**Title:** Approaches to jurisdictional fragmentation in large, developing metropolitan areas – Recommendations for Service Delivery and Coordination in Metro Manila, Philippines

Author: Nehama Rogozen, University of California, Berkeley

**Topic:** Metropolitan Approaches for the Urban Poor

**Abstract:** Metro Manila, an urban metropolis and National Capital Region of the Philippines, has a population of 12 million people in a dense, resource-scarce area. The area is made up of 17 local government units and a number of agencies, which creates gaps in service delivery. Like many cities in developing countries, Metro Manila faces issues of traffic, congestion, and housing. Jurisdictional fragmentation constrains action. Research was conducted via key informant interviews in the region and desk research to explore jurisdictional fragmentation, the role of the Metropolitan Manila Development Agency, and provide policy recommendations.

## **Research Methodology:**

Information was collected from 19 interviews with key informants representing government agencies, the private sector, non-government organizations, academia, and residents of Metro Manila. When possible, multiple sources were interviewed per agency or organization. Due to complex bureaucratic structures, it was sometimes difficult to access key decision-makers; in those cases, meetings with their representatives or their published writing or comments sufficed. Information was fact-checked against official figures and publications. Interviews took place in English and were semi-structured, with open-ended questions. Direct quotes without attribution in this paper are from key informants; names are not shared in order to protect privacy.

Desk research was also used to examine the history of Metro Manila and some of the issues covered, to explore previous efforts to deal with them, and policy recommendations.

JSTOR and Google Scholar were used to for this purpose. Articles from Philippine news sources, both in print and online, also proved invaluable in tracking these issues over time, and opinion pieces also offered valuable perspectives.

# The Growth of Metro Manila and the National Capital Region:

Metro Manila, the National Capital Region (NCR) of the Philippines, is the country's most populated urban area and faces a number of challenges due to its population of 12 million people in an area of 246.55 square miles, which is about the size of Singapore. (See appendix 2 for population breakdowns.) Manila<sup>1</sup> faces issues such as traffic woes, inadequate provision of social services, and widespread poverty. These are all related to the issue of jurisdictional fragmentation and the sheer difficulty in coordinating across a large metropolitan area with a number of government jurisdictions.

Jurisdictional fragmentation often results from the growth of a city beyond its original area. This results in multiple municipalities linked as part of a larger urban area, but with different governance structures, programs, priorities, and delivery of public goods. Manila has 17 separate local government units (LGUs) (World Bank 2015). These 17 LGUs are composed of 16 cities and 1 municipality. Cities are further broken down into districts and barangays, which are not covered in this paper, but contribute to jurisdictional fragmentation as well. Metro Manila's status as NCR means that local and national bodies have administrative and financial responsibilities as well.

As NCR, the area was encouraged to grow in the 1970s to "showcase... the country's drive for modernization (Mercado and Manasan 1998)." When integration of the metro area began in 1975, there were 17 LGUs, consisting of 4 cities and 13 municipalities. Now, all but one of those municipalities has become a city. The percentage of the country's GDP coming from Metro Manila has also grown to almost 40% (National Statistical Coordination Board). Each jurisdiction has benefitted economically from the effects of metropolization.

<sup>1</sup> Manila is a city within Metro Manila, but for simplicity's sake within this paper, "Manila" and "Metro Manila" are used interchangeably to refer to the entire metropolitan area.

<sup>2</sup> They will be referred to collectively as cities in this paper, despite the fact that the one

municipality, Pateros, technically is not a city.

Figure 1: Metro Manila Administrative Regions (Global Teach)



# **Issues Facing Metro Manila**

A number of issues plague Metro Manila today. Discussed here are traffic, congestion, and lack of social housing. Each of these are problems that are connected, and require the cooperation of multiple agencies and jurisdictions to confront.

