Planning for EFFECTIVE GOVERNANCE IN METROPOLITAN AREAS IN MEXICO

May 2015
Edna Aguiñaga, B.S.E., M.Eng [SCI, Canada/Mexico]
Andres Aranda, BSc., M.S. (CMM, Mexico)
Larissa Ardis, M.A. (SFU, Canada)
Erika Castro, B.Arch, MSc.Pl (Independent Consultant, Canada/Brazil)
Maria do Livramento Clementino, B.S.E., M.S., Ph.D (UFRN, Brazil)
Richardson Camara, B.S.E., M.S., Ph.D candidate (UFRN, Brazil)
Gretchen Hernandez, M.CRP, Ph.D (SFU, Canada)
Sean Markey, M.A., Ph.D (SFU, Canada)
Jane McRae, B.Sc., M.Ed [SCI, Canada]
Silvia Mejia Reza, B.Arch, M.AR [SCI, Mexico]

With special thanks for their contributions to:
Alberto Orozco, M.U.P. Executive Director of IMEPLAN
Jesus Ríos, B.S.E, Ms.C. Executive Director of IPCo
Alfonso Iracheta, M.U.P., Ph.D. Consultant specialized in metropolitan issues

This report is presented as received from project recipient(s). It has not been subjected to peer review or other review processes.

This work is used with the permission of Dr. Sean Markey & Dr. Gretchen Hernandez, Simon Fraser University

*Copyright 2015, Markey & Hernandez
# TABLE OF CONTENTS

3 EXECUTIVE SUMMARY
4 INTRODUCTION
7 MEXICAN CONTEXT FOR METRO GOVERNANCE
10 RESEARCH METHODS
11 METRO GOVERNANCE MODELS
11 Overview of Metro Governance Models
13 Canadian and Brazilian Examples
13 Metro Vancouver
14 The Natal Metropolitan Region
16 ASPECTS TO CONSIDER WHEN DESIGNING METROPOLITAN GOVERNANCE
17 Institutional Design
21 Cooperation
23 Service Delivery
25 Social Participation
27 Land Use
31 Financing
34 CONCLUSIONS
36 ADDITIONAL THOUGHTS
37 REFERENCES
EXECUTIVE SUMMARY

This document outlines the context for metropolitan governance in Mexico, models of metropolitan governance, and key considerations to take into account when attempting to design and implement a metropolitan region. The information is derived from an action-research project that explored models and issues in metropolitan governance from around the world, with particular emphasis on learning from Canadian and Brazilian experiences.

The research involved a comprehensive literature review; one-on-one semi-structured interviews with key players in the Guadalajara Metropolitan Area (AMG) and the Metropolitan Area Colima (ZMC) in Mexico, and a learning exchange workshop held in Guadalajara in November 2014 with participation from Mexico, Canada and Brazil. Although the project focused on the AMG and ZMC, the information is useful for any Mexican region grappling with issues of metropolitan level inter-governmental coordination. The paper does not intend to provide a one-size-fits-all prescription for all regions of Mexico, but rather some guidelines for a broad analysis in the different contexts.

The document first explores the Mexican context for metropolitan governance. Like the rest of the world, Mexico faces tremendous expansion across its urban areas. Its 59 metropolitan regions contribute 67% of the country’s GDP (SEDESOL, 2010), yet most have limited capacities to manage shared interests across their municipal jurisdictions. Although several government bodies have begun to address planning at the metropolitan level (e.g. the revision of the General Law of Human Settlements), legal aspects continue to hinder the formation of a metropolitan level of governance.

The document goes on to explain various models of metropolitan governance from around the world. Classifying governance models according to some of their key distinguishing features helps us understand their diversity. For example, models can be classified as institutional or non-institutional, and ordered from greater to lower levels of formality, political legitimacy, and sectoral reach. For the purpose of this project, we analyzed two examples of Metropolitan Regions: Metro Vancouver in Canada and the Natal Region in Brazil. Metro Vancouver was selected as an example of an effective metropolitan governance structure from a Northern region that has been operating successfully for more than 40 years, while Natal was selected as representative of a Southern region where conditions are more similar to those in Mexico.

The document also highlights aspects to consider when designing a metropolitan governance model, such as institutional design; cooperation; service delivery; social participation; land use; and financing. This section includes challenges, considerations, and related examples to help guide readers through the issues and possibilities for each topic. The paper concludes with a summary of lessons learned from this project and recommendations for governments and other stakeholders who are interested in better coordination and collaboration at a metropolitan level.
INTRODUCTION

The Metropolitan Governance in Mexico: Learning from the experiences of Canada and Brazil is an action-research project that sought to identify the characteristics of design, implementation and policies of metropolitan structures that might be applicable and useful in addressing the need for collaborative governance and coordinated action in metropolitan areas of Mexico.

The project partners are:

- Simon Fraser University (SFU) in Vancouver, Canada
- Sustainable Cities International (SCI) in Vancouver, Canada
- Mario Molina Center (CMM) in Mexico
- Universidade Federal do Rio Grande do Norte (UFRN) in Brazil
- The Planning Institute of Colima (IPCo) in Colima
- The Metropolitan Planning Institute (IMEPLAN) in Guadalajara
The project is funded by the International Development Research Centre (IDRC), a Canadian organization that provides funding to generate and apply new knowledge to help solve challenges in developing countries.

The concept of collaborative governance has been extensively analyzed and reviewed in studies such as Innes & Booher (2000, 2003, & 2010), Gray (1989), Leach & Sabatier et al (2001, 2002, 2005), Ansell & Gash (2007), Page (2008) amongst others. Despite the growing significance of collaborative governance in the literature and in practice, few models or studies of collaborative governance exist in Mexico, where issues arising from rapid urban expansion and the collision of jurisdictional boundaries are driving a demand for solutions. Support for joint municipal and regional initiatives and accumulation of knowledge and expertise in the area of collaborative governance has been sporadic to date and is now perceived as critical, given the potential benefits associated with collaborative models. This research project responds to this growing need and opportunity. Research conducted in the two participating Mexican regions of Guadalajara and Colima confirms that key players are recognizing the urgency of finding ways to work together in order to maximize financial resources, preserve scarce and limited natural resources, and optimize services and infrastructure.

The purpose of this document is to provide general guidelines on key considerations to take into account when attempting to design and implement a metropolitan region and some recommendations derived from current metropolitan level experiences and research. It does not intend to provide a one-size-fits-all prescription for all regions of Mexico, but rather some guidelines for a broad analysis in the different contexts.

