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DISCUSSION PAPER SERIES NO. 2024-51

Transport Infrastructure in the Philippines: From Plans to Actual Allocation

Kris A. Francisco



Philippine Institute for Development Studies

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18th Floor, Three Cyberpod Centris - North Tower EDSA corner Quezon Avenue, Quezon City, Philippines Transport Infrastructure in the Philippines: From Plans to Actual Allocation

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PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

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Abstract

The Philippine government has historically underinvested in transport infrastructure until a few decades ago when the country was in a relatively more favorable financial position. The immense need to fast-track transport infrastructure investments is driven mainly by two pressure points: 1) the accumulated gap in transport infrastructure due to years of neglect; and 2) the country's sustained economic growth, further raising the demand for public infrastructure. This study provides a characterization and analysis of the government's strategy to intensify its spending on transport infrastructure, by looking at relevant statistics and public documents. It traces the government's progress in catching up with public infrastructure backlog. The analysis is done for the years 2000 to present, wherein administrations vowed to intensify government spending on physical infrastructure.

Keywords: transport infrastructure, development plans, budget allocation

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Transport Infrastructure in the Philippines: From Plans to Actual Allocation

Kris A. Francisco

1. Introduction

The interrelationship between transport infrastructure, economic development and urbanization has been widely discussed in the literature. So much so, that many of the ideas about these relationships have also been utilized in designing development policies in many countries. Investment in transport infrastructure is often used as a policy tool in supporting urbanization and inducing regional development. Collier and Venables (2016) argue that transport infrastructure is crucial especially in major cities because the spatial configuration of economic activities is dependent on it. That is, the decisions of firms and households are influenced by the transport network. Furthermore, the high degree of connectivity brought about by transport infrastructure facilitates interactions that allows for scale and specialization in production, as well as the acquisition and transfer of knowledge and skills. The same study discusses the cyclical causation and multiple equilibria generated by investing in transport infrastructure. Firstly, such investment drives down transport costs and induces expectations to increase and converge. As investments flow, agglomeration economies form, and firm productivity improves. This, in effect, increases household income and land values, ultimately expanding the tax base needed to fund the next round of infrastructure investments. The findings of Aschauer (1989), Kumar (2002), Fan and Chan-Kang (2008), and Pradhan (2007) to name a few, align with these ideas. Another interesting point of discussion is the reverse causality between economic development and transport infrastructure, where economic growth leads to a growing demand for public services, including transportation, as discussed in the study of Maparu and Mazumder (2017) and much earlier works of Rowley and Tollison (1994) and Wagner (1883).

The role of transport networks in market integration is highly recognized in the European Union (EU) where most member countries spend a sizeable portion of their budget on transport infrastructure to enhance physical connectivity with the rest of EU. Historically, infrastructure investment has been utilized as an economic catalyst during times of uncertainty such as the Great Recession in 2008, where the European Union allotted 32-B Euros for infrastructure investment to stimulate the economies of member countries (see Aloui and Eyquem 2020 for further discussion). Countries like Japan set high priority on transport infrastructure investment to induce and maintain their economy's growth. Japan's move to speedily construct their intercity rail transport system after the World War II was instrumental in jump-starting their economy. To date, the Japanese government has continued to allot financial support in ensuring high-quality transport services (see Archaya 2011). The Singapore government has likewise invested massively in advanced infrastructure to support its economic growth and make up for its small size and highly dense urban population (Jones, 2015).

In contrast to these, the share of government spending in transport infrastructure has been historically low in the Philippines until a decade ago, when the government was in a relatively more favorable financial position to engage in long-term planning. While insufficient and poorquality infrastructure has often been identified as constraints to regional development and trade (see for instance World Bank 2009, Ho et al. 2018), previous administrations were confronted with numerous issues such as political instability, economic and financial crises that hindered their capacity to build new infrastructure (see Llanto 2004, Philippine Development Plan 2017-2022 p. 1-2). As an added complexity, the sustained growth of the Philippine economy over the past decade has further pushed for higher demand for public transport services. The combined effect of both factors exacerbates the already huge gap in the Philippines' infrastructure needs.

Against this backdrop, this study attempts to provide a characterization and analysis of the government's move to intensify its spending on transport infrastructure using publicly available government documents. A more simplified and useful characterization of the distribution of government funds related to transport infrastructure is presented in this paper. Largely, we offer a mapping of transport infrastructure projects over the past two decades, presenting different perspectives in terms of percentage share in government budget (both the National Government and transport-related agencies), sectoral allocation (i.e. air, maritime, road, railway) as well as regional distribution. The study covers the years 2000 and beyond, wherein physical infrastructure spending served as a main government strategy to induce economic growth. The study relates to the following policy questions:

- What are the plans to catch up on public infrastructure and what are we doing to get there?
- Are there areas of concern?
- How can we improve?

Our goal is to derive meaningful insights that could serve useful for future policy decisions. The value of our paper lies in the fact that no existing government document or study has yet been able to map out transport infrastructure projects over the years; thus, making it difficult to assess the overall direction of our long-term infrastructure strategy. Mainly, we are providing a snapshot of what we have been doing for the past two decades, which would hopefully reveal new areas for concentration that can be worked on by the government and researchers for the next few years.

2. Philippine transport infrastructure needs and comparative performance

Having efficient infrastructure can boost economic activities, enhance the living standards of the population, and promote better social integration. Hence, the decisions related to transport development are crucial for a country's economic sustainability (ADB, 2017). However, while increasing investment in transport infrastructure is a necessary condition to attain higher growth trajectory, questions such as how much to invest, and which types of transport infrastructure to build, may differ among countries, given the varied socio-economic factors and conditions that each country face. Nonetheless, comparative data on the current stock and state of transport infrastructure is helpful in providing a sense of how other countries have strategically invested in their physical infrastructure to match their needs.

Shown in Table 1 are two important indicators that relate to the quality and adequacy of the existing transport infrastructure in select ASEAN countries. The first panel shows the result of a qualitative assessment on transport infrastructure, published by the World Economic Forum in 2019. The survey involved taking the views of 16,936 business executives in 139 economies. Both the scores and the rankings are shown in the table, corresponding to average score of the Road, Rail, Air and Sea components of the survey that contains various questions on quality and performance. As suggested by the figures, the perceived quality and performance of transport infrastructure in the Philippines is below that of other ASEAN neighbors. In fact, the

Philippines scored lowest and ranked farthest relative to 8 other ASEAN countries. In terms of infrastructure adequacy, the index computed for the Philippines is relatively higher than that of Cambodia and Myanmar. However, the Philippines pales in comparison when contrasted with countries such as Thailand, Malaysia, or Singapore. Like the transport infrastructure indices, the infrastructure adequacy indices shown in panel 2 are likewise developed from qualitative rating, which considers the risk that the road networks, air transport networks, and power networks proving adequate to meet the needs of the country. In sum, while both indicators are similarly borne from qualitative surveys, the message is clear and definite: there exist a need to improve both quality and adequacy of transport infrastructure in the Philippines.

