Occasional Paper Series

The Rise of Megacities and Multi-Level Governance

Enid Slack
The Forum of Federations, the global network on federalism and multilevel governance, supports better governance through learning among practitioners and experts. Active on six continents, it runs programs in over 20 countries including established federations, as well as countries transitioning to devolved and decentralized governance options. The Forum publishes a range of information and educational materials. It is supported by the following partner countries: Australia, Brazil, Canada, Ethiopia, Germany, India, Mexico, Nigeria, Pakistan and Switzerland.
The Rise of Megacities and Multi-Level Governance

Enid Slack
Introduction

The 21st century has witnessed a rise in the number of cities that are home to more than 10 million people, commonly known as megacities. Currently, 12 percent of the world’s urban population lives in megacities – places such as Buenos Aires, Los Angeles, Mexico City, and Mumbai. Megacities are a reasonably recent phenomenon in the history of cities, however: in 1950, there were only two megacities – New York and Tokyo. By 1990, there were 10. In 2018, there were 33 and the number is expected to increase to 43 by 2030, most of which will be located in less developed countries. Of the 33 megacities around the world today, 15 are located in nine federal countries.

This paper examines a series of questions about megacities in federal systems. What are the opportunities and challenges faced by megacities in a multi-level governance system? How are they governed? Where do they fit in the multi-level governance system – do federal and provincial/state governments embrace megacities or do they feel threatened by them? Of course, as Nico Steytler correctly noted in his presentation at a May 21 Forum of Federations webinar on Megacities and Federal Governance, megacities do not easily fit into the federal model because they are not a legal authority that can be granted powers or resources (Forum of Federations 2021). Rather, they are functional urban areas without an over-arching governance institution. This reality raises the question about how to make decisions, and deliver and pay for services to 10 million people or more when they are not organized into a municipality or a province/state. Lastly, the paper looks at what megacities in a federal system need to succeed.

Megacities – Opportunities and Challenges

Megacities are urban agglomerations with more than 10 million people (United Nations 2019). They are the same as metropolitan areas, which are urban agglomerations with a dense urban core and surrounding towns and villages that are dependent on it; their primary distinction with respect to other metropolitan areas is their sheer size. Table 1 shows the population of the 15 megacities in federal countries along with the percentage of the state and country population. Buenos Aires stands out among these megacities because its population accounts for over one third of the population of Argentina and almost three quarters of the population of the state of Buenos Aires. Mexico City and São Paulo account for over 17 percent and 10 percent of their country’s population, respectively, and a much larger proportion of the state population. Others, such as some of the megacities in India, have a very large population but each megacity accounts for a smaller share of the total population of the country.

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1 Megacities (and metropolitan areas) are defined on the basis of functional urban regions rather than institutional boundaries. See UCLG (2016) for more information about the definitions.
Table 1: Megacities in Federal Countries by Population, 2018