The document is organized into five sections. The first section outlines the Mexican context for metropolitan governance. In section two, the research methods used to gather information for this project. The third section presents various models of metropolitan governance from around the world, and the particular examples of Metro Vancouver, Canada and Natal, Brazil. The fourth section highlights aspects to consider when designing a metropolitan governance model. The paper concludes with a summary of lessons learned from this project and recommendations for governments interested in better coordination at a metropolitan level.
One-on-one semi-structured interviews were conducted with key players in the Guadalajara Metropolitan Area (AMG) and the Colima-Villa de Álvarez Metropolitan Area (ZMC).
MEXICAN CONTEXT FOR METRO GOVERNANCE

Several recent developments have converged to make the international quest for effective metropolitan governance arrangements more important than ever. Urban regions are also changing, both in form and function.

Around the world, people are flocking to cities in search of opportunities for a higher quality of life. The percentage of people living in cities has increased from 13% in 1900 to 52% in 2011; cities will be home to 80% of the population in Latin America by 2025 (Rojas, 2008) and 60% of the global population by 2030 (UN-DESA, 2012).

Clusters of adjacent cities have grown into metropolises—physically, economically, and culturally interconnected regions delivering services for increasingly diverse populations, served by multiple local governments as well as additional layers of government.

Globalization has rearranged production worldwide, metropolitan economies are seen as the new competitive units in the global economy (Yaro & Ronderos, 2011). Metropolitan areas are assuming an ever greater share of national production: Latin American metropolitan agglomerations (such as São Paulo and Buenos Aires) concentrate more than 50% of the productive capacity of their countries, and are expected to contribute more than 80% of future economic growth (Rojas, 2008).

Municipalities grapple with new responsibilities offloaded by higher levels of government as well as the increasingly complex planning challenges that arise from jurisdictional questions. At the same time, it has become clear that high quality of urban life is a key element in success in the knowledge economy.

Changing economic and demographic realities are compounded by new environmental and social ones. Climate change, environmental degradation, and resource depletion—and all of the attendant risks to public health and energy security—lend new urgency to the need to develop planning and governance systems that treat the environment as the basis of healthy economies rather than as marginal to them. This is particularly so for urban areas, which are significant contributors to climate change and very vulnerable to its effects.

More than three decades of research suggests that better governance and sustainable urban development requires greater control over urbanization processes; procedural justice systems that support greater participation of a wider range of urbanites; a fairer distribution of the benefits and costs of urban development; urban planning systems that are more integrated and holistic; and greater intervention of local government within urban systems to accomplish all of the above (Keil & Whitehead, 2012).

Mexico, like the rest of the world, faces tremendous expansion across its urban areas. During the last four decades there has been an increase of the population living in cities due to migration processes and
demographic growth. In 1960 the population in metropolitan areas was 9 million and by 2010 it was 63.8 million, distributed in 364 cities and 59 metropolitan regions (SEDESOL, 2010). These 59 metropolitan regions contribute 67% of the GDP (SEDESOL, 2010), however most have fragmented political and administrative capacities to manage shared interests across their municipal jurisdictions. Some of the challenges these regions are now facing are land degradation, the unregulated use of natural resources leading to a significant decline in availability and quality of some resources (for example, water), strong social disparities, increasing inequality, lack of job opportunities and a rise in informal settlements due to the lack of land or housing availability. Exacerbating these challenges is the core issue of metropolitan productivity and competitiveness. As population in these areas continues to grow, a metropolis with low productivity impacts the economy of the entire region and the national economy.

These challenges have brought attention to the dire need for effective metropolitan governance systems that facilitate coordination across levels of government and provide effective mechanisms for decision-making on the territorial and economic development of regions. Although several government bodies have begun to address planning at the metropolitan level (e.g. through the establishment of the Metropolitan Coordination of the Valley of Mexico; the revision of the General Law of Human Settlements; and the creation of a national Metropolitan Fund to address public works and infrastructure projects in metropolitan areas), the more challenging questions of how municipalities can best work together remain to be answered.

Legal aspects regarding the formation of another level of government present another formidable challenge. The Mexican Constitution does not recognize metropolitan regions; therefore the possibility of a formal metropolitan government structure cannot be contemplated without a change to the Constitution. Indeed, Article 115 of the Constitution states that municipalities are responsible for the delivery of their own municipal services. This article hinders the design of strategies and public policies to address the challenges of metropolitan regions as it makes collaboration between authorities dependent on the good will of the municipal governments, most of which are reluctant to relinquish this control.

Although the General Law of Human Settlements recognizes suburban areas as the physical union of two or more locations, it does not address how they will work together. Thus, collaborative governance structures at the metropolitan level remains a challenge.

On the other hand, Article 122-G of the Constitution specifically recommends the establishment of Commissions for service delivery in the Metropolitan area of Mexico City. The General Law of Human Settlements (LGAH) also recommends that Commissions be established to coordinate between authorities in interconnected urban (conurbated) areas. Commissions include representatives from every municipal government within the metropolitan region, and may also include state or federal representation.

Currently, a process is underway within the Senate to revise the LGAH to establish the general rules for coordination, policy, and management of metropolitan areas. The goal is to create a framework that is flexible enough to consider the wide diversity represented by the 59 metropolitan areas. Since a single
legal instrument will not fit all contexts, a wide array of possible structures to enable coordination and organization needs to be considered within the law. Mexico’s recognition of the need to address metropolitan area governance is further evident in the recent establishment of the federal Metropolitan Fund. Several metropolitan regions (for example, Guadalajara and Tijuana) have established Commissions to regulate funding being provided under the Fund. However this is the exception rather than the norm.
RESEARCH METHODS

The information in this paper was derived from a multi-faceted research process that included:

1. **A comprehensive literature review** on metropolitan governance focused on definitions, models, and best practices.

2. **One-on-one semi-structured interviews** with key players in the Guadalajara Metropolitan Area (AMG) and the Metropolitan Area Colima (ZMC) on the challenges and opportunities for metropolitan governance - including state and federal government officials, subject experts, and representatives of non-governmental organizations. Interview responses were analysed to identify recurring themes and discussion topics for a learning exchange.

3. **Learning Exchange workshop** in Guadalajara with representatives of participating municipalities in the AMG and ZMC, state and federal authorities, and experts from the Vancouver Metro Region (Canada) and the Natal Metro Region (Brazil). The first part of the two day learning event was devoted to a sharing of results of the literature review and interviews, and direct experiences of establishing and operating metropolitan governance structures from Vancouver and Natal. The second portion focused on identifying the main characteristics of a governance framework and identifying next steps toward solidifying metropolitan level governance in the AMG and ZMC regions.

A project team from Canada, Mexico and Brazil consolidated the information gained through these research methods and cooperated as authors of this paper.