	Tran infrast Score/I (20	sport ructure Ranking 19)	Infrastructure adequacy index (2021)
	(Rank)	(Score)	
Brunei Darussalam	77	48	-
Cambodia	96	42	25
Indonesia	55	56	50
Lao PDR			
Malaysia	29	66	75
Myanmar	-	-	25
Philippines	102	42	33
Singapore	1	92	100
Thailand	53	57	50
Viet Nam	66	52	-

Table 1. Comparative transport infrastructure statistics

Source: Asian Transport Observatory, ASEAN Stats

Looking at the country's comparative performance in specific subsectors of transport is likewise useful in discerning which types of transport infrastructure the government needs to invest more in. To start this discussion, relevant road statistics are presented in Table 2. The table suggests that there is a wide variation in road length among ASEAN countries, which is sensible given the differences in the land areas. The most comparable to the Philippines in terms of land area is Vietnam, while the most similar in terms of geographic structure is Indonesia. As shown in the table below, the total road length in the Philippines is seven times shorter than in Vietnam. Moreover, the road density as well as the road length per capita are lesser in value. On a positive note, the share of paved roads in the country is relatively high among ASEAN countries, and at par with Vietnam.

The last two indices shown in the table are produced from qualitative surveys, specifically on adequacy and quality of road infrastructure. The rating on road adequacy considers the adequacy of roads during a pandemic (the higher the value, the better), while the survey on road quality involves rating the extensiveness and condition of road infrastructure (with reference value of 1=extremely poor to 7=extremely good, among the best in the world). The figures in Table 2 suggest that the road infrastructure in the Philippines is highly inadequate, much like in Cambodia, Indonesia, and Vietnam. This observation implies that Vietnam despite their more extensive road network, may not be a good reference target for the Philippines. Quite notably, Singapore ranks highest among the select ASEAN countries in terms of adequacy of road network. In contrast, the Philippines scores poorly in terms of road quality. Among the 8

ASEAN countries considered, the country places in the bottom three. Surprisingly, though, it surpasses Vietnam's level in terms of road quality. Data shows that Thailand and Indonesia have comparatively better roads. Overall, the statistics are implying the need to improve the Philippine's quality and adequacy of road infrastructure.

	Road length Total, in km (2019)	Road Density, meters/sqkm (2019)	Road Length/Capita (2019)	Share of paved roads (2019)	Adequacy of roads (2021)	Road ((Perce	Quality eption)
						Rank	Score
Brunei Darussalam	3,709	703.83	8.56	86.8%	75	32	66
Cambodia	61,534	348.60	3.73	19.0%	25	97	43
Indonesia	544,474	300.55	2.01	59.80%	25	60	53
Lao PDR							
Malaysia	254,438	768.64	7.90	74.6%	50	19	72
Myanmar	134,097	203.93	2.47	30.4%	-	-	-
Philippines	33,018	110.74	0.31	97.2%	25	88	45
Singapore	9,509	14,192.54	1.64	100.0%	100	1	91
Thailand	701,847	1,373.77	10.08	99.4%	50	55	57
Viet Nam	277,167	851.54	2.87	-	25	103	40

Table 2. Comparative road statistics, ASEAN countries

Source: Asian Transport Observatory

The Philippines fares well in terms of the number of domestic and international airports, when compared with its ASEAN peers as shown in Table 3. The indices relating to the quality of air transport infrastructure, however, suggest much needed improvement in the efficiency of these airports. The Ninoy Aquino International Airport, the Philippines' main air gateway, has been listed as fourth worst airport in Asia in 2024, garnering a score of 2.78 out of 10, based on a list published by businessfinancing.co.uk¹. The study of Yu et al. (2019) likewise discussed that the NAIA already surpassed its maximum capacity in 2016, when it accommodated an additional 4.6 million passengers above its maximum capacity of 35 million. Evidently, the need for airport upgrades is present. Official government data, meanwhile, shows that the government is already taking the necessary action to address the issues in air transport, with several airport projects that are on-going, approved for implementation and in the pipeline (see Table 4).

¹ As reported in "Much anticipated take over", PhilStar Global, September 2024, accessed from <u>https://www.philstar.com/business/2024/09/01/2381913/much-anticipated-take-over</u>.

	Number of (20	f Airports* 22)	Adequacy of airports (2021)	Quality of Air Transport Infrastructure, score (1 to 7 extensive and efficient) (2017)
	Internat'l.	Domestic		
Brunei Darussalam	1	-	75	4.50
Cambodia	3	5	25	3.72
Indonesia	34	217	50	4.80
Lao PDR	4	9		-
Malaysia	6	35	100	5.67
Myanmar	3	29	50	-
Philippines	8	80	50	2.94
Singapore	2	-	100	6.87
Thailand	7	31	50	5.16
Viet Nam	9	13	50	3.75

Table 3. Comparative airport statistics, ASEAN countries

Source: Asian Transport Observatory, ASEAN Stats

Table 4. Air transport infrastructure projects based on NEDA's Infrastructure Flagship Projects list, as of July 2023

Project	Status	Implemeting Agency	Funding Source
New Manila International Airport (Bulacan international Airport)	Ongoing	DOTr	PPP
New Dumaguete Airport Development Project (Bacong International Airport)	Approved for implementation	DOTr	ODA
Ninoy Aquino International Airport PPP Project	Approved for implementation	DOTr	PPP
Upgrade, Expansion, Operation and Maintenance of the Laguindingan International	Approved for implementation	DOTr	PPP
Airport Project			
New Zamboanga Airport	Under project preparation	DOTr	GAA
Naga Airport Development Project	Under project preparation	DOTr	GAA
Busuanga Airport Development Project	Under project preparation	DOTr	GAA
Bukidnon Airport Development Project	Under project preparation	DOTr	GAA
Antique Airport Development Project	Under project preparation	DOTr	GAA
Laoag International Airport Development Project	Under project preparation	DOTr	PPP
Tacloban Airport Development Project	Under project preparation	DOTr	GAA
New Siargao (Sayak) Airport	Under project preparation	DOTr	ODA
New Masbate Airport Development Project	Under project preparation	DOTr	GAA
Air Traffic Services - Air Navigation Services (ATS - ANS) Project	Pre-project preparation	DOTr	PPP
Southern Palawan (Brooke's Point) Airport Development Project	Pre-project preparation	DOTr	TBD

Source: National Economic Development Authority

The railway statistics shown in Table 5 suggest that the Philippines remains to have a relatively undeveloped railway infrastructure among the ASEAN group of countries. This is quite evident with the railway density indicator, which places the Philippines at the bottom, with only 1.52km/sqm. The qualitative rating of the country's railway infrastructure is likewise low, validating the underdevelopment of the railway network. On a brighter note, numerous railway projects are being prioritized by the government to expand and improve the Philippines' railway network.