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<tbody>
<tr>
<td>Delhi</td>
<td>National Capital Territory/Haryana/Uttar Pradesh/Rajasthan</td>
<td>India</td>
<td>28,514</td>
<td>9.2</td>
<td>2.1</td>
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<td>Brazil</td>
<td>21,650</td>
<td>47.1</td>
<td>10.3</td>
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<tr>
<td>Mexico City</td>
<td>Ciudad de Mexico/Mexico State/Hidalgo</td>
<td>Mexico</td>
<td>21,581</td>
<td>76.9</td>
<td>17.1</td>
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<tr>
<td>Mumbai</td>
<td>Maharashtra</td>
<td>India</td>
<td>19,980</td>
<td>17.8</td>
<td>1.5</td>
</tr>
<tr>
<td>New York-Newark</td>
<td>New York/New Jersey</td>
<td>USA</td>
<td>18,819</td>
<td>66.2</td>
<td>5.8</td>
</tr>
<tr>
<td>Karachi</td>
<td>Sindh</td>
<td>Pakistan</td>
<td>15,400</td>
<td>32.2</td>
<td>7.3</td>
</tr>
<tr>
<td>Buenos Aires</td>
<td>Ciudad de Buenos Aires/Buenos Aires Province</td>
<td>Argentina</td>
<td>14,967</td>
<td>73.9</td>
<td>33.7</td>
</tr>
<tr>
<td>Kolkata</td>
<td>West Bengal</td>
<td>India</td>
<td>14,681</td>
<td>16.1</td>
<td>1.1</td>
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<td>Lagos</td>
<td>Lagos State</td>
<td>Nigeria</td>
<td>13,463</td>
<td>54.7</td>
<td>6.9</td>
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<tr>
<td>Rio de Janeiro</td>
<td>Rio de Janeiro State</td>
<td>Brazil</td>
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<td>77.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Los Angeles-Long Beach-Santa Ana</td>
<td>California</td>
<td>USA</td>
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<td>31.6</td>
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<td>Moscow</td>
<td>Central Federal District</td>
<td>Russia</td>
<td>12,410</td>
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<td>8.5</td>
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<tr>
<td>Lahore</td>
<td>Punjab</td>
<td>Pakistan</td>
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<tr>
<td>Bangalore</td>
<td>Karnataka</td>
<td>India</td>
<td>11,440</td>
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<tr>
<td>Chennai</td>
<td>Tamil Nadu</td>
<td>India</td>
<td>10,456</td>
<td>14.5</td>
<td>0.8</td>
</tr>
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Note: The UN measures megacities as city proper, urban agglomeration, or metropolitan area. Some city/metro populations span multiple states and territories, e.g. Delhi, Mexico City, New York-Newark, and Buenos Aires. State population reflects all the states that cover the city/urban/metro area. Where possible, estimates are for 2018 but, in some cases, earlier years are used. Source: United Nations (2019) for megacity and country population; census data for individual countries for state population.

Megacities are important generators of wealth, employment, and productivity growth and they are often the major engines of growth in their countries. For example, the GDP for Buenos Aires accounts for almost 38 percent of the GDP of Argentina, Mexico City for almost 19 percent of the GDP of Mexico, Moscow for almost 15 percent of the GDP of Russia, and São Paulo for over 13 percent of the GDP of Brazil. Most innovation occurs in very large cities and metropolitan areas where people can take advantage of close proximity, often referred to as agglomeration economies. Megacities often serve as regional hubs for people from nearby communities who come to work, shop, and use public services that are not available in their own communities.

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Although more and more people are attracted to megacities because of the economic and social opportunities they offer, these very large cities face enormous and growing problems: transportation congestion, lack of affordable housing, widening income disparities, increased air and water pollution, the impacts of climate change and extreme weather events and, more recently, pandemics. These problems are not unique to megacities -- they are also prevalent in city regions that are smaller -- but the magnitude of the problems is likely to be higher. Indeed, some have argued that many megacities have become too large to be attractive for residents and businesses and could be overtaken in the future by mid-sized cities in terms of their contribution to economic growth (Kübler and Lefèvre 2018).

The governance of megacities is very fragmented – much more so than in mid-sized cities -- because of the large number of people and jurisdictions within their geographic boundaries. They generally are home to local governments. Yet, the problems identified above do not stop at local government boundaries and thus need to be resolved on a coordinated, metropolitan-wide basis. Institutional fragmentation makes them much harder to govern and hampers the ability to coordinate services such as transportation and land use planning, investment in climate adaptation and mitigation, or economic development across multiple jurisdictions in a megacity (Kübler and Lefèvre 2018). Fragmentation also complicates policy coordination across the broader region, impedes revenue generation, and hampers the ability to redistribute income (Kübler 2012).

As Alejandra Reyes noted in her presentation on megacities in the US and Mexico during a May 2021 Forum of Federations webinar on Megacities and Federal Governance, some form of metropolitan governance is most needed in places where there is a high degree of fragmentation, but that is precisely where it is hardest to achieve (Forum of Federations 2021). She also suggested that it is particularly difficult for local governments to collaborate where powerful and wealthy municipalities may have to give up some of their powers and resources.

Examples of fragmented governance in megacities and metropolitan areas in federal countries abound. The United States has a strong tradition of local autonomy and very fragmented metropolitan areas. Los Angeles, for example, is governed by 200 city governments and five county governments. In Brazil, the São Paulo Metropolitan Region comprises 39 municipalities, including the City of São Paulo. In Argentina, the responsibility for services in the Buenos Aires Metropolitan Area is shared among the City of Buenos Aires, the Buenos Aires provincial government, 19 municipal governments in the province, and the federal government. In India, the Mumbai Metropolitan Region (MMR) comprises the Municipal Corporation of Greater Mumbai (MCGM), seven municipal corporations, 13 municipal councils, parts of two districts, over 900 villages, plus state agencies (known as parastatals), and central government authorities. There is very little coordination among all of these overlapping jurisdictions and agencies (Pethe, Gandhi, and Tandel 2017).