*Learning Exchange workshop in Guadalajara.*
METRO GOVERNANCE MODELS

Metropolitan governance is a process through which a set of governmental and non-governmental actors (civil associations, public private partnerships, unions, etc.) collaborates in terms of collective services and policy-making. Metropolitan areas around the world are organizing in a variety of forms to coordinate between and across municipalities (Rojas, 2008; LeFevre, 2008; OECD 2015). This section provides an overview of types of models, as well as specific information about Metro Vancouver in Canada and the Natal Metropolitan Government in Brazil.

Overview of Metro Governance Models

Classifying governance models according to some of their key distinguishing features helps us understand their diversity. LeFevre (2008) classifies models as institutional or non-institutional, and orders them from greater to lower levels of institutionalization, political legitimacy, and sectoral reach. The typology below is adapted from LeFevre (2008), which assigns metropolitan level governance into three broad categories:

1. **One-tier governance** results from the amalgamation or annexation of adjacent municipalities into a single governing body. It provides many services and is financed through user fees and taxes across the metropolitan area.

2. **Two-tier (or supramunicipal) governance** results from the introduction of a new tier of government, independent of existing local units. Its five key features are: a) political legitimacy through direct elections of decision-makers; b) a match between jurisdictional territory and functional territory; c) fiscal autonomy; d) relevant responsibilities and competences; and e) adequate staff to elaborate and implement policies. Strong forms (comparatively rare) include all of these; weak forms only a few.

   c. **Intermunicipal joint authorities** (IJAs) create new institutions that are dependent for financing and functioning on existing units of government (e.g. municipalities) in the metropolitan area. They are based on cooperation between these units. Cooperation may be voluntary or obligatory. There are at least four subtypes (explained below), based on the degree and nature of cooperation between them.

   d. **Metropolitan-wide IJAs** are administered by indirectly elected boards (and thus lack political legitimacy) but show other key elements of two-tier governance, such as a close match between jurisdiction and function.

   e. **Inframetropolitan intermunicipal IJAs** are plurisectoral but cover only parts of the metropolitan area. They vary with respect to responsibilities, powers, and funding.

   f. **Monosectoral IJAs with plurisectoral potential** are metropolitan-wide, focus on one sector only, but show potential to move towards the administration of other policy sectors.
g. **Special districts** are monosectoral IJAs established to deliver services across municipal boundaries, usually controlled indirectly by constituent municipal councils and focus on one policy sector only, such as waste management, transit, hospitals, or schools.

4. **Non-institutional Models** are arranged as alternatives to setting up new institutions, and focus on more efficient coordination of policies or services in various sectors and at the area-wide level. These arrangements include coordination of existing structures and formalized agreements.

The OECD (2015) classifies the models in a similar way, from the most informal forms of coordination between municipalities to formal institutions with broad authority. The following table shows the four broad categories of metropolitan governance, according to this classification system:

| From the lightest to the most stringent in institutional terms |

| Informal/ soft co-ordination: Often found in the instances of the polycentric urban development, lightly institutionalized platforms for information sharing and consultation are relatively easy both to implement and to undo. They typically lack enforcement tools and their relationship with citizens and other levels of government tends to remains minimal. |

| Inter-municipal authorities: When established for a single purpose, such authorities aim at sharing costs and responsibly across member municipalities – sometimes with the participation of other levels of government and sectoral organizations. Multi-purpose authorities embrace a defined range of key policies of urban development such as land use, transportation and infrastructure. |

| Supra-municipal authorities: An additional layer above municipalities can be introduced either by creating a directly elected metropolitan government or with the upper governments setting down a non-elected metropolitan structure. The extent of municipal involvement and financial capacity often determine the effectiveness of a supra-municipal authority. |

| Special status of “metropolitan cities”: Cities that exceed a legally defined population threshold can be upgraded into a special status as “metropolitan cities”, which puts them on the same footing as the next upper level of government and gives them broader competencies. |

Canadian and Brazilian Examples

For the purpose of this project, we analyzed two examples of Metropolitan Regions: Metro Vancouver in Canada and the Natal Region in Brazil. Metro Vancouver was selected as an example of an effective metropolitan governance structure from a Northern region that has been operating successfully for more than 40 years, while Natal was selected as representative of a Southern region where conditions are more similar to those in Mexico.

Metro Vancouver

Metro Vancouver is a partnership of 21 municipalities, one Electoral Area and an autonomous indigenous territory, serving a total urban population of 2.5 million. Located on the West Coast of Canada, Metro Vancouver collaboratively plans for and delivers regional-scale services. Its core services are drinking water, wastewater treatment and solid waste management. Metro Vancouver also regulates air quality, plans for urban growth, manages a regional parks system and provides affordable housing.

Metro Vancouver is a political body and corporate entity operating under provincial legislation as a ‘regional district’. The regional district is governed by a Board of Directors made up of elected officials from local authority. Each authority selects one director for every 100,000 residents, and has one vote for every 20,000 residents on the Metro Vancouver board.
Metro Vancouver has more than 1500 staff who manage:

- The delivery of core services (water, sewerage and drainage, and solid waste management) to member municipalities.
- Planning for future needs related to the three utilities as well as air quality, regional growth, and regional parks.
- The main political forum for discussion of significant community issues at the regional level.

Metro Vancouver’s sources of income include fee-for-service income in which municipalities pay for the delivery of core services, provincial funding, and a small amount from direct taxation.

**The Natal Metropolitan Region**

The Natal Metropolitan Region (NMR), also known as Greater Natal, is located in Rio Grande do Norte state in northeastern of Brazil, has eleven municipalities and a population of 1,495,669 inhabitants (IBGE, 2014), forming the fourth largest urban agglomeration in the Brazilian Northeast and the eighteenth largest metropolitan area in the country.

The Natal Metropolitan Region, created from the Complementary Law n. 152/97 currently consists of a Council of Metropolitan Development (CMD), with the following duties and responsibilities: to promote,
integrate, grant, supervise, stimulate the planning, organization and the implementation of public services of common interest between the metropolitan municipalities.

The CMD is chaired by the State Department of Planning and Finance (SEPLAN) and includes members appointed by the Governor, representatives appointed by the local Mayors and municipal councils, Legislative Assembly members, and representatives of community organizations. The CMD receives operational support from SEPLAN.

