



PROCEEDINGS OF THE

POLICY ROUNDTABLE DISCUSSION

Public Transport Reforms in Transition: Policy Lessons & Prospects on Competition, Consolidation & Contracting for the Philippine Road-based Public Transport Sector

19 NOVEMBER 2021



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TRANSPORTATION SCIENCE SOCIETY OF THE PHILIPPINES UP NATIONAL CENTER FOR TRANSPORTATION STUDIES

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Roundtable Discussion Concept Paper

By Dr. Noriel Christopher C. Tiglao

THE ISSUANCE of the Omnibus Franchising Guidelines (OFG) by the Department of Transportation in 2017 ushered a wave of reforms in the country's road-based public transport system. Firstly, the OFG established the hierarchy of public transportation modes and routes and mandated the conduct of route rationalization and fleet modernization on a nationwide basis. Next, the local government units have been mandated to prepare their respective Local Public Transport Route Plan (LPTRP) for the issuance of new franchises, a huge shift since the moratorium from 2003. In related policy issuances under the government's Public Utility Vehicle Modernization Program (PUVMP), the Land Transportation Franchising and Regulatory Board together with the Office of Transportation Cooperatives has been promoting the consolidation of otherwise fragmented operations of transport operators. More recently, the government has launched a service contracting program as a response to the COVID-19 pandemic in order to address the negative impacts of mobility restrictions to the public transport industry.

At the outset, it is recognized that there is a need to evaluate the policy performance and identify knowledge gaps on the various public transport reform initiatives. A Congressional Report observes that while PUVMP is considered a large-scale transformative initiative of the current administration, there seems to be too much focus on vehicle replacement. The same report indicates the need for proper sequencing of its implementation and cautions that unless properly implemented, the benefits to be gained from the program may not be fully realized. On the other hand, key lessons can also be learned from past reform efforts towards informing evidence-based policy making. A critical examination of public transport reforms in the country can greatly benefit from an application of key analytical frameworks borne out from the Thredbo conference series that has been running for over 30 years since 1989. Moreover, the Thredbo frameworks presents a good starting point for a constructive and continuing policy dialogue among operators, regulators and commuters who will stand to benefit from improved public transport service quality.

Thredbo has established three centerpieces, namely, the STO (strategic/ tactical/ operational) framework; trusting partnerships between transport regulators and operators; and regulatory cycles in the bus and rail sectors. The STO framework coined by Didier van de Velde (1999) in Thredbo 4 allowed a range of issues to be framed within this setting as a way of understanding the various roles of stakeholders—in particular, operators and regulators. The three tiers were later synonymized with (S) transport policy, (T) system planning and (O) service delivery. On the other hand, the role of trusting or quality partnerships emerged in Thredbo 7 as a mechanism for providing clarity to operators and regulators in how strategic goals can be translated into operational practice. For example, Stanley (2010) discusses the critical role of trusting partnerships at the tactical level in forming the basis for negotiated contracts. Finally, the influential contribution made by Ken Gwilliam (2008) in Thredbo 10/11 on regulatory cycles provided evidence for a cyclical tendency in bus regulation in both developed and developing economies.

This roundtable discussion brings together thought leaders in the transportation field for the purpose of illuminating the way forward, either through proposed changes and improvements on the on-going initiatives and point the way for much needed focused research on the subject. For example, institutional reforms are missing in the case of BRT projects that blur the boundaries between public and private. A strong feature of BRT systems in other country experiences is shorter development period and yet, this is not happening in the Philippines based on the Cebu BRT experience. The competition for the market which is a radical policy reform floated by PIDS presupposed the existence of a few large transport operators and a revision in the franchising law. While formation of cooperatives sound egalitarian, it is a form of consolidation that has failed to gain traction in the last 40 years among jeepneys. Consolidation and amalgamation are seen by policy makers as the hallmark of modernization, an observation made by Peter J. Rimmer in his book published in 1986. Whilst restructuring the bus and jeepney routes is desirable, there are very few indicators to an optimal design. The LTFRB-adopted new bus route network mavbe an improvement, but it increases the number of transfers without prescribing a corollary change in fare policy so as not to penalize these transfers between buses and with other modes. For this round, valuable lessons and policy insights shall be distilled based on the STO framework.

Department of Transportation. Department Order 2017-011. "Omnibus Guidelines on the Planning and Identification of Public Road Transportation Services and Franchise Issuance". 19 June 2017. https://drive.google.com/file/d/05x233S56g.ii/2ZmOQRTdWYIZgc2M/vie ew/2resourcekey=0-d5kU3HAyk5yDDgaErx3wDQ

Congressional Policy and Budget Research Department House of Representatives. (2020). Looking into the Implementation of Public Utility Vehicle Modernization Program. CPBRD Policy Brief No. 2020 – 02.

https://cobrd.congress.gov.ph/images/PDF%20Attachments/CPBRD %20Policy%20Brief/PB2020-02_PUV.pdf

https://thredbo-conference-series.org/s

Tiglao, N. C., De Veyra, J. M., Tolentino, N. J., & Tacderas, M. A. (2020). The perception of service quality among paratransit users in Metro Manila using structural equations modelling (SEM) approach. Research in Transportation Economics, 83, 100955. https://doi.org/10.1016/j.retrec.2020.100955.

Llanto, G.M and H.A. Gerochi (2017). "Competition for the Market: A Policy Framework for Improving Bus Operation along EDSA". PIDS Discussion Paper 2017-10.

https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidsdps1710.pdf

Gwilliam, K. (2008). Bus transport: Is there a regulatory cycle? In Hensher, D. A. (Ed.), Institutional reform in land passenger transport. Transportation Research Part A: Policy and Practice, 42(9), 1183– 1194. <u>https://doi.org/10.1016/j.tra.2008.05.001</u>

Rimmer, P. J. (1986). Rikisha to rapid transit: Urban public transport systems and policy in Southeast Asia. Pergamon Press.

Stanley, J. K. (2010). Goal achievement with trusting partnerships at the tactical level. Research in Transportation Economics, 29(1), 99-105. <u>https://doi.org/10.1016/i.retrec.2010.07.013</u>

Van de Velde, D. (1999). Organisational forms and entrepreneurship in public transport: Classifying organisational forms. Transport Policy, 6(3), 147-157. <u>https://doi.org/10.1016/s0967-070x(99)00016-5</u>

Wong, Y. Z., & Hensher, D. A. (2018). The Thredbo story: A journey of competition and ownership in land passenger transport. Research in Transportation Economics, 69, 9-22. https://doi.org/10.1016/i.retrec.2018.04.003

POLICY ROUNDTABLE DISCUSSION TALKS

PROCEEDINGS OF THE

Roundtable Discussion Framework

By Dr. Noriel Christopher C. Tiglao Link to presentation slides: <u>Click here</u>

THE OBJECTIVE of this roundtable discussion (RTD) is to bring together thought leaders in the transportation field to come up with different perspectives. The end-goal is to illuminate the way forward for the trajectory of reform efforts in public transport - by looking at short-term proposed changes and improvements of ongoing initiatives - and perhaps point us the way towards more focused research. There are researches from different fields and aspects, but I think we need more focused attention on the reform efforts with the end-goal of improving and building up on that experience. One way to do this is to identify key lessons from past reform efforts for an evidence-based policy making.

This requires a critical examination of public transport reforms in the country. The proposal in this RTD is to reexamine and apply key analytical frameworks borne out of the Thredbo conference series. The Thredbo conference series has been there for more than 30 years already and it looks at three center pieces in its discussions, one of which is the Strategic, Tactical and Operational (STO) framework.

The policy focus for today - and perhaps for the succeeding discussions of TSSP with practitioners, the academe, and policy makers - is the Public Utility Vehicle Modernization Program (PUVMP). We understand that it's a very transformative program, a landmark program, that has been long coming. It was established in 2017 and it seeks to modify the entire sector to modernize the fleet and the system. According to Sunio et al. in their 2019 studv. Analysis of Public Transport Modernization via System Reconfiguration, the PUVMP is designed to revamp the practices, policies, business models and cultural meanings of the existing public transport system in the country. The program has ten components which is quite complex in the sense that each component has to complement each other. Our distinguished panel today will delve us into some of these components and hopefully we can come up with key takeaways during this RTD.

To delve more on the PUVMP, this early assessment by the Congressional Policy and Budget Research Department (CPBRD) of the House of Representatives states that the PUVMP has focused too much on vehicle replacement. Some sectors might think that it's the intent, but we know that the program should be transformative, it has many moving parts. At the same time, it's interesting to know that this policy brief mentions the critical role of sequencing of the components. The early observation is that it could have started with the regulatory reform, Local Public Transport (LPTRP) formulation Route Plan and submission, and the route rationalization before embarking on the fleet modernization.

The report also mentions that for policy reforms, there has to be change management. There also has to be better appreciation of the program so that a new equilibrium can happen. At the same time, there is also a warning that unless properly implemented, the benefits to be gained from the program may not be realized. We don't want that; we and TSSP would want to see this program be successful and that's why we're here.