#### **Traffic**

Traffic is one of the most visible problems in Metro Manila. The sheer number of people and vehicles puts tremendous strain on an inadequate road system. Daily, millions of people commute within the city, with additional commuters coming from surrounding regions such as Bulacan, Laguna, and Cavite. Only 14% of the country's roads are in Metro Manila, but they handle 56% of the country's vehicles (Santiago 2014). Epifanio de los Santos Avenue, better known as EDSA, is a 14.8-mile highway that is the metro's most important road; it is constantly congested and it can take hours to travel from one end to the other. EDSA falls under the

purview of both the Metropolitan Manila Development Authority (MMDA) and the Department of Public Works and Highways (DPWH). Efforts to build new roads and highways are stymied by buying right-of-way challenges, opposition from the wealthy, and political roadblocks. Vehicle ownership has become easier for people to access, with low down payments (although the end cost is still expensive) around 20,000-30,000 PHP (\$428-\$641<sup>3</sup>), putting more cars on the road. Traffic laws are sporadically enforced.

Public transit systems are inadequate for the number of people who must be moved throughout the metro on a daily basis. 60,000 jeepneys, vehicles originally converted from former US military jeeps, move people throughout Metro Manila. While recognized as a unique aspect of Philippine culture, jeepneys clog streets, produce smog, and move people inefficiently. Their drivers frequently shirk traffic laws and pose a risk to drivers and pedestrians alike. The Metro Rail Transit system, Light Rail Transit system, and Philippine National Railways networks convey 1.35 million passengers daily. (University of the Philippines, 2015) Neither system covers the metropolitan area adequately. Each system suffers from management, safety, and overcrowding issues.

Just getting from place to place is "a challenge every day," as one MMDA official put it. The mental, physical, and health effects of an inefficient transportation system, traffic, and pollution, are taxing to commuters. As one informant put it, "From 7 am to 7 pm—[it's] rush hour!"

#### Congestion

Congestion is a major issue that has led to other issues, such as lack of housing.

Congestion is a result of overpopulation, most of which is due to natural population growth.

<sup>&</sup>lt;sup>3</sup> Exchange rate in August 2015 was about 46 Philippine Pesos to 1 United States Dollar.

Some of it is also due to migration; Metro Manila provides opportunities for education and employment, not just to Manileños, but also to those who arrive from all over the archipelago seeking a chance at a better life. The large number of universities here brings students who, once they have grown accustomed to city living and the greater number of opportunities compared to their home towns, choose to stay. Many also come to Manila in order to engage in business with government agencies, since most are headquartered within the metro. The government has not made concerted efforts to stop migration into the metro, or to decrease population growth. The Reproductive Health Law of 2012 aimed to limit population growth by providing contraceptive access nationwide, but at this point, it will not have had much of an effect on reducing or stabilizing Metro Manila's population. As one planning official put it, "Metro Manila is approaching its saturation point."

As congestion increases, land value has skyrocketed, displacing many lower-income families into slums, or squatter situations. Lack of housing resulting in flooding as many displaced families make their way to informal settlements along waterways, which they use for trash. The garbage clogs drains and causes flooding during rains. Even the slightest bit of rain causes flooding, and as a result, even more traffic.

## **Informal Settler Families and Lack of Housing**

This particular piece of the traffic-congestion-flooding triangle has proven especially difficult for government to deal with. The most common approach has been evicting and resettling those in informal settlement communities. Informal Settler Families (ISFs) range in income level—about half are below the poverty line of 16,841 PHP (\$360) a year (Office of the President of the Philippines, 2012), and about half are above it. ISF occupations include those in the informal sector such as jeepney and bus drivers, vendors, and construction workers, as well

as those in formal employment, such as policemen and those in service sectors. Most ISFs are not unemployed—they simply cannot afford the high cost of living in Metro Manila. There are three mechanisms by which those who don't have legal tenure over the land they occupy, or Informal Settler Families (ISFs), can be evicted. There also exist stated measures to be taken as compensation for those who have been evicted (SALIGAN, 2006).

