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Overhauling Land Transportation in the New Normal and Beyond

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Overhauling Land Transportation in the New Normal and Beyond

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Abstract

Most Filipinos in the labor force are commuters. In the ‘old normal’, most of these daily travelers have gotten used to traveling to school or work using various modes of public transport. But the woes of the Philippines’ commuting public have been a long-standing issue even prior to COVID-19. The pandemic therefore presents a ‘golden opportunity’ for an overhaul of the public transport system. An efficient urban transportation system would not only result in significant positive spillovers to the general public and to the entire economy, but would also allow for coordinated response to the social distancing and the safety requires of COVID-19 for the commuting public. Accordingly, there is an urgent need for (a) a rationalization of Public Utility Vehicle (PUV) routes; (b) a shift to service contract arrangements between the government and PUV operators; (c) a reprioritization of inclusive mobility infrastructure investments from mega-rail, mega-bridge, mega-airport, and tourism-related infrastructure projects; and (d) alternative revenue-raising measures that also reduce air pollution and discourage private car use.

Keywords: mass transit, urban transportation systems, public services, public finance, taxation

JEL Classifications: R4, H41, H30, H2

1 Introduction

Most Filipinos in the labor force are commuters. In the ‘old normal’, most of these daily travelers have gotten used to traveling to school or work using various modes of public transport. In Metro Manila, our buses have been among our primary means to traverse EDSA in the morning or in the evening during weekdays, albeit always not the most comfortable. Meanwhile, our jeepneys and shuttles have been convenient and reliable means to get to the market, to government agencies, to offices, to hospitals, schools, and leisure destinations; whereas our tricycles typically bring persons home right in front of their doorsteps. In all, the Land Transportation Franchising and Regulatory Board (LTFRB) reports that with 11.5 to 12 million people using the roads each day in Metro Manila alone,² 69 percent use public transport (JICA and NEDA 2014, 3–28).

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² <https://newsinfo.inquirer.net/1273213/over-2m-commuters-expected-to-use-public-transport-in-metro-manila-under-gcq-ltfrb>

The COVID-19 context makes an overhaul of the Philippines' urban transport system necessary, though how inclusive and effective this transformation will be will depend on the steps that policymakers take over the next few months. For that reason, this paper outlines a number of measures that are needed for advancing a shift in the Philippine transport landscape that favors *moving people* rather than private cars in the 'New Normal.' In what follows, we outline immediate transitional transport measures that can be taken as the Metro Manila and the urban Philippines move outside of its first COVID-19 lockdown. But more importantly, we underscore the importance of longer-term structural reforms in the land transport sector, as well as the need to recalibrate the government's Build, Build, Build (BBB) program to promote truly inclusive, efficient, and COVID-resilient transport services in the country. Accordingly, there is an urgent need for (a) a rationalization of Public Utility Vehicle (PUV) routes; (b) a shift to service contract arrangements between the government and PUV operators; (c) a reprioritization of inclusive mobility infrastructure investments from mega-rail, mega-bridge, mega-airport, and tourism-related infrastructure projects; and (d) alternative revenue-raising measures that also reduce air pollution and discourage private car use.

2 Mass Transport as a Public Good

The woes of the Philippines' commuting public have been a long-standing issue even prior to COVID-19. The lack of efficient and sufficient mass transit systems and daily road congestion have been an everyday source of stress and frustration with the average car commute in Metro Manila being 58 minutes long estimated in 2017 (World Bank 2017, 33). In the past two years, time spent on the road going to work or going home had increased further.³ Our public utility vehicle (PUV) drivers, too, face the same stressful conditions alongside work hazards and an adverse incentive system that encourages them to violate traffic rules.

Road congestion has also been a massive source of lost productivity that has cost businesses, workers, and the Philippine economy billions of pesos each day with an estimate of congestion leading to losses amounting to Php 2.4 billion per day in Metro Manila alone and Php 1.0 billion in Bulacan, Rizal, Laguna and Cavite (World Bank 2017, 16). Yet as the Philippines transitions into the 'New Normal' of COVID-19, all these preexisting challenges in the country's mass transport systems will be compounded due to the impact of social-distancing measures in the transport services sector. Indeed, experts and advocates have warned of a looming "transport crisis" in Metro Manila as the National Capital Region shifts towards a "General Community Quarantine" (GCQ) where work in more sectors is resumed.⁴

However, the lack of sufficient mass transport services brought about by ineffective urban transport planning had not only continued to burden the commuting public but had also aggravated road congestion with the increase in the use of private vehicles.⁵ As it turns out, even when private vehicles only accounts for around a third of transport demand, private vehicles actually occupy around 78 percent of road space in Metro Manila (JICA and NEDA 2014, 3–28).