"The proposal is really to look at the STO framework as a starting point. This is not an exact copy of the framework that has been applied in Europe, and very recently, in Australia and Singapore. The Thredbo conference series held its Asian conference for the first time in 2018 in Singapore. Myself and Dr. Guillen had a very good chance to interact with the Thredbo group, and so we're here – we're trying to test and enhance the framework in analytical framing of public transport policy making in the country.

By way of introduction, there are three levels in the framework. First is the Strategic level. which is the formulation of the general aims of the service in broader terms. At the start, there has to be a clear definition of the main target groups and the positioning of the services in relation to other substitutes and complements. A reform on one sector should not be seen in a vacuum; it should complement other sectors. That's why I think the CPBRD policy mentioned sequencing of events and components. And of course, there has to be risks consideration as well. What are the risks and how do we address those risks? For the Tactical level, it aims to provide more details in the service characteristics. This is the actual design of the services where you have traditional parameters like routes, timetable, vehicles, fares, as well as softer aspects of the services. Finally, you have there your Operational level where you begin to translate the tactical aspects into day-to-day practice. This can be through crew scheduling, fleet management and monitoring, as well as the key performance indicators (KPIs) for the service that you have created.

In this RTD, we'd like to invite our panelists to weigh in on the three levels in relation to the projects that they have been involved with from a firsthand perspective. As shown in the STO template (Figure 1). we have to identify clearly who are the actors for each of the reforms. We have to as well plot the different relationships existing among these actors and what will be the impact and intended outcome of the reforms. This has to be clearly explained because, later on, this will shape the operational, legal. and organizational regulatory framework. The interesting part is this: how do we learn from

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The end-goal is to **illuminate the way forward** for the trajectory of reform efforts in public transport – by looking at short-term proposed changes and improvements of ongoing initiatives – and perhaps point us the way towards more focused research.

	Actors	Planning Authority	Regulatory Authority	Local Government	Operators	Commuters	Other Partners
Level	Relationship	_	•		•		
					•		•
	Strategic						
o p	level						
Transp Polic	What do we						
	want to						
	achiever Tastical						
System Planning	l'actical						
	product can						
	help to						
	achieve the						
	aims?						
ervice livery	Operational						
	How do we						
	produce						
s g	that						
	product?						

Figure 1. STO Template



Figure 2. Organization forms in public transport

past reforms and how do we now benchmark and assess the ongoing reforms? We do have that in the panelists today as they will tackle those different reform efforts.

Organization forms in public transport, as adopted from van de Velde (1999), is a classic framework where STO was born as a concept (Figure 2). You have here a diagram showing organizational forms referred to as pure organizational forms. On the right-hand side, you would have open entry to any service – any operator can offer a service to the market where demand exists. On the left-hand side, you have very strong government or authority provision. And so there's an increasing government intervention in the market from the right- to the left-hand side. At the same time, we're starting to think about relationships, contracting, and competition. Market failure and regulatory capture could be something that needs to be addressed on the market initiative and authority initiative sides respectively.

The quick question here is: What would be the right level of government intervention in the public transport market? And how should we begin to design optimally the next best options for legal regulatory and organizational framework to be able to provide those services? The key questions we invite the panelists to answer would be from their vantage point: How were the policy elements defined in those reforms under the STO framework? What were the gaps in the processes? What were the software and hardware related decisions? And how were risks incorporated in such decisions? At the start of the project or a program, these questions have to be addressed to ensure a policy success. We started to look at relationships among the different actors, so what are the critical relationships that should be moderated or that should be aligned? What organizational form can be explored in the future to ensure policy success? Finally, how can we improve transport governance and what sustainable information technologies for decision support can be pursued?

Hopefully, by the end of this RTD, we would be able to first, identify and assess the policy gaps and look at the structural constraints, bottlenecks, and positive actions to enhance and improve the PUVMP rollout. And second, to evaluate institutional capacity of concerned national and local government agencies involved in the roll-out of the PUVMP as well as to measure policy capacity. Finally, we need to work closely with the public transport sector, to take stock of the responses from public transport operations and commuters. Overall, we need a multi-stakeholder approach.

I would like to end with these silver linings, as we begin this RTD: First, we need to push for greater symbiosis of public transport theory and practice. I think the role of academic partners here is very important. Next, when we start to think about reforms. remember that governance is not government alone. There are many actors, non-state actors and even community actors, that can be part of the discussion. We are also looking at the catalytic role of collaborative governance and digital transformation. For example, how can big data help improve public transport decision making? What are the potential of bottom up approaches such as co-design, COproduction, co-delivery, and crowdsourcing? Finally, policy failures can be explained and can be addressed by way of research. With this. I would like to end and invite our participants now to share from their perspective.

Public Transport Reforms – A Journey on Three Axes: Ownership, Competition, and Regulation

By Engr. Rene S. Santiago Link to presentation slides: <u>Click here</u>

THIS IS a roundtable on the public transport reforms and I would like to take you on a journey on three axes: ownership, regulation and competition, which I learned in my more than 45 years of work in the field. It was a journey with many turns. More than 40 years ago, I was an impressionable young person who looked at, first of all, data, literature from development agencies like the World Bank, and other researches from the Western sources which somehow made me say 'wow, these are big ideas that I should learn and capture.' But as time goes on, you get to middle age, after 10, 20 years, you've learned to be skeptical and cynical about all of those recommendations coming from different experts. After 40 years, you get to that point where you have learned a lot of things along Competition. the wav. regulation, consolidation, all the issues. Of course, the journey is towards a good public transit system. So, let me try to share with you in less than 15 minutes my journey of more than 45 vears.

First, I think we can have a consensus of what makes for a good public transport system. I put as number one convenient transfers with no cost penalties. Most commuters would rather have a door-to-door trip if they can have it. Meaning, almost no transfer. And when you get on board a vehicle you want comfort – you have a seat, you have ventilation, perhaps aircondition, and personal space, not a very crowded one. When you go to a bus stop or look for a jeepney stop, you want it accessible, convenient, very safe, very near your place. And once you're on board, you want your journey times to be very reasonable – not so short, not too long. And of course, you want reliability, predictability, and high frequency at affordable fares.

Solving the public transport puzzle is really not as difficult as Rubik's cube, that's one thing I learned in 45 years. My early explorations on public transport regime was in two axes or two dimensions of competition versus regulation, and this is the matrix that I applied and researched on when I did consulting work (Figure 3). Around 2004, they were thinking of consolidation and, in fact, ownership was not an issue because it was a state-on enterprise. And at the time, I look back at the Bangkok experience on a public monopoly and its bad experience that happened afterwards and shared it. Of course, this is the same framework that I used in another city like Da Nang in Vietnam where I've also been part of a team that looked at public transport, and where I have to address these two issues of competition and regulation for public transport. But then, I found a third missing link to make it whole instead of making it just twodimensional. I added the axis of ownership, so now I call it the trifecta or three interacting of ownership, competition factors and regulation. (Figure 4) And when you view it this way, it becomes a little bit clearer.

The strategy to me is a movement in 2 dimensions, either x, y, or z, but at least in 2 dimensions, or if you want to get out of one color cube to the other. It's tactical if you are changing a position within the same cube, and perhaps a movement in 1 dimension. It is an

•		REGL	JLATION			
Regime	Demand on Public Institutions		Demand Fur	on Public Ids	Externalities: Effects on Other Sectors	
	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
Public Monopoly	Medium: Cpacity building for bureaucracy	HIGH: enlarge bureaucracy for transit O&M	HIGH: Funding to buy out or replace fleet	HIGH: Capex & Operating Subsidy	HIGH: Adverse effects on existing operators	LOW: minimized traffic impact
Controlled Competition	High: Reform of LTFRB & franchising	Low: small bureaucracy required	Medium: Gov't may need to seed the consolidation	LOW: sound fare will lead to zero subsidy	Medium: Bus consolidation	Low: minimized traffic impact fror fleet managemen
Deregulated Regime	LOW: small bureaucracy & low competency	LOW small bureaucracy & low competency	NONE	LOW: for common infrastructure	Low: no change in current structure	HIGH: high congestion dut to street competitio

Figure 3. Competition and regulation



Figure 4. Ownership, competition, and regulation

operational matter if you are seeking improvement of changes but you do not change position within the cube. In these cities that go into the C4 or Cube 4, I call them the Thredbo countries. Where transportation is public, competition is 0, it's a monopoly, and institutions are very strong. They virtually have no paratransit to deal with. And the main competitor actually is the car, and they'll be happy if the public transport will get 30% or more of share.