An important experience to highlight from the Natal Region is the case of the Parlamento Comun (Joint Parliament), which was set up as a forum for discussions related to economic integration, political, social, cultural and environmental issues within the Metropolitan Region of Natal. Formed by local councils of municipalities in the Metropolitan Region, it brought together 99 councillors representing the nine metropolitan municipalities. One of their main roles was to promote the Strategic Plan for Development of the Metropolitan Region (PEDS) prepared by the state government. Unfortunately, due to lack of political support and constant power struggles, their operation is now dormant, but a couple of direct results of their work were the establishment of a shared system for solid waste and the creation of a metropolitan council (Clementino, 2003).
ASPECTS TO CONSIDER WHEN DESIGNING METROPOLITAN GOVERNANCE

Through the research and peer learning activities undertaken in this project, six aspects were identified as critical for analysis when designing metropolitan governance in Mexico:

- Institutional Design
- Cooperation
- Service Delivery
- Social Participation
- Land Use
- Financing

These aspects are not all encompassing but are intended to capture the broad range of issues and dynamics that need to be considered and evaluated in order to move forward effectively. Each aspect is discussed below, with an overview along with some considerations related to the Mexican context and relevant examples identified through this research project.
INSTITUTIONAL DESIGN

Institutional design refers to planning the organizational structure, procedures, rules, and governance of institutions (Alexander, 2006). The goal of institutional design is to establish effective arrangements in order to achieve common objectives or execute tasks.

Challenges and Mexican Context

Institutional design is critical to effectively address current and future planning challenges in metropolitan areas. Institutions can be formal legal structures, which bring together “groups of individuals bound together by some common purpose to achieve certain objectives,” (North, 1993). But institutions also mean formal and informal rules and how these are enforced through law, agreements, incentives, and disincentives (North, 1989). As such, metropolitan governance can occur by establishing formal institutions such as Metropolitan Governments, or through laws and agreements that facilitate coordination between municipalities on metropolitan-level issues.

Mexican metropolitan regions are now the foci of urban growth in the country, and their continuing growth adds to the complexity of designing systems involved in their day-to-day operation. These new metropolises are served by multiple local governments as well as additional layers of government. Municipalities may share common issues, such as access to fresh water supplies, yet lack a common vision for the region. Furthermore, they may have conflicting administrative arrangements, different regulations governing shared resources and lack effective mechanisms for inter-sectorial and intergovernmental coordination.

These obstacles for the proper functioning and development of metropolitan regions, while not unique to Mexico, present serious challenges when combined with the Mexican reality of growing social and economic disparity, environmental degradation and resource depletion. The increasing growth of metropolitan regions requires more integrated and harmonized service delivery and policy decisions than one municipal or single level of government can provide, as decisions made in or for one municipality have impacts on the neighbouring municipalities. A metropolitan governance structure is needed that has the capacity to establish and operate from a common vision for the region, and with the authority to manage the disparate technical and political viewpoints of the individual municipalities it governs.

Considerations

Ideally, the design of a metropolitan governance arrangement would be subject to an area-wide debate and visioning process that includes substantial public outreach and all relevant actors. Two main aspects to consider are accountability and equity.
Accountability means that the people can openly discuss the activities and policies of metropolitan governance, and get their questions answered. In planning metropolitan governance, it is important to consider how decision-makers will answer to the people they govern. Decision-making bodies and their leaders can be directly elected, indirectly elected (i.e. elected by and from elected representatives), or appointed by elected representatives. Member votes can be made proportionately representative. Directly elected members may represent geographically defined constituencies or be at-large representatives of the region. Alternatively, decision-making structures may have representatives from geographically defined areas and at-large members.

Equity relates to disparities between socio-economic groups and between regions, both in access to the benefits of urbanization and in the assumed share of its burdens. Effective metropolitan governance reduces inequities between the rich and poor and spreads benefits and opportunities more evenly. Equity also relates to sharing of burdens of economic growth and environmental degradation. Scholars like Agyeman, Bullard and Evans (2003) have highlighted the connections between urban development; race and class; and distributions of environmental risks and burdens, like waste facilities, emissions, and polluted water.

Related Examples

- Puebla-Tlaxcala is a metropolitan region in the Central South area of Mexico that incorporates a central core city and several smaller municipalities across two states (OECD, 2015). It is an example of an Intermunicipal Joint Authority or Intermunicipal Authority. Like other Intermunicipal Authorities, this metro area created a new institution to coordinate municipalities at a metro or regional level, and is governed by a non-elected supra municipal authority. Normally, this type of governance structure provides an excellent way to overcome policy fragmentation and to create more efficient use of public funds. However, in the case of Puebla-Tlaxcala, a lack of direct involvement by municipalities in regional-level decision-making and inter-municipal competition has undermined the capacity of the regional institution (OECD, 2015). Metro Vancouver and the Metropolitan Region of Natal are examples of Metropolitan-wide Intermunicipal Authorities because they encompass an entire metropolitan area, have their own financial resources, significant responsibilities, adequate staffing. However, their decision-makers are not directly elected by residents.

- The Greater Toronto Area (GTA) is an example of one-tier metropolitan governance or a metropolitan city. The GTA was established in 1998 by the amalgamation of six municipalities, becoming a single municipality called the City of Toronto. The City delivers a wide range of services, including social services such as welfare assistance; public health; housing; roads and transit; emergency services such as fire and ambulance; and parks, culture, and recreation. The government is comprised of
a Mayor and Council, who are directly elected by the residents every four years. City Council is supported by seven standing committees, each consisting of a Chair and Vice-Chair (named by the Mayor) and members appointed by City Council. Each standing committee has an executive committee (comprising the Committee Chair, the Mayor, the Deputy Mayor, and four other councillors). Councillors are also appointed to oversee the Toronto Transit Commission and the Toronto Police Services Board. Four geographically defined community councils advise on local matters and include members of City Council. The City’s government is also advised by about 40 subcommittees and advisory committees, whose members include private citizen volunteers and city councillors appointed by the City Council. City operations are funded by property taxes, provincial grants, user fees, and other revenues. (Source: Slack & Bird, 2013). Bogota, Colombia is another good example of one-tier governance.

Puebla-Tlaxcala (below) is an example of an Intermunicipal Joint Authority or Intermunicipal Authority.

Photo credit: Alonso, CC BY-SA 3.0, via Wikimedia Commons
• The Comunidad Autonoma de Madrid [CAM] was created in 1983, and is one of 17 politically similar structures in Spain. CAM is an excellent example of a two-tier governance or a supra-municipal authority. The CAM acts similarly to a federated state as in federated countries, and its powers supersede those of its component municipalities. It is responsible for urban development, housing, public works, highways, railroads, transport, ports and water resources. It shares authority with senior government in economic planning, industry, security, education, and health. CAM is administered by an assembly of 129 members, directly elected by CAM citizens. The assembly makes regional laws and elects the president of the Community of Madrid by majority vote. The president, who is usually the leader of the party or coalition with an absolute majority of seats in the assembly, designates (and can dismiss) a vice-president and nine councillors that form an executive cabinet. Assembly members form parliamentary groups who then elect members for committees that undertake Assembly work. Committees have their own chairs, vice-chairs, secretaries and spokespersons. The CAM is funded by its own resources (regional taxes), a share of the national income tax, and central government transfers. Like other autonomous communities, it can manage its financial resources as it sees fit. (Rojas, 2008). Other examples of two-tier governance include the Metropolitan District of Quito, Ecuador; the Greater London Authority, UK; and the Metropolitan District of Portland, USA.