On the other hand, it is well-established that a significant element of economic development is transport infrastructure not only for the direct impacts of road and transport-related construction on output and jobs but also through its indirect impacts, i.e. its linkages with the

³ <https://www.rappler.com/views/imho/102701-carmageddon-metro-manila>

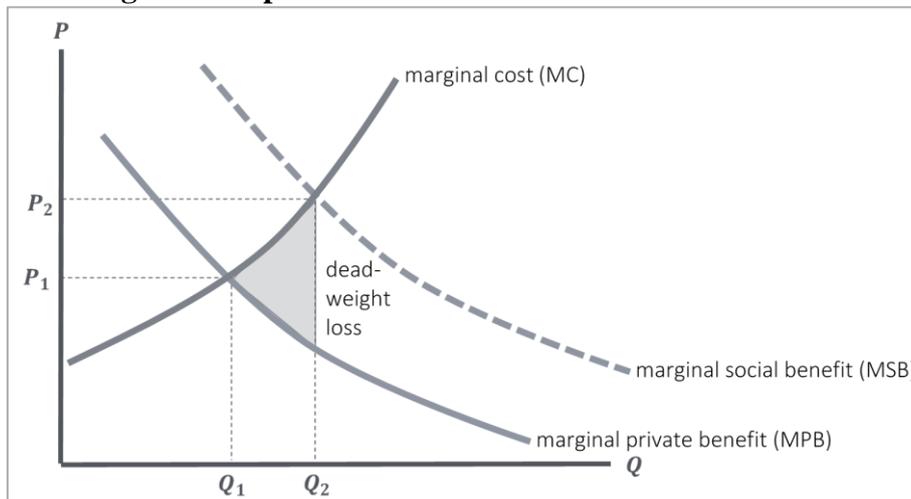
⁴ <https://www.rappler.com/newsbreak/in-depth/262230-looming-transportation-crisis-metro-manila-part-2>

⁵ <https://www.rappler.com/views/imho/102701-carmageddon-metro-manila>

rest of the economy (Tripathi and Gautam 2010). Hence, constraints to the Philippine transport sector result in significant losses to the economy. While only similar to the current suspension of public transportation due to the community quarantine, Yu, Tan and Santos (2013), using an Input-Output-based model, show significant losses to manufacturing due to a 15-percent inoperability of the transport sector when Typhoons Ketsana and Parma hit the country. Agriculture, private services, and trade were also significantly affected.

Hence, now, more than ever, with the global pandemic continuing to challenge governments in both developed and developing economies, benefits from public investments offer significant spillover effects especially to the most vulnerable segments of society overweighs concerns about potential distortions on the overall economy. An efficient urban transportation system would not only result in significant positive spillovers to the general public and to the entire economy, but would also allow for coordinated response to the social distancing and the safety requires of COVID-19 for the commuting public.

Figure 1. Capital as a Good with Positive Externalities



Source: Adapted from Rosen and Gayer (2008, 101)

Given its nature as a public good, the underprovision of mass transport services can be expected without government intervention. As **Figure 1** shows, public demand (i.e. marginal social benefit) always fall short of market demand (i.e. marginal private benefit) due to positive spillovers, i.e. benefits accruing to the general public (Rosen and Gayer 2008). Hence, there is much room for public spending on mass transport services to bring society from underprovision at Q_1 towards optimal provision at Q_2 .

3 Making Public Transport Work in the New Normal

In the short-term, provide a well-controlled and coordinated transport services that can ensure social distancing and other health safety measures upon the implementation of the GCQ. In 30th of April 2020, the government issued guidelines and identified areas which shall be placed under GCQ. Under these guidelines, the land transport sector shall be allowed to operate with the condition of reducing load capacity to not more than 50 percent as well establishing health safety precautions for both drivers and passengers.

The lifting of public transport suspension must therefore be complemented by the Department of Transportation (DOTr) with policies to ensure road traffic management. Similar to the

coordinated transport service that was led by the Office of the Vice-President to medical frontliners in the first month of the lockdown, a survey of Metro Manila residents show that government would need to provide shuttle services to those workers who will be allowed to go back to work.⁶ Such shuttle services would therefore ensure the implementation of strict social distancing and other safety precautions for the benefit of our commuters.