So what is Thredbo talking about? They're talking about unbundling, service contracting, movement on the Y-axis. Some would call this mental gymnastics, but borrowing from the current language of this current administration, I would call the Thredbo discussion 'mental masturbation.' Very interesting, but very inappropriate to our situation. For cities of 3rd world countries, like us, we're actually in Cube 2, in that corner, where competition is almost unlimited, regulation is very weak - I put a score of 2 for our regulatory system - and ownership is 100% private. What is the reform thread that is happening within this cube? We want consolidation, which is a movement along the Y-axis from thousands of hundred thousands of competitors to a few service providers. We want to improve regulation, so we want to move on the Z-axis, but there is very few suggestion to move or change ownership. These pictures (see Figure 5) were shown to us in one of the Foundation for Economic Freedom forums about 6 years ago by somebody who was doing research on competition in the Philippines. He asserted that it was a clear demonstration of supply deficiency, absence of competition. And so, most of the audience in that forum who are eminent economists in the country said yes, there is lack of competition. But in terms of the learning, I think they're in the early stages. In that forum, I was the only one who stood out and said, no, it is not lack of competition. Supply is adequate but fare is too low. The reason for that? I've gone around the country, I've seen this scenery in several municipalities. overloaded jeepneys but there are 3 or 5 more

jeepneys empty on the terminal. Why? Because there is no backhaul, meaning they bring the passengers to one village outside the poblacion but there are no passengers on the way back; so what the jeepney driver will do is overload it with passengers so that he'd earn his revenue for the return trip. It's the same thing that is happening on your tricycles and on your skylab motorcycles for hire.

So you see, the viewpoints of whether there is competition or lack of competition depends on where you are in the learning curve. If you are early, there's lack of competition, but if you're far ahead like me after 40 years, you say, ops, no, no. It is not actually a lack of competition. Of course, for you, you can take the long route to your learning curve or you can shorten it, if you believe in me. One way to speed up your journey is to look back at public reforms in the last 45 years. And I would like to capture it in this kind of chart, a history of 40 years in one slide. From 1995-1990, 1990-2015, and 2015present.

The Philippine experiment on public transport reforms started in 1975 on the Bus Consolidation Program. I was in charge of that program when I was in government. My task is to consolidate more than 120 bus operators initially in to 10 groups which we called consortia. Then, upon discussions with them after a year or so, we could not put them together to 10 because the bus operators could not agree with each other. They want to be separated, so we changed the letter of instruction signed by the President that lifted the ceiling to 14. We succeeded in forming 14 consortia, they have color coded livery and routes, meaning the routes are one color, that area of responsibility, and the buses also started the same color with one consortia. From 1990-2015, deregulation devolution became the mantra of the administration. The consortia was dismantled and they reopened the franchising on the philosophy that the more providers. the merrier and better for commuters. And then in 2015, we're back to bus restructuring and consolidation which was

ordered in May 2020 by Land Transportation Franchising and Regulatory Board (LTFRB). The challenge today, you have about 600 bus operators and you want to move it to something like 31. Also launched during this period is the Public Utility Vehicle Modernization Program (PUVMP) launched in 2017, aiming at 100% vehicle replacement and consolidation by 2022, which is next year.

In the first wave of reforms, the icon of bus reforms at that time was the love bus. It was the first air-conditioned bus in the country. It is very similar to the Point to Point (P2P) of today because it was providing express bus services. Why love bus? It was coined by a staff assistant when she saw the movie "The Love Bug" about the Volkswagen. When Imelda Marcos saw the love bus that we brought to Malacanãn for ceremonial launching by the President, she claimed it as her idea.

At the present, we are talking about Bus Rapid Transit (BRT). BRT is now what we call the foster child of third wave reforms. In Metro Manila, we have the EDSA Carousel which has morphed into a busway. The literature on public reforms, if you will research on that in the 1970's to about 2000, many advocate or proselvtize about unfettered competition that the government should not interfere in the market. Then it changed its tune right about 2000, saying, no, we should have limited competition in urban transport service if that's the only way to get better public transport service. In the 1990's, of course, busways became popular, then it became renamed as BRTs of the year 2000 and so on. Other Asian cities such as Singapore and Bangkok were actually doing the same reforms as we did in 1975.

Bangkok went the other way. It chose the European route of the Thredbo country route of a public monopoly called Bangkok Mass Transit Authority. Taipei on the other hand built 11 busways,. Singapore also consolidated 8 buses, but it did not really create a single monopoly. There were 2 or 3 bus companies



Figure 5. Overcrowded public transport vehicles

and these bus companies in Singapore have diversified into services other than buses. Because of the losses encountered by Bangkok in 10 years, it was a financial disaster. They went into bus contracting, the same issue that is now being discussed by the Thredbo countries. So that gives you an overview of the reform on the global stage, in the Asian stage, and on the Philippine side.

Let's look at current modes of public reforms, the bus consolidation, what I call version 2020. You are merging 600 or so operators into 31. The existing operators will have to re-apply, and one franchise will be given per one route. The bus route design did not specify the turnaround points, the depot locations for the transfer points between the bus routes. It did specify color-coding of buses and routes, but I haven't seen them yet after more than a year. If you look at those bus route designs, actually it tells me you only need 6 or 7 bus operators, and that is operational analysis: how will the bus be able to serve a particular area and it tells me you need only 6 or at most 7 bus companies. So that's one red flag that I see at the current effort. Then the second red flag, is there is little overlap of the other routes on EDSA. which means the transfer of passengers from other routes to EDSA will be problematic. The third red flag is it ignored that the demand load profile on EDSA is not flat. The operators now running on EDSA Carousel also reported that they don't have enough buses from the middle sections of EDSA. which means the bus route design did not consider the load profile along EDSA.

Let's compare the bus consolidations of the 1975 and the year 2020. 1970 was backed-up by a Presidential Letter of Instruction; the consolidation of 2020 is backed-up by the LTFRB Memorandum Order. The 1970 version had a cabinet level of committee and there are high-powered names like Cesar Virata, Enrile, I can recall as members of COBRE. I do not hear of any steering committee for the bus consolidation of 2020 – I assume it could be the Board of LTFRB. We had a full-time project team interacting with bus operators; I do not see a project team for the 2020's. The route structure was derived from operators' own suggestions. We asked them how to group and modify the routes and we approved what was to us was logical. In the case of the 2020 version, the route structure was proposed by a consultant and imposed to bus operators (follow, or else...). There is also bus color-coding and route coding in the 1970 version. There was also no reduction in bus number; we only imposed minimum fleet size for its consortium. Whereas in the 2020 version, there is a reduction in bus number from 10,000 to 4,600 units.

Let's look at the PUVMP. That program targets 200,000+ jeepneys to be replaced with minibuses by 2022; it requires re-design of all public transport routes to be done by the local government units; and it also talks about amalgamation or consolidation, one coop or one operator only per one route. It has several dubious assumptions, but I will only point out three. One, you buy a new vehicle that will cost about 2.5 million pesos versus 300,000 pesos for the old jeepney, and without increasing the old fare, you'd think it will be viable - that is a wrong presumption. The other presumption is the local government can prepare route plans following a manual issued to all of them. Thirdly, the consolidation will magically happen because it was ordered.

The 3rd thread in the existing reform is what I call 'service contracting.' It is a very slippery slope, because the private sector counterparty is yet to be organized. Buses and jeepneys are in process of consolidation. You cannot contact thousands of small operators because it is a bureaucratic nightmare. This was experienced by LTFRB; several bus operators stopped operating because they could not be paid. There is also no pre-existing public transport agency. No local government has embraced public transport as a public service obligation (PSO). In contrast, that is considered as PSO by Thredbo countries. LTFRB as the counterparty on the government is the wrong

party to issue service contract. It is a regulator and it is not an operator, it has no experience in public transport management. And if you really want to destroy public transport in the Philippines, make the government the transit manager. My 4th issue with the service contracting is it opens a Pandora box. It is too tempting for politicians not to meddle and dip their fingers in and maybe affect the selection of fares or operators as well as the setting of fares.

And lastly, it starts from the wrong cube in the trifecta I mentioned earlier. This brings me to the last part of my presentation. What I have realized, after more than 40 years; what an aging researcher can share with some of those early in the game? Public monopoly is to be preferred when there is economies of scale, and that is the economic theory. Of course, there is no economies of scale according to the World Bank in bus transit or jeepney transit, but there is also one strong argument for it if we have institutions that are strong and competent like Singapore or Hongkong. We don't have that in the Philippines.

Government is a bad manager when it comes to operations & maintenance situation. It has a reverse Midas touch, it has the ability to turn gold into bronze and it can start. well initially, but it then accelerates into entropy. According to economists in a competitive market, the government hand is unnecessary, meaning strict regulations should not be there, and the dilemma to our transport regulations is balancing too many versus too few operators; too many operators can't differentiate the good and the bad. Thirty-one buses to me is too many. We're frightened with too few because we think that it's a monster which to me is imaginary because there are other modes that are competitors. They're hiding in plain sight. You don't have to have competition within buses: there are competition from other modes, for example, the car or the jeepney provide competition,

or even the taxi.