• The metropolitan area of Sydney, Australia is an example of non-institutional or informal/soft governance. It is divided into 38 local government areas, each of which has elected councils. The Councils are responsible for functions delegated to them by the New South Wales State Government (a regional level government), such as planning and garbage collection. The metropolitan area has no clear metropolitan-wide authority. Citywide activities such as public transport, main roads, traffic control, policing, education above preschool level, and planning of major infrastructure projects are controlled by the government of the regional government.
Cooperation is a learning process, and builds social capital. Clear articulation of incentives to cooperate for metropolitan governance is vital to maximize benefits and mitigate costs of cooperation. These arrangements should stimulate cooperation and reinforce interdependence. They should support coordination of decision making amongst interrelated sectors.

Challenges and Mexican Context

The laws in Mexico are quite restrictive in relation to the creation of new structures at the metropolitan level, thus formal cooperation is difficult to achieve. Municipal leaders within a region may represent different political parties which complicates the desire or intention to collaborate, as this has not been common practice. As a result of the legal restrictions governing Mexican Metropolitan regions, cooperation around service delivery is one of the most common ways of managing a Metropolitan issue, even if it does not involve all municipalities in the region.

Considerations

• Legal changes, at the national or regional level, can promote future development of metropolitan governance arrangements. For example, legal frameworks could be developed for voluntary cooperation that leaves the substance of the framework to be completed by local actors (e.g. municipalities, stakeholders, and civil society representatives). Laws that enable, prescribe, and/or simplify intermunicipal cooperation, perhaps through targeted initiatives, projects, or agreements (LeFevre, 2008) are also helpful.

• Frameworks and legislation should include structural provisions to ensure coordination between interrelated policy sectors (e.g. economic development, infrastructure, environment, spatial planning).

• In special districts, coordination can be fostered by placing the same individuals on more than one board, encouraging multi-function districts rather than single-purpose districts, and making decision-makers electable (Bird & Slack, 2008). Making state funding support contingent on levels of cooperation or inter-sectoral integration can be highly effective.

• A reduction of political costs of cooperation can be achieved by fostering citizens’ identification with the region (See Social Participation section). Central governments can promote development of informal policy networks between actors to share information about policy alternatives, strengthen interpersonal ties and faith in procedural fairness, and thereby reduce costs of enforcing and monitoring cooperative agreements (Schneider et al., 2003). They can also reduce costs of cooperating by providing administrative support and financial and regulatory supervision (Yaro & Ronderos, 2011). States can also impose arrangements that raise the costs of non-cooperation.
Related Examples

**Guadalajara, Mexico:** In 2014, the state of Jalisco enacted legislation to formalize metropolitan coordination in the Guadalajara Metropolitan Area (AMG). The main function of the Metropolitan Institute of Planning (IMEPLAN) is to promote and coordinate integrated cross-jurisdictional and cross-sectoral programs and actions. IMEPLAN is in the early stages of formation and has yet to develop a consultative process for decision-making. Nonetheless, the IMEPLAN is considered to be a very advanced structure in the country, breaking new ground in metropolitan management. The creation of the formal structure took approximately two years to establish and involved modifying or creating a number of articles in the Political Constitution of the State of Jalisco. In developing its structure, the AMG had considered that the existing low level of social participation in the region would make a voluntary model difficult to promote and achieve. A formal institution with clear accountability was viewed as a better model to begin building trust in metropolitan institutions and governance.

**Colima, Mexico:** Colima, with its much smaller regional population of approximately 200,000, is working on a voluntary cooperation model as a starting place for coordination of service delivery. There is currently a cooperation agreement to provide water services to three of the five municipalities of the Region through the Intermunicipal Water Commission (CIAPACOV). Initially, two municipalities were involved as they are the largest and closest municipalities in the region and the cost effectiveness of having one shared system was evident. A third municipality was added later, and began receiving services under the agreement as its population and territory increased. The CIAPACOV provides and coordinates the water supply and wastewater services to the cities of Colima, Villa de Alvarez and Comala. The structure consists of a Management Board, composed of representatives of local authorities, and supported by a Consultative Committee, formed by different stakeholders from the cities.
The concept of service delivery could be defined as the municipal services that a municipality provides to or for the benefit of the local community, irrespective of whether the municipality provides the service itself, or engages an external agency, or whether fees, charges or tariffs are levied in respect of the service (ETU, 2010).

The most important basic services typically provided by municipalities are: water supply, sewage collection and disposal, waste removal, mobility and air quality, municipal roads and storm water drainage, street lighting, municipal parks and recreation, and urban planning.

These services have a direct and immediate impact on the quality of life of the people in that community as they contribute to the creation of healthy and safe living environments. Inadequate delivery of these services can make it difficult to attract business or industry to an area and thus limit job opportunities for residents. Basic services needed in rural areas may differ from those in urban communities, a factor to be considered in designing integrated service delivery systems.

Challenges and Mexican Context

Many municipalities in Mexico are unable to deliver quality basic services to residents. There are multiple reasons for this, including a lack of finances and/or capacity to provide efficient service at an affordable price, and in some cases, a lack of the required skills.

Article 115 of the Constitution of Mexico states that municipalities are responsible for their own municipal services, necessitating changes to the federal laws to establish cooperative and accountable service delivery models.

These service delivery challenges are further compounded by cross-jurisdictional issues such as increasing environmental pollution and resource depletion, lack of continuity of programs and policies due to one-term limits for municipal leaders, and conflicting interests on federally held lands and resources. (Arévalo, n.d.).

Considerations

- Effective communication between the municipal government and its citizens often leads to better identification of a city’s priority needs and to creative solutions.
- Improved financial planning is required to optimize the use of available funds for consolidated service delivery (NBI, 2006).
• Upgrading technical skills within municipalities will obviously lead to service delivery improvements. In some cities, however, it may prove more cost effective and realistic to utilize private contractors for certain services, or portion of the services.

• Established Planning Institutes in the larger municipalities within metropolitan regions, such as Guadalajara and Colima, offer another option for consolidated service delivery.

• The creation of municipal owned companies to provide public services has also proven effective. Such companies may be operated through an independent board but local authorities retain responsibility for performance.

Related Examples

• Local and regional governments in different countries such as Canada, South Africa, and the United States have achieved large cost reductions for municipal services and have developed significant revenue by implementing corporatization systems for public services either in the form of municipal owned companies, public-private associations or non-profit organizations.