In the context of a federal system, fragmentation combined with the scale of challenges megacities face, mean that everything that megacities do requires some form of intergovernmental coordination and cooperation: megacity problems require multi-level solutions. Megacities need new governance models that cover the whole functional urban area (horizontal coordination) but they also need national and state governments to ensure they have the powers and resources to operate effectively (vertical coordination).
coordination). The size and economic importance of megacities means that they cannot be ignored by other levels of government but, at the same time, they create tensions with other levels because of their potential political power.

**Horizontal Coordination – Metropolitan Governance**

What is metropolitan governance and why does it matter? Metropolitan governance refers to the process by which government bodies at all levels as well as non-governmental actors such as civil society, business associations, and unions collaborate to deliver services and formulate public policy for the megacity or metropolitan area. How well a megacity or metropolitan area is governed is critical to how well it functions. For example, metropolitan governance will determine the efficiency with which services are delivered throughout the area, how well services and policies are coordinated across municipal boundaries, and how fairly the costs of services and infrastructure are shared among residents and businesses in the region. Metropolitan governance also has an impact on productivity and economic growth.

A study of metropolitan areas in five OECD countries – Germany, Mexico, Spain, the United Kingdom, and the United States – found that cities with fragmented governance structures (measured by the number of municipalities in the metropolitan area) tend to have lower levels of productivity (measured by wage premiums) (Ahrend, Farchy, Kaplanis, and Lembke 2014). The authors explain this finding by suggesting that fragmentation can have a negative impact on transportation investment and land use planning with the result that congestion is increased and a city’s overall attractiveness is reduced. Moreover, fragmented governance structures can impede growth because they discourage firms that have to face the additional bureaucracy associated with overlapping business and environmental regulations across a number of local governments in the metropolitan area.

Evidence from OECD countries also suggests that where there is some form of metropolitan body, metropolitan areas perform better than fragmented local governments. A metropolitan area with twice the number of municipalities was associated with approximately 6 percent lower productivity, but that impact was reduced by half where there was a governance body at the metropolitan level. Another study found that metropolitan structures have denser developments, higher per capita GDP, attract more people, enjoy a higher level of satisfaction with public transport, and are subject to lower levels of pollution (Ahrend, Lembke, and Schumann 2016). In short, metropolitan governance affects the liveability and economic output of the megacity.

**Models of Governance for Megacities**

The literature on governance, which largely addresses the governance of metropolitan areas generally rather than megacities specifically, describes a number of different models (Slack and Chattopadhyay 2013). The one-tier fragmented model is characterized by a large number of autonomous local government units in a metropolitan area, each having some degree of independence in making decisions within its own jurisdiction about what services to deliver and how to pay for them. The one-tier consolidated model has one government that covers the metropolitan area and generally results from the consolidation (through annexation or amalgamation) of neighbouring municipalities. The two-tier model has a metropolitan tier that covers the metropolitan area and addresses metro-wide concerns plus several lower tiers that focus on local concerns. City-states have the powers and resources of both city and state governments. Finally, voluntary cooperation (also known as the new regionalism) involves
a number of local governments in the metropolitan area collaborating on policies and service delivery. Which of these models can work in a megacity?

Choosing an appropriate governance structure for a megacity with many local governments depends upon how one weighs conflicting considerations — efficiency, access, and accountability point to smaller local government units whereas economies of scale, externalities, and equity suggest larger governments (Slack 2019). For many services that spill over municipal boundaries (such as transportation, land use planning, waste management, and economic development), there is the need to deliver them on a regional basis. At the same time, services that are local in nature (such as parks and recreation) would benefit from more local provision.