I cannot dismiss also colonial mentality inherent in some of the proposals. They think that anything that is invented abroad is very good for the Philippines, and anything invented by the local people, imagined by the local experts are not good. There are also still many questions. Is public transport modernization equivalent to corporatization or amalgamation? In short, can we have modernization without amalgamation? Second, can small operators coordinated or integrated be without consolidation? Can we have hundreds of thousands of jeepneys, 60,000 on Metro Manila operate like a colony of bees, without putting them under one umbrella? The PUVMP, can it be saved, or does it need saving? The bus consolidation seems to follow the old playbook; will it produce a new outcome this time around? When we talk about modernization of public transport, what about the more than 1,500 municipalities and LGUs throughout the country? About 1,400 of them really do not have buses or jeepneys to talk about, so modernization will fly over their heads.

As Steve Jobs would like to say, what comes after STO framework? When I was early in the game, I did ask what is the difference between strategy, tactics and operations. And this framework sort of guided me, but it also opened up the question: how about policies? There is another layer to your STO framework which is policy, and above policy is the value or norms. And then the last part is the creation. This framework puts everything, a guide, a compass, if you will, on what to do as you get in your own journey. So with that, I would like to end my presentation. I would like to thank you, everybody for bearing with a story of an old researcher and an old guy who has seen many things and got wounded in the process but still soldiers on.



Figure 6. Cebu Bus Rapid Transit Rendition

The Cebu Bus Rapid Transit Experience

By Engr. Nigel Paul Villarete Link to presentation slides: <u>Click here</u>

MY TOPIC for today is the Cebu Bus Rapid Transit (BRT) experience, and I would like to limit this to what was actually required. First, this not a presentation of the BRT itself, nor a presentation of the Cebu BRT. This is a presentation that addresses some of the concerns on the theme for this conference. And thirdly, this will focus on the experiences of the Cebu BRT - the timelines, delays and its causes, policy and procedural issues that hindered its fast execution and may hinder similar projects in the future. I would have to state that this is not a critic of the project itself knowing that it has, of course, a lot of problems during implementation, but it is something that we can learn from in terms of looking forward and making other BRTs in the country.

It has been announced early this year that the first buses will be running within the year. It is

already November and we have not seen any station or buses yet. We are still waiting until December for what is promised to come. The Cebu BRT is a 23-kilometer network when it was originally designed, but right now it is about 12 kilometers only. The total project cost is PhP16 billion.

I would like to show you the history of BRT. At the start, there are some busways in the 1970's until the 1990's. The first BRT we knew of was the Curitiba BRT in Brazil. But actually, when you go to the literature, there was another BRT which was created in 1971 in Runcorn, England. Between 1999 and 2000, there was not much improvement in the number of BRTs, until in the year 2000 when Mr. Peñalosa as mayor of a particular city built one which is now the biggest BRT in the world. From 1999, so many BRTs came into being, most of which are in Asia, and right now, more than half of the world's BRTs are in China.

In terms of Cebu BRT, the first mention of the bus rapid transit or busway was in the 1992 Metro Cebu Mass Transport Study. There was one paragraph mentioning a possibility but it was not yet recommended back then. The good thing about Cebu BRT is that Mayor Osmeña, when he left office in 1995, went to Curitiba to look at the Curitiba BRT. When he came back and became mayor again in 2001, he told everybody that BRT should be the main transport in Cebu.

These are the different items that came out until the present, and why Cebu BRT is now about to be started (Figure 7). There are issues about the execution that may affect the country: (1) There seems to be some jurisdictional ambiguity between national government and local government; (2) project preparation is often wanting, sometimes it is not continuous; (3) project execution is oftentimes disrupted, I am going to show why there are some disruptions in the BRT; and of course the last thing which also happens in Cebu BRTs, (4) projects are sometimes changed in the middle of implementation.

Let us go to the jurisdictional ambiguity between national government and local government unit (LGU). If you look at the timeline, Metro Manila BRT was actually initiated by national government in 2007, while Cebu BRT was initiated by the LGU in 2009. The question is who initiates the mass transport projects? Will it only be the national government or will it also be the local government? Forward to the present, national we have the government implementing EDSA BRT and other rail projects and then we have Makati City now implementing rail projects. This needs to be clarified because there might be competition in the future.

	Proje	ct Development Timeline
Decade	Year	Activity
1990's	1992-94 1995	Metro Cebu Mass Transport Study Visit of Mavor Osmeña to Curitiba
2000's	2001 2007 2009-2010 2009-2011	Inclusion of BRT in Cebu City's Quest for Mass Transport Metro Manila BRT Pre-FS (USAID) Cebu BRT Pre-FS (PPIAF/WB) Metro Cebu Public Transport Strategy (DOTr)
2010's	2011-2012 2012 (November) 2014 (May) 2014-2015 2016 2018 2019-21 2021	Cebu BRT FS (World Bank) Approved by ICC, deferred by the NEDA Board Approved by the NEDA Board WB and AFD Loan signed / {MM BRT FS(WB/ADB} Budget included in GAA; Procurement started DOTr requested NEDA for the cancellation of the project (Denied) Project was continued, albeit cut/shortened into half its length Project Construction bid out

Figure 7. Cebu BRT Project Development Timeline

Second is lack of or fragmented project preparation. Good for Cebu BRT if you look at the timeline, the pre-FS was done in 2009 and 2010, while the FS followed immediately after a few months of project preparation from 2011-2012. But if you look at the Metro Manila BRT, the pre-FS was completed back in 2007, but the feasibility study, both for EDSA BRT and Quezon Avenue BRT was only done in 2013 or 2014. This one is fairly continuous while for the Metro Manila BRT there is a gap between the pre-FS and the FS. We have to ask the question: why is there a gap? If it was really studied in 2007, why not do the FS immediately?

Third is unnecessary and ambiguous disruptions. I have to be very specific in this. If you look at the approval process, Cebu BRT was approved by the ICC technical board and approved by the ICC mother committee in November of 2012, but it was deferred by the National Economic and Development Authority (NEDA) Board. It took about 1.5 years before it was approved by the NEDA Board in Mav of 2014. The reason for this is there was a question on whether it is the right mode of transport and whether it will work. And this is just so difficult to answer because it has passed through all the technical studies, it has passed through all the approval process of NEDA, and then I think it was the level of Office of the President that was not sure. There is a request that it will be tested in a certain road in Metro Manila. It took 1.5 years before it was finally approved.

Now, the second disruption was in the project implementation. In 2016 during the change of administration, the procurement has already been started but in the middle of the game, the Department Transportation (DOTr), the head of the project, requested for the cancellation of the project itself. When NEDA denied, the project is continued. So there were 2-3 years of disruption here when nothing moves, mainly because that project technical support consultants were not engaged. Now, the last is project change was in the middle of execution. I have little idea for the case of Cebu BRT because I already left the city government when this was done. I am sure the proponent or DOTr had certain good reasons why they changed the concept of the project length by making it one-half of the entire thing. These are the kinds of disruptions we hope will not be done in the future. What is being planned over the years – this took about 11 years – should be continued and not changed in the middle.

Our traditional public transport regulatory transaction regime at this moment involves three, and that is, government, PUV operators, and there are the riding public (Figure 8). As regulatory measure, government regulates the fares and issues franchises whereas the financial transaction is between the PUV operators and the riding public. The operators provide the services, the riding public pays the fares, but the government controls the number of units, regulates the fares, and as what Engr. Santiago has said, if the fares are very low, then it will cause a lot of problems within the system itself. The operators will not operate in a certain way because of the low fares. But if you increase the fare, people will get angry. This is the reason why there are so many passengers waiting in our roads right now, simply because the operators will not buy vehicles only to have them run a small percentage of the time when the rest of the hours of the day are for off-peak hours. So, the government went into a service contracting regime (Figure 9).

The government regulates the fares, the government issues the franchising, but in service contracting, there is direct contract between the government and the PUV operators. The PUV operators provide the services and then the passengers pay the fares to the government. It is a different transaction. But in this case, since there is a contract between the operators and the government, the government can set the



Figure 8. Traditional Public Transport Regulatory/Transaction Regime



Figure 9. Service Contract/Transaction Regime

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The government agency that contracts with the operator should have the **legal authority** to do so. In other words, it is embedded in its charter that first, it has authority to run and operate buses; second, it has authority to contract out the services of buses; and third, it has the financial capability to do so. incentives, penalties, and the framework of how the operators will work. In the end, this will produce a situation where the government can tell the operators, "Okay, you have to run so many vehicles in so many hours, you have to come up with services that will come at 6:15, 6:30 and 6:45 - a set schedule, and you can also define the penalties if they will not obey and follow the schedules." The government can practically improve in its management of how the passengers would be brought from one place to another. This is service contracting regime, but this is how it is supposed to look like as compared to traditional of handling public way transportation. The service contracting is between the government and the public operators, but it cannot be done as directly as this.