Table 1. Number of employed in land transport sector, 2018

Region	Number of Employed	Number of Employed in Land Transport Sector*	Number of Employed Drivers^ in Land Transport Sector	% of Drivers among Employed
	Estimated number of people (000)			
Philippines	41,157	2,722	1,429	3.47
NCR	5,171	382	252	4.87
Luzon	18,249	1,258	571	3.13
Visayas	8,091	474	277	3.42
Mindanao	9,646	609	330	3.42

Source of basic data: 2018 Labor Force Survey

Notes:

***Land Transport Sector includes the following subsectors based on 2009 PSIC:**

4911 "Passenger rail transport, inter-urban"; 4912 "Freight rail transport"; 4920 "Transport via buses"; 4931 "Urban or suburban passenger land transport, except by bus"; 4932 "Other passenger land transport"; 4933 "Freight transport by road"

^Drivers are defined to be the following based on the 2012 PSOC:

5112 "Transport conductors"; 8321 "Motorcycle drivers"; 8322 "Car, taxi, and van drivers"; 8331 "Bus and tram drivers"; 8332 "Heavy truck and lorry drivers"; 9331 "Hand and pedal vehicle drivers"; 9333 "Freight handlers"

This, therefore, also entails the continuing support to our drivers who will continue to be unable to drive their routes. As **Table 1** shows, the displacement of drivers and other employees in the transport sector represents a significant number of employed persons across the Philippines. Using the 2018 Labor Force Survey to estimate the proportion of drivers to employed persons, we find that 3.45% of employed are working as drivers across the country

4 Overhaul of Land Transportation

Nonetheless, short-run measures to provide transport services to frontliners and other essential workers are not sufficient. Important decisions have to be made with regards to the state of the land transportation in Metro Manila in order to respond to the requirements of the new normal, as well as to maintain the dignity⁷ of the Filipino commuting public. To put it another way, the government and private sectors alike need to begin recognizing the positive spillovers that can arise from investments to the transport sector. It is worth noting that while the following recommendations are focused in addressing urban transport problems in Metro Manila, this set of recommendations provide a template for land transport overhaul for Metro Cebu and Metro Davao, as well as in other burgeoning megacities across the country.

⁶ <https://businessmirror.com.ph/2020/05/20/survey-government-should-provide-shuttle-service-for-workers-during-mecq/>

⁷ House Bill 3125 or "The Magna Carta of Commuters" has been filed in Congress with the goal of pursuing a more dignified commute for Filipinos. See http://www.congress.gov.ph/legisdocs/basic_18/HB03125.pdf

First, implement a route rationalization plan for Metro Manila that is responsive to travel routes of commuters especially for those who would need to undertake essential travel.

Adhering to new protocols mandated by the government in ensuring minimum health standard will be a struggle for most transport operators, drivers and conductors on their own. If the COVID-19 ‘new normal’ could yet become permanent in nature⁸, then the transition period towards the post-COVID economy is the best time to overhaul the land transport sector. Furthermore, with transport sector representatives warning against an impending collapse given the continuing suspension of public transport, this time presents a ‘golden opportunity’⁹ for an overhaul of the public transport system.

In this context, an overhaul of the land transport system may benefit from the following strategies:

- Identify the spatial mismatch between place of residence and place of work in order to identify demand for public transport especially in major thoroughfare;
- Redesign the land transport system in Metro Manila by utilizing studies on optimal routes (e.g. ideal travel time, number of stops) across urban and peri-urban areas alongside the provision of dedicated bicycle lanes along the Epifanio de los Santos Avenue (EDSA) and other major thoroughfares and wider public space for pedestrians;
- Prioritize movement of PUVs on the roads to maximize efficiency and capacity while also maintaining social distancing; and
- Designing a transport system that can ensure the implementation of social distancing which include the use of Automatic Fare Collection System (AFCS).

On the 23rd of May 2020, LTFRB had unveiled its Rationalized Bus Transit Maps in Metro Manila as part of its Route Rationalization Program during an online forum organized by the COVID-19 Action Network (CAN).¹⁰ **Figure 2** shows the mass transit routes once the rationalization has been done. Apart from the rationalization of routes, other plans in the program include industry consolidation as well as usage of online payments and AFCS.

According to LTFRB, the rationalized routes will significantly reduce from 96 routes to 31 routes travelling across Metro Manila. This would also mean limited franchise to operators who have financial capacity to meet health standards for vehicle fleet. However, fleet consolidation can benefit from economies of scale potentially reducing the price of transport services while also allowing the transport sector to have better access to financing. In this case, those transport workers that would remain displaced during GCQ and those brought about by the rationalization of routes must continually be supported with social amelioration and assisted to transition towards other occupations with the help of Technical Education and Skills Development Authority (TESDA) and other related government agency.