- Court order: LGUs are to resettle the evicted people, but if they cannot, they must offer cash assistance in the amount of sixty times the minimum wage of 481 PHP (\$10.28).
- If the land will be used for public infrastructure projects: Evicted people are to be given a relocation site.
- If the land is a "danger area," such as dumpsites, has transmission lines, or is along riverbanks: Evicted people are to be given a relocation site.

The last mechanism is the most commonly used one, especially for those living along waterways. This has been one response to squatters, as well as flooding and congestion. 104,219 ISFs have been designated for resettlement under Republic Act 7279. In 2011, President Aquino allocated funds for a program to resettle them that will continue at least until the end of his administration in 2016. Aquino's program is mostly under the Department of Interior and Local Government (DILG), which has had trouble getting LGUs to cooperate. The program called for easements of 3 meters to be cleared on sides of waterways, which MMDA later extended to 10 meters via a non-binding resolution.

This program, which has been nicknamed "The 50 Billion Peso Housing Program," (about 1.1 billion USD) has met a very small percentage of its target due to slow implementation, but it is more than previous administrations have done. Initial efforts were made to resettle ISFs within and near the city, but that has been difficult due to scarce and expensive land. Most land

in the metro has already been built upon, so most resettlement communities have been built further away from Metro Manila. There have been mixed responses from ISFs—some voluntarily relocated to resettlement communities, whereas others stalled or refused to move at all since it would be difficult for them to get to their jobs or informal work in Metro Manila. There has been about a 50% attrition rate for those resettled (in both in and out of city sites), most of which occurs in the first two years. The attrition rate for those who are resettled outside of Manila is higher. In some cases, 18,000 PHP (\$385) transitional cash assistance grants have also been provided to ISFs<sup>4</sup>, but these have been controversial with NGOs who decry the doleout routine.

# **Jurisdictions: Fragmentation Across the Metro**

The 1991 Local Government Code led to a decentralization of government, allowing governance to be spread across local, regional, provincial, and national levels so that government could best respond to the needs of its citizens. However, this has led to more difficulties in getting things done, monitoring corruption, and providing clear pathways for addressing issues. In Metro Manila, this is especially difficult as local and national bodies have administrative and financial responsibilities. This makes coordination over development difficult, resulting in gaps between various agencies and local governments. What follows is an in-depth description of MMDA and the challenges it faces, as well as mentions of some of the other agencies tasked with providing services in the Metro.

#### Metropolitan Manila Development Authority

MMDA is responsible for traffic and transport management, solid waste management, development planning, land use and services, health and sanitation, public safety, and flood

<sup>&</sup>lt;sup>4</sup> Figures based upon previous minimum wage.

control. MMDA is also responsible for coordinating amongst the 17 LGUs that comprise the metro area, without interfering with their autonomy. LGUs are supposed to implement various programs under the direction of MMDA, but varying capacity levels mean that MMDA picks up the slack when necessary. Some service-delivery is carried out by both MMDA and LGUs. For example in most cases, the LGU is responsible for collecting solid waste, whereas MMDA is responsible for disposing of it. Additionally, stronger LGUs such as Makati, Manila, and Quezon City are able to implement programs, whereas MMDA takes over some program implementations in Pateros, which is the only municipality in Metro Manila, and more resource-constrained compared to larger LGUs.

LGUs view MMDA both as a convenient and inconvenient partner, and some are skeptical as to MMDA's ability to solve their problems. Some resent MMDA's interference and don't want to be "pushed around." Makati is an example of an LGU that has historically had less of a relationship with MMDA and the Council (except in the recent case of Mayor Jejomar Binay Jr.), and viewed the agency as an inconvenience to be dealt with. Makati's positioning as an economic center of the country and its resulting, well-managed revenue, has given it the ability to provide services and enforce laws on a level that most LGUs cannot dream of reaching alone. However, trans-Manila issues, such as traffic, do not stop at Makati's borders.