Government is a huge machinery, a huge bureaucracy. You need somebody to enter into contract with the PUV operators, and that is why you need a certain government agency. Personally, I think this is one of the most important issues that needs to be addressed because you need to have the right government agency. And this is the question now: which government agency will enter into contract with PUV operators? We have to have some prerequisites for this. I think this has already been addressed by some of the slides of Engr. Santiago, that the government agency that contracts with the operator should have the legal authority to do so. In other words, it is embedded in its charter that first, it has authority to run and operate buses; second, it has authority to contract out the services of buses; and third, it has the financial capability to do so.

That is the reason why the best agency or the better agency to do this must be a controlled corporation, because it is next to impossible to enter into a contract with PUV operators if you are a regular government agency – like DOTr or LTFRB – because your funding comes from Congress. And we know that our budgeting system in the Philippines takes about 3 years.

So if you have that as your backdrop, then no regular government agency can actually deal with PUV operators, since the PUV operators will expect to get paid almost every month. The drivers need to be paid every month, operations and management need to be paid every month. You need to have a government agency that can transact with the PUV operators on a monthly basis, and the only government agency who can do that will be an autonomous government-owned or -controlled corporation (GOCC).

Whether it is creating or finding an existing GOCC, this option will create a monopoly government-centered because it is а operation. There is a second option, but this is something that I will leave to the national government to think about. The second option is to contract out a single private operator per LGU or per route. The private operator now will enter into the service contract with the PUV operators. Remember that running BRT or even other bus companies does not only involve running the individual buses itself: it involves the operations and managements of the terminals, maintenance of the roads, maintenance of the terminals, the operations of the fare collections system, operations of the schedules - all of those that cannot be done by the private operators themselves. Also, if the government wants to expand, it has to have somebody who has overall control on where to expand. In this case, the private operator can discuss with the government, in order to come up with expansion plans or other links in the future.

observations Lastly. my and recommendations. First, we have to define the jurisdiction between the national government and LGUs. For example, there was a project proposal in Iloilo City, for a private sector to build a monorail in that city. I was in Cebu City that time, and we were wondering, will that be possible without DOTr approval? I think that is already possible, because Makati has established its own rail system. But I quess in these things, we need to have some document

to show how the national government and local government cooperate or compete in terms of mass transportation system. Second is to minimize disruptions both in preparation and approval process and also in project design. And lastly, institutionalize the framework for service contracting which I have discussed. This needs to be clearly communicated to everybody concerned, including the private sector, the bus operators, and also the LGUs, so that the LGUs will consider to do these things.

Take note as what Engr. Santiago has said, there are about 1,600 provinces, cities, and municipalities, and each of these in the future will have to have their own mass transport systems. So who will initiate these projects? Who will make the project development? Who will make the project successful, will it be the national government, or the local government, or something in between? And how will the service contacting be done, will it be individually, by each city, or is there a framework, a template for service contracting that the LGUs can just copy and do? With that, I end my presentation. Thank you very much.

Local Public Transport Route Plan

By EnP. Joemier D. Pontawe Link to presentation slides: Click here

ON BEHALF of Department of Transportation (DOTr), the Land Transportation Franchising Regulatory Board (LTFRB) and and Department of Interior and Local Government (DILG), I will be focusing my presentation on the Local Public Transport Route Plan (LPTRP). Traditionally, the determination of public transportation routes that will be granted franchise has solely rested on the Road Transport Planning Division of the DOTr, composed of inter-agency personnel from the road sector. The route assessments are based on request from private operators. imagine a national government unit going to the regions and evaluating these proposals just for financial viability and a guick assessment on how they interact with existing public transport routes. More often than not, the approved routes are not integrated nor interconnected with one another due to different interests. These requests from private operators also require local aovernment unit (LGU) endorsements before getting approved. This is the main reason why in 2017, alongside the implementation of Public Utility Vehicle Modernization Program (PUVMP), the DILG and DOTr signed JMC 001, Series of 2017 to institutionalize the LPTRP.

LPTRP is basically a detailed plan route network with specific modes of transportation and required number of units per mode for delivering land transport services. This is the basis now in the minimum requirement prescribed for the issuance of PUV franchises. We integrate the local transport masterplan or even the comprehensive land use plan (CLUP) and comprehensive develop plan (CDP) of LGUs. Also, the LPTRP envisions to make the routes more responsive to demand, since LGUs now have the authority to propose routes based on local demands. It also envisions to assign appropriate vehicle type depending on demand, road hierarchy, and configuration. LGUs need to come up with evidence-based recommendations and plans since we also have prescribed passenger per hour per direction for each specific mode of transportation. So an LGU cannot just propose without an evidence based on passenger demand and plan public transport reforms, considering the local situation and goals.

We acknowledge that local governments are in a better position to identify local public transport requirements because they are also in-charge of formulating the CLUP, zoning plans, and traffic management plans, among other local plans. Based on the JMC, these are the jurisdictions of the local governments. They are in-charge of intra-city and intra-municipality routes. We acknowledge that most cities and municipalities do not have intra-city routes and that is why we are asking them to submit existing plans to just mention that they do not have intra-city routes for tricycles. With that, we will be issuing special notices of compliance. Our focus now is with the provincial governments, since they are in-charge of intercity and inter-municipality routes and the public routes nationwide within transport the jurisdiction of provincial governments. And for the DOTr through the LTFRB, we are incharge of the inter-provincial and the interregional routes, the routes between and among independent component cities, intercity and inter-municipal routes within the MUCEP area (Metro Manila and some adjacent cities and municipalities in Rizal, Laguna, Cavite and Bulacan).

This is the LPTRP process (Figure 10). Before we required the LPTRP in 2018 for the submission, we conducted capacity building activities. These are month-long capacity building activities per LGU, so it was not just DOTr and LTFRB releasing the manual. We went to their specific locations. The one-month capacity building activities were inclusive of service on the ground. And at the end of the month-long trainings, 95% of LGUs who attended the training were required to present their draft LPTRPs. Suffice to say, at the end of all these trainings from February to November 2018, all of those who attended the trainings already have their drafts. So we expected LGUs to formulate their plans. Then for LTFRB and DOTr, depending on the type of LGU, we did an evaluation of the route plans. After successful evaluation, a notice of compliance will be issued by the board of the LTFRB to be adopted by the LGU into a local ordinance. This adoption will ensure the institutionalization of the LPTRP. Then after the adoption of the LPTRP and ordinance is implementation, wherein LTFRB will conduct the transparent operator selection process, primarily based on

the adopted LPTRP.

For a quick status update, as of November 12. 2021, around 749 LGUs have already submitted their plans. Of these 749 LGUs. 65 are already approved and given notices of compliance and special NOC. We can see the huge gap between the submitted and the approved LPTRPs. This was primarily due to the Covid-19 pandemic. LGUs were more focused on Covid-19 response. We did not have more of that back and forth coordination for the revision. We went directly to the LGUs or conducted online workshops with them to revise the plans and right there and then. approved the LPTRPs. Of these 65 LPTRPs that are with NOCs, 21 already passed an ordinance adopting the approved routes.

One of the key challenges as well was the trainings were held in February-November of 2018 and elections were held in May 2019, so a significant percentage of people who were



Figure 10. LPTRP Process

trained and who were in charge of doing the LPTRPs transferred to other government agencies after the elections. The institutional memory for LPTRP facilitation was also a challenge during that time.

Here are some key policies that were institutionalized for the LPTRP: First, the DOTr Department Order 2017-11, or the Omnibus Franchising Guidelines (OFG) that lavouts the LPTRP requirement for franchise issuance. Second, the DOTr-DILG Joint Memorandum Circular No. 001 Series of 2017 that was signed the same day with the OFG. Third is the Memorandum Circular No. 2018-60 which highlights the need for LGUs to attend the capacity building activities. This is also the only document which has a penalty clause for noncompliance with the LPTRP requirement for LGUs. And lastly, just this year, DILG issued a memorandum to LGUs to ensure full support on the implementation of the PUV Modernization Program and the immediate submission of the LPTRP manual.

We acknowledge in the department the challenges. in the implementation of the program. In the succeeding weeks or months, LTFRB will release its revised timelines for the implementation of PUVMP. We acknowledge the challenges with the 2022 target, so we came up with a more realistic timeline for PUV modernization, for consolidation, and even for the LPTRP requirement. We will be updating the public as soon as we have this timeline approved. Thank you very much and I will be answering a few questions during the open forum later.



