It also has a real tourist attraction because of its location.

Within the metropolitan area of Mumbai, the question of the location of employment centres and multi polar structures has been raised. The historic financial centre is located south of the peninsula which has posed problems because the space is limited and the location is far from the rest of the city, which has gradually expanded northward (the Peninsula is approximately 50km long). For this reason, Mumbai has created since the 80s a new centre in the middle of the peninsula, called Bandra-Kurla. In the same period a new town was created on the other side of the bay, called Navi-Mumbai. The creation of strong transport infrastructure, as required by the strategic plan, would contribute to accelerate the rise of these centres. Other existing centres and the implementation of the development plan go in the direction of a multi polar expansion, notably around the new port of Mumbai, the JNPT – Jawaharlal Nehru Port Trust.
5. Sustainable development
On which central themes and key policies is your metropolitan strategy set upon? How do these themes and policies overcome the short-term instability of any long-term vision and deliver a performing and resilient territorial development?

The first challenge the metropolitan strategy attempts to address is to try to accommodate all the people who come in large number to Mumbai, as India is undergoing rapid urbanization with great potential for further urban development. We have to remember that the population of the metropolitan area of Mumbai is expected to grow by more than 10 million people within the next 20 years. This poses enormous challenges for economic and infrastructure development. Natural tendency is the growth of slums and other insecure or unsafe housing conditions. Improving the quantity and quality of living conditions is therefore a major challenge. The Region summed it up in formulating its vision as “transforming Mumbai Metropolitan Region into a world class metropolis with a vibrant economy and globally comparable quality of life for all its citizen”.

To meet the main development challenges the strategic plan provides guidelines, including proposals for reforms. Some are designed to streamline the land market, make the land denser (land density being very low in the centre of the city) and promote social housing. Other reforms are discussed to strengthen coordination between the different agencies involved in development projects, or to enhance the representativeness of the regional power. The final outcome of these reforms will be important to achieve sustainable and successful development of the metropolis.

The voice of the people can contribute to this success. We can mention here Bombay First, a group of entrepreneurs in Mumbai which acts to improve the quality of life for citizens of Mumbai and the economic and social fabric of the city, in short, to transform Mumbai into a world class city, one of the best places to live in and do business. Bombay First organizes conferences, seminars on development issues and has, for example, highlighted and promoted the ideas of institutional reform outlined in the strategic plan.
http://www.mumbaifirst.org/

Recently there have been discussions to plan for the longer term horizon (2050), and approach the development from a completely new perspective. This conceptual plan considers the possibility of regaining ground in the south-east of the peninsula by claiming it from the bay, with the aim of reducing land scarcity while strengthening the role of the historic centre and the tourist attraction of the city. But these concepts are only at the discussion phase.