

# A Framework for Analyzing the Congestion Problem

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I. INTRODUCTION.....	978
II. PURPOSE AND STRUCTURE .....	980
III. THE CONGESTION PROBLEM.....	981
IV. LOCAL AUTONOMY AND THE PROBLEM OF COLLECTIVE ACTION.....	984
V. THE METROPOLITAN MANILA DEVELOPMENT AUTHORITY .....	987
VI. POTENTIAL SOLUTIONS.....	989
A. <i>Equal Sharing</i>	
B. <i>Marginal Benefit = Marginal Cost</i>	
C. <i>Central Government Steps In</i>	
VII. CONCLUSION .....	994

## I. INTRODUCTION

The expression “carmageddon” has been used to describe the endless stream of vehicles found traversing Metro Manila.<sup>1</sup> The situation is so bad that Manila is considered as having one of the worst, if not the worst, traffic

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1. See, e.g., Emma Howard, *Carmageddon: can electric jeepneys ease Manila's traffic crisis?*, GUARDIAN, June 3, 2016, available at <https://www.theguardian.com/cities/2016/jun/03/carmageddon-manila-philippines-electric-jeepney-traffic> (last accessed Jan. 31, 2017).

situations on Earth.<sup>2</sup> Different mediums of communication, such as the news and social media, are used by locals as outlets to express similar (albeit negative) emotions when describing the congestion problem — with anger, stress, and frustration being among the most common sentiments. Different persons and groups have even suggested that the congestion problem has been costing the Philippine economy billions of pesos every day in potential earnings.<sup>3</sup> While one may question the accuracy of these statistics, it is undeniable that the ill effects brought about by congestion are far more than a perceived economic loss.<sup>4</sup> A recent study shows that pollution levels inside cars stuck in traffic were 40% higher than cars found in free-flowing conditions.<sup>5</sup> Being stuck in traffic is also tiresome and can cause one's mood to fluctuate (for the worse).<sup>6</sup> The prolonged inactivity also increases stress levels and can lower worker or employee productivity.<sup>7</sup> Imagine spending

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2. See, e.g., Lara Tan, Metro Manila has 'worst traffic on Earth,' longest commute — Waze, available at <http://cnnphilippines.com/metro/2015/10/01/Metro-Manila-Philippines-worst-traffic-longest-commute-Waze-survey.html> (last accessed Jan. 31, 2017); ABS-CBN News, Traffic app Waze tags PH city as 'worst to drive in', available at <http://news.abs-cbn.com/news/09/14/16/traffic-app-waze-tags-ph-city-as-worst-to-drive-in> (last accessed Jan. 31, 2017); & The Philippine Star, *Metro Manila traffic ranked among 10 worst in world*, PHIL. STAR, Oct. 20, 2016, available at <http://beta.philstar.com/headlines/2016/10/20/1635213/metro-manila-traffic-ranked-among-10-worst-world> (last accessed Jan. 31, 2017).
  3. The Philippine Star, *Metro Manila traffic costing Philippines P3 billion a day*, PHIL. STAR, Sep. 16, 2015, available at <http://www.philstar.com/headlines/2015/09/16/1500512/metro-manila-traffic-costing-philippines-p3-billion-day> (last accessed Jan. 31, 2017).
  4. George S. Chua, *Economic effects of traffic in Metro Manila*, BUS. MIRROR, Mar. 12, 2015, available at <http://www.businessmirror.com.ph/economic-effects-of-traffic-in-metro-manila/> (last accessed Jan. 31, 2017).
  5. Ashley Lovell, Latest research reveals sitting in traffic jams is officially bad for you, available at <http://www.surrey.ac.uk/mediacentre/press/2016/latest-research-reveals-sitting-traffic-jams-officially-bad-you> (last accessed Jan. 31, 2017) & Andrew Krok, Sitting in traffic isn't just bad for your mood, it's bad for your health, available at <https://www.cnet.com/roadshow/news/sitting-in-traffic-isnt-just-bad-for-your-mood-its-bad-for-your-health/> (last accessed Jan. 31, 2017).
  6. *Id.*
  7. GMA News Online, Stress, pollution, fatigue: How traffic jams affect your health, available at <http://www.gmanetwork.com/news/story/536203/lifestyle/>

three hours commuting instead of the expected one hour to get to work — this would lead to sleep deprivation, which, in turn, could affect not only an employee’s professional life, but his or her personal life as well. The situation is so out of hand that one is left wondering — when or will it ever change?

## II. PURPOSE AND STRUCTURE

This Essay attempts to analyze the traffic problem using basic concepts from economics and law. At this point, the Authors would like to make a distinction as to the terms traffic and congestion. Congestion is defined as “a situation in which a place is crowded with people or vehicles, so that it is difficult to move around.”<sup>8</sup> The problem faced by the Philippines is, thus, the congestion of vehicles on the road. The word traffic, then, is more quantitative and relates to the number of vehicles on the road.<sup>9</sup> It can also refer to other things such as the number of people walking along a street or the number of people visiting an online website.<sup>10</sup> Thus, congestion is the net effect of having too many cars, jeeps, buses, and whatnot on the road. For this Essay, however, congestion and traffic will be used synonymously, with both referring to their use in common parlance — simply, there being too many vehicles on the road.