⁸ Policymakers around the world are starting to accept the possibility COVID-19 is a disease that would stay with us permanently (Cruz and Muyrong 2020), especially given the amount of time it needs to develop a vaccine (Thompson 2020) and how coronaviruses are known to behave according to epidemiologists (Galanti and Shaman 2020).

⁹ <https://www.philstar.com/headlines/2020/05/21/2015538/expert-warns-impending-public-transport-crisis>

¹⁰ Watch forum at <https://www.facebook.com/covidactionph/videos/263944841653450/>. A more detailed map had been released by DOTr and LTFRB in June 1, 2020. See post <https://twitter.com/manilabulletin/status/1267399146685689857/photo/1>.

Figure 2. Rationalized Bus Routes in Metro Manila



Source: COVID-19 Action Network Zoom Forum, 23 May 2020

Addressing these points are essential as these will guide both commuters and drivers what are the nearest PUV stops that would mobilize them to various areas. Additionally, once AFCS is implemented, the data on the time travelled per destination will be generated and it would be easier to identify which routes would need more public vehicles and adjust the frequency of arrivals of PUVs for every stop. Furthermore, through proper implementation of AFCS, this could help in contact tracing of possible infected individuals. In the longer run, a cashless payment system that is connected to global positioning system (GPS) services can provide data on commuter information on travel origins and destinations thereby allowing for more efficient route rationalization efforts in the future.

Second, shift from the “boundary” system to service contract agreements to ensure uninterrupted and reliable road transportation services. In mid-March, PUV drivers found themselves suddenly unable to work upon the imposition of the community quarantine. Unlike others, drivers earn their incomes every day as the total of passenger fare collected less than their gasoline costs and the daily rental fee they pay to the vehicle owner (i.e. “boundary”). In fact, half of the drivers in the National Capital Region (NCR) actually earn on a commission-basis based on estimates using the 2018 Labor Force Survey (LFS). These boundary-based schemes are highly dependent on the number of passengers they carry for every trip and the number of completed trips, thereby resulting in dangerous on-the-road competition among drivers and hazardous commute for the general public.

The ‘new normal’ brought by COVID-19 justifies the serious need to shift from the boundary system towards service contract agreements between transport operators and DOTr. In this new arrangement, operators are required to employ the drivers under a fixed daily wage. Transport operators will be contracted and mandated to deliver services on a “fee per day” or “fee per kilometer” basis with government collecting the fare revenue via the AFCS. Also, these operators will be paid by government as long as they comply with contract obligations such as adhering to bus schedules, following social distancing, providing safer and cleaner vehicle fleet. The contracts are also performance-based where incentives and penalties are linked to service standards and eliminate on-the-road competitions. But more importantly, this kind of contract will ensure that PUV drivers and conductors will be paid a stable income independent of ridership in the context of COVID-19 where capacity is greatly reduced.

Whilst House Bill No. 2193¹¹ or the “Abolition of the Boundary System in Bus and Jeepney Operation Act” had been proposed in 2019, the proposal relies upon the Department of Labor and Employment (DOLE) to determine the wage rate of the drivers as well as the enforcement of an eight-hour driving policy. The bill, therefore, also falls short in determining a better system that addresses competition among bus and jeepney operators in major thoroughfares. Furthermore, there remains a need to address other issues on vehicle quality and hazards faced by our drivers. Persistent issues in drivers’ capacity to purchase new jeepneys that has been plaguing the DOTr Department Order No. 2017-011 or Public Utility Vehicle Modernization Program (PUVMP) must also be addressed.

But what would determine the living wage of drivers? Current estimates from the 2018 LFS show that drivers in NCR and Luzon earn higher daily income compared to the set minimum wage in 2018 even as they work for more than 8 hours a day. For instance, NCR drivers average almost 10 working hours a day (see **Table 2**). For the case of Visayas and Mindanao, the daily income of drivers falls short from the minimum wage, albeit at a smaller gap compared to the gap in NCR and Luzon. On the other hand, the average monthly income of drivers falls short of the per capita poverty threshold. This means that if the driver is the sole earner in the household, the families of these drivers are unable to meet the basic food, clothing and housing requirements. Better profiling among the drivers may be necessary to determine which drivers need the most support.