EDSA Busway

By Engr. Johan Martinez Link to presentation slides: <u>Click here</u>

THROUGH THE lens of the Strategic, Tactical, and Operational (STO) Framework, the main objective of the EDSA Busway project is to provide a public transport system that can support around 600,000 public transport trips per day. The 600,000 figure came from the target of the Inter-Agency Task Force (IATF) to open up the economy to essential sectors around June of 2020. The historical context is we had a hard lockdown around March, and around mid-April, there was a discussion on how to provide public transport when the economy finally opens. The idea is that it should open gradually, starting with the essential sectors, and there are 600,000 public transport trips associated with these essential sectors. One other criterion that was required of us in coming up with a solution was to have a Light-Quick-Cheap solution. We had barely around 6 weeks to conceptualize a plan and make it available. Another criterion pertains to the fear that the public transport could become a vector of transmission of the virus. Of the original Covid variant, what we know is that it requires a certain volume of air and a certain exposure time for the virus to transmit from one person to another. So it is a very big concern that the travel time along the corridor should be kept at the minimum. All of this is at the strategic level.

At the tactical level, I would like to highlight two points: First is the establishment of an approach that uses the segregated median lane. The traditional practice is to use the curb side. We made a very quick site assessment and what we got is that if we will use curb side, we will have to deal with around 100-150 points of varying degrees. In total, this will make the travel time longer, so the approach was easily concluded to be in the median lane. Second, another problem is how do we organize the 500 buses that have the rights and franchise to operate along the EDSA corridor? The approach is to integrate them in one system. We have calculated that during peak hours, the ideal situation optimal number of buses along EDSA corridor is just around 120.

At the operational level, I would like to highlight a couple of points: First is the proposal to operate 2 buses in convoy at a headway of around 3 minutes during peak hours. This would require somebody to ensure orderliness and compliance to the system plan. It would require an entity that will serve as an oversight for this service plan. Second is to attain the travel time objective, a speed of around 23-35 kph have to be maintained. And finally, probably the most contentious debate along the planning process, is the placement of the bus stop. There are proposals that have been identified. One is to put the bus stops within the center median. and another is to put them on the side.

The organizational structure is shown in Figure 11. IATF gives the final sign off for the plans. The agencies involved in the planning and implementations are DOTr, MMDA, LTFRB, and DPWH, with working groups under them to find solutions to various issues. For example, DOTr was tasked to identify funding for the solution and also develop the concept. In terms of developing the concept, the solutions came from two major sources: first is assisting MRT capacity augmentation which would utilize these buses and median corridor; and the second point of reference of the plan is the EDSA BRT system, a study proposed by the Asian Development Bank (ADB). What is common in these two studies is the use of median lane. Both of these reference materials have their limitations in the context of pandemic, so we are forced to outsource the other analysis and simulation in other components of the study that we are blind of.

Luckily, we have reached out to some firms and individuals such as SMDI, Egis International, and Systra Philippines. They have agreed in conducting detailed enaineerina. planning. construction management and construction of some of the stations and traffic management.

LTRFB, on the other hand, is tasked with organizing the bus services, making sure that by the time the system is reopened the buses will be there, up and running. During this time, the route rationalization plan led by the LTFRB was also considered. Within that route rationalization plan, it was identified that EDSA will only serve as a carousel model to catch the other bus routes, the EDSA Busway. And then DPWH will construct the other parts of the infrastructure requirement that are not covered by IATF.

The solution looks something like this (Figure 12). There is a segregated busway in themiddle, and in some sections that the space permits, two lanes were proposed to allow for some constraint spaces. On either side, the barriers between the mixed lane and the bike lane are to be provided with the plastic bollards. At this time, the MRT3 is not a viable option because of compliance to health protocols. The MRT3 can only accommodate around 50,000 passengers per day, so the other half 550,000 will have to be carried by the bus services.

In terms of locations and linkages, these are the configurations of the station (Figure 13). There are 4 types. The stations with a rail icon represents bus stops with access to rail stations, so the operations of the bus have to be synchronized with the operation of the LRT system. On the other hand, the other bus stops with oval represents the stations that are very near the pedestrian overpass. Therefore, that overpass can be used as a means of access to that particular station.

The previous slides represent the infrastructure requirement, but infrastructure



Figure 11. Organizational Structure for the EDSA Busway



Figure 12. EDSA Busway Concept



Figure 13. EDSA Busway Bus Stops



Figure 14. EDSA Busway Service Plan

Station Layout Options

Design 1: Station at 3rd lane; Passenger throughput: "86,000 pphpd; LOS at mix traffic (2 lanes): worst Design 2: Station at center island; Passenger throughput: ~25,000 pphpd; LOS at mix traffic (3 lanes): bad



Figure 15. EDSA Busway Station Layout Options

alone will not make the EDSA Busway work. The big part of the solution, but sad to say, the least prioritized, is the formulation of the service plan. Part of the proposal for the EDSA Busway, for example Service B will cover the entire stretch, but will stop at certain stations indicated by the black dots, and so on and so forth with services C, D, and E (Figure 14).

Another component is the establishment of a system manager, an entity with competence and technology to oversee the day-to-day operation. They will serve as the implementing arm of the service plan. The operator partner will report to the system manager and the system manager will be accountable to the public in terms of the performance of the service operator. For some reason, some elements of this plan have not made it to the final form of the EDSA Busway being implemented now. This could be an interesting case for research later on.

Among the most contentious decision items during the planning for the EDSA Busway are the two station layout options (Figure 15). To simplify, the first option (station at 3rd lane)

would prioritize the interest of the safety and convenience of the commuters at the expense of those people in the mixed lane. While on the other hand, the second option (station at center island) requires for the stations to be placed on the center median, it improves the level of service on the mixed lane but it significantly reduces the passenger throughput of the system.

My first takeaway would be that reform is possible, as seen in the EDSA Busway experience, and such reforms may not necessarily have to be costly. The second takeaway is the technical solutions and the directions of future plans would be influenced by the mandates of the institutions presently at hand. Most of the speakers also have hinted on identifying an entity that will promote public transport – we also see that in our experience in the EDSA Busway. And then finally, I would like to point out that venues such as this conference really help. For example, if not for the network of TSSP, we would not have access to those additional expertise during time of crisis. That would be all from me. Thank you.

POLICY ROUNDTABLE DISCUSSION OPEN FORUM

PROCEEDINGS OF THE

TOPIC 1:

Public Consultation for Proposed Transport Developments **Dr. Guillen**: Let us start with the first question: how much public consultation is done to inform the public of any proposed transport development? Engr. Santiago, would you like to start?

Engr. Santiago: When we did the bus reorganization in the 70's, we were interacting almost on a daily basis with the bus operators. Of course, they knew it is physically impossible and technically not doable to do crowdsourcing with their customers at that time. Right now, you can do public consultation via internet, so it is easy to do that. But we did a lot of consultations with the bus operators, and we adjust the plans as we go along. It was not a fixed one, it was a moving target, that is why we were able to achieve 14 consortia within 2 or 3 years.

Dr. Guillen: I think in the early 70's and late 80's, there were even very few advocacy groups, if I am not mistaken.

Engr. Santiago: Yes, there were not that many pretenders to good work and good deed at the time, but we did receive a few threats along the way. It is always dangerous to be a reformer when you are occupying a public position.

Engr. Villarete: When we started the BRT in 2008, nobody knows about BRT, so it was difficult to explain to the people. That was a situation when people did not know about BRT because all they see in the TV are LRT and MRT, so we have to go village by village in the city to explain. In the evening, we have to go do pulong-pulong (i.e. meetings). We gather all the people and explain it in Cebuano because they cannot appreciate it in English. So it is really at the local level. Secondly, we also invited all the student leaders to one forum and explained to them the BRT. Then, these student leaders organized presentations in their own universities. We really need to do that because at that particular time, very few people know about the BRT.

EnP. Pontawe: In the specific case of PUV modernization, people may be wondering why it was launched in July 2017. It was because we were going around the country from 2016 to 2017 to do stakeholder consultations. These are all documented, because various senate and congressional hearings mentioned that there was no consultation at all. I think there was also one case wherein the latest version of OFG was presented to the public and it was indicated that the minimum financial requirement was around PhP1.6M. These kinds of probations were adjusted and removed because of public consultations. And as mentioned by Engr. Santiago and Engr. Villarete, such programs that remove us from status quo are challenging. For example, why do we need to

(EnP. Pontawe cont.) consolidate hundred plus thousands of jeepneys and entities? Why do we need to rationalize the routes? Why do we need to improve the transport areas? First of all, in the business perspective on public transport setting, the primary goal is to earn or to generate revenue. This is quite difficult, hence, the need for stakeholder consultations. I am also coming from a standpoint that my father used to be a tricycle driver and a jeepney operator and driver from 2003-2009 before I went to college, so I was a public transport rider on a daily basis. I understand this and that is why it is very important. Even when I come to our home, I need to explain to my dad the issues even though he's not in the sector anymore. Public consultation is really important.

Just one additional thing: jeepney drivers, bus drivers – how do we consult them? It is very difficult because they are driving. You cannot call them to a meeting to explain things. You really have to go down to where they are. One of the things that we did was to go to where they have their lunch and explain it to them. You really have to go that deep.