Consolidated (one-tier) cities, which cover the entire economic region (successful in some mid-sized cities such as Auckland and Cape Town) are not prevalent in megacities and possibly not workable. Indeed, consolidation in a megacity seems to be “a rather hopeless endeavour” because of the difficulty of the large number of jurisdictions involved and the number of people (Kübler 2012). There is the added problem that state governments feel a loss of control when municipal institutions grow very large. Nor do we see any two-tier systems (such as in the model in Barcelona) where there is a metropolitan tier that is responsible for metropolitan-wide issues (such as transportation and land use planning) and lower tiers that address local problems (such as parks and recreation). City-states (such as Berlin, Hamburg, and Bremen in Germany) are not generally found in megacities either, with a couple of exceptions – Buenos Aires and Mexico City. In 2016, the federal district in Mexico City was dissolved and Mexico City became the 32nd state of the country (Reyes 2020). City-states have had some success but changing the jurisdictional boundaries when the population grows is very difficult because of the need to expand into another state.

Voluntary cooperation, however, is a more common, and perhaps a less threatening way to address metropolitan-wide issues in megacities. It can take different forms ranging from informal arrangements among municipalities to more formal inter-municipal agreements to the creation of special purpose districts to deliver specific services (such as transportation or water) that cross municipal boundaries. Generally, voluntary cooperation implies some degree of administrative integration as well as some political linkage because member local governments each have some form of representation in decision-making. Voluntary cooperation is often popular because cooperation agreements are easy to create politically and can be disbanded just as easily. They are also less threatening to state or provincial governments.

With voluntary cooperation, municipalities retain their autonomy with respect to expenditure and tax decisions, but at the same time have the ability to take advantage of economies of scale in service delivery and address externalities associated with service provision for specific services. Informal arrangements rely on trust among municipalities and involve a lot of flexibility but lack the legal protections that come with more formal contractual arrangements (Spicer and Found 2016). Problems of accountability may arise when services are provided by another jurisdiction. Citizens are often unable to get the information about services from their locally elected officials because they do not have direct access to these functions – the result may be a “democratic deficit” (Dafflon 2012).

There is some experience with bottom up initiatives of voluntary cooperation to coordinate service delivery across municipal boundaries in megacities in federal countries. Under the Brazilian Constitution, state governments have the right to create metropolitan governance structures but the constitution also established municipalities as full members of the federation with the same autonomy
and sovereignty as state governments (Wetzel 2013). In practical terms, this means that municipalities have to agree to any actions undertaken by the metropolitan agency. Nevertheless, states, municipalities, and the federal government can enter into “cooperation agreements” to provide common services and share costs. These agreements are a way for different entities to cooperate in areas such as planning and service provision without creating a new entity.

Local authorities in Brazil can also form a public consortium, which is more formal than a cooperation agreement. Under the Public Consortia Act passed in 2005, consortia have a legal personality and can be created either as public or private associations (non-profit in both cases). Participation in a consortium is voluntary. Members of the consortium can choose among the main goals of the consortium that they are willing to accept. For example, a municipality could sign a memorandum of understanding for a consortium that would help members plan and implement transit projects in a specific geographic area, but through “reservations” opt out of the implementation part, only accepting the planning powers of the consortium. Members may also withdraw voluntarily from a consortium. Inter-municipal consortia are a vehicle that has been used to deliver a wide range of municipal services in cities such as Belo Horizonte, Recife, and São Paulo.4

One of the most often cited examples of inter-municipal cooperation in Brazil is the ABC region in São Paulo. The absence of a metropolitan structure in São Paulo in the 1990s led to bottom-up experimentation among seven municipalities and the development of an inter-municipal consortium, known as the “the ABC region.” The ABC region gained momentum mobilizing different stakeholders, including the state government of São Paulo, to address strategic planning in the region (Subarits 2017; Klink 2017).

In the Philippines, COVID-19 provides an example of how municipalities can work together informally in a crisis such as the pandemic.5 Jonathan Malaya, in his presentation to the aforementioned May 2021 Forum webinar on Megacities and Federal Governance, discussed the issues around testing, contact tracing, and vaccination in Metropolitan Manila, where people may live in one jurisdiction and work in another (Forum of Federations 2021). Where do people get tested and vaccinated? How do you impose a curfew in one municipality but not in the next municipality? The pandemic forced the mayors within Metro Manila to work together, which they did successfully through the Metro Manila Development Authority (MMDA), a regional coordinating body for planning and service delivery created by the national government for the 16 municipalities in Metro Manila. Although a number of authors have criticized the MMDA in the past for not being very effective (see, for example, Montgomery, Stren, Cohen, and Reed 2003) and for lacking incentives for city mayors to take on a metropolitan focus (Smoke 2013), recent events have bolstered the coordinating function of the MMDA.