Table 2. Average income among drivers in the land transport sector

Region	Average Daily Basic Pay of Drivers (PHP)	Average Daily Hours Worked of Drivers	Average Days Worked in a Week	Average Monthly Income per Driver (PHP)	2018 Average Minimum Wage	2018 Per Capita Poverty Threshold
Philippines	367.29	8.51	5.49	9,235.92		12,576.65
NCR	586.02	9.84	5.52	12,930.56	537	14,102.11
Luzon	423.77	8.74	5.31	9,546.61	345	12,441.92
Visayas	326.43	8.31	5.66	7,547.40	352	12,278.36
Mindanao	321.82	8.35	5.60	7,290.56	324	12,547.86

Source of basic data: 2018 Labor Force Survey for income and hours worked drivers; DOLE for minimum wage; PSA for poverty threshold

Notes:

Reported minimum wage for Luzon, Visayas and Mindanao is the average of the upper bounds (if available) for the regions.

Reported 2018 per capita poverty thresholds are averages of regional thresholds. Also, only first semester thresholds have been released.

Moving forward, the overhaul of the transport system must therefore involve not only the modernization of public mass transit that is beneficial for the commuters but also a redesign of the system that would include program and policies inclusive of the plights of our drivers.

5 Building Back Better: BBB for a Post-COVID Transport Sector

Of course, the transformation of the Philippines public transport systems in megacities across the Philippines requires coupling long-term reforms with targeted investment for more efficient and inclusive transit systems. Here, there is no doubt that numerous projects slated for implementation in the Duterte administration’s “Build, Build, Build” (BBB) Program harbor

¹¹ http://www.congress.gov.ph/legisdocs/basic_18/HB02193.pdf

great promise for addressing critical gaps in the country's transport infrastructure. At the same time, however, the repercussions of the COVID-19 pandemic has also made a review and redesign of the BBB program imperative.

While a continued BBB program has been highlighted by policymakers as a critical area of stimulus spending for the Philippines' COVID recovery program¹², COVID-19 compels a rethink of BBB in at least three ways. First, in light of the urgent spending needs required by the pandemic, the infrastructure program will have to be modified to expand budgetary space for the government's health and social amelioration efforts. Second, though the implementation of BBB projects can provide a major boost to economic activity to an economy in freefall, the enforcement of social distancing protocols in construction efforts will slow down these projects' development and, for most of them, diminish their likelihood of being completed within the current administration. Third, especially if COVID-19 persists, the adoption of travel restrictions and social distancing measures could severely impair the long-term viability of particular types of BBB projects.

Specific infrastructure sectors that are particularly vulnerable to more pessimistic scenarios include proposed railway, airport, and tourism-related projects. Just as with sectoral upheavals experienced by the air travel, hospitality, and tourism industries since the inception of the COVID-19 pandemic, a failure to stamp out the disease will mean that air travel— including for tourism purposes— will be dampened for years on end, which will undermine the returns of projects aimed at supporting the operations of these sectors. Equally troubling will be the economic prospects of mass commuter railways, which comprise several of the most expensive projects in the BBB portfolio¹³. Should COVID-19 social distancing measures be required for the foreseeable future, tremendous subsidies may be required to keep such railways commercially afloat. Along with debt payments for foreign-funded projects, these subsidies could thus 'crowd out' domestic public resources which could otherwise be allocated for pandemic-related investments.

Redesign the BBB portfolio of projects to adapt to the 'New Normal' and its long-term outlook. Given the need to review and redesign BBB in the wake of COVID-19, the Duterte's administration's infrastructure program needs to minimize public expenditures on projects that can (a) otherwise be undertaken as public-private partnerships, and (b) should be put on hold, especially should there be indication that the coronavirus pandemic will persist into the longer-term. Public resources that are and will be allocated to such projects can instead be used to fund more inclusive road transport investments as well as COVID-related spending.

Table 3 provides some indication of the scope for reassigning projects for PPP development or for deferral. Though decisions on which ventures would be viable for private sector participation must be undertaken on a project-by-project basis, at least five rail-related projects together worth **PhP 101.4-billion** assigned for foreign-funded implementation have previously been allotted for PPP development. Likewise, at least three major railway projects— including the Metro Manila Subway project— amounting to **PhP 487.7-billion** in costs had already been

¹² <https://newsinfo.inquirer.net/1265573/include-enhanced-build-build-build-in-economic-stimulus-strategy-salcada>; <https://www.aljazeera.com/ajimpact/philippines-plans-build-coronavirus-downturn-200513050858886.html>

¹³ Even during normal periods, the operations of passenger railways in both the Philippines and other countries are heavily subsidized due to the inherent unprofitability of railway services from a commercial standpoint— by one 2018 estimate, for instance, the Metro Manila Subway, if developed, could require PhP 49.8-billion in annual subsidies to make its fees affordable for daily riders (Mendoza and Cruz 2018).