	Railway Length/Capita (2018)	Railway Density (route km/sqkm) (2018)	Quality of Railway Infrastructure, score (1 to 7 extensive and efficient) (2017)
Brunei Darussalam	-	-	-
Cambodia	0.04	3.69	1.64
Indonesia	0.02	3.28	4.23
Lao PDR	-	-	-
Malaysia	0.06	5.40	5.02
Myanmar	0.11	9.35	-
Philippines	0.00	1.52	1.90
Singapore		-	5.87
Thailand	0.06	8.82	2.64
Viet Nam	0.03	9.72	2.96

Table 5. Comparative railway statistics, ASEAN countries

Source: Asian Transport Observatory

Table 6. Railway infrastructure projects based on NEDA's Infrastructure Flagship Projects list, as of July 2023

Project	Status	Implemeting Agency	Funding Source
MRT-7 Project	Ongoing	DOTr	PPP
MRT-3 Rehabilitation Project	Ongoing	DOTr	ODA
North-South Commuter Railway (PNR North 1, PNR North 2, PNR South Commuter)	Ongoing	DOTr	ODA
Manila Metro Line 1 Cavite Extension (Baclaran - Niog, Bacoor) (a.k.a LRT 1 Cavite E	Ongoing	DOTr	ODA/PPP
Metro Manila Subway Project Phase 1	Ongoing	DOTr	ODA
PNR South Long Haul	Approved for Implementation	DOTr	ODA
PNR South Long Haul	Approved for Implementation	DOTr	GAA
MRT 4	Approved for Implementation	DOTr	ODA
Subic Clark Railway	Approved for Implementation	DOTr	ODA
Mindanao Rail Project Phase 1	For government approval	DOTr	ODA
Mindanao Railway Project Phase 3 (Northern Mindanao)	Under project preparation	DOTr	PPP
North Long Haul Railway	Under project preparation	DOTr	PPP
North-South Commuter Railway System - O&M	Under project preparation	DOTr	PPP
North-South Commuter Railway System New Clark City Extension	Under project preparation	DOTr	ODA
Metro Manila Subway Project - O&M	Under project preparation	DOTr	PPP
Light Rail Transit (LRT) 2 Cogeo Extension Project	Under project preparation	DOTr	ODA
Panay Railway System	Pre-project preparation	DOTr	GAA
Panay Railway System	Pre-project preparation	DOTr	ODA
LRT Line 2 Operations & Maintenance	Pre-project preparation	DOTr	PPP
MRT Line 4 Operations & Maintenance	Pre-project preparation	DOTr	PPP
MRT Line 5	Pre-project preparation	DOTr	PPP
MRT Line 3 Operations & Maintenance	Pre-project preparation	DOTr	PPP
PNR South Long Haul PNR South Long Haul MRT 4 Subic Clark Railway Mindanao Rail Project Phase 1 Mindanao Railway Project Phase 3 (Northern Mindanao) North Long Haul Railway North-South Commuter Railway System - O&M North-South Commuter Railway System New Clark City Extension Metro Manila Subway Project - O&M Light Rail Transit (LRT) 2 Cogeo Extension Project Panay Railway System Panay Railway System LRT Line 2 Operations & Maintenance MRT Line 5 MRT Line 3 Operations & Maintenance	Approved for Implementation Approved for Implementation Approved for Implementation Approved for Implementation For government approval Under project preparation Under project preparation Under project preparation Under project preparation Under project preparation Pre-project preparation	DOTr DOTr DOTr DOTr DOTr DOTr DOTr DOTr	ОDА GAA ODA ODA ODA PPP PPP ODA PPP ODA GAA ODA PPP PPP PPP PPP PPP PPP PPP

Source: National Economic Development Authority

Lastly, comparative figures on port infrastructure dictate that the Philippines has the highest number of ports in the region, probably due to its archipelagic structure (Table 7). In terms of quality of ports however, the country is viewed to have underdeveloped ports compared to what its ASEAN neighbors have. Consistent with the data, several studies have revealed the weaknesses of Philippine ports, raising issues such as the lack of port facilities, lesser capacity, as well as the unfortunate combination of high prices for port services albeit underdeveloped ports (see Francisco and Lim 2022, Ho et al. 2018, Baek and Kim 2018, Patalinghug et al. 2016, Llanto et al. 2005).

	Number (20	of Ports* 22)	Quality of Port Infrastructure, score (1 to 7 efficient by internat'l. standards) (2017)
	Internat'l.	Domestic	
Brunei Darussalam	1	1	3.92
Cambodia	2	101	3.69
Indonesia	28	611	3.99
Lao PDR	-	-	2.27
Malaysia	15	13	5.37
Myanmar	1	9	-
Philippines	273	656	2.94
Singapore	1	-	6.71
Thailand	7	529	4.27
Viet Nam	-		3.67

Table 7. Comparative port statistics, ASEAN countries

Source: Asian Transport Observatory, ASEAN Stats

3. Methodology and Data

The main strategy utilized in examining government infrastructure plans and actual spending is the application of simple distributional statistics and trends analysis on publicly available data. Observations from data spanning from the year 2000 to present, are discussed alongside the presentation of government plans and targets over the study period. Our analysis relied heavily on the information provided in the government budget documents, primarily in the General Appropriations Act (GAA), which contains the annual expenditure program of government agencies responsible for managing transport infrastructure projects. The expenditure program offers information on specific programs and projects funded by the government. We also used agency-level information on infrastructure projects from the Budget of Expenditures and Sources of Financing (BESF).

The analysis centers on the budget data of the Department of Transportation (DOTr), the main government agency responsible for the development and maintenance of the country's land, air, railway and maritime transport infrastructure. The DOTr also oversees most of the government's infrastructure flagship projects. In some parts, we also zoomed in on the data of the Department of Public Works and Highways (DPWH), which acts as the government's engineering and construction arm, tasked to plan, design, construct, and maintain government infrastructure like national highways, among others. Lastly, we supplemented the information gathered from the government budget data with the National Economic Development Authority's list of the Infrastructure Flagship Projects.

As a caveat, readers should note that due to the lack of centralized data on the country's overall spending on transport infrastructure, analysis of this study does not claim to be extensive and covers mostly the side of the government. Several other actors are involved in the provision of the needed transport infrastructure in the country, which also includes the multilateral agencies and the private sector. The lack of a centralized transport infrastructure database that contains both the stock of transport infrastructure, status of transport-related projects and financial information, limited this study to come up with a complete picture. Nevertheless, this work

should be seen as an initial attempt to marry the information provided in the Development Plans to the financial figures presented in the DBM's budget-related publications, to serve as a guide for long-term infrastructure planning and transport project monitoring. This study ultimately seeks to inspire a more extensive future work on collating data on transport infrastructure investments given its value in helping the government track its progress in terms of providing for the country's current and future transport infrastructure needs.