MMDA is a behemoth of an agency, with almost 7,000 personnel. The majority of them are on the streets, working as trash collectors and traffic enforcers. Most of them are "job order" positions, which receive less than minimum wage and no benefits. Turnover is high, both for these roles and for bureaucratic roles within the agency. There is a shortage of applicants, especially for bureaucratic roles, due to lack of competitive pay and negative attitudes about the

agency as a workplace. The agency lacks qualified manpower such as engineers, architects, and urban planners.

Despite MMDA's important role, the agency lacks control over a number of important areas. Enforcement and norms are disjointed throughout the agency; communication is fragmented. Traffic enforcers are known for being corrupt. Policies provide for termination in cases of corruption, but a tedious system of due process means that termination is not undertaken as frequently as policy would suggest.

Despite common belief, MMDA is also not an infrastructure agency. DPWH is the agency responsible for infrastructure maintenance and development but the division of responsibilities between the two agencies are not always clear-cut. Drainage is an example of this. DPWH is responsible for drainages, so MMDA's hands are tied in addressing flooding that results from backed up drains. Yet, DPWH often blames MMDA for flooding.

MMDA also faces financial constraints. It receives subsidies from the national government, small amounts from LGUs, and miniscule revenue from traffic violations. Multiple MMDA officials expressed that these did not cover the agency's needs. There is no international financial support for MMDA operations, although some specific projects are funded by international agencies. MMDA's budget is 3.97 billion PHP (\$85 million). (See appendix 3 for budget breakdown.) Most of the budget goes to flood control and solid waste management. Funds are also heavily restricted for specific uses.

MMDA is technically governed by the Council, a body made up of the mayors from each of the cities within Metro Manila. The Council holds monthly meetings where policies are decided upon, requiring majority approval for passage. Some of the issues that the Council has worked on in recent years include a color coding scheme to keep vehicles off roads on assigned

days, and traffic signalization. The Council attempts to standardize policies across the Metro, for example, creating standard speed limits on roads, and creating a standard form of ticketing and payment for traffic violations.

The Council Chairman plays an important role in maintaining relationships with mayors. Multiple sources cited the importance of smooth working and personal relationships between the Chairman and various mayors as a key factor in coordination and effective implementation. The current Chairman, Frances Tolentino, is known for succeeding in this area, and for elevating the role the Council plays. Previous Chairmen, were not as successful in this area, and their policies and programs suffered as a result. Chairman Oscar Inocentes, who served only from 2009-2010, was unable to bring all of the mayors to agreement over policies, or even to attend the monthly meetings. The Chairman position is tied to national elections, and each new President appoints someone for the position. As with each new political transition, there will be a period of adjustment. Additionally, mayors are elected every three years, changing the composition of the Council. Despite turnover, there are certain relationships between MMDA and cities that have remained relatively constant. As one MMDA official put it, "in every family there is a favorite child."

## Department of Transportation and Communications:

DOTC is responsible for transportation and communication services throughout the archipelago, as well as for all communications infrastructure.

#### Department of Public Works and Highways:

DPWH is responsible for public works and maintenance of roads and road infrastructure. In Manila, DPWH is responsible for pumping stations and flood control maintenance. Outside of Manila, DPWH does more of the work that MMDA does in the Metro.

#### Department of Finance:

DOF is a national agency responsible for managing the government's financial resources and setting fiscal policies. In Metro Manila, DOF works closely with DOTC on funding and financing of development and infrastructure projects.

#### The National Economic and Development Authority:

NEDA is responsible for economic development and planning and policy coordination for the entire country. Secretaries of other executive agencies, such as DPWH and DOF, sit on NEDA's board.

#### **Fragmented Responsibilities**

The complexity of the many government agencies involved in Metro Manila can be explained best by understanding that transport is the purview of DOTC, but the roads that vehicles travel on are the responsibility of DPWH. The sidewalks bordering the roads, in Metro Manila, are the responsibility of MMDA. New development projects are developed both by NEDA and by MMDA. NEDA endorses those projects for approval. DOF sets up financing for the projects.