flagged by observers, and at times other public officials, as harboring “white elephant” risks prior to COVID-19. If the disease persists into the long-term, there can be every expectation that the unviability problems previously raised of these megaprojects will materialize. This will also be the case for tourism-related infrastructure projects (*PhP 42.4-billion*) as well as mega-bridge projects (*PhP 365.2-billion*) that remain included in the BBB portfolio of flagship projects. Indeed, five such “inter-island” bridge projects have already been discontinued by NEDA on infeasibility grounds¹⁴; decreased tourism, commercial, and commuter flows as a result of the pandemic are likely to mark other such projects remaining in the BBB list as also unviable.

Table 3. BBB Infrastructure Sectors with High COVID and Viability Risks

Infrastructure Sector	Cost (PhP Billions)	Comments
Railways	1,961.3	
Unified Grand Central Station	2.78	Now under GAA implementation, but previously under PPP
LRT 2 West Extension	10.12	Now under GAA implementation, but previously under PPP
Metro Manila Subway Phase 1	356.96	Not yet under implementation; but concerns raised over subsidy costs and viability risks before COVID-19
MRT 3 Rehabilitation	22.00	Now under ODA implementation, but originally for PPP
MRT 4	57.07	Currently for ODA financing, but originally for PPP
LRT 2 East Extension	9.5	Now under ODA implementation, but originally for PPP
Mindanao Railway Project Ph. 1	81.69	Concerns over viability risks already raised before COVID-19
Subic-Clark Railway	50.03	Concerns over viability risks already raised before COVID-19
Airports	1,009.6	
Sangley Airport	1.44	Now under GAA implementation with proposed PhP 500-billion expansion, even as concerns raised on feasibility issues before COVID-19. Potential redundancies with other Ninoy Aquino International Airport decongestion projects.
Clark International Airport Expansion Project Phase 1	14.97	Now under PPP implementation. Potential redundancies with Ninoy Aquino International Airport decongestion projects.
New Manila International Airport	735.63	Unsolicited PPP proposal, with concerns over viability risks raised before COVID-19. Potential redundancies with Ninoy Aquino International Airport decongestion projects.
Ninoy Aquino International Airport	102.12	Unsolicited PPP proposal, but with concerns over transfer of substantial government revenue sources (e.g. passenger service charges) to private consortium. Potential redundancies with other NAIA decongestion projects.
Tourism-Driven Projects	42.4	
Mega-Bridge Projects	365.2	Prior to COVID-19, five mega-bridge projects already removed due to infeasibility concerns. Concerns raised of viability risks among many of the remaining inter-island bridge projects.

Source: National Economic Development Authority

While questionable public- or foreign-funded airport projects are less prominent compared to railway and mega-bridge projects, various issues continue to hound the proposed development of mega-airport complexes to decongest the Ninoy Aquino International Airport (NAIA). In fact, four megaprojects in the BBB pipeline are slated for this purpose, which even before the

¹⁴ See: <https://www.rappler.com/business/244791-list-duterte-new-shelved-infrastructure-projects>

pandemic had been highlighted as indicative of a “lack of transport planning” within the government bureaucracy. While the largest of these ventures (i.e. the New Manila International Airport and the NAIA rehabilitation project) are presently to be undertaken as PPPs, the proposed Sangley Airport has also been eyed to be expanded as a *PhP 500-billion* project that will be funded by a mix of public and Chinese ODA sources¹⁵. Even should the persistence of COVID-19 prove not to be long-term in nature, the economic impact of the pandemic is poised to render several of these proposed large-scale airport facilities redundant. Given its prospective public- and foreign-funding components, it is advisable to defer the envisioned expansion of, at least, the Sangley airport project. The prospective impacts of proposed PPPs for the rehabilitation of NAIA and the New Manila International Airport on government finances (including through guarantees) also needs to be carefully reviewed.

Invest in inclusive and efficient road transport infrastructure. Compared the current focus of BBB on rail, airport, and bridge transport infrastructure, there remains scope for the Duterte administration to increase investment in inclusive road mobility. In its revised list of 100 BBB flagship projects last February 2020, there were *only* four bus transport projects, as well as one flagship project dedicated to non-motorized road transport (see **Table 4**). Moreover, in this revision process, two Bus Rapid Transit projects in Metro Manila were also dropped from the flagship projects list by the DOTr, on grounds of to their alleged risk of worsening traffic congestion in major thoroughfares¹⁶.

