Smart Cities or Smart Metropolitan Areas?

• Solving today’s urban challenges -- transportation, land use planning, waste management, etc. -- requires more than investment in technology

• It also requires new ways of doing things, e.g. “smart” governance

• Cities that collaborate across municipal boundaries will lead the way to delivering smarter services
Presentation outline

- What is a metropolitan area?
- What is metropolitan governance?
- Why does metropolitan governance matter?
- How do we evaluate governance models?
- Five models of governance used around the world
- Mumbai and Toronto
- Final comments on the foundations of strong metropolitan governance
What is a metropolitan area?

• Densely populated urban core surrounded by a number of less populated cities, towns, villages, suburbs

• Single economy, single labor market, community of interest

• Geographic boundary determined by population size and commuting patterns

• Strong and complex interdependencies among local jurisdictions – social, economic, environmental, political, administrative
What is metropolitan governance?

• Process by which governments (all levels) and non-government actors (civil society, business associations, unions, etc.) in the metropolitan area collaborate to:

  • deliver services
  • formulate public policy
Why does metropolitan governance matter?

• Cities are economically interdependent with their surrounding areas (neighbouring cities, rural areas)

• Linkages extend beyond political boundaries

• Metropolitan governance is critical to how:
  • service delivery is coordinated across the region
  • costs are shared
  • citizens can access local government
  • responsive and accountable are local governments

and ...

• whether there is a vision for the metropolitan area
Why does metropolitan governance matter?

- Metropolitan governance matters for:
  - **Transportation**: Need to coordinate transportation across municipal boundaries; need to link employment and services; need to coordinate transportation and regional land use
  - **Water/sewers**: Inadequate maintenance of storm drains in one jurisdiction may lead to flooding or health risks in another
  - **Policing**: Coordination is needed to fight crime across local boundaries
  - **Social services, health, and education**: Need to decide on level of expenditures and how to share costs across jurisdictions with different fiscal capacity
  - **Economic development**: Coordination reduces harmful competition in metropolitan area; larger cities mean lower business costs because of fewer local offices; increased productivity
Evidence from OECD countries

• Where there are metropolitan organizations – metropolitan areas perform better than fragmented local governments:
  • denser
  • higher per capita GDP
  • attract more people
  • higher level of public satisfaction with public transport
  • lower levels of air pollution

Source: Ahrend, Gamper, and Schumann (2014)
Evidence on governance and productivity

- Study of Germany, Mexico, Spain, United Kingdom, United States

- Fragmented governance structures tend to have lower levels of productivity (measured by wage premiums)

- A metropolitan area with twice the number of municipalities is associated with around 6 percent lower productivity

- Impact cut in half if there is a governance body at the metropolitan level

Source: Ahrend, Farchy, Kaplanis and Lembcke (2014)
Criteria to evaluate governance models balancing regional and local interests

- Economic efficiency – local responsiveness

- Economies of scale – costs per unit fall as quantity of service increases

- Spillovers (externalities) – benefits of services spill over municipal boundaries

- Equity – ability to share costs and benefits of services fairly across the metropolitan area

- Accessibility and accountability for decision-making – ability of citizens to communicate with local government (including open government, internet voting, etc.)
Five metropolitan governance models

• One-tier fragmented government structures

• One-tier consolidated government structures

• Two-tier government model

• City-state

• Voluntary cooperation/special purpose districts

*A metropolitan area can reflect more than one model*
<table>
<thead>
<tr>
<th>Governance Structure</th>
<th>Criteria Satisfied</th>
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<tbody>
<tr>
<td></td>
<td>Access and accountability</td>
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<tr>
<td>One-tier fragmented</td>
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<tr>
<td>One-tier consolidated</td>
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<td>Two-tier</td>
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<td>Upper Tier</td>
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<td>Lower Tier</td>
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<td>City-state/provincial status</td>
<td>✓</td>
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<td>Voluntary cooperation/special districts</td>
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Fragmented one-tier structures