Moreover, it is important to note that the discussions herein are theoretical and are not meant to serve as a guaranteed solution to the traffic problem. On this note, the Essay attempts to educate and inform the reader on both legal and economic policies and concepts that will help him or her better understand the traffic problem. It is hoped that this Essay will serve as a guide for lawmakers and regulators in the crafting of future laws and resolutions to address the swelling traffic problem.

The Essay will thus be arranged as follows — first, it will provide a brief overview of the double-edged sword that is congestion. It will then delve into a discussion of local autonomy and the problem of collective action, or lack thereof. After which, it will briefly examine the role of the

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healthandwellness/stress-pollution-fatigue-how-traffic-jams-affect-your-health (last accessed Jan. 31, 2017).

8. Macmillan Dictionary, Congestion, *available at* <http://www.macmillan.com/dictionary/british/congestion> (last accessed Jan. 31, 2017).

9. The American Heritage Dictionary of the English Language, Traffic, *available at* <https://ahdictionary.com/word/search.html?q=traffic> (last accessed Jan. 31, 2017).

10. *Id.*

Metropolitan Manila Development Authority (MMDA) before going into possible solutions to the traffic problem.

### III. THE CONGESTION PROBLEM

Before any analytical proposal for how to solve the congestion problem is considered, there are empirical facts that need to be kept straight. Despite the (justified) clamor for easing the traffic burden, it needs to be understood that congestion is both a hindrance towards greater productivity and an effect of increased economic activity. In other words, congestion dampens productivity and diminishes utility for consumers or workers; but, it is also the product of demand for output that is related to greater prosperity.<sup>11</sup> It is not obvious, but Metro Manila has a lower poverty rate compared to any other region in the country.<sup>12</sup> This is because increased demand and economic activity — and the resulting competition among firms that ensues — raise wages and lead to greater migration into the metropolitan area.<sup>13</sup> Therefore, cities are places with many people who have money and several firms who need (human and capital) resources.<sup>14</sup> Thus, an increased demand for transportation — and greater traffic — is to an extent a by-product of the process of growth.<sup>15</sup> This reality is not unique to the Philippines. The world's great cities are also home to the world's great traffic jams. There is no doubt that Manhattan in New York City is much more congested than

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11. Glen Weisbrod, et al., *Economic Complications of Congestion* (A Research Paper Published Online by the National Cooperative Highway Research Program) at 9, available at [http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_463-a.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_463-a.pdf) (last accessed Jan. 31, 2017) & Emily Badger, *How Traffic Congestion Affects Economic Growth*, available at <http://www.citylab.com/commute/2013/10/how-traffic-congestion-impacts-economic-growth/7310/> (last accessed Jan. 31, 2017).

12. Philippine Statistics Authority, Table 1. Annual Per Capita Poverty Threshold, Poverty Incidence and Magnitude of Poor Families, by Region and Province: 1991, 2006, 2009, 2012, and 2015, available at <http://psa.gov.ph/sites/default/files/Table%201.%20Annual%20Per%20Capita%20Poverty%20Threshold%20Poverty%20Incidence%20and%20Magnitude%20of%20Poor%20Families%20by%20Region%20and%20Province%20-%202006%202009%202012%20and%202015.xlsx> (last accessed Jan. 31, 2017).

13. See generally William Arthur Lewis, *Economic Development with Unlimited Supplies of Labour*, 22 THE MANCHESTER SCHOOL 115, 189-91 (1954).

14. *Id.*

15. *Id.*

Durham, North Carolina,<sup>16</sup> but it is also obvious that New York City is much more economically vibrant and much more central to the United States economy than Durham is. It is also inconceivable to consider a world without cities. The burgeoning field of urban economics has established that cities are integral for economic development — there is no rich country without a highly urbanized city.<sup>17</sup> This is because cities serve as agglomeration economies — they allow for the lowering of transactions costs between firms and workers and allow for externalities and knowledge dissemination at a scale not possible in less urbanized areas.<sup>18</sup> Yet, concededly, there is variation among the levels of congestion among large cities. High levels of congestion seem to be a disease endemic mostly to developing countries.<sup>19</sup> This leaves the door open to considering solutions that alleviate the traffic burden, yet do not dampen the economic activity as key to development. This also provides clues to the potential causes of excessive congestion. Congestion may be, to some extent, a symptom of the so-called political economy issues that most developing countries face with regard to policy implementation — weak State capacity, corruption, poor decision-making, and lack of expertise.<sup>20</sup> The gist, then, is this — there are several costs to heavy traffic, but traffic is simultaneously a by-product of the necessary process of development and agglomeration that makes nations richer; and the potential solutions to congestion need to internalize the political economy issues inherent to developing countries. Given this basic understanding, the remainder of this Section goes into greater detail on the