• In Metro Vancouver, the water treatment and delivery service is paid for by each municipality benefiting from the service based upon the actual amount of water purchased. This provides an incentive for each municipality to introduce their own water conservation measures. Wastewater service is also provided to member municipalities on a flow-based cost allocation formula. Although there are a couple of isolated cases where municipalities provide their own services, by and large most of the servicing for drinking water supply and wastewater collection and treatment is provided for the region by Metro Vancouver.
Social Participation is understood to be when the voice of the members of a society is taken into account in decision-making, either directly or through legitimate representatives and/or organizations that represent their interests. This requires a system that guarantees decision-making processes that reflect and promote the ideals of citizenship, through the involvement of individuals of various social groups and the representation of political leadership. In this regard, the greater participation of society promotes greater legitimacy and representativeness of public policies (UNDP, 1997).

Challenges and Mexican Context

Social participation in Mexico is highly connected to democratic processes, specifically around the election of government representatives. The exercise of consensus and decision power around a policy or a specific issue, however, is still very limited to covering a “requirement for public participation” and is rarely part of a planning or implementation process. Participation without redistribution of power is an empty and frustrating process for the powerless as it reinforces the status quo (Arnstein, 1969).

As in other countries, Mexico shares the problem of how to engage effectively with civil society or, more appropriately, how to allow for its sustained and effective presence within governance systems. The creation of networks and partnerships between public and non-public agents is essential for metropolitan areas in Mexico that are becoming increasingly fragmented. The agglomeration of various municipalities implies that the management process has to be an interactive process as no single actor or institution has the information, knowledge or resources to tackle the regional problems. For a social participation scheme to be sustainable, it will be necessary to develop a process of collective learning where opportunities and challenges are identified.

Considerations

- Social participation through technical councils, representatives of metropolitan management institutions, civil society organizations, professional associations and universities could contribute to bring more information to support regional policies at the metropolitan negotiating table.
- A review of Mexican legislation would be useful, to identify areas where the structure of metropolitan government and other special provisions, such as public consultation, decision-making, financing and various mechanisms of social participation, could be incorporated.
• Meaningfully involve civil society and stakeholders in planning. Promote citizens’ identification with metropolitan region through cultural events, such as an annual day of the metropolis as in the German cities of Hannover and Stuttgart. Balance new metropolitan governance structures with new neighbourhood councils for citizens, as in the City of Montreal.

• Make metropolitan decision-making processes more equitable for communities that surround an otherwise dominant central city by reducing the weight of central city votes.

Related Examples

• Participatory Budgeting (PB) is practiced successfully in 250 cities in the world, and around 130 Brazilian cities have already adopted several versions of this public policy (Cabannes, 2004). In Brazil, the experience of Porto Alegre - the best known among the participatory budgeting practices – inspired important activities linked to social movements, including other proposals to enhance local participatory governance. It has been shown that the participatory budget, as a form of participatory practice designed from bottom up, has definitely had positive impact on improving the quality of governance and popular participation. (Avritzer, 2008). The PB process has created many additional benefits such as providing civic education, bringing improvements in infrastructure and other vital services to communities, minimizing corruption and promoting public debate, all essential for a more accountable and efficient regional management structure (Baiocchi, 2003).

• Participatory Councils are institutional spheres of power sharing established by the State with mixed representation of state and civil society actors. In Brazil, the Councils originated through demands from social movements and were institutionalized through decentralization policies in the areas of health, education and social assistance. Today, more than 5,000 Brazilian municipalities have active councils. There is evidence that the participation of civil society can improve the quality of public policies. In the last decade, research has shown that social control in health policy and social care in Brazil has led to positive effects in reducing poverty and improving the living conditions of the population (Avritzer, 2008).
According to the OECD (2005), land use is “based on the functional dimension of land for different human purposes or economic activities. Typical categories for land use are dwellings, industrial use, transport, recreational use or nature protection areas” (ibid, para 1).

Land use in urban areas refers to the various types of activities, structures, and patterns that emerge through public planning, markets, and the daily activities of humans in a particular place. Planning for effective use of urban land is critical to the overall wellbeing of people, the economy, and the environment.

Challenges and Mexican Context

Key issues related to land use in urban areas of Mexico are:

- **Lack of Effective Land Use Planning**: Every state has its Territorial or Urban Development law that promotes state and municipal urban development plans and programs, and requires that they be registered in the Public Property Registry. However, only 36% of the municipalities in the country have an urban development plan and in some cases, these planning instruments are over 20 years old. Additionally only 28% of the municipalities have zoning and land ordinances, of which 23% are out-dated. 70% of the National Urban System has a plan or program of urban development and of these 21% have been updated; the rest require revision and updating.

- **Urban Sprawl**: Territorial expansion is a challenge in many urban areas of Mexico. In dense metropolitan areas, such as Mexico City, Guadalajara, Monterrey, and León, more affluent households usually choose to move away from the city centre to suburban areas. This shift has a significant impact on the metropolitan spatial distribution, as new roads and infrastructure are built to service these residents. In addition, new arrivals to a region are often poor labourers from other parts of the country seeking the more affordable housing on the outskirts. The result is urban sprawl, and in the absence of effective land use planning, low-density developments become the norm, with higher cost implications for transportation, facilities and services.
• **Housing:** the lack of housing available for low-income populations has led to an increase in informal settlements, as the government has not been able to provide land in well located areas, near job opportunities and services. Thus the rise of informal settlements in the more affordable outskirts of the cities has greatly exacerbated the pattern of urban sprawl within Mexican Metropolitan areas. This has correspondingly led to an inability to protect service and infrastructure rights of way, and to safeguard environmentally protected areas.

• **Land Reserves:** The provision for land reserves and the definition of public policies to address the increasing demand for housing and infrastructure is a federal responsibility; however the implementation of land use policies is the responsibility of municipal authorities. At this time, there is little or no regulation and intervention by public authorities on the creation of land reserves for future growth of the city, or to avoid existing market speculation. Urban land markets in Mexico do not provide or guarantee sufficient supply of serviced land at affordable prices for the low-income population. According to the proposed General Law of Cities and Territory, which will replace the LGAH, the three orders of government will promote land policy and land reserves for urban development and housing and assure the social function of property. The Federal government will promote the creation of an arms-length entity with technical and legal autonomy to implement national land policy. The new Law also gives power to the Ministry of Agriculture, Territorial and Urban Development, along with states and municipalities to acquire land reserves.