4. Discussions

4.1 Pronouncements in the Development Plans

The Development Plans act as each administration's guide for overall development planning for the next six years. It is a useful document that contains information on the government's socioeconomic strategies, policies, and programs that are consistent with the President's development agenda and long-term development goals. Having these plans ensures that government resources and investments are utilized to support programs, policies and activities that would allow for the attainment of the country's overall goals and objectives. The discussions below provide a sense of the government's targeted path in terms of transportrelated investments, over the period covered by our analysis.

• Development Plans 2001-2004 and 2004-2010

During this period, physical infrastructure was seen as the fundamental tool to support the government's goal of modernizing agriculture, enhancing the development of the tourism industry, improving peace and order in the country, decongesting traffic in the metro, and developing the country's information and communications technologies. The government also planned to generate more investments in transport infrastructure with minimal budget cover, by partnering with the private sector. Priority was given to infrastructure projects that are vital to stimulating trade and investments, which included the (a) Roll-on/Roll-off (RORO) ports and highways, (b) roads and railways that decongest Metro Manila, (c) roads and airports that stimulate tourism activities, and (d) action projects for impoverished and conflict-affected areas in Mindanao.

As specified in the Development Plan, the government allotted PhP40,000 million to link the entire country through the nautical highways. This was expected to reduce the travel time and transport cost for both cargo and passengers. The following priority routes were specified:

Western Nautical Highway	Central Nautical Highway	Eastern Nautical Highway
Oroquieta City-Dapitan City-	Calinan, Davao-Buda,	Davao-Compostela Valley-(Alegria-
Dipolog City Road	Bukidnon-Misamis Oriental	Santiago, Bayugan-San Francisco-
	Road	Trento-Monkayo)-Agusan-Surigao
		Road
Dipolog-Dumaguete City RORO	Butuan City-Agusan del Norte-	Surigao City-Liloan, Southern Leyte
	Misamis Oriental Road	RORO
Dumaguete-Samboan, Cebu	Balingoan, Misamis Oriental-	Liloan, Southern Leyte-Naval, Biliran
RORO	Guinsiliban, Camiguin RORO	Highway
Samboan-Barili-Toledo City	Guinsiliban-Mambajao Road,	Naval, Biliran-Cataingan, Masbate
Road	Camiguin	RORO
Toledo-San Carlos City RORO	Mambajao, Camiguin-Jagna,	Cataingan-Aroroy, Masbate Highway
	Bohol RORO	

Table 8. Priority routes to complete the nautical highway system

San Carlos- Dumaguete Road Dumaguete-Bais-Mabinay- Kabankalan-Bacolod route Dumaguete North Road-San	Bohol Circumferential Road Jagna-Sierra Bullones-Clarin- Tubigon Road Tubigon, Bohol-Cebu City
Carlos Coastal-Bacolod North Road	RORO
Bacolod-Iloilo City RORO	Cebu City-Toledo Road
lloilo City-Passi-Calinog-Ivisan- Kalibo-Nabas-Caticlan Road	Toledo-San Carlos RORO
Iloilo East Coast-Capiz Road	San Carlos-Dumaguete Road
Caticlan, Aklan-Roxas, Mindoro Oriental RORO	Dumaguete-Samboan RORO
Roxas-Calapan, Mindoro Oriental Road	Samboan-Cebu City Road
Calapan-Batangas City RORO	Cebu City-San Remigio, Cebu Road
	San Remigio-Placer, Masbate RORO
	Placer, Masbate-Aroroy,
	Masbate Road
	Aroroy, Masbate-Boca
	Engano, Masbate RORO
	Boca Engano, Masbate-
	Claveria, Masbate Road
	Claveria, Masbate-Pantao,
	Albay RORO
	Claveria, Masbate-San
	Pascual, Masbate Road
	San Pascual, Masbate-
	Pasacao, Camarines Sur

Source: Development Plan 2004-2010

One of the outlined strategies to decongest traffic in Metro Manila is to develop the Clark-Subic area to encourage settlement of population towards Central and Northern Luzon. Included in the list of priorities are the Northrail project, widening and improvement of the North Luzon Expressway, as well as the widening of the MacArthur Highway. In the Southern Luzon corridor on the other hand, PhP21,837 million was set to develop the Southern Tagalog Arterial Road Expressway, given the plan to expand towards the Batangas Port. Within the Metro, the adoption of unified ticketing system was eyed along with the following priority road projects, including the R-10, MacArthur highway, Commonwealth Avenue, Quezon Avenue, Marcos Highway, Epifanio de los Santos Avenue (EDSA), and C-5. Meanwhile, road projects meant to ease out traffic from Metro Manila included the Skyway Extension from Bicutan to Alabang, SLEX/STAR, Manila-Cavite Expressways, North Luzon Expressway, MacArthur Highway (Widening), and Marcos Highway to Antipolo.

Several tourism-related infrastructure projects were also identified in the Development Plan. The following projects were expected to serve as gateways to tourism destinations:

Toledo-	Subic-Clark	Cordillera	Davao	llocos	Boaracav	Palawan
Tabuelan Road		Cordinard	Duruo		Doaraouy	. uturtur
Panglao Airport	World-Class	San	Davao-Samal	Laoag	lloilo Airport	Coron
i ungao i inport	Diosdado	Fernando	Island Garden	Airport	nono / mpore	Airport
	Macapagal	Airport	City – Lupon,	Terminal		
	International	•	Davao Oriental			
	Airport		RORO			
Dalaguete-	World-Class	Kennon	MIAA to		Bacolod	
Badian Road	Subic	Road	manage Davao		Airport	
	International		Airport			
	SeaPort					
Toledo-	Multi-modal	Halsema	Davao Gulf		Create	
Tabuelan Road	linkages with	Highway	Development		Boracay	
	Metro Manila				Commission	
	and the rest of					
	Central and					
	Northern					
	Luzon					
Barili-Carcar-		Baguio City				
Bato Road		Roads				
Panglao Roads		Ifugao				
Dahal		Roads				
Bonol		Асор-				
Dood		Kapangan-				
Road		Ribungan				
		Rodu, Ronguot				
Loav Interior		Gruel				
Road Rohol		Bocod-				
nodu, bonot		Kahavan-				
		Buguias				
		Road.				
		Benguet				
Jagna, Bohol-Mar	nbajao,	0.0	Ilocos Sur-Bengi	uet/Mt.		
Camiguin RORO			Province Road			
			Mt. Province-Ca	gayan		
			Road			
			Mt. Province-Pin	ukpuk,		
			Kalinga Road			
			Kalinga-Abra Ro	ad		

 Table 9. Tourism-related planned infrastructure

Source: Development Plan 2004-2010

Finally, improvement of the road network leading to impoverished and conflict-affected areas was also part of the government strategy to promote economic development. Below are the identified priority areas and projects:

Mindanao	Bicol	Region VIII	Negros-Panav	Other Rural
				Road Networks
Malabang, Dobliston- Kapatagan-Molave Road & Monte Alegre-Tukuran Road, Lanao del Sur, Lanao del Norte and Zamboanga del Sur	Mabolo Bridge, Naga City	Southern Leyte: Himayangan- Silago-Abuyog and Liloan-San Ricardo Roads	Hinobaan-Basay & La Castellana-Kanlaon Road, Negros Occidental/Oriental	llocos Sur: Santiago- Lidlidda-San Emilio Road
Lake Lanao Circumferential Road	Tigaon-Mayong Road, Camarines Sur	Eastern Samar: Rural Road Network and Jct. Taft- Borongan Road	Bayawan-Kalumbayan Road, Negros Oriental	Pangasinan: Lingayen- Labrador Road
Awang-Upi-Lebak- Kalamansig- Palimbang Road, Maguindanao and Sultan Kudarat	Ocampo-Tigaon- Goa-Lagonoy- Presentacion- Gachitorena- Caramoan-Guia Road, Camarines Sur	Northeastern Samar; Pacific Coastal Road from Laoang to Oras	Iloilo-Antique Road	Pampanga: Baliwag- Boundary- Candaba Road
Basilan, Sulu, Lanao del Sur and Maguindanao Roads Sibuco-Sirawai- Siocon-Baligayan Road	Tinambac-Siruma Road, Camarines Sur Camarines Sur- Tiwi-Legaspi- Manito-Sorsogon Road		Rural Road Network	Batangas: San Juan-Laiya Road Quezon: Bondoc Peninsula Roads and Infanta-
Pagadian- Zamboanga Road	Caramoan Peninsula Roads			Aurora: Baler- Casiguran Boads
Pagadian-Ozamis Road	Ligao-Pio Duran Road, Albay			Cordillera: Abra, Benguet, Mt. Province, Kalinga, Apayao, Ifugao Arterial and Secondary roads.
Zamboanga West Coastal Road Iligan-Aurora Road	Pilar-Donsol Road, Sorsogon Catanduanes Circumferential Road			

Table 10. Priority projects in impoverished and conflict-affected areas

lligan-Bukidnon Road 2nd Magsaysay Bridge and Butuan City Bypass		
Surigao-Davao Coastal Road, Surigao del Sur and Davao Oriental		
Tagum-Mati- Baganga Road, Compostela Valley and Davao Oriental		
Cotabato- Gen.Santos Road Rural road networks: ARMM, Compostela Valley, Caraga Region, Western Mindanao		
Bridge Construction and Replacement: Western Mindanao, Northern Mindanao, Davao region, Caraga region		

Source: Development Plan 2004-2010

• Philippine Development Plan 2011-2016

The overall government strategy outlined in the Philippine Development Plan 2011-2016 to accelerate infrastructure development involves investing massively in public infrastructure that is equivalent to 5 percent of gross domestic product (GDP) total spending by 2016. The administration specified in the plan that a higher priority will be placed on upgrading the quality and capacity of existing transport infrastructure rather than expanding the transport network.

One of the crucial strategies specified is the adoption of a comprehensive long-term National Transport Policy (NTP) to strengthen integration and coordination in the overall transport network. The NTP was intended to be utilized in establishing government policies relating to resource generation and allocation; criteria for the preparation of agency plans; programs and projects; cost recovery and subsidies; regulation for passenger transport services; urban transport and settlements; transport logistics; and lastly, governance. This document was expected to raise accountability, by eliminating uncertainty and enhancing predictability and consistency to government decisions. Additionally, it was expected to clearly define the roles of the private sector, government agencies and other authorities in the development, operation and management of transport infrastructure.

Meanwhile, the government vowed to develop an integrated multimodal logistics and transport system. Specifically mentioned in the PDP is the planned extension of the Subic–Clark–Manila–Batangas logistics corridor farther to the north and to the south, by means of a "long-distance, high-speed mass rail transit system that is integrated with the mass transit commuter rail system in Metro Manila". A National Logistics Master Plan was seen as an important tool to realize this vision. The government also intended to enhance further the RORO network and explore possible sea linkages with the ASEAN community. In air transport, the outlined strategy to decongest NAIA was to limit the use of NAIA and instead allow foreign air carriers to utilize any other airport in the country. Other regulatory strategies identified to improve the performance of the transport sector include separating the regulatory and operation functions of transport and other concerned agencies, as well as updating and upgrading transport safety and security standards. Lastly, as with the previous administration, the government also planned to improve transport networks in conflict-affected and impoverished areas.

• Philippine Development Plan 2017-2022

The set target for public infrastructure spending in PDP 2017-2022 is 7.4 percent of GDP by the end of the plan. Four main strategies for the infrastructure sector were identified namely: (1) to ramp-up spending in infrastructure; (2) to invest in strategic infrastructure for infrastructure subsectors; (3) to safeguard asset preservation; and (4) to enhance R&D on technologies that are cost-effective over the life cycle of the projects. For the transport sector, the government's main goal was to enhance efficiency through the provision of adequate, accessible, reliable and safe infrastructure. To improve connectivity and improve mobility within the country, the plan was to establish multi-modal transport terminals with ancillary facilities. An integrated fare collection system was also envisioned to ensure convenience for passengers and simplify the transfer between modes. The government's identified approach was to maintain existing infrastructure while at the same time, expanding the transport network. A convergence program with the industry and trade sectors was planned to improve underdeveloped rural areas. To induce growth in Mindanao, several road projects under the Mindanao Logistics Infrastructure Network were proposed, in conjunction with the Improving National Roads for Inclusive Growth in Mindanao Projects in Western Mindanao. In addition, a strategic enhancement of the BIMP-EAGA road network was also laid out.

For improving road-based transport in Metro Manila, enforcing appropriate traffic management measures (traffic engineering solutions like the use of intelligent transport systems) was seen as a cost-effective strategy in the short-run. The development of a commuter's charter or bill of rights was also mentioned to ensure quality standards for commuting passengers. Conversely, for the railway sector, the target was to develop new lines in major island regions of the country.

Decongesting air traffic in the greater capital region remains an urgent concern for the government. To address this problem, solutions such as building a new international airport, optimizing the movements in both land and air facilities at NAIA, and further developments at the Clark International Airport were identified. The installation of night landing facilities at regional airports was also recognized as a strategy to help diffuse air traffic at NAIA.

To improve port facilities and enhance inter-island shipping, the government committed to following international standards in the expansion of ports. The development of breakwater facilities as well as navigation channels to accommodate larger ports, were classified as measures to ensure sustainability and efficiency of ports. A direct connection between Batangas ports and Manila was also planned to encourage shipment between ports.

• Philippine Development Plan 2023-2028

Annual public spending on public infrastructure was set at 5 to 6 percent of the country's GDP, based on the PDP 2023-2028. The specified strategy framework to expand and upgrade the country's infrastructure included (1) the modernization and expansion of the country's transport infrastructure, (2) the goal to address universal mobility and connectivity issues, and (3) the modernization of the country's fleet along with the provision of quality ancillary services. Like the previous administrations, the identified partners to help fulfill these goals were the private sector and multilateral partners, given their efficiency, resources, expertise and innovativeness.