Table 4. BBB Mobility-Oriented Flagship Projects

Project	Cost (PhP Billions)	Comments
BBB Current Flagship Projects		
Metro Manila BRT Line1	5.5	World Bank-financed project for developing a 12.3 km BRT line from Quezon Ave. in Quezon City to Espana Blvd. in Manila
EDSA Greenways	8.5	ADB-financed project for developing 5 km of pedestrian walkways along EDSA, with connections to railway and bus stations
Cebu Bus Rapid Transit	16.3	World Bank-financed project for developing a 13 km BRT line Bulacao BRT Fuente Circle to Ayala Center Cebu
Davao Public Transport Modernization Project	18.7	ADB-financed project for developing a high-priority bus system for Davao city with 29 bus routes
Taguig Integrated Terminal Exchange	4.0	A PPP bus terminal to host provincial buses coming from Southern Luzon, Bicol, the Visayas and Mindanao
Removed BBB Flagship Projects		
Metro Manila BRT Line 2	37.8	ADB-financed project for developing a 48.6 km BRT line along EDSA from Ayala Ave. in Makati to the World Trade Center
Metro Manila BRT Phase 3	46.0	ODA-financed project for developing a 48.6 km BRT line along EDSA from Ortigas Center to Bonifacio Global City and NAIA

Source: National Economic Development Authority

Given the various risks that have been mentioned as regards the development of other transportation projects, coupled with the necessity of transforming the road transport sector presented by COVID-19, it is advisable for the Duterte administration to focus further on

¹⁵ <https://newsinfo.inquirer.net/1221499/sangley-airport-deal-seen-as-favoring-china>

¹⁶ <https://opinion.inquirer.net/124142/last-chance-for-the-bus-rapid-transit-solution>

providing sustainable road and active transport to the public through more inclusive, low-cost, and economically-viable systems. In the short-term, the lower volume of traffic and the need for bus augmentation of the MRT/LRT amidst social distancing, furnishes a window for implementing the BRT projects earlier removed from the roster of BBB flagship projects, as well as high-priority bus lanes in other key arteries in the country’s urban areas. Yet this expansion in public transport capacity must also be coupled with investments to enhance conditions for walking and non-motorized transport. This includes dedicated bicycle lane development, sidewalk improvement, and wider public spaces (e.g. public parks), among other things. In the same way that telecommuting should be maximized, the use of non-motorized transport (i.e. active transport), especially cycling, should be encouraged to reduce transport congestion while retaining social distancing among commuters.

Table 5. “BIYAHEnihan” Proposals for Urban Mobility Infrastructure¹⁷

Project	Cost (PhP Billions)	Comments
Sidewalk improvements and bicycle lane development	8.0 (PhP 5-M per km)	1,600 km of sidewalk and bicycle lane improvements (including signage, barriers, lane markings, accessibility improvements)
Bus/PUV priority lanes	30.0 (PhP 300-M per km)	100 km of dedicated lanes for public transportation (inc. roadway, signage, lane markings, traffic/crossing, signals accessibility improvements)
Bus/PUV depots	20.0 (PhP 1-B per depot)	20 Bus/PUV depots
Intermodal Terminals	16.0 (PhP 1-B per terminal)	16 Intermodal Bus/PUV terminals
Bus Stop Development	4.0 (PhP 2.5-M per stop)	1,600 bus stops

Source: MoveAsOne Coalition

Estimates on how much these other investments have been recently generated by the MoveAsOne Coalition (see **Table 5**), which has been pushing for a safe and sustainable public transportation response within the COVID-19 context. By their figures, development of 1,600 km of sidewalk improvements and bike lanes, 100 km of bus and PUV priority lanes, 20 bus/PUV depots, 16 intermodal terminals, and 1,600 bus stops, is projected to cost **PhP 78-billion**, though it may also be possible to invest further in such infrastructure if allowed by public resources. This initial amount can be readily covered by reassigning BBB projects highlighted earlier for PPP development or putting them on hold should more adverse COVID-19 scenarios materialize.

Government should explore alternative taxes to raise revenue, encourage a shift towards inclusive mobility, and strengthen health resilience against COVID-19. In recent weeks, the Duterte administration’s economic managers have proposed several revenue-raising measures to expand the public resources available for responding to the COVID-19 pandemic. Apart from the envisioned passage of the Corporate Recovery and Tax Incentives for Enterprises (CREATE) bill, these revenue measures have included a 10% hike on oil-related imports, an increase in Motor Vehicle User Charges (MVUC), additional excise taxes on sugar-sweetened beverages and junk food, and taxes on the gross receipts and employee compensation of Philippine Offshore Gaming Operators (POGO)¹⁸.