Dr. Guillen: I agree with you, Engr. Villarete. I actually have to join the drivers' evening meetings during Davao bus project. I had to drink with them just to get information with their permission. So yes, the consultation is a very tedious process.

Dr. Tiglao: I think more than 150 operators for the EDSA Busway actually were consulted. My take with that process was some of them were really adamant because these are closely held family businesses over the years. But I think the gap is in the information. I am beginning to sense now that there is information asymmetry. They really did not understand how the technical design is shaping up. In fact, when I was in a meeting there was really heated discussion and some just have a wait-and-see attitude. Moving forward, we really need to keep a strong relationship with the sector and I think that has not happened because their stance is to just wait-and-see and there is really no strong communication; they just respond to what will affect them, but not really the industry as a whole. There is a potential there because now they are organized, we just have to continuously engage them. Engr. Santiago, can public consultations be coordinated in the case of multiple operators? I think there has to be some approach and we have to build some communication as one of the pillars of transport. How do we communicate technical to their bottom line? I think we have to do better at communicating and dealing with the industry players. And of course, I know the comments about Thredbo but I think partnerships is a way to go. We need to define how this partnership should be rolled out apart from just the consultation, which is I think the first level. There has to be strong partnership. Thank you.

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You really have to go down where they are. One of the things we did was to go where they have their lunch and explain [the PUV modernization] to them. You really have to go that deep.

> EnP. Pontawe on Public Consultations

Engr. Martinez: Just to quickly join on their comments on the consultation or lack thereof of EDSA Busway. There were efforts, but probably not as intense and as pervasive as the Cebu BRT because of lack of time. If you can imagine the preparation from zero concept to making everything available within 6 weeks, we do not know where to source the fund, we do not know what actual form will solution would look like. Dr. Tiglao's observation is right. When LTFRB talks to the bus operators, they could share to them the details of how they will be contracted. This is right if you view public consultations from the perspective of what we are usually doing in normal time.

Dr. Guillen: I just want to share also. I am teaching transportation systems and one of my students gave a good feedback on the EDSA bus carousel. I was actually surprised – she was sharing in our online class that it took her 20 minutes to traverse EDSA going to UP Diliman. So that kind of experience is also very good because she is used to a 2-hour drive, but again, this is just an experience of one person. Having said that, thank you for all your responses to this very important question multi-stakeholder consultation.

TOPIC 2:

Sustainable Transport

Dr. Guillen: The other question that we would like to address is the hot topic in transportation planning which is about sustainability. Is there anyone who would like to discuss briefly the concept of sustainable transportation?

Engr. Santiago: Sustainable transport is always associated with green transport, carbon, and so on. But in a paper I made decades ago. I expanded the concept also in terms of financial viability. Because of years of experience I may appear clairvoyant to say that the EDSA Busway is not sustainable in the way it is being planned. I do not know why they have to rush something that is important. If it is good, you do not need to rush. Cebu BRT after all was not rushed; it was a subject of intense study, but up to now it has not been completed. There are many dead ends that the EDSA Busway will encounter along the way that they have not yet gone through or explored. In the last 20 years, I have predicted so many projects that will fail, and so far I have 100% average, starting with the 2003 LRT1 extension to Cavite. It was announced and inaugurated by two presidents that it will be completed. And in the discussion with the governor in 2004 when we are doing a feasibility study, I told him that his expectation that it will be finished in 3 years will not happen, and it did not happen. Up to now, the LRT1 to Cavite is not completed, but hopefully it will be completed next year. The other more controversial one that I called out was the North Rail deal with China that caused the

(Engr. Santiago cont.) government \$300M with nothing to show for it. But in 2005 before the Senate Blue Ribbon Committee, I already said that it is a contract that no one can execute properly because it was so badly written. So I may appear strange now when I say that EDSA Busway as currently conceptualized is not financially viable.

Dr. Tiglao: Yes, I agree. Some projects have failed in terms of time and cost. And my take is maybe we really do not have the framework. Not only the technical framework, but basically what the panelists have weighed in on. The institutional aspect has gaps. To some extent, maybe there is too much excitement of putting things on the ground without the hindsight of a really wellcrafted plan. I think we really have information asymmetry in the way planners think and the way operators understand the project. The commuters think that they are having something but turns out to be another thing all together. And I can say this for a fact. For example, I have always hinted this with our partners in the academe, even in the TSSP, I really advocate for open data, open planning. These studies and forecast should be out there so that the people can understand and the actors can really see their role in the overall plan. But unfortunately, right now, information asymmetry is the norm. Even in the case of the Cebu BRT. the technical FS for the line was already there when in fact the strategic masterplan for Cebu was not yet updated. Of course, DOTC at that time went in and developed a city wide plan, but I think there is still information asymmetry and of course market failure. Information is just not on several actors.

Engr. Santiago: Just a slight correction, you are saying that there was no masterplan for Cebu. We were doing the masterplan for transport in Cebu in 2013, and we included the Cebu BRT as part of the plan at the time because it was already a committed project. What the DOTC did in 2016 I think or 2018 was they changed the alignment of configuration of the Cebu BRT.

Dr. Guillen: I think what is really important is what's highlighted earlier: It is very important that all information is being shared, and there is really a platform for sharing. and I think this is the reason why we are all here to discuss those things.

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I really advocate for open data, open planning. These studies and forecast should be out there so that the people can understand and the actors can really see their role in the overall plan.

> Dr. Tiglao on Project Frameworks

TOPIC 3:	
Integration of Environmental Impact Studies	Dr. Guillen : The other question that is not being answered yet is: how are environmental impact studies integrated into the overall transport plan? This is always a part of feasibility studies. Even in the masterplan, you cannot have any transport plan without understanding the environmental impact.
	Engr. Santiago : The problem is in the implementation of it, we have corrupted the IS process to require barangay approval. In other words, it is no longer about environment; it is about political approval. I will give you an example. The latest one, the Lawton Bridge which was inaugurated I think a few months ago, that was started in 2014. It was about to be implemented at that time but the Barangay Kapitolyo objected to it. So that was delayed on the grounds of environmental consultation.
TOPIC 4:	
Public Access to Information on Transportation	Dr. Guillen : There's another question here that I think need to be directed specifically to DOTr, will the studies including data and assumptions be made public? And will it be available in the DOTr website? Example, for EDSA Busway and also for other studies, we are seeing long queues – were these expected by the studies? And because of the changing residential landscape, how will the origin-destination (OD) information be updated and how often?
Projects	EnP. Pontawe : I have to clarify that for the EDSA Busway, we did not have much time to do stakeholder consultations because this is a pandemic response, so we have to delegate transport projects prior to the pandemic and the current COVID-19 pandemic. I think we are all aware last March 16, 2020 that public transport was prohibited from operating. IATF gave us the go signal to resume public transport but we have to ensure that the pre-pandemic transport system in Mega Manila will not be the new normal. So in a few weeks' time, with our route rationalization consultants, we really have to do with what we can and stakeholder consultation is really focused on the LGUs and MMDA. We also have all the operators. I have to clarify that we only have 3 consortia; that's what we consolidated. That was the main problem and these were really rapid assessments. For the question on data availability, we currently are calibrating the new set model. For the Mega Manila area, we are currently doing the route rationalization study with the perspective of the new normal. Stakeholder consultations will also definitely be part of the succeeding outputs of the LTFRB and consultants. We expect early next year these studies will be made available to the public because, as I have mentioned, aside from public consultation, the data information sharing is also crucial. So yes, this will be made available and EDSA Busway is part of that larger route rationalization. I will repeat, the existing routes are a

(EnP. Pontawe cont.) result of rapid assessments and these will be adjusted. The main objective of the Department now is to improve the current system that was put in place as a pandemic response.

Engr. Martinez: Maybe just to address the point on database and probably also to share this information so that in the subsequent discussion or in the future, somebody else within this group can make a follow up on this. What I know being the former Program Manager of the BRTMO is that part of the investment identified as the BRT program is the creation of a database platform within DOTr. So the idea is if you want to have information on the planning, say on origin-destination information for all the DOTr projects, everyone can access that on a certain platform. I am not sure whether funding for this creation of a database platform are covered within the present DOTr budget proposal because as far as I know, the configuration of the budget has been modified several times with Bayanihan 1, 2, and then 3, where the priority project identified have shifted. So there. Perhaps in the future discussions, we can ask this question again for a follow up.

Dr. Guillen: Proposals on service contracting were raised by Engr. Villarete. A private sector component for service contract management is a good option. The question now lies on what is acceptable service contract fee for operators for them to run on fixed KPIs?

EnP. Pontawe: For the Department, what we usually do aside from the calculated per km fee, we also consult with the operators themselves if these are acceptable and if these per km fees could actually cover the operational expenses plus margin for revenue. We do that in certain a way. Hence, for example, the rate varies especially now that there is fuel price hike. We really coordinate with our stakeholders.