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16. See generally Jim Gorzelany, *The Worst Traffic Jams In History*, available at <http://www.forbes.com/sites/jimgorzelany/2013/05/21/the-worst-traffic-jams-in-history/#43d031fe6d5a> (last accessed Jan. 31, 2017).
  17. Patricia Clarke Annez & Robert M. Buckley, *Urbanization and Growth: Setting the Context*, in *URBANIZATION AND GROWTH* 1-3 (Michael Spence, et al. eds., 2009).
  18. See generally Edward L. Glaeser, *Introduction*, in *AGGLOMERATION ECONOMICS* 1-14 (Edward L. Glaeser ed., 2010).
  19. Vipin Jain, et al., *Road Traffic Congestion in the Developing World* (An Article Published in the Proceedings of the 2d Association for Computing Machinery Symposium on Computing for Development, DEV 2012), available at <http://www.cs.nyu.edu/~lakshmi/traffic.pdf> (last accessed Jan. 31, 2017).
  20. Allan Drazen, *Is There a Different Political Economy for Developing Countries? Issues, Perspectives, and Methodology* (A Paper Prepared for the Plenary Session on Political Economy and African Economic Development, African Economic Research Consortium, Nairobi, Kenya, 28 May 2006), available at [http://econ-server.umd.edu/~drazen/Working\\_Papers/PE\\_of\\_Development\\_final.pdf](http://econ-server.umd.edu/~drazen/Working_Papers/PE_of_Development_final.pdf) (last accessed Jan. 31, 2017).

costs of traffic and the benefits of urbanization, and argues that any proposed solution should be able to deal with (1) the “problems of decentralized planning,”<sup>21</sup> and (2) political economy constraints.<sup>22</sup>

It is straightforward to understand why traffic is a hindrance — both in terms of the economic output of firms or the utility of workers and consumers in the economy. To clarify the relevant costs, the following is a stylized example.<sup>23</sup> Consider a blue-collar worker commuting to and from a construction site. It takes him or her three hours to arrive on site instead of the hypothetical one hour it would take for him or her to arrive if the traffic burden was reduced. The ride home takes just as long, and without excessive traffic, two more hours could be saved. The worker derives utility from leisure — which, in economic literature, means time not spent at work.<sup>24</sup> The firm where the worker is employed at receives  $X$  unit of output for every hour of work the worker provides, and the worker is paid an hourly wage  $Y$ . Consumers are better off the more they consume. In this stylized model, the worker loses  $4Y$  with a heavy traffic burden, the hourly wage times the four hours he or she loses. The firm is also worse off and produces  $4X$  units less than otherwise. Finally, consumers also consume  $4X$  less than they would if there were less traffic. The firm may require the worker to work some “level” of hours to compensate for this lack of output. The problem here is that the worker is now worse off if his or her disutility from lost leisure is greater than his or her utility from increased wages. If the worker is then free to maximize his or her utility to an “optimal” number of hours worked, given diminishing marginal utility of income, the optimal amount of hours worked may be between the full hours demanded by the employer and the hours of work the worker puts in given heavy traffic. The model’s prediction is then clear — given optimizing workers and profit maximizing firms, traffic drives a wedge between the optimal and realized social welfare, with welfare lower in the case of heavy traffic.

The stylized model above provides a tool for thinking about potential solutions to the traffic problem, but such solutions need to be tempered by

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21. See generally Annez & Buckley, *supra* note 17, at 1-3.

22. See generally Becky Carter, Political economy constraints for urban development, available at [www.gsdr.org/docs/open/hdq1207.pdf](http://www.gsdr.org/docs/open/hdq1207.pdf) (last accessed Jan. 31, 2017).

23. Hal R. Varian, *How to Build an Economic Model in Your Spare Time*, 41 THE AMERICAN ECONOMIST 3, 3 (1997).

24. Mark Aguiar & Erik Hurst, *Measuring Trends in Leisure: The Allocation of Time over Five Decades*, 122 QUARTERLY J. OF ECON. 969, 969 (2007).

the realities of the political economy of developing countries. Thus, this Essay goes over three potential solutions, relating them to the model, and detailing the political economy issues that the proposed solutions need to take into account to ensure that the technocratic proposals will be effective.

The first issue that needs to be overcome is the problem of collective action for cities and municipalities.

#### IV. LOCAL AUTONOMY AND THE PROBLEM OF COLLECTIVE ACTION

The Philippines currently adheres to a unitary system of government.<sup>25</sup> As opposed to a federal system where power is divested both nationally and locally (through federal states), the unitary system vests power in one central authority, which is the National or Central Government.<sup>26</sup> The framers of the 1987 Philippine Constitution, however, foreseeing the perils and potential downfalls of giving unbridled authority to one Central Government, enacted certain Constitutional provisions that are meant to decentralize governance and make the government's functions more efficient. One of them is Article 10, Section 1, which states that the “[t]he territorial and political *subdivisions* of the Republic of the Philippines are the provinces, cities, municipalities, and barangays. There shall be autonomous regions in Muslim Mindanao and the Cordilleras as hereinafter provided.”<sup>27</sup> There are two notable points in this provision. First, the Section specifies what composes these “territorial and political subdivisions” — namely, the provinces, cities, municipalities, barangays, and autonomous regions. Second, it reinforces the notion that the enumerated are mere subdivisions of the Central Government. This means that the local government units (LGUs) — the territorial and political subdivisions — when enacting resolutions or ordinances, for example, have to take into consideration and relate the ordinances and resolutions with the general policies of the Central Government in such a way that everything is compatible.<sup>28</sup> For instance, a

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25. The Official Gazette, The Philippines, *available at* <http://www.gov.ph/about/philippines/> (last accessed Jan. 31, 2017).