Which model works best?

Metropolitan areas everywhere face the challenge of how to balance regional and local interests. Different countries have used different governance models for megacities depending on their history, the legal context, the roles and responsibilities assigned to local governments, their sources of revenue, the intergovernmental context, the political strength of local leaders, the capacity of the civil service, and a number of other factors (Slack 2019). Although there is not one model that can be applied everywhere, some form of regional structure that covers the entire megacity area is needed to address

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4 For more information on municipal consortia in these three cities, see World Bank Group (2015).
5 The Philippines is not technically a federal country but does have some federal features.
problems associated with externalities in service provision as well as fiscal disparities among municipalities within the metropolitan area.

The size of megacities makes it difficult to implement some of the models that have worked well in smaller metropolitan areas. In particular, the consolidation of a number of municipalities into a one-tier megacity of over 10 million people may be too difficult to manage and will likely reduce access and accountability to citizens. Moreover, in a federal system, there could be few people or resources left in the rest of the province, making it difficult to function. A two-tier structure would have a better chance of balancing metropolitan-wide interests with local accessibility, but the upper tier may be too large to be acceptable to provincial or state governments for the same reasons as the one-tier model. What seems to be more common around the world is the approach of voluntary cooperation where there is no formal government structure but there are mechanisms for municipalities within the metropolitan area to cooperate on issues and services that cross municipal boundaries. Where successful, voluntary cooperation may transition into a more formal arrangement.

**Vertical Coordination: Role of National and State Governments**

The fragmented governance of megacities means that coordination among local governments within the megacity region is required. There is also a need, however, for vertical coordination between representatives of megacities and the federal and provincial/state governments (Graizbrod 2008; UCLG 2016). Even in a bottom up process of creating a governance model for a megacity through voluntary cooperation, the central government needs to be involved because it can give legitimacy to the process and the outcomes (Lefèvre 2008). Rarely have metropolitan governance reforms derived from purely local initiatives (OECD 2006).

Beyond governance, national and state governments have a critical role to play when it comes to megacities. The larger megacities become, the more important they are to the country in which they are located. Especially where megacities host a large share of the overall population of the country, the governance of megacities should be a matter of national importance: “to run a country means to run its megacities” (Kübler 2012:10). National governments provide the overall enabling environment for local governments through the constitution and laws relating to property rights, labour markets, etc. (Birch 2017). Local governments have original powers in the constitution in very few countries, however. Two exceptions are South Africa and Brazil. In most countries, local governments are creatures of the state or province in which they are located (see Hirschl 2020). Federal governments also provide resources to local governments through conditional and unconditional transfers. Conditional transfers have to be spent on specific functions and may distort local decision-making. Unconditional transfers do not have strings attached but may reduce the incentive for local governments to raise own-source revenues.

State governments usually take on the leading role in urban policymaking in megacities in federal systems by setting the rules of the game and enacting laws that establish the institutional organization

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6 For example, Nico Steytler, in his presentation to the Forum webinar on Megacities and Federal Governance, discussed Gauteng province in South Africa where there are three metropolitan municipalities in close proximity – Johannesburg, Ekurhuleni, and Tshwane – which collectively have a population that is more than 10 million (Forum of Federations 2021). If they were joined into one municipality, he argued, there would be nothing left of the province.

7 Although not located in a federal country, the Greater Manchester Combined Authority (GMCA) provides a good example of how successful cooperation and collaboration among municipalities over three decades made the creation of a two-tier structure of metropolitan governance achievable. For more on the GMCA, see Harding (2020).
of the megacity (whether it is the same or different than other large cities) and set out which financial resources they will have access to (Kübler and Lefèvre 2018). For example, the state government of Maharashtra appoints the municipal commissioner of the Mumbai Corporation of Greater Mumbai. In Lagos, the central government has essentially taken no role in the decision-making of the megacity, leaving most of it, along with city financing and the development of a long-term strategy, to Lagos State (Olokesusi and Wapwerea 2017). State governments are also major financial contributors to cities, often more so than the national government.