# **Recommendations and Policy Approaches**

#### **Enact a Metropolitan Governance System**

Jurisdictional fragmentation occurs as a result of lack of a real metropolitan governance system. MMDA does not have governance roles or powers. MMDA serves merely as a correlative body, with limited powers, and unclear boundaries. A metropolitan governance system with strong authority would be able to handle issues such as transportation, waste management, land use planning and infrastructure. Such a system would be able to undertake valuable long-term planning initiatives, something that is sorely needed. There was no significant

planning between 1998 and 2015 for the metropolis (Greenprint, 2015). Currently, MMDA has minimal say on what happens in LGUs, little coordination with them, and does little to no joint planning.

Current legal frameworks do not allow for a metropolitan governance system. A model to follow could be the provincial governance system. The rest of the country is organized into 81 provinces, each governed by an elected legislature and governor. Regardless, a "province" of Metro Manila, with an elected legislature and governor that have strong authority, would be one way to address jurisdictional fragmentation. This in effect would be a metropolitan governance system. Legal steps could be taken to allow such a system.

Such a system could also include authorities or agencies, whether under a metropolitan governance system or national agencies (DPWH and others), responsible for the various functions currently held ineffectively by MMDA. Separate entities, each one responsible for needs such as traffic management, solid waste management, and land use/zoning would allow for concentration of expertise, focused work and results, and direct accountability. However, there are a number of barriers and potential "losers" in such a system. Metropolitan governance would result in politicians and bureaucrats losing power. Those such as MMDA officials and city mayors would not easily relinquish power and authority to a metropolitan governor and legislative body. This can be bypassed by creating incentives for the implementation of a new system. Additionally, the post-Marcos era Philippines is deservedly cautious about increased government power due to prior experiences under the autocratic Marcos regime.

Regardless, even without the implementation of a metropolitan governance system, the concept of having separate entities to address trans-Manila issues would likely be successful, if implemented well. Such entities could be formed as boards or agencies with direct responsibility

for these needs, without additional responsibilities. By having an entity responsible solely for traffic management, one for solid waste management, and one for land use/zoning, better coordination would allow for better service delivery throughout the Metro. The MMDA Council could still play a valuable role in such a system, by acting as a coordination body.

#### **Enable Public and Private Sectors to Act for Social Housing**

This program presents an interesting opportunity to study coordination amongst agencies and jurisdictions as a number of those are involved in implementation. The national government is represented here by DILG as the main implementer, with the National Housing Authority (NHA) and Social Housing Finance Corporation (SHFC) acting as partners to provide housing and financing, respectively. NHA builds resettlement communities in surrounding provinces such as Bulacan, Cavite, and Laguna. SHFC does not build, but rather, provides loans to resettled communities to find land and build, or to hire a contractor to build on their behalf. Some LGUs have taken a more active role in the process of transferring and assisting ISFs, such as Quezon City, which has gotten involved in the housing side of the issue. Pasig has been proactive in relocating ISFs on waterways, using their own funds.

There is frequent blaming of other agencies and jurisdictions; despite the clear legal directives, passing of the buck when it comes to taking responsibility is common. This is not new. The 1992 Urban Development and Housing Act made LGUs responsible for implementing social housing projects, but LGUs have systematically failed in this. For example, instead of providing housing, they have given out cash transfers of 5000 PHP (\$107) to ISFs; LGUs have also failed to undertake systematic surveys. There are political aspects of this failure: LGUs are not motivated to help ISFs, and gain little benefit from having social housing programs. When ISFs are moved to a new jurisdiction, they are no longer voters in the original jurisdiction, so the

sending local government has little motivation to keep their previous voters happy. The fault is not entirely that of LGUs, however, as the NHA has shirked some of its building responsibilities, which makes it impossible for LGUs to transfer ISFs.

While most of Metro Manila has already been built up, there are still pockets of land scattered throughout the metropolitan area that could be used for resettlement communities. An inventory of government-owned land would be helpful to see where some of the available land is. A number of legal roadblocks currently prevent some of this land from being used, but if these issues can be resolved, the land could be used for social housing programs, whether for IFSs, or other marginalized or poor people.