26. John Gerring, et al., Are Federal Systems Better than Unitary Systems?, *available at* <http://www.bu.edu/sthacker/files/2012/01/Are-Federal-Systems-Better-than-Unitary-Systems.pdf> (last accessed Jan. 31, 2017).

27. PHIL. CONST. art X, § 1 (emphasis supplied).

28. *See generally* ALBERTO C. AGRA, *AMICUS IMPERIORUM LOCURUM: FRIEND OF LOCAL GOVERNMENTS* 73-81 (2016).

city cannot disregard nationally-applied taxation rules just because it does not agree with them.<sup>29</sup>

LGUs, however, are given wider discretion when it comes to its own internal affairs.<sup>30</sup> Thus, the Constitutional provision dividing the Philippines into “territorial and political subdivisions” has to be read in conjunction with the immediately succeeding provision of the Constitution, which is inextricably linked to the former. There, it is enunciated that “[t]he territorial and political subdivisions shall enjoy local autonomy.”<sup>31</sup> Simply, this means that, when it comes to governing their own territories, LGUs act “independently” from the National Government.<sup>32</sup> This does not mean though that LGUs are vested with the power to do absolutely anything it wants. All LGUs are still under the general supervision of the President.<sup>33</sup> So, while the President cannot substitute the judgments of LGUs with his or her own judgment, he or she is still there to “ensure that local affairs are administered according to law.”<sup>34</sup> With regard to the relationship of LGUs and the Congress, the case of *Lina, Jr. v. Paño*<sup>35</sup> is enlightening —

The basic relationship between the national legislature and the [LGUs] has not been enfeebled by the new provisions in the Constitution strengthening the policy of local autonomy. Without meaning to detract from that policy, we here confirm that Congress retains control of the [LGUs] although in significantly reduced degree now than under our previous Constitutions. The power to create still includes the power to destroy. The power to grant still includes the power to withhold or recall. True, there are certain notable innovations in the Constitution, like the direct conferment on the [LGUs] of the power to tax [ ], which cannot now be withdrawn by mere statute. By and large, however, the national legislature is still the principal of the [LGUs], which cannot defy its will or modify or violate it.<sup>36</sup>

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29. *Id.*

30. *Id.* at 25-29.

31. PHIL. CONST. art X, § 2.

32. See, e.g., JOAQUIN G. BERNAS, S.J., THE 1987 PHILIPPINE CONSTITUTION: A COMPREHENSIVE REVIEWER 415-16 (2011 ed.) (citing *Magtajas v. Pryce Properties Corp., Inc.*, 234 SCRA 255 (1994)) (where the extent of the autonomy of local governments is explained).

33. PHIL. CONST. art X, § 4.

34. *Villafuerte, Jr. v. Robredo*, 744 SCRA 534, 553 (2014).

35. *Lina, Jr. v. Paño*, 364 SCRA 76 (2001).

36. *Id.* at 85 (citing *Magtajas*, 234 SCRA at 273).



Pursuant to this concept of local autonomy, which is really a form of limited self-governance, current laws leave cities and municipalities with enough leeway to form their own distinct policy for reducing traffic.<sup>37</sup> This is suboptimal because any centralized planner (the National Government) would want to achieve social goals that are (sometimes) at odds with the goals of individual cities and municipalities acting independently.<sup>38</sup>

To clarify this way of thinking, consider two plausible goals for a hypothetical benevolent planner: (1) to minimize overall levels of traffic; and (2) to maximize overall output (hence finding a level of traffic that optimizes this output). Recall that these two goals are not necessarily the same since easing the traffic burden will at some point lead to reduced output given that economic activity may have to be sacrificed for less congested roads. Regardless, both potential goals are at odds with cities and municipalities independently setting traffic policy. The economic reason for this is that there are externalities to traffic policy — a neighboring city may be adversely affected by another city's policy. A standard result in the economics of externalities states that in the presence of externalities, individual actors — in this case, cities — will underprovide the public good desired — in this case, some traffic reducing policy. In other words, even if one assumes that a policy that decongests traffic is additively positive, there will be an underprovision of this policy. Further complicating this issue is the potential for a policy making one city better off, while making another city worse off. For example, City A levies a policy prohibiting cars with plate numbers ending in zero or one from driving in City A on Mondays and Tuesdays. This is similar to the number coding scheme<sup>39</sup> presently being implemented by some cities in Metro Manila. But since workers need to go to work, they may pass through City B instead. In a world where there is no substitution towards alternative forms of transportation, overall traffic may even increase. Therefore, any solution for cities to organize collectively must take these into account. The solution has to be some system that requires cities and municipalities in Metro Manila to work together to achieve a common goal

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37. See *Metropolitan Manila Development Authority v. Bel-Air Village Association, Inc.*, 328 SCRA 836 (2000) (where the extent of the power of the Metropolitan Manila Development Authority vis-à-vis that of local government's, with respect to traffic laws, is discussed extensively).