Improving physical connectivity is one of the main targets of the current administration. The formulation of a National Transport Master Plan is considered crucial in guiding the development of an intermodal transport infrastructure network. Together with the formulation of this master plan is the intended regular collection of transport-related data and information to be consolidated and managed. The government proposes to support seamless connectivity by building intermodal linkages and hubs. Developing active transport was identified as a viable option for enhancing last mile connectivity. The government likewise aims to integrate active mobility into the transport system by redesigning and retrofitting existing structures. Adding ancillary infrastructure such as wider sidewalks, showers, lockers, and storage facilities are part of the plan.

Meanwhile, mass transport systems place high in the priority list. The current government declared to pursue railway expansion aggressively, including building inter-city rails in metropolitan areas across the country. Improving bus rapid transit systems was likewise identified as a strategy to enhance the efficiency of existing road spaces. A planned upgrade of the existing ferry systems and other coastal and inland waterways transport system was also stated in the PDP. On another note, industry consolidation and common fleet management of public transport is still on the table. The government plans to continue pushing the reforms in the provision of public transport by exploring alternative financing arrangements that would encourage operators to participate. This would mean a re-design of the Public Utility Vehicle Modernization Program.

The plans related to water transport include the construction and expansion of seaports that support agriculture and trade. The expansion and enhancement of RORO facilities is targeted to be able to accommodate larger capacity RORO vessels. In addition, the construction and upgrading of roads and routes that are considered missing links in the nautical highway network, is also part of the strategy. To improve maritime safety, the replacement of aging fleets will be pursued.

To address future demand in air travel, the existing airports will be upgraded to meet international standards. The government is also set at locating new airport developments outside of the urban areas to accommodate future expansion. In support of the tourism sector, the government plans to develop gateway airports that will be connected to feeder airports to enhance access to tourist destinations. Lastly, the night-rating of regional airports will be continuously pursued.

The strategy to improve cargo and freight mobility in the country involves developing a cargo and freight rail infrastructure for long-distance deliveries. Truck routes on the other hand, will still be pursued for medium- and short-distance deliveries. The government's vision is to connect dry ports and other cargo terminals with the freight rail infrastructure for easier movement of goods. Relatedly, the government plans to implement cold chain logistics project for temperature-sensitive commodities. A plan to unify permits and passes to ports is also set to promote a well-integrated and seamless environment for the logistics sector.

4.2 Actual allocations from government budget

One of the difficulties faced in this study is the lack of a comprehensive database on aggregate infrastructure investments in the country. Studies of the Asian Development Bank (2009, 2017) that similarly attempted to capture the infrastructure investments in Asia also discussed the challenges related to measuring infrastructure investments given the numerous actors involved (i.e. national government, local government, state-owned enterprises, private sector, multilateral agencies); the limited published data; and at times, variation in the type of in information available. One workable source is the government budget data, but the figures often exclude investments by state-owned enterprises and the private sector, giving only the side of the government in infrastructure provision. Another alternative is the data on Gross Fixed Capital Formation (GFCF), but this also presents another difficulty in breaking down components that are specifically related to transport infrastructure. Given these limitations, we present in the following sections the most useful information we gathered from publicly available government data and publications.

Data on the government's actual infrastructure spending appears highly consistent with the statements made about ramping up investments in infrastructure. As shown in Figure 1, the actual government spending on infrastructure relative to the country's GDP has increased over the years. The highest percentage by far was achieved in 2017, at 5.3 percent. The figure, however, captures the total capital outlay and is not exclusive to transport infrastructure. Nonetheless, the trend appears encouraging.



Figure 1. National government's actual infrastructure spending (as % of GDP)

Source of basic data: BESF and PSA National Accounts

The prioritization of physical infrastructure has also translated to higher budget allocations for the DOTr and DPWH, the two main government agencies managing the country's public infrastructure (Figure 2). The combined allotment for both agencies sums up to about 3 to 4 percent of the total government budget over the past years (Table 11). For comparison, other prioritized agencies in the 2023 GAA include the Department of Education (12.83 percent), Department of Health (3.97 percent), Department of Social Welfare and Development (3.73 percent), and Department of Agriculture (1.63 percent).²



Figure 2. Government allocation for DOTr and DPWH, in constant 2017 prices (PhP)

Source of basic data: GAA

Table 11	Government	allocation	and DPWH	(a e % of	(total budget)
	Government	allocation		(as 70 UI	iolai buuyel)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total National Budget	1,608,503,084	1,862,824,653	3,002,000,000	3,350,000,000	3,324,000,000	3,662,000,000	4,100,000,000	4,506,000,000	5,023,600,000	5,268,000,000
DOTr	2.5%	2.5%	1.2%	1.4%	1.5%	1.5%	2.0%	1.6%	1.1%	1.6%
Civil Aeronautics Board	0.003%	0.004%	0.003%	0.003%	0.004%	0.004%	0.003%	0.005%	0.004%	0.004%
Maritime Industry Authority	0.033%	0.062%	0.043%	0.024%	0.031%	0.025%	0.019%	0.017%	0.018%	0.017%
Office of Transportation Cooperatives	0.001%	0.001%	0.001%	0.001%	0.003%	0.001%	0.001%	0.001%	0.001%	0.001%
Office of Transportation Security	0.003%	0.003%	0.002%	0.002%	0.011%	0.010%	0.003%	0.007%	0.006%	0.007%
Philippine Coast Guard	0.272%	0.301%	0.206%	0.184%	0.398%	0.326%	0.371%	0.293%	0.384%	0.416%
Toll Regulatory Board	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%	0.001%
DPWH	1.3%	1.6%	1.3%	1.4%	1.9%	1.5%	1.4%	1.5%	1.6%	1.7%
DOTr & DPWH (as % of total gov't. budget)	4.1%	4.4%	2.7%	2.9%	3.9%	3.3%	3.8%	3.5%	3.1%	3.7%

Source of basic data: GAA

To understand how agency-level allocations are being utilized to catch up on the country's transport infrastructure needs, we examined the distribution of DOTr budget among transport subsectors around the year of commencement of every new administration, since the year 2000. We expect that our choice of time periods could help unveil some indications on each administration's priority subsectors.

As exhibited by Figure 3, the railway subsector has consistently received the highest share of DOTr budget on all time periods considered in our study. It is unclear at this point, however, whether the allocation was used to expand the railway network, or the funds were used for maintenance of railway operations. What is evident in the data is that the budget share for the railway sector is

² The percentage shares are understated because the computation only includes budget for Office of the Secretary. Budget for attached agencies of the mentioned government agencies are not included in the calculation.

more than double of what is usually allocated for the maritime subsector. Despite being an archipelagic country, the maritime transport subsector, in comparison, receives the smallest share of the DOTr budget. This observation may be attributed to the existence of another government attached agency, the Philippine Ports Authority, that already manages and operates public ports in the country³. A representation of the Philippines' port system presented in Francisco and Lim 2021 and Llanto et al. 2005 suggests that the DOTr's handle on public ports is limited only to municipal ports and fishing wharves. Several other entities like Cebu Ports Authority, Subic Bay Metropolitan Authority, etc. are in-charge of the management of ports, depending on the location and type of operation; thus, possibly explaining the small allocation of the DOTr for the maritime sector.