• **Service Provision:** Serviced land, which includes basic services, infrastructure and public facilities, needs to be provided proportionally to population growth. For instance, for every million dwellings, approximately 25,000 hectares of serviced land is required. However, the lack of coordination between authorities at municipal, metropolitan, and state levels tends to exacerbate problems such as informal settlements, land speculation, and urban sprawl.
• **Property-related Tax:** In Mexico there are a number of tax instruments for capital gains tax on urban land such as taxes on property, sales, leases, the increase of the land value by projects and contributions for improvements. However the actual application of these instruments is very sporadic due to the low enforcement capacity in municipal governments. Property tax is the second source of municipal financing. According to Iracheta & Iracheta (2014), the Metropolitan Funds provided by the Federal Government to the 59 metropolitan areas do not contain adequate operation guidelines that guarantee fair distribution of resources within the metropolitan areas. Decision making on how to apply the funds are not guided by an integrated or consistent policy (ibid). Furthermore, there is a lack of monitoring to guarantee their proper use in regional projects.

**Considerations**

• The revision of laws and the current land use framework in order to enforce effective use of planning instruments is an urgent step to be taken in the short term. The articulation of territorial and urban fiscal policy will increase investment and financing opportunities for regional infrastructure projects, increase transparency of the property market, help penalize speculation and facilitate improved access for housing and land investments in the city (UN Habitat, 2013).

• Instruments will be necessary to promote land re-use, mainly in industrial areas where large parcels of land that have been abandoned could be re-purposed for housing or regional facilities and re-densification policies that will allow better use of available land within the city.

• All levels of Government, especially Federal, need to implement the instruments to help contain urban growth and consolidate the existing cities, as promoted by the recently created Ministry of Agrarian, Territorial and Urban Development, SEDATU.

• Land-use planning that curbs territorial expansion within a region can produce higher land prices and tax-burdens for low-income households (Klink, 2008). Therefore, policies for land regulation should be implemented to prevent speculation within the city by sanctioning long term land vacancy taxes and/or taxing according to its potential land use.

**Related Examples**

• In 2014, the Mexican Federal Government announced the formation of the National Institute of Sustainable Land, INSUS, whose main functions will be to formalize informal settlements located on federal land and to promote the acquisition of land reserves for urban development and housing, especially for low income populations. However, the Institute has not yet begun operating.
• An interesting example intended for land containment is the scoring system that has been applied to housing subsidies by the National Housing Commission, CONAVI. The amount of subsidy available for more dense developments was increased. Further changes to the rules are anticipated in 2018, when subsidies will be allocated based on a locations’ access to public transportation and facilities.

• CONAVI also established urban growth boundaries in 2012 as a measure to define areas for housing development and constrain sprawl.

*Territorial expansion is a challenge in many urban areas of Mexico, including Mexico City.*

*Photo credit: Edmund Garman, CC BY 2.0, via Wikimedia Commons*
Financing of metropolitan regional services and operational systems has always been a challenging aspect of the governance structure because there is a constantly increasing need for funds to solve problems associated with interconnected urban growth (conurbation). These problems emerge either because of the lack of consensus between metro municipalities about the best financing mechanism, or the insufficiency of financial resources obtained through the traditional sources of public revenue. Sustainable, adequate and efficient public financing of metropolitan regional infrastructure and services is urgently needed.

Challenges and Mexican Context

The greatest challenge associated with the finance aspect is to ensure the provision of stable and reliable financial support over the long term in order to support the development and implementation of comprehensive urban development regional policy frameworks. This can only be achieved through significant political support together with strong social control (social participation) and efficient regional planning.

In the Mexican context, implementing agreements between metropolitan municipalities is essential, as formal metropolitan governance structures are still rare. Future arrangements will depend fundamentally on adequately addressing the complexity of shared information systems, political willingness and support, technical expertise and clear regional planning goals. Trust between partner metro municipalities, as well as an efficient structure of social participation, should be pursued through mechanisms of consensus-building and related processes. Revisiting the complex Mexican legal apparatus for financing of metro regions is an important and logical step at the Federal, State and Municipal levels.

The Mexican government’s Metropolitan Funds have not quite achieved their goal. It is necessary to have a strategy that truly prioritizes initiatives from a territorial perspective and not a sector perspective. However, some progress has been made. For example, the Secretaría de Desarrollo Agrario, Territorial y Urbano (SEDATU) has recently asked IMEPLAN in Guadalajara to ensure the linkage between long-term strategic planning goals with a multi-annual investment plan using the Metropolitan Funds among other state or municipal financing sources. This kind of strategic planning will be integrated into the Metropolitan Development Program 2015-2035 that IMEPLAN is currently elaborating.
Key considerations for financing include: the source of funding for administration and projects of the metropolitan governance arrangement; the type of revenue-raising tools to be used; and determination of where authority rests for regulation of use of funds.

- At least part of funding for metropolitan regions typically comes from higher levels of government. Such subsidies or grants should be regulated by law, predictable, and transparent. Central governments can also offer new revenue-generating powers to regions, such as the capacity to negotiate international loans, aid and cooperation (Yaro and Ronderos, 2011).

- Metropolitan institutions controlling their finances tend to thrive; those that don’t are often weakened by disputes among funders (Bird & Slack, 2008).

- Scaling up service provision to reduce costs works in some sectors like water and sewage, but not all: expenditures in diverse regions tend to rise in policing, waste collection, and recreation. Wages and service levels tend to harmonize upwards across regions (Bird & Slack, 2008). According to a recent OECD report (2015), the key areas requiring metropolitan governance are: Land Use and mobility (public transport). Thus financing should be strongly oriented to these issues.

- Revenue-generating mechanisms can include: user fees, property taxes, excise taxes (on activities or products), personal payroll taxes, income taxes, sales taxes, business taxes and development cost charges. In the case of Latin America, various mechanisms were analysed by the Lincoln Institute of Land Policy (LILP) in a conference in Quito in 2013 (Smolka & Furtado, 2014).

- City services can be billed on a “life-line” pricing system (in which the first block of essential service use is billed more cheaply than the next) to address equity concerns. Tax-base sharing mechanisms can link efficiency and equity, as the region of Minneapolis-St Paul is doing (see related examples).

- Public-private partnerships (known as P3s) are partnerships between government and the private sector party whereby the private sector provides infrastructure or services that have traditionally been delivered by the public sector. Under a P3, government retains ownership of the assets and sets policies and levels of service while tapping into the private sector for strategy and expertise.