38. See, e.g., *Pimentel, Jr. v. Aguirre*, 336 SCRA 201 (2000).

39. See generally Rose-An Jessica Dioquino, 'No window hour' coding scheme starts in Metro Manila, available at <http://www.gmanetwork.com/news/story/587197/news/metro/no-window-hour-coding-scheme-starts-in-metro-manila> (last accessed Jan. 31, 2017).

— be it maximizing economic activity, reducing overall traffic, or attaining some other objective.

#### V. THE METROPOLITAN MANILA DEVELOPMENT AUTHORITY

As to certain aspects like traffic, the answer to the need for a collective system seems (on its face) to be in the form of the Metropolitan Manila Development Authority (MMDA). Recognizing Metro Manila as the “center of [p]rivate [b]usiness in the country,”<sup>40</sup> the MMDA seeks to make it a “livable, ecological-friendly, and dynamic urban center.”<sup>41</sup> It states that its role is to “assist[ ] the 17 political units [(the cities, and a municipality, comprising Metro Manila)] in crafting and implementing an integrated development plan characterized by unity of purpose, innovation, resiliency, sustainability, adaptability[,] and creativity *in meeting the challenges of transport decongestion*, climate change, waste management, and disaster prevention[,] among others[.]”<sup>42</sup> Pertaining to traffic specifically, the MMDA is the one that sets the policies concerning traffic in Metro Manila.<sup>43</sup> This

includes the formulation, coordination[,] and monitoring of policies, standards, programs[,] and projects to rationalize the existing transport operations, infrastructure requirements, the use of thoroughfares, and promotions of safe and convenient movement of persons and goods; provision for the mass transport system and the institution of a system to regulate road users; [and,] administration and implementation of all traffic enforcement operations, traffic engineering services[,] and traffic education programs, including the institution of a single ticketing system in Metropolitan Manila.<sup>44</sup>

These are just some of the mandates and objectives of the MMDA concerning traffic. More specifically, within the organizational structure of the MMDA is the Metro Manila Council (MMC).<sup>45</sup> It is composed of the

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40. Metropolitan Manila Development Authority, About Us: The MMDA’s Vision, *available at* [www.mmda.gov.ph/mmda-about-us](http://www.mmda.gov.ph/mmda-about-us) (last accessed Jan. 31, 2017).

41. *Id.*

42. *Id.* (emphasis supplied).

43. Metropolitan Manila Development Authority, Transparent Governance, *available at* <http://www.mmda.gov.ph/10-transparentcy/6-mmda-s-scope-of-services-its-functions-and-powers> (last accessed Jan. 31, 2017).

44. *Id.*

45. Metro Manila Development Authority, Metro Manila Council, *available at* <http://www.mmda.gov.ph/mm-council> (last accessed Jan. 31, 2017).

mayors of the cities located in Metro Manila and the mayor of the Municipality of Pateros.<sup>46</sup> The MMC is the policy-making body of the MMDA<sup>47</sup> — it issues rules, regulations, and resolutions, among others.<sup>48</sup> In the past, it approved a resolution providing for Christmas lanes for private motor vehicles as an alternate route, in an attempt to find a solution to the influx of vehicles on the road brought about by the holiday season.<sup>49</sup> In that resolution, it specified the exact roads that were to be turned into Christmas lanes;<sup>50</sup> and all Metro Manila mayors acceded to it.<sup>51</sup> In the same year, it also released a resolution urging the LGUs of Metro Manila to enact an ordinance providing minimum requirements and standards with regard to the operation of junkshops.<sup>52</sup> According to the resolution, one of the reasons for its implementation was that junkshops contribute not only to environmental degradation, but also to traffic congestion.<sup>53</sup> Recently, the mayors of Metro Manila, together with the Inter-Agency Council for Traffic<sup>54</sup> also committed to pass uniform traffic ordinances on traffic

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46. *Id.*

47. *Metropolitan Manila Development Authority*, 328 SCRA at 848.

48. *Id.*

49. Metro Manila Development Authority, Providing Christmas/Mabuhay Road/Lane for Private Motor Vehicles as an Alternate Route During the Holiday Season, Resolution No. 10-26, Series of 2010 [MMDA Res. No. 10-26, s. 2010] (Dec. 14, 2010).

50. *Id.*

51. *Id.*

52. Metro Manila Development Authority, Urging the Local Government Units of Metro Manila to Enact an Ordinance Providing Minimum Requirements and Standards in the Establishment and Operation of Junkshops in their Areas of Jurisdiction, Resolution No. 10-10, Series of 2010 [MMDA Resolution No. 10-01, s. 2010] (Jan. 21, 2010).