Dr. Tiglao: I think the contract fee really is a service contracting design. I think we should put the operator and the commuter as well at the center of that design. For example, we have been closely working with General Santos City. We are pushing this partnership and data sharing to a higher level. In the case of General Santos City, they have a public transport alliance where they actually share even their cost and revenue – information to really try to convince the sectoral players. I think that should happen because it should inform the policy design because one would say one thing and the other one will say another. So I think it is a case where, again, you have this clear idea of how do we do the design? The design in this policy is very important and highly

TOPIC 5:

Acceptable Service Contracting

	(Dr. Tiglao cont.) contextual. This is contextual to the city – even Metro Manila would be quite different from other cities.
CLOSING	
Conclusion	Dr. Tiglao : I think this RTD is a start. We should have our own series on RTD. It should not stop here, as I always say with all other webinars. There has to be continuous engagement, policy at the level of theory and practice, so let's continue this RTD. I hope we have more of this and let's take on more topics. So thank you again for the wonderful panel: Engr. Santiago, Engr. Villarete, and of course, EnP. Pontawe and Engr. Martinez there, and of course, Dr. Guillen for moderating this. Thank you very much.
	favorite line of mine from Ms. Robin Chase: "Transportation is the center of the world. It is the glue of our daily lives. When it goes well, we do not see it. When it goes wrong, it negatively colors our day, makes us feel angry and impotent, curtails our possibilities." But when it is working well, we do not really appreciate it. So I think it is very important that we keep on discussion and hopefully, we can really see the changes on the ground. I think that is what we are all after and hopefully, we will not turn very cynical about all the experiences. We might get lost along the way – Engr. Santiago has given us a very good overview of what happened through the years – but I think with this kind of webinar, it is very important that we value the history, we value the learnings, and also we value being very open to all disciplines. Thank you for the opportunity and with this, let us give a big hand to everyone.

"Transportation is the center of the world. It is the glue of our daily lives. When it goes well, we do not see it. When it goes wrong, it negatively colors our day, makes us feel angry and impotent, curtails our possibilities."



PROFILES OF THE POLICY ROUNDTABLE SPEAKERS & MODERATOR

Dr. Noriel Christopher C. Tiglao

Dr. Noriel Christopher C. Tiglao is an associate professor at the National College of Public Administration and Governance of the University of the Philippines (UP-NCPAG) where he handles courses in public policy analysis, spatial information management, and GIS for public administration. Dr. Tiglao has 20 years of experience as a traffic modelling and transport planning specialist.

He obtained his Doctor of Engineering in Civil Engineering from the University of Tokyo and Masters in Transportation Engineering at the University of the Philippines. His research interests include sustainable transport policy as well as travel demand modeling and forecasting. He has been involved in several large-scale transportation planning projects including the 1996-1999 Metro Manila Urban Transportation Integration Study (MMUTIS), the 2005 Survey on Inter-Regional Passenger and Freight Flow (SIRPAFF), and the 2012-2015 MMUTIS Update and Capacity Enhancement Project (MUCEP).

He has published papers on integrated urban modelling and simulation, sustainable public transport, and choice modelling in the local context. He has been leading a research team at UP-NCPAG for the CHED-Philippines-California Advanced Research Initiative (PCARI) Data Analytics for Research and Education (DARE) Project 3: Information Exchange Platform for the Public Sector and an Energy Research Fund (ERF) project on incentivizing eco-driving in the public transportation system in Metro Manila.



Concept Paper Author and Speaker for Roundtable Discussion Concept Paper



Speaker for Public Transport Reforms – A Journey on Three Axes: Ownership, Competition And Regulation

Engr. Rene S. Santiago

Engr. Rene S. Santiago is a founding member of the Transportation Science Society of the Philippines (TSSP). When he served as President of TSSP in 2002, the Philippines won the Best Domestic Society Award from the Eastern Asia Society for Transportation Studies (EASTS).

His transportation career began in 1973 when he joined government. Among the notable outcomes of his 5-year work in government were the consolidation of bus companies into 14 consortia, the formation of the Metro Manila Transit Corporation, and the creation of the Metro Manila Commission. Before he left government, he drafted the decree that separated the Department of Transportation and Communications (DoTC) from the Department of Public Works and Highways (DPWH). He began his consulting work in transportation in 1983. His institutional memory about transportation developments in the Philippines spans more than 47 years.

As a frequent guest on TV and radio over the last 8 years, he has become inadvertently controversial for taking on the hot issues bedeviling transportation and traffic in the Philippines. He has guested in several public affairs programs such as Headstart with Karen Davila on ANC, Ted Failon Ngayon on ABS-CBN, Magandang Umaga Bayan with Noli de Castro, Agenda with Cito Beltran on One TV, Investigative Reports on GMA 7, Agenda with Luchi Valdez on TV 5, and on CNN Philippines with James Deakins and Riza Hontiveros.

At one time or another, he served as advisor to three heads of the Department of Transportation (DoTr).



Speaker for The Cebu Bus Rapid Transit Experience

Engr. Nigel Paul C. Villarete

Nigel Paul Villarete is a civil engineer based in Cebu City. He had various experiences in government such as being head of Infrastructure in NEDA Region 7, City Administrator and City Planning and Development Coordinator in the Cebu City Government, as well as General Manager/CEO of the Mactan-Cebu International Airport Authority (MCIAA) in 2010-2016. He was also involved in various stages of the development of the Cebu Bus Rapid Transit (BRT) project. Currently, he serves as Senior Advisor to Libra Konsult, Inc. He advocates inclusive mobility and often bikes to work in his home city of Cebu.

EnP. Joemier Pontawe

EnP. Joemier Pontawe is a PhD candidate in Urban Planning at the School of Architecture and Planning of the University of Auckland. He is a licensed Environmental (Urban) Planner. He earned his Bachelor's degree in Public Administration, magna cum laude, and Master's degree in Urban and Regional Planning from the University of the Philippines Diliman. He is also currently connected with the Department of Transportation as the Program Manager of the PUV Modernization Program.

His research interests include: public transportation planning, climate change mitigation in the transport sector, active transportation and micro mobility, paratransit and other informal transport services, and transportation governance

He is also one of the recipients of the inaugural Laurent Dauby Scholarship Programme of the International Association of Public Transport (UITP) and a member of the University of Auckland's Future Cities Research Hub.

Engr. Johan G. Martinez

Engr. Martinez is a civil engineer and one of the first batch of MA Transportation Planning graduates from UP School of Urban and Regional Planning (SURP)/National Center for Transportation Studies (NCTS).

He is a former Director at Project Development Service of PPP Center of the Philippines. He is also a former Program Manager of BRT-National Program Management Office (BRT-NPMO) of DOTr, which is among the groups that spearhead the development of EDSA Busway concept.

Engr. Martinez now works as Infrastructure Specialist Consultant with Asian Development Bank (ADB)-World Bank.





Speaker for EDSA Busway



Roundtable Discussion Moderator

Dr. Marie Danielle V. Guillen

Dr. Marie Danielle V. Guillen is currently an independent consultant and an academic with expertise on policy and regional and urban planning sciences with focus on transport, tourism, climate change, and social development.

She received both her PhD and MS in Policy and Planning Sciences from the University of Tsukuba, Japan, and her MA in Urban and Regional Planning and BA in Sociology degrees from the University of the Philippines. She is currently a professorial lecturer at the University of the Philippines Asian Institute of Tourism and a lecturer at the Ateneo de Manila University Japanese Studies Program.

She has published articles in several refereed international and local publications. She also has peer-reviewed many manuscripts for Elsevier's Transport Policy, Sage Open, UN Sustainable Development Journal, and Oscar M. Lopez Center's Climate, Disaster and Development Journal. She has also co-written transportation and governance related articles in Rappler, ANC, and Asia Dialogues. Her research interests are on informal transportation, active transport, tourism transportation, gender, and climate change. She is one of the lead members of the Women in Transportation Leadership (WITL) Network, a platform to produce knowledge, foster innovation, and increase female collaborative linkages in Australasia. She is also strong advocate of inclusive mobility.

Her latest consultancy undertakings in the Philippines include: projects in the City of Davao and local and international organizations such as UN Environment Programme-Initiative for Climate Action Transparency, or UNEP-ICAT. She has also worked with other firms as independent consultant on some shortterm projects in the Asian region. She has worked fulltime for the Asian Development Bank Institute (ADBI) based in Japan and as Senior Advisor of Deusche Gessellschaf fur Internationale Zusammenarbeit's (GIZ) for its transport and climate related projects in the ASEAN region from 2014-2017.

She also worked full time from 2011 to 2013 in Ateneo de Manila University under the School of Government. Here, she developed and managed the Rockefeller-supported Inclusive Mobility Project which was later adopted by the University's Institute of Sustainability where she was one of the first managers. She has also been involved in the drafting of Ateneo de Manila University's very first Campus Sustainability Report. Prior to taking her graduate studies in Japan, she worked as a development professional in SEAMO-SEARCA and Philippine Business for Social Progress.