Additionally, there are available or underutilized privately owned lots of land throughout the city as well. Legal frameworks could be used to compel owners to sell their land to the government for use in social housing programs. Historically, such legal frameworks have been used to compel owners to sell land for road-building purposes, which is a public good. The question is whether social housing qualifies as public or private use, and whether such frameworks can be used in this situation. There do exist mechanisms by which communities (either through the government, or independently) can buy land directly from private owners and construct resettlement housing, but this requires a level of financial independence and organization that most IFSs do not have. However, the SHFC lending program aims to help communities do this. Legal scholars and politicians need to examine more closely the relevant legal frameworks and work on ways that they can be used to acquire privately owned land for public use as social housing sites. Land owners will likely react to this attempt, so the focus should be on vacant or underutilized land, and owners should be paid market value for their lots.

Current government policy is to make beneficiaries pay for units in resettlement communities. High-rise buildings have not been in use as resettlement options due to the higher cost associated with building stronger foundations. A subsidy would be one way to make multistory buildings more affordable to ISFs, and to conserve space in a crowded city. Beneficiaries are also responsible for taking care of the property, yet have little experience living in high-rise buildings. Providing training to residents on building management, maintenance, and contingency saving would be incredibly valuable to ensure the success of such a program.

Consolidating housing agencies would also be helpful. Currently a number of agencies have a hand in different aspects of social housing. A more unified, contained agency would be better able to coordinate with LGUs. Such an agency would need to pull expertise from the private sector, and leverage public-private partnerships to build effective social housing programs, as well as create jobs, something the government has not much success with on their own. Such jobs could be made available to ISFs and tied to a payment method for housing units. Valenzuela City has had success with a program that allowed ISFs to build their own building, helped by NGOs.

Private companies that build subdivisions are required to build subsidized housing for 20% of the subdivision. However, most companies build that 20% elsewhere in order to maintain exclusivity. This program has been poorly implemented, and even when carried out, continues to widen the gap between the "haves" and the "have-nots" in the country. However, requiring the 20% to be built within the subdivision may prove unpopular with residents, and is too progressive an idea to be pursued at this point.

**Create Alternatives to the Metro and Spur Growth Elsewhere** 

With Metro Manila at its saturation point, policies that contribute to growth elsewhere and create alternate business centers outside of the metropolitan area should be considered. That can be done by leveraging resources in other cities for growth, and by providing incentives to relocate key government, business, financial, and transportation sectors elsewhere.

One place that has been trying to become an alternative hub outside of Manila is the Clark Freeport Zone, a former United States airbase in the region of Pampanga, north of Metro Manila. Clark has tried to position itself as an alternative business and travel hub. As of May 2015, 777 companies were operating in Clark, mostly in electronics, manufacturing, and ICT sectors. The Clark Development Corporation, which runs the Freeport, has actively sought out companies that create value—not just financially, but those that create jobs for locals and create human capital. The Clark International Airport is hoping to divert most traffic from Ninoy Aquino International Airport in Manila, and become the country's main airport. It plans to turn the surrounding area into an aerotropolis, where the airport serves as the urban core of the city.

China has been semi-successful with creating new cities, and this is a strategy worth considering in more rural parts of the Philippines. Land and resources are much more limited, compared to China, but new communities or special economic zones could convince some residents of Metro Manila to move for better opportunities. Additionally, empowerment of local governments across the country to focus on emerging sectors, such as business and tourism, could create more jobs that would keep local residents from moving to Manila. Key here would be the creation of a national land use plan that could identify and target specific locations that would benefit from directed funds and guidance.