53. *Id.*

54. The Inter-Agency Council for Traffic is composed of “the Philippine National Police-Highway Patrol Group [ ], [MMDA], Land Transportation Office [ ], [and] Land Transportation Franchising and Regulatory Board.” It is described as a “superbody” that was created to help alleviate the traffic situation while President Rodrigo R. Duterte waits for a grant of emergency powers from the Congress. Eric Tipan, I-ACT changes traffic scheme on EDSA starting today, September 5, *available at* <http://www.autoindustriya.com/auto-industry-news/i-act-changes-traffic-scheme-on-edsa-starting-today-september-5.html> (last accessed Jan. 31, 2017); Jovic Yee, *With no emergency powers yet, Duterte turns to traffic superbody*, PHIL. DAILY INQ., Oct. 8, 2016, *available at* <http://newsinfo.inquirer.net/823081/with-no-emergency-powers-yet-duterte->

violations and penalties.<sup>55</sup> Thus, while the MMC seeks to address the problems of uniformity among Metro Manila mayors, and one can see the earnest efforts on the part of the latter to improve the congestion problem, the bottom line is that the mayors themselves, as well as the local legislative bodies, still have the final say when it comes to matters within their respective cities or municipalities (and this is problematic).

## VI. POTENTIAL SOLUTIONS

Given that cities and municipalities collectively organize through the MMC or some other collective body, what kind of system can be put in place such that these LGUs will share the burden of dealing with the traffic issue in an acceptable way?

### A. *Equal Sharing*

The first potential solution is equal sharing.<sup>56</sup> In other words, each LGU bears an equal cost towards solving the issue, be it a monetary cost, a more broadly defined resource cost, or perhaps some other definition of cost. The issue with this scheme is that some LGUs have more traffic than others, and equal sharing essentially forces less congested cities to subsidize the decongestion in more congested ones. In this scenario, it may be difficult to encourage buy-ins from less congested cities, given that more congested LGUs also tend to be richer. This means that more resource-constrained, poorer LGUs would subsidize richer LGUs, leaving less for the former to deal with their other mandates, such as poverty alleviation and economic development.

### B. *Marginal Benefit = Marginal Cost*

Another mechanism would be for each LGU to bear a burden such that the marginal benefit of decongestion equals the marginal cost of spending on a

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turns-to-traffic-superbody (last accessed Jan. 31, 2017); & PortCalls Asia, I-ACT irons out no window hours, more metro traffic-easing schemes, *available at* <http://www.portcalls.com/iact-irons-window-hours-traffic-easing-schemes-mm/> (last accessed Jan. 31, 2017).

55. Politiko, Metro Mayors, i-ACT agree on unified rates for traffic violations, *available at* <http://metromanila.politico.com.ph/2016/10/18/metro-mayors-i-act-agree-on-unified-rates-for-traffic-violations/> (last accessed Jan. 31, 2017).

56. *See generally* An Act Providing for a Local Government Code of 1991 [LOCAL GOV'T. CODE], Republic Act No. 7160, bk. II, tit. III, ch. I, § 285 (1991) (as amended).

traffic alleviating policy. In this case, LGUs with the greater traffic burden bear the greater cost. This is an appealing solution as it requires a differential burden on LGUs which is increasing in light of the severity of the traffic problem. One issue with this may be practical — how does one determine the degree of burden each LGU must face? The other issue is that the burden is not independent. A reduced burden for one city may increase the burden for another, leading to cost functions that are very difficult to disentangle and specify. Yet, another issue is that politicians of LGUs may not be willing to bear a higher cost, even if doing so may be optimal for social welfare. This is because a mayor, for example, may not have an incentive to care about the traffic in any other city other than his or her own. For these reasons, the marginal benefit = marginal cost condition seems too complicated to enact in practice.<sup>57</sup>

### *C. Central Government Steps In*

A third potential solution is to allow the Central Government to come in and exercise authority over solving traffic-related issues. This solution sidesteps the problem of potentially incompatible incentives among LGUs and allows the government to directly pursue its stated social welfare goals. The downside is that centralized planning usually does not have the informational requirements necessary to formulate well-informed policy. The Central Government cannot know the ins-and-outs of every street and monitor every stoplight. Moreover, it does not have the capacity to sift through all the potential information coming in from throughout the city. Add all the cities together and you have hundreds of micro-managed sub-units of the government, and this is without taking into consideration the number of municipalities, provinces, and barangays littered throughout the country. Considering this backdrop, a person should be able to see the hallmark of local autonomy or LGU independence. The division of the Philippines into smaller “political and territorial subdivisions” with their respective “heads of state,” so to speak, allows a more hands-on approach to local governance.

Here, they will be able to use their expertise and tackle the problems savvier than the Central Government could ever have. Because of this, it is necessary to combine a centralized organization with the explicit goals of alleviating traffic and maintaining economic activity, while having this same organization work with LGUs that provide the central organization with the

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57. ANTHONY DOWNS, STILL STUCK IN TRAFFIC: COPING WITH PEAK-HOUR TRAFFIC CONGESTION 76-79 (2004).

information necessary to make informed decisions. This seems to be the best solution available, at least in theory. In practice, such a solution would need to address the problems of:

- (1) the enforcement of centralized policy in various LGUs;
- (2) the transmission of information from the LGU to the central organization; and
- (3) the alignment of incentives between local officials and central organization officials.