Another way that federal and state governments intervene in the governance of megacities is through public enterprises or agencies in the areas of transport, planning, housing, and other areas. Indeed, as Kübler (2012) notes, the involvement of national agencies in urban policymaking is stronger in megacities than in smaller cities. National and state agencies are particularly prominent in transportation. For example, the Port Authority of New York and New Jersey controls the transport network of the New York City region including airports, public transit, bridges, tunnels, and ports. The Mumbai Regional Development Authority, controlled by the state government, is the most important agency in charge of regional development. In São Paulo, public transit is run by agencies under the control of the state government.

Vertical coordination is more difficult when national and state governments feel threatened and they are more likely to feel threatened by megacities than smaller cities or metropolitan areas. National and state governments often view large metropolitan authorities as potential competitors (UCLG 2016) and they are unlikely to hand over authority gracefully (Ahrend, Lembke, and Schumann 2016). Large metropolitan authorities can be very powerful, have access to a lot of resources, and are often springboards for local politicians to enter the national or state political arena. In India, for example, there is reluctance on the part of state governments and parastatals (state agencies) to devolve powers or transfer funds to the municipal governments (Kundu 2017).

Megacities, which make greater expenditures than smaller cities and have greater ability to pay, should have more fiscal autonomy than other areas in the sense of being more responsible for delivering local services and for levying and collecting the revenues to pay for these services (Bird and Slack 2013). The ability to self-finance is a critical factor in determining which metropolitan institutions succeed. But, of course, there needs to be a governing body to be able to levy taxes and fees.

In reality, however, local governments are assigned a vast array of expenditure responsibilities but the broad based and redistributive taxes are assigned to the higher orders of government. As a result, cities rely, to varying degrees, on intergovernmental transfers that usually come with strings attached and are rarely stable and predictable. In Buenos Aires, for example, it has been argued that one of the reasons that governance is weakest at the municipal level because municipalities in Buenos Aires province are heavily dependent on provincial transfers (Rojas 2017). In Mumbai, urban bodies rely on state and central government transfers and lack the borrowing capacity to finance infrastructure (Kundu 2017). National and state governments are often unwilling to give up taxing authority to megacities even if they have greater fiscal capacity than other cities.

**What Do Megacities Need to Succeed?**

Rapid urban growth, particularly in the less developed parts of the world, will result in both opportunities and challenges for megacities. The governance of megacities is very fragmented, however, making it difficult to deliver services and make decisions on a metropolitan-wide basis. In a federal
country, there is the additional challenge that state and provincial governments often feel threatened by megacities and are thus not inclined to give them more legislative authority or the resources they need to function. Yet, the success of megacities has an impact on the economy of their states and countries, and thus, national and state governments would be wise to collaborate with them (UCLG 2016).

To succeed, megacities need governance structures that allow them to balance a regional vision and the ability to coordinate and deliver services across the metropolitan area while maintaining local autonomy and accountability. They also need adequate powers and resources to deliver services and infrastructure, powers and revenue sources that are granted by the higher orders of government. Finally, urban challenges around transportation, affordable housing, and inequality, for example, are multi-level in scope. For this reason, there needs to be dialogue and cooperation among all levels of government – federal, state, and local – about the issues that have an impact in megacities.
References


Enid Slack is the Director of the Institute on Municipal Finance and Governance (IMFG) at the Munk School of Global Affairs and Public Policy at the University of Toronto. IMFG focuses on the fiscal health and governance challenges facing cities and city-regions in Canada and around the world. Enid has been working on municipal finance and governance issues for 40 years and has been retained by agencies such as the Forum of Federations, World Bank, International Growth Centre, UN Habitat, Asian Development Bank, and Inter-American Development Bank in countries such as Brazil, China, Chile, Colombia, India, Mexico, Mongolia, the Philippines, and South Africa. She has written several books and articles on property taxes, intergovernmental transfers, and municipal infrastructure finance. She co-edited two books on metropolitan governance with Rupak Chattopadhyay, one on Finance and Governance of Capital Cities in Federal Systems and the other on Governance and Finance of Metropolitan Areas in Federal Systems. In 2012, Enid was awarded the Queen’s Diamond Jubilee Medal for her work on cities.