We further examined the agency-level budget for operations to have a sense of the types of programs being implemented. However, the inconsistent formatting of budget data over the years as well as variation in the set of programs per administration limited the range of our data coverage. Nevertheless, some useful information recovered from our attempt is shown in Figures 4 and 5.

Figure 4 shows that since 2018, the DOTr operations are divided into five main programs namely, (1) Rail transport program, (2) Motor vehicle regulatory program, (3) Land public transportation program, (4) Aviation infrastructure program and (5) Maritime infrastructure program. As shown in the figure, the rail transport program has always been a priority over all other programs. The rail transport program, as specified in the GAA, is for the operation and maintenance of the Metro Rail Transit. This suggests the high cost faced by the government in maintaining the main railway infrastructure in Metro Manila. Noticeably, however, the funding allocation for the rail transport program has decreased after the year 2020. In 2023, the DOTr allocation for motor vehicle regulatory program has overtaken the rail transport program. The motor vehicle regulatory program includes Motor vehicle registration system; Motor vehicle

Source: GAA

³ Except ports that are under the Cebu Ports Authority.

registration system; and Issuance of driver's license and permits. On a separate note, the aviation infrastructure program and maritime infrastructure program of the DOTr was terminated after the year 2022.



Figure 4. Allocation for DOTr operations, by main program (in constant 2017 prices)

Source: GAA

Conversely, the DPWH budget for operations is focused on six main programs, namely: (1) local program, (2) convergence and special support program, (3) flood management program, (4) bridge program, (5) network development program, and (6) asset preservation program. The allocation for local programs was dominant during the years of 2018 to 2021 but was discontinued after. The convergence and special support program, in contrast, appears to have taken the biggest share of the DPWH budget after 2021. Second on the list is the flood management program. Surprisingly though, the network development program, which will expand the reach of our road infrastructure, receives a small share from the DPWH budget. The asset preservation program, which involves the preventive maintenance of roads, is also at the bottom of the priorities.



Figure 5. Allocation for DPWH operations (in constant 2017 prices)



Vital to our analysis is the annual list of projects under the DOTr. Data from various periods show that the agency predominantly manages locally funded projects except during the year 2000 when foreign-assisted projects overshadowed the locally funded ones (Figure 6).





Source: GAA

Specific infrastructure projects are listed in the agency-level budget data. We tried to list these projects and create a schedule of funding over several decades to have a sense of the timing for construction and maintenance activities for our transport infrastructure. Due to inconsistencies in the formatting and labelling of information however, identifying if the budget allocation is for new construction or maintenance activity proved to be challenging. In Figures 7 and 8, we show the mapping of select air transport and maritime transport projects, respectively, that have multi-year funding. What is interesting in both figures is that there appears to be no discernable pattern on the timing of budget allocation. This finding is crucial as it implies inefficiency in the way use our resources. Scheduling the maintenance activities as well as the construction of new infrastructure with information such as their current state, life expectancy, depreciation, adjustments for weather-related disasters, and the like, could help guide the timing of such activities.



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Borongan Airport	×		×	×		××	×
Iloilo International Airport	×	××	X	XXX		× ×	. X
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Puerto Prinsesa International Airport	×	××	×	×××	××	XX	×
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Source: GAA

New

Figure 8. Select maritime transport projects with multi-year funding

Agoo Port		xxxxxx x
Corcuera Feeder Port		
New Cebu International Container Port		XXXX X
Padre Burgos Port		* × ×
Bonbon Port	×	x x
Benoni Port		x x x x
Mapanas Port		x x
Burdeos Port	× ×	××
Allen Port		xx xx
Barangay Pag-asa Port	×	× × × ×
Sugod Port		x x
Baclayon Port		x x x
San Jose Port	*	xxxxx x
Polillo Port	× ×	x x
Villaba Port		xxx x
San Isidro Port	×	xxx x
Barangay Laylay Port	×	× ×
Bien Unido Port	× × ×	x x
Mabini Port	×	××
Catabangan Port		xxx
Lupon Port	×	x xx
Barangay Punta Port	×	× ×
Tingloy Port		× × ×
Volcano Island Port	×	××
Taganak Port		× × ×
Talusan Port	×	× ×
Caminawit Development Project	×	××
Kaputian Multi-Purpose Port		× ××
Talisay Municipal Fish Port	*	X X
Gumaca Port	×	x x
Barangay Teresita Port	×	× ×
Calatrava Port	×	× ×
Batan Port	× ×	×
Pilar Port	i i	×
Lubang Port	×	××
San Vicente Port		×× ×
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Siquijor Port	× ×	X
Sto. Domingo Port	×× ×	
Sasmuan Port	×× ×	
Bislig Port	×× ×	
	2000 2005 20	10 2015 2020 2025

Source: GAA

In Tables 12 and 13, we also summarized select foreign and local projects specified under the DOTr and DPWH, in the Budget of Expenditures and Sources of Financing (BESF) FY 2023. We then juxtapose this list of projects against the targets outlined by the government in the PDP 2023-2028. As shown in the table, select foreign-funded projects managed by DOTr are meant to address the lack of mass transport system in the country. Several projects related to transport safety and security are also supervised by the agency.

PDP targets:	Projects
Construct and upgrade intermodal transport	
connectivity	-
Develop active transport network	-
Develop mass transport system	Cebu Bus Rapid Transit (BRT project)
	LRT Line 1 Cavite Extension Project
	LRT Line 2 East Extension Project
	Metro Manila Subway Project Phase I
	MRT Line 3 Rehab Project
	Mindanao Railway Project
	North-South Commuter Railway System
	PNR South Long-Haul Project
Improve nautical highway	-
Improve and build new ports for future	
demand	New Cebu International Container Port
Connect rail and maritime transport	Subic-Clark Railway Project
Ensure transport safety and security	EDSA Greenways Project
	Maritime Safety Capability Improvement
	Project Phase II
	Maritime Safety Enhancement Project

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Source of basic data: PDP 2023-2028, BESF 2023

The extent of information included in the DPWH data is more challenging to process than the DOTr budget data. To produce a similar table for DPWH as in Table 12, we utilized the National Economic Development Authority's list of priority Infrastructure Flagship Projects (IFPs). The website for the NEDA IFPs contains the status and relevant details on the infrastructure projects prioritized by the government. What is useful about this list is that it includes projects funded through other schemes such as public private partnerships (PPP) and official development assistance (ODA). It is however difficult to integrate the NEDA IFP list with the government budget data due to the lack of information on the amounts of the project. Nevertheless, the basic list of lined-up priority projects can still help enhance our analysis. Table 13 shows some select DPWH projects contrasted against the targets in the PDP 2023-2028. The table suggests that the projects managed by the agency are meant to improve physical connectivity.