- Los Angeles – 200 cities and 5 county governments
- Buenos Aires – Autonomous City plus 32 municipalities
- Manila – 16 municipalities
- Mumbai - Municipal Corporation of Greater Mumbai (MCGM), 4 municipal corporations, 15 municipal towns, 7 non-municipal centres, 995 villages

Examples of inter-municipal cooperation to follow
Consolidated one-tier structures

• Cape Town – geographic boundary coincides with economic region

• Toronto – a city too big and too small

• Shanghai – divided into administrative units (urban districts and street offices)

• Abidjan – combines 10 communes plus 3 prefectures on the outskirts of the city

Above: Photo by David Nunn via Flickr (http://bit.ly/2oQdS1T)
Below: Photo by Valentin Stanciu via Flickr (http://bit.ly/2oohKWM)
Two-tier structures

- Barcelona – metropolitan council plus 36 lower tiers
- Paris – Metropole du Grand Paris established in 2016; includes inner city and suburban arrondissements
- Quito – metropolitan government plus 61 zones and parishes (directly elected mayors and council)
- Dar es Salaam – three lower tier councils and an overarching Dar City Council

Photo by Moyan Brenn via Flickr (http://bit.ly/2pDyugz)
City-states

• Berlin, Bremen, Hamburg
• Singapore – city-state nation
• Shanghai
• Ulaanbaatar
• Mexico City – very recently changed from a federal district
Special purpose districts

- Greater ABC Region in São Paulo ("bottom up")
- Bogotà – public company implemented transportation plan for metropolitan area
- Metropolitan Manila Development Authority for services that have a metropolitan-wide impact
- Parastatals in Mumbai delivering a range of services (e.g. regional development, housing, slum rehabilitation, road development)

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Mumbai and Toronto

Photo by Vidur Malhotra via Flickr (http://bit.ly/2pDxHcB)  
Photo by Dennis Jarvis via Flickr (http://bit.ly/2onUGrk)
## Mumbai and Toronto

<table>
<thead>
<tr>
<th>Mumbai</th>
<th>Toronto</th>
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<tbody>
<tr>
<td>Greater Mumbai – 12.5 million; Mumbai Metropolitan Region (MMR) – 22 million</td>
<td>City of Toronto – 2.6 million; Greater Toronto Area (GTA) – 6.4 million people</td>
</tr>
<tr>
<td>Federal country – ULBs recognized as third tier of government in constitutional amendment of 1992</td>
<td>Federal country – cities not recognized as tier of government in constitution</td>
</tr>
<tr>
<td>MMR encompasses Municipal Corporation of Greater Mumbai (MCGM), 4 municipal corporations, 15 municipal towns, 7 non-municipal centres, 995 villages</td>
<td>GTA encompasses City of Toronto plus four upper-tier regions which include 24 lower-tier municipalities</td>
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<tr>
<td>Parastatals: regional development, roads, housing and slum rehabilitation, planning</td>
<td>Regional transit authority – Metrolinx</td>
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<td>Regional planning authority – Mumbai Metropolitan Regional Development Authority</td>
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<tr>
<td>MMR: one-tier fragmented; many parastatals</td>
<td>Amalgamation of City of Toronto in 1998: one-tier consolidated; GTA – two-tier regions</td>
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Final comments – summary of findings

• Different models have worked in different places at different times – no one model works best

• National and local context matter:
  • constitution
  • federal versus unitary country
  • division of responsibilities and revenues
  • history of local autonomy

• Need for strong regional structure that encompasses economic region

• At the same time, need to respond to local interests (e.g. encourage local participation through open government, open data)
Final comments – foundations of strong metropolitan governance

• Political legitimacy through direct election
• Legitimacy of metropolitan authorities by national or state government through legislation
• Geographic boundaries that match boundaries of economic region
• A process that involves all stakeholders in early stages of restructuring
• Adequate staffing and training
• Clear assignment of expenditure responsibilities and revenue sources -- revenues that match expenditures (to be discussed in next presentation)
• Fiscal autonomy (to be discussed in next presentation)