Related Examples

- Tax-base sharing mechanisms can link efficiency and equity, as does Minneapolis–St. Paul metropolitan region’s Fiscal Disparity Plan (Bird & Slack, 2008). It redistributes 40% of the annual increase in tax base of each municipality’s commercial-industrial property to needy municipalities with a formula that considers net commercial tax capacity and average market value per capita. Benefits of rapid commercial or industrial growth in some communities are thus widely shared.
• P3s are widely used in the U.S. and Europe, prompted by an interest in improving the efficiency and effectiveness of local public service delivery. Partnerships BC (Canada), for example, is a corporation owned by the provincial government that brings together ministries, agencies, and the private sector for projects such as water treatment plants, bridges, roads, and a rapid transit link to airport. In 2012 a law to regulate public-private partnerships was approved that could provide useful opportunities for service management in metropolitan areas [Ley de Asociaciones Publica Privadas, 2012]

• In Metro Vancouver, the water treatment and delivery service is paid for by all municipalities that benefit from the service, according to the amount of service they receive, as determined through water metering. This creates equitable cost sharing, and provides an incentive for municipalities to introduce water conservation measures.

• There is a study on innovative examples that presents 21 cases such as the “Benefits on the concession of the right to build” in Brazil, or the “Integrated development between developers and municipal authorities” in Chile that offer sound and proven examples of what can be implemented in Latin America [Smolka & Furtado, 2014].
CONCLUSIONS

This project facilitated an exchange between Mexican, Canadian and Brazilians about options, models, and considerations for developing effective metropolitan governance. Several important lessons emerged through this process, which we include here for consideration by Mexican policy makers and public officials.

**Mandatory metropolitan governance**

Metropolitan regions require recognition in the Constitution and a legal framework for a national metropolitan policy that will make regional coordination permanent and mandatory. While the model of voluntary cooperation has appeal as it would avoid some of the existing legal barriers to establishing formal structures, interview respondents suggested that in consideration of the Mexican culture and experiences to date, mandatory regulation is more likely to be successful. Furthermore, in order to make regional collaboration meaningful and durable it requires the stability and robustness of a legal framework (Martin, 2010).

**Allow for a variety of models to emerge**

In the Mexican context, it’s necessary to look at a diversity of actions in public policy to coordinate metropolitan efforts. Examples are the statutory metropolitan models or the specific collaboration agreements as part of new schemes of partnerships between state and municipalities. These public policies have laid important groundwork for the purpose of creating optimal conditions for new structures of metropolitan planning, administration and participation (Huacuz-Elías, 2012).

**Accountability and participation are key to success**

Decision-making bodies that are accountable and equitable require effective ways to involve stakeholders and civil society. Interviews conducted with representatives of the metropolitan municipalities in Colima-Villa de Alvarez and Guadalajara indicated that there is a general awareness amongst government officials of this need, and for the reform of Mexican legislation to include public engagement mechanisms and policies. Regular public hearings and specific days for debate of metropolitan policies should be mandatory, and held across the region. Deliberative democracy tools, like citizens’ juries and participatory budgeting processes (such as practiced in many Brazilian municipalities), provide useful models.

**Consider working with private sector for service delivery**

Upgrading technical skills within municipalities can lead to service delivery improvements. In some cities, however, it may prove more cost effective and realistic to utilize private contractors for certain services, or portion of the services.
For Public private partnerships, it’s important for the private sector to have confidence regarding the stability of the rules applied to joint projects so there will be continuity despite the three or six years in a political cycle (municipal and federal, respectively). Initiatives would be more solid if they were anchored in a metropolitan plan backed by a commitment of all municipalities and ratified by their Legislatures.

**Start small**

Coordinating just one or two services at a Metropolitan level can be a great place to start. This allows municipalities to retain their autonomy while reducing costs and improving service delivery in particular sectors such as waste management. This would require clear identification of which service areas would benefit from metropolitan coordination, and which fall within individual municipal interests.

**The importance of leadership**

Political leadership will be critical for moving efforts towards metropolitan governance forward. For this, a certain level of education and knowledge needs to be promoted amongst leaders to create awareness and encourage them to take action. In a political system such as Mexico’s where municipal leaders cannot be re-elected for a second term, educational efforts will need to be accompanied by strong stakeholder engagement and planning structures that support long-term thinking and are independent of political cycles.

**Explore City Labs – an innovation for solving urban problems**

A way to promote collaboration not only amongst the municipalities involved but also across sectors is through the relatively new concept of City Labs, a popular learning and innovation tool being set up in cities worldwide. The concept involves bringing interdisciplinary teams of local stakeholders together to develop solutions to practical city problems. City Labs produce multiple benefits, not the least of which is their usefulness as engagement and collaboration tools. These can be further explored either at the city or the region level.

**Use multiple funding sources**

It is critical to ensure there is a clear funding source for shared service delivery at a metropolitan level. Revenue sources may include user fees, property taxes, excise taxes (e.g. on activities or products), personal payroll taxes, income taxes, sales taxes, and business taxes. Development cost charges, public-private partnerships, and borrowing are also used.
ADDITIONAL THOUGHTS

The ultimate aim of this project was to share expertise and to explore structures and tools that could be adaptable for Mexico in its pursuit of effective metropolitan governance. We fostered an exploratory process through literature, in-depth interviews with key players, and the opportunity to examine practices from metropolitan regions outside Mexico, such as Vancouver, Canada and Natal, Brazil.

The research and the exchange held in Guadalajara revealed that there are several areas requiring further research for Metropolitan governance to evolve in Mexico. The most critical of these are:

**Jurisdiction**
What kinds of services and policies are best coordinated at a metropolitan level, and which are better left to municipalities to address individually? This information will make it easier to know how to assign powers and responsibilities to metropolitan institutes.

**Regulations**
What kinds of legal changes need to happen to truly promote and incentivize metropolitan governance in Mexico?

**Social Participation**
What are the best social participation mechanisms to ensure effective, long-term planning happens, despite short tenures in political office?
REFERENCES


Additional image credits

Brazil map: GFDL, CC BY-SA 2.5-2.0-1.0, [http://creativecommons.org/licenses/by-sa/2.5-2.0-1.0], via Wikimedia Commons

Canada map: Lokal_Profil image cut to remove USA by Paul Robinson, CC BY-SA 2.5, [http://creativecommons.org/licenses/by-sa/2.5], via Wikimedia Commons

Mexico map: Allstrak, CC BY-SA 3.0 [http://creativecommons.org/licenses/by-sa/3.0] or GFDL [http://www.gnu.org/copyleft/fdl.html], via Wikimedia Commons

Icons (in order of appearance) created by Воеводин Степан, Marco Galtarossa, Loyd Humphreys, and Serkan Dogan from the Noun Project
For more information about this project, contact:

Gretchen Hernandez: gha13@sfu.ca
Edna Aguiñaga: edna@icsc.ca
www.sfu.ca/cscd/Projects

This work was carried out with the aid of a grant from
the International Development Research Centre, Ottawa, Canada.

Report design: Michelle Vandermoor
Map production: Cory Cheung (except for Natal map)