PDP targets:	Projects
Construct and upgrade intermodal	
transport connectivity	Panay-Guimaras-Negros Inter-Island Link Bridge Bataan-Cavite Interlink Bridge
	Sindangan-Bayog-Lakewood Road, Zamboanga del Sur and Zamboanga del Norte
	NLEX-SLEX Connector Road
	Bacolod-Negros Occidental Economic Highway
	Camarines Sur High-Speed Highway Project
	Pasacao-Balatan Tourism Coastal Highway
	Improving Growth Corridors in Mindanao Road
	Sector Project
	Samal Island-Davao City Connector Bridge
	Laguna Lakeshore Road Network Development,
Develop active transport network	Phase I (LLRN)
Develop mass transport system	-
Improve nautical highway	-
Improve and build new ports for future	
demand	-
Connect rail and maritime transport	-
Ensure transport safety and security	-

Table 13. List of select on-going projects under DPWH (locally and foreign-assisted)

Source of basic data: PDP 2023-2028, BESF 2023

While there are numerous existing sources of information about the Philippine government's investment in infrastructure, trying to collate the data and weave out a more a general picture of the government's overall direction in terms of its infrastructure strategy is quite difficult. A positive development however, the recent implementation of the Unified Accounts Code Structure or UACS, which is a code classification framework used for harmonizing, budgetary, treasury and accounting information⁴ jointly developed by the Department of Budget and Management (DBM), the Commission on Audit (COA), the Department of Finance (DOF) and the Bureau of the Treasury (BTr). With the UACS in place, classifying which part of the government's total capital outlay is specifically for the transport system becomes much easier. Still, the newness of this initiative means that historical analysis may not still be possible at this point. In Tables 14, 15, and 16, we demonstrate the usefulness of the UACS.

As exhibited by the table below, the UACS allows for easier classification of government allocation for airport systems, railway systems, Right-of-Way, road networks, and seaport systems. Based on Table 14, government investments in the transport network still heavily lean towards road infrastructure, with 40 to almost 50 percent share in the total capital outlay. High amount of government resources is also utilized for the railway systems, although the allocation has noticeably decreased in 2024.

⁴ Check <u>https://uacs.gov.ph/</u> for a more detailed discussion.

	2021	2022	2023	2024
Total Capital Outlay	928,793,569	1,019,180,043	1,177,358,110	1,339,088,134
Airport Systems	4,946,000	3,874,980	3,094,000	7,503,813
(as percent of total CO)	0.53	0.38	0.26	0.56
Railway Systems	37,759,977	11,497,895	39,993,321	1,501,000
(as percent of total CO)	4.07	1.13	3.40	0.11
Right-of-Way	12,087,170	1,651,061	13,999,375	5,800,134
(as percent of total CO)	1.30	0.16	1.19	0.43
Road Networks	427,152,445	483,987,240	475,310,752	518,584,454
(as percent of total CO)	45.99	47.49	40.37	38.73
Seaport Systems	407,160	2,451,160	281,000	1,939,278
(as percent of total CO)	0.04	0.24	0.02	0.14

Table 14. Government allocation for transport system

Source: General Appropriations Act Publication of the Department of Budget and Management, various years

An important observation from Table 15 is that several government agencies receive budget allocation for the development of the road network. Shown in the table is an example for fiscal year 2024. This is one clear advantage of using the UACS; without which, one might think that road network development is assumed only by the DPWH.

2024	Airport Systems	Railway Systems	Right-of- Way	Road Networks	Seaport Systems	Total
Total Capital Outlay of NG						1,339,088,134
Department of Agriculture						
(DA)	-	-	-	19,596,250	-	19,596,250
Department of Public						
Works and Highways						
(DPWH)	-	-	3,010,469	492,815,014	-	495,825,483
Department of						
Transportation (DOTr)	7,503,813	1,501,000	2,789,665	1,932,495	1,904,000	15,630,973
Other agencies	-	-	-	4,240,695	35,278	4,275,973

Table 15. Budget allocation for transport system, by select Agencies, FY 2024

Source: GAA

Lastly, the regional breakdown of capital outlays shown in Table 16 reveals that the concentration of investment activities related to transport network in the National Capital Region, especially for airport systems, railway systems and right-of-way. This is unsurprising since much of the transport infrastructure is situated in the NCR and agency budgets are lodged directly to the related agencies' Office of the Secretary. In contrast, the budget allocation for road networks appears more dispersed among the regions.

	Airport	Railway			Seaport	
	Systems	Systems	Right-of-Way	Road Networks	Systems	Total
Region I – Ilocos				8,800,000		8,800,000
Region II – Cagayan Valley				9,300,000		9,300,000
Region III – Central Luzon				16,000,000		16,000,000
Region IV-A – CALABARZON				18,000,000		18,000,000
Region V – Bicol				13,000,000		13,000,000
Region VI – Western Visayas				12,000,000		12,000,000
Region VII – Central Visayas				13,000,000		13,000,000
Region VIII – Eastern Visayas				12,000,000		12,000,000
Region IX – Zamboanga Peninsula				5,000,000		5,000,000
Region X – Northern Mindanao				11,000,000		11,000,000
Region XI – Davao				6,000,000		6,000,000
Region XII – SOCCSKSARGEN				4,000,000		4,000,000
National Capital Region (NCR)	7,500,000	1,500,000	5,800,000	370,000,000	1,900,000	386,700,000
Cordillera Administrative Region (CAR)				7,000,000		7,000,000
Region XIII – CARAGA				4,500,000		4,500,000
Region IV-B – MIMAROPA				5,900,000		5,900,000
Total	7,500,000	1,500,000	5,800,000	520,000,000	1,900,000	540,000,000

Table 16. Regional breakdown of Capital Outlays, FY 2024

Source: GAA

5. Summary and recommendations

The government's appreciation of the country's inadequate infrastructure, along with its decision to utilize infrastructure investments as a development tool, places the Philippines in a relatively good path. However, intensified investments in physical infrastructure should be guided by a comprehensive database on public infrastructure and infrastructure demand, to allow the government to plan according to current and future needs, as well as schedule investment activities in the most efficient way possible. Currently, the data on government infrastructure investments as well as the demand-related data are dispersed among different government agencies. As demonstrated in this study, harmonizing the available data is challenging given issues such as inconsistency in formatting over the years, limited information on financial details of on-going infrastructure projects, difficulties in aggregating and disaggregating components.

A comprehensive database on infrastructure should contain information on (1) the stock of public infrastructure –their geographic locations, physical conditions, length of expected life, annual depreciation, weather-related depreciation, etc. as well as (2) the list of on-going and planned physical infrastructure. The said database should also contain data on infrastructure use, to have a sense of current and future demand for infrastructure. Having this centralized source of information can help enhance long-term infrastructure planning. As a final note, we emphasize that as important as getting the investments flowing towards the needed infrastructure is also having a clear understanding of our current position in terms of infrastructure needs. A comprehensive database on public infrastructure can help deliver this.

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