Over the past year, a popular option to alleviate the congestion problem was to give emergency powers to the President.<sup>58</sup> This would be similar to the third potential solution of allowing the Central Government to sidestep externalities such as conflict of interest of LGUs. To date, more than 10 Bills have been filed in the Congress seeking to grant the President emergency powers.<sup>59</sup> One of the latest is Senate Bill (S.B.) No. 1284, which was filed last 12 December 2016.<sup>60</sup> In Section 2 of the proposed Bill, it states that “the traffic and congestion crisis in Greater Metro Manila and Metro Cebu, as manifested in the debilitated long hours of daily commute, have assumed the nature and magnitude of a public calamity”<sup>61</sup> and that this has to be addressed by “urgent, immediate, and focused actions from the government.”<sup>62</sup> Another Bill filed in 2016 was House Bill (H.B.) No. 3 which describes the congestion problem as a “horrendous” situation “caused by insufficient infrastructures coupled with inefficient management of transportation services.”<sup>63</sup> The gist of all these bills is that legislators see the

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58. An Act Granting President Rodrigo Roa Duterte, Emergency Powers to Address the Massive Traffic Congestion in the Country that has Assumed the Nature and Magnitude of a National Emergency, Declaring a National Policy in Connection Therewith and Authorizing Him, for a Limited Period and Subject to Restrictions, to Implement Rules and Regulations Necessary and Proper to Carry Out Such Powers, H.B. No. 3, § 3, 17th Cong., 1st Reg. Sess. (2016).

59. RG Cruz, Solons file bills seeking emergency powers for Duterte, *available at* <http://news.abs-cbn.com/news/07/28/16/solons-file-bills-seeking-emergency-powers-for-duterte> (last accessed Jan. 31, 2017).

60. An Act Compelling the Government to Address the Transportation and Congestion Crisis Through the Grant of Emergency Powers to the President, S.B. No. 1284, 17th Cong., 1st Reg. Sess. (2016).

61. *Id.*

62. *Id.*

63. H.B. No. 3, explan. n.

current traffic situation as an event so appalling that it warrants granting the President emergency powers.

But what are the components of these emergency powers? What are its limitations? Article VI, Section 23 (2) of the 1987 Constitution provides that

[i]n times of war or other national emergency, the Congress may, by law, authorize the President, for a limited period and subject to such restrictions as it may prescribe, to exercise powers necessary and proper to carry out a declared national policy. Unless sooner withdrawn by resolution of the Congress, such powers shall cease upon the next adjournment thereof.<sup>64</sup>

What stands out from this provision is that Congress is the one that authorizes the President to exercise such extraordinary powers — in other words, the Congress is the repository of the emergency powers.<sup>65</sup> Another is that the President can only exercise such powers necessary and proper to carry out a declared national policy.<sup>66</sup> Thus, if the President exercises a power which is neither necessary, proper, nor delegated by the Congress, then such would be in excess of what the Constitution allows. Moreover, the case of *David v. Arroyo*<sup>67</sup> lays down the conditions required to exercise these emergency powers:

- (1) There must be a war or other emergency;
- (2) The delegation must be for a limited period only;
- (3) The delegation must be subject to such restrictions as the Congress may prescribe; and
- (4) The emergency powers must be exercised to carry out a national policy declared by Congress.<sup>68</sup>

According to the country's eminent constitutionalist, Fr. Joaquin G. Bernas, S.J., there are two limits on the exercise by the President of emergency powers.<sup>69</sup> First is that "it can only be given 'for a limited time.'"<sup>70</sup> Moreover, when no limit is given, it may be withdrawn by a

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64. PHIL. CONST. art VI, § 23 (2).

65. See *David v. Macapagal-Arroyo*, 489 SCRA 160, 251 (2006).

66. *Id.* (citing ISAGANI A. CRUZ, PHILIPPINE POLITICAL LAW 94 (1998)).

67. *David*, 489 SCRA.

68. *Id.* at 251.

69. JOAQUIN G. BERNAS, S.J., THE 1987 CONSTITUTION OF THE REPUBLIC OF THE PHILIPPINES: A COMMENTARY 774 (2009 ed.).

70. *Id.*

Congress resolution.<sup>71</sup> Second is that the powers are “subject to such restrictions as the Congress may provide.”<sup>72</sup>

When applying the foregoing principles to the congestion problem, what is the national policy that is sought to be addressed? To borrow the words of S.B. No. 1284 -

it is hereby declared the policy of the State to adopt adequate, responsive, comprehensive[,] and effective measures that will immediately address the crisis. Consistent with the Constitutional mandate to promote the general welfare and social justice in all phases of national development, the State shall promote a shift towards safe, secure, efficient, viable, competitive, dependable, integrated, environmentally sustainable, people-oriented, and inclusive transportation system for the benefit of all citizens, the economy, and society.<sup>73</sup>

It will be interesting to see the specific powers, the length of the grant, and other restrictions passed by the Congress in case granting emergency powers is the path chosen to address the ever-inflating traffic problem. Based on the potential solutions, the grant of emergency powers seems to be the most plausible and efficient means to counter the traffic problem. Recall, however, that for the system to be efficient, it must address:

- (1) the enforcement of its centralized policy in various LGUs;
- (2) the transmission of information from an LGU to the Central Government; and
- (3) the alignment of incentives between local officials and Central Government officials.