¹⁷ The “Biyahenihan” proposals of MoveAsOne Coalition can be accessed from bit.ly/MoveAsOne.

¹⁸ <https://businessmirror.com.ph/2020/05/13/citira-now-create-cuts-cit-to-25-means-p259-billion-in-revenue-loss-till-2022/>

To increase fiscal space for the inclusive mobility investments in the COVID-19 context, and to maximize the use of public transportation options that will reduce congestion and air pollution with the latter being identified as one of the most important COVID-19 fatality factors (Ogen 2020), we also recommend exploring the adoption of the following non-regressive tax measures:

- Parking taxes in official carparks, to reduce private car use and/or to encourage carpooling
- Congestion pricing schemes in Central Business Districts (CBDs) (e.g. Bonifacio Global City, Makati Central Business District, Ortigas Central Business District)
- Additional excise taxes for automobiles inclusive of pickup truck vehicles and luxury vehicles
- Land value capture schemes in properties in proximity to stops for rail, bus rapid transit, and bus stops
- Greater air pollution penalties and enforcement for smoke-belching vehicles

6 Conclusion

All the measures mentioned above are poised to help the Philippines cope with the pandemic crisis and move forward to the new normal. Should they be adopted, Filipinos will still be able to manage to move freely through an effective and efficient road transport sector; while commuters will no longer experience the same congestion in public vehicles. This will ensure that their time is efficiently used in travelling, while still imposing the minimum standard practices in public health safety.

A coordinated response to the concern of mobility while the Philippines continues to face the global pandemic is therefore warranted— both for commuters who would need to take essential travel, as well as drivers who remain unable to earn income. Furthermore, as the current situation reveals the entrenched institutional weaknesses in our transportation system, it is hoped that the improvement of our public transportation system towards levels of our East Asian neighbors will be among our policymakers' priorities as we transition towards the new normal.

Works Cited

- Cruz, Jerik, and Marjorie Muyrong. 2020. "COVID Keynesianism : Beyond Bailouts and Build , Build , Build." *Rappler*, May 3, 2020. <https://www.rappler.com/views/imho/259505-opinion-coronavirus-beyond-bailouts-build>.
- Galanti, Marta, and Jeffrey Shaman. 2020. "Direct Observation of Repeated Infections with Endemic Coronaviruses." *MedRxiv*, 2020.04.27.20082032. <https://doi.org/10.1101/2020.04.27.20082032>.
- JICA, and NEDA. 2014. "Roadmap for Transport Infrastructure Development for Metro Manila and Its Surrounding Areas (Region III and Region IV-A)." Pasig City. <http://www.neda.gov.ph/roadmap-transport-infrastructure-development-metro-manila-surrounding-areas-region-iii-region-iv/>.
- Mendoza, Ronald U, and Jerik Cruz. 2018. "Teka-Teka vs. Bara-Bara: Assessing the Governance of Build-Build-Build." *ABS-CBN News*, July 3, 2018. <https://news.abs-cbn.com/business/07/03/18/opinion-teka-teka-vs-bara-bara-assessing-the-governance-of-build-build-build>.
- Ogen, Yaron. 2020. "Assessing Nitrogen Dioxide (NO₂) Levels as a Contributing Factor to Coronavirus (COVID-19) Fatality." *Science of the Total Environment* 726: 138605. <https://doi.org/10.1016/j.scitotenv.2020.138605>.
- Rosen, Harvey S., and Ted Gayer. 2008. *Public Finance*. Eighth. Singapore: McGraw-Hill.
- Thompson, By Stuart. 2020. "How Long Will a Vaccine Really Take?" *The New York Times*, 2020. <https://www.nytimes.com/interactive/2020/04/30/opinion/coronavirus-covid-vaccine.html>.
- Tripathi, Shruti, and Vikash Gautam. 2010. "Road Transport Infrastructure and Economic Growth in India." *Journal of Infrastructure Development* 2 (2): 135–51. <https://doi.org/10.1177/097493061100200204>.
- World Bank. 2017. "Philippines Urbanization Review." Washington DC. <https://doi.org/10.1596/27667>.
- Yu, Krista Danielle S., Raymond R. Tan, and Joost R. Santos. 2013. "Impact Estimation of Flooding in Manila: An Inoperability Input-Output Approach." In *2013 IEEE Systems and Information Engineering Design Symposium, SIEDS 2013*, 47–51. <https://doi.org/10.1109/SIEDS.2013.6549492>.