#### Conclusion

It is clear that Metro Manila faces a number of issues common to urban centers in the developing world, such as traffic, congestion, and housing availability. What makes these problems difficult to handle is the jurisdictional fragmentation that results from having dozens of national agencies and 17 cities in the Metro, each responsible for pieces of service delivery. Instead of being able to work effectively, each agency and city pursues its own agenda without effective coordination. By enacting a metropolitan governance system, enabling the public and private sector to act for social housing, and creating alternatives to Metro Manila itself, some of these issues can be tackled and move this crowded city towards a better future. These high-level recommendations can also be applied to other cities facing similar issues and a fragmented system of governance.

# **Appendices**

**Appendix 1: Acronyms** (in order of use)

NCR: National Capital Region LGU: Local Government Union

**MMDA:** Metropolitan Manila Development

Authority

**DPWH:** Department of Public Works and

Highways

**ISF:** Informal Settler Family

**DILG:** Department of Interior and Local

Government

**DOTC:** Department of Transportation and

Communications

**DOF:** Department of Finance **NEDA:** National Economic and

Development Authority

**NHA:** National Housing Authority

**SHFC:** Social Housing Finance Corporation

**Appendix 2: 2010 Population of the 17 LGUs within Metro Manila** (2010 Census of Population and Housing)

City Name	Population	
Las Piñas	552,573	
Makati	529,039	
Malabon	353,337	
Mandaluyong	328,699	
Manila	1,652,171	
Marikina	424,150	
Muntinlupa	459,941	
Navotas	249,131	
Parañaque	588,126	
Pasig	669,773	
San Juan	121,430	

Valenzuela	575,356
Caloocan	1,489,040
Pasay	392,869
Pateros (municipality)	64,147
Quezon City	2,761,720
Taguig	644,473

# **Appendix 3: Breakdown of MMDA 2015 Approved Budget, in PHP** (MMDA Utilization of Funds, 2015)

Solid Waste Disposal and Management	993,538,000.00
Traffic and Transport Management	581,681,000.00
Flood Control and Sewerage Management	577,434,000.00
APEC 2015 Conference	37,708,000.00
Subsidy for Flood Control and Sewerage Management	2,101,758.00
Continuing Appropriations: Flood Control and Sewerage Management	1,298,696,305.61
Continuing Appropriations: Traffic and Transport Management	440,805,483.32
Continuing Appropriations: Disaster Risk Reduction Capacity Building	35,342,260.43
Total:	3,967,306,807.36

#### **References:**

"East Asia's Changing Urban Landscape." Urban Development Series, World Bank Group (2015). Print.

Global Teach. "Metro Manila." Web.<a href="http://projects.global-teach.com/si/u1-popup-manila.html">http://projects.global-teach.com/si/u1-popup-manila.html</a>.

"Gross Regional Domestic Product." National Statistical Coordination Board. 2014. Web. <a href="http://www.nscb.gov.ph/#page=t1">http://www.nscb.gov.ph/#page=t1</a>.

Mercado, Ruben G., and Manasan, Rosario G. "Metropolitan Arrangements in the Philippines: Passing Fancy or the Future Megatrend?" Philippine Institute for Development Studies (1998). Web. <a href="http://dirp4.pids.gov.ph/ris/pdf/pidsdps9831.pdf">http://dirp4.pids.gov.ph/ris/pdf/pidsdps9831.pdf</a>.

MMDA, "The Metro Manila Greenprint 2030: Building a Vision." 2014. Print.

University of the Philippines. "Railways and Train Commuters in NCR." April 8, 2015. Web. <a href="http://www.up.edu.ph/railways-and-train-commuters-in-ncr/">http://www.up.edu.ph/railways-and-train-commuters-in-ncr/</a>.

SALIGAN. "Urban Poor Updates" (2005) and "Primer on Eviction & Demolition" (2006). Print.

Santiago, Rene S. "Ending Metro Manila Traffic Woes." Philippine Daily Inquirer. 14 Sept. 2014. Web. <a href="http://opinion.inquirer.net/78446/ending-metro-manila-traffic-woes">http://opinion.inquirer.net/78446/ending-metro-manila-traffic-woes</a>.