It is therefore crucial that when determining what powers will be afforded to the President, the foregoing must be considered. Also, the powers must be broad enough in scope to allow the President to enforce and implement traffic rules and regulations without encroaching on the constitutional fiat of separation of powers.

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71. *Id.*

72. *Id.*

73. S.B. No. 1284, § 2.



## VII. CONCLUSION

This Essay makes two claims. The first claim is that the congestion problem in Metro Manila is a significant problem in terms of lost economic output and productivity, and general discomfort. One simply needs to live in Manila to realize that this is true, but this observation is corroborated by scholarly work in the academic literature on economic development and urban economics. The second claim is that any solution to this congestion problem needs to be in tune with standard economic and political economy principles, as well as within the boundaries set by the law.

Standard economic theory posits that conflicts of interest and externalities may jointly lead to the underproduction of congestion-reducing technologies and suboptimal policy schemes. This is the case because congestion reduction is a public good that benefits actors who are not necessarily directly involved in the reduced congestion, yet benefit from this reduction, such as suppliers and customers of transportation-oriented businesses. Moreover, this is due to the current disjointed scheme, which gives LGUs vast autonomy in setting congestion-related policies. This scheme may simply shift congestion from one city to the other without reducing of overall congestion. Political economy considerations primarily consider the role of collective action and State capacity. If the costs and benefits to different cities to reducing congestion varies considerably — which is certainly the case — then any scheme where the mayors can jointly and independently come up with an agreed policy is unexpected. The fact that congestion reduction is a public good with externalities makes free-riding likely. This means that cities would want to reap the benefits without sharing the cost, which, in turn, makes collective action less likely. Finally, State capacity issues serve as a reminder that potential solutions, which require complex coordination among agencies and complicated organizational structures, are non-starters because of the Central Government's incompetence and its inability to implement such schemes in reality. Hence, the optimal policy should be both centralized and organizationally simple, with clear goals to maximize congestion reduction, while minimizing reductions in economic activity — allowing LGUs to give input, while ultimately overriding their control over congestion-related policies.

Essentially, the best solution seems to be vesting a Central Government-controlled agency with centralized power specifically dealing with congestion problems. This will allow for uniform policy setting and

supervision. Interestingly, some bills appear to have moved toward this kind of set-up.<sup>74</sup> H.B. No. 4334, for instance, proposes to appoint a Traffic Chief who will act as an alter-ego of the President, who will have supervision over the MMDA, Cebu Coordinating Council, and the Philippine National Police Traffic Management Group, to name a few.<sup>75</sup> Some of the proposed powers of this Traffic Chief include the formulation of traffic policies and their standards, the administration of all traffic enforcement operations and traffic engineering services, the harmonization of traffic laws, and the implementation of a unified traffic system.<sup>76</sup>

Under the current scheme where power is vested in different authorities, the system is insufficient and inefficient in solving the congestion problem. For instance, poor management of the general public who avail of the various modes of public transportation adversely affects traffic. A bus stopping in the middle of the road to get passengers can clog two lanes resulting to a chain reaction of congestion. Also, whenever people do not follow simple rules on where to board or where not to board a public utility vehicle, the effects will spill over into the road. The same is true when they cross the road in prohibited places. The current scheme also leaves the handling of major roads like C-5 and EDSA<sup>77</sup> to the Department of Public Works and Highways. If some kind of construction is undertaken on a major road, the effects will spill over to the secondary roads located within the cities, allowing the policies of each individual city to govern once again.

To conclude, the “fixing” of the traffic situation is a tall task, one that cannot be fixed instantly. It will require coordination among different authorities, formulation of good policies, and cooperation on everyone’s part. Based on recent news, the direction policy is heading seems to be towards granting emergency powers to the President, including the appointment of a Traffic Chief. While the solutions give hope for change, what one must be equally hopeful for is that whatever solution is implemented, it must be sustainable, economical, and legally sound.

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74. See, e.g., Vince F. Nonato, *Bill to tap DOTC chief as traffic czar*, PHIL. DAILY INQ., Nov. 16, 2016, available at <http://newsinfo.inquirer.net/844691/bill-to-tap-dotc-chief-as-traffic-czar> (last accessed Jan. 31, 2017).

75. Traffic Crisis Act of 2016, H.B. No. 4334, § 5, 17th Cong., 1st Reg. Sess. (2016).

76. *Id.* § 6.

77. Carlos G. Mutuc, Urban Road Projects Office: Metro Manila Infrastructure Development, available at [http://www.ncts.upd.edu.ph/old/roadsafety/docs/3rd\\_urpo.pdf](http://www.ncts.upd.edu.ph/old/roadsafety/docs/3rd_urpo.pdf) (last accessed Jan. 31, 2017).