



Railways Sector Market Engagement

Projects and Contracts Pipeline,
Financing, How to Participate

NS03 Pre-bid Conference
12 March 2021

USD 24.8 billion

(Php 1,277 billion)
Annual Direct Economic Cost
of Congestion in Greater Capital Region as of 2017

USD 343.45 billion
(Php 16,534 billion)
PHL GDP (2019) = 7%

1,022,009
Public School Classrooms

USD 10.16 billion
(Php 489.24 billion)
PHL FDI (2019) = 240%

2,150
Provincial Hospitals

USD 347.53 billion
(Php 16,705 billion)
PSE Market Cap (Dec 2019) = 10%

4.3 million
Irrigated Land (has.)

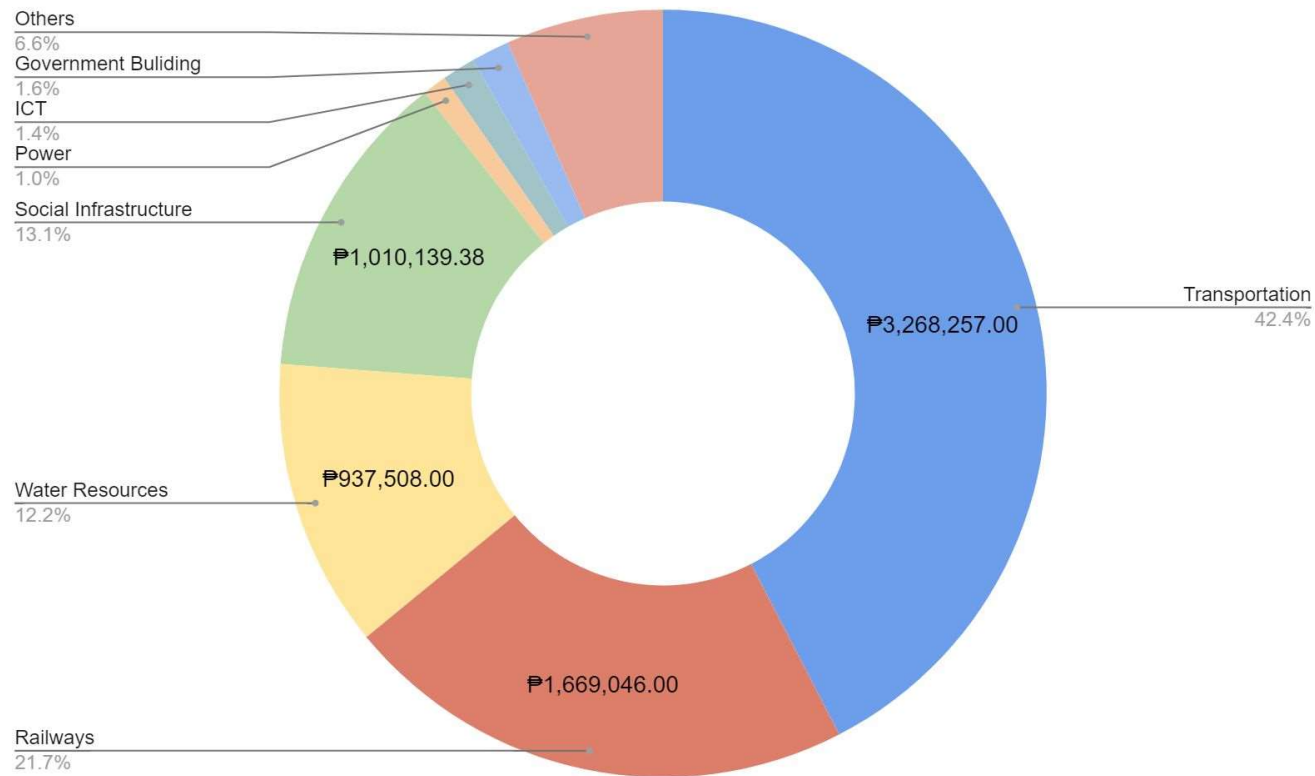


BUILD BUILD BUILD

Php 7.74 Trillion

(USD 160.17 billion)

Infrastructure Programs and Projects under the Build Build Build Program



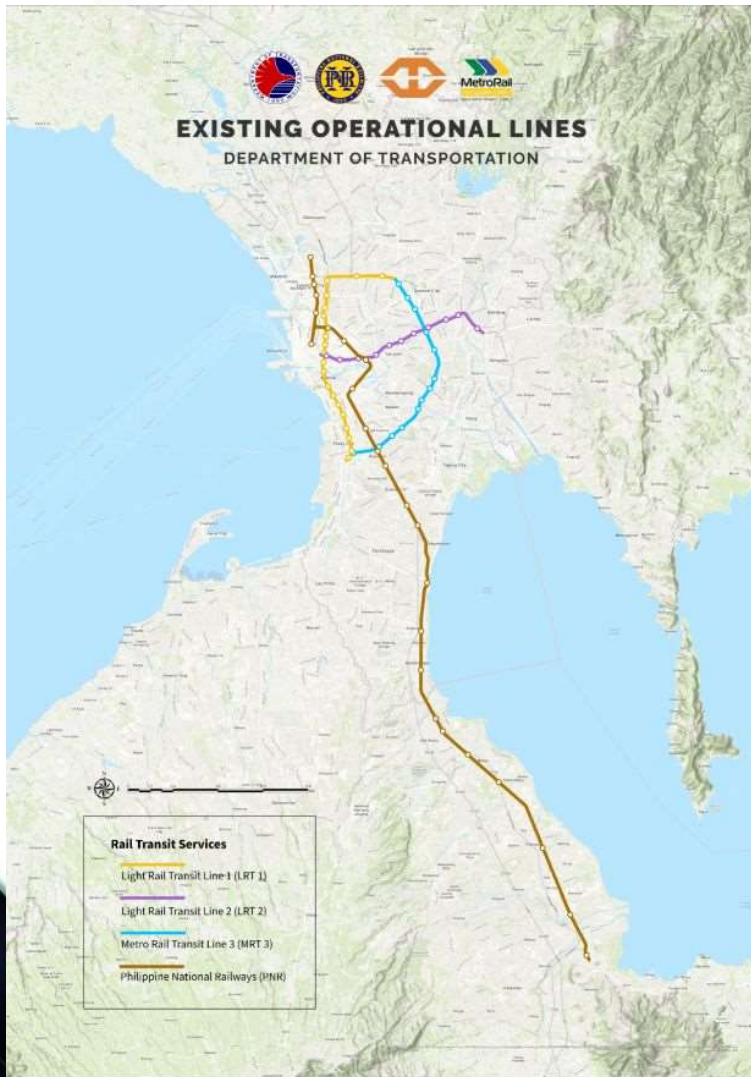
Source: Sector
Breakdown of 2017-2022
Infrastructure
Investment Targets,
Philippine Development
Plan 2017-2022



What are we building

***Rail Network, Assets, and
Projects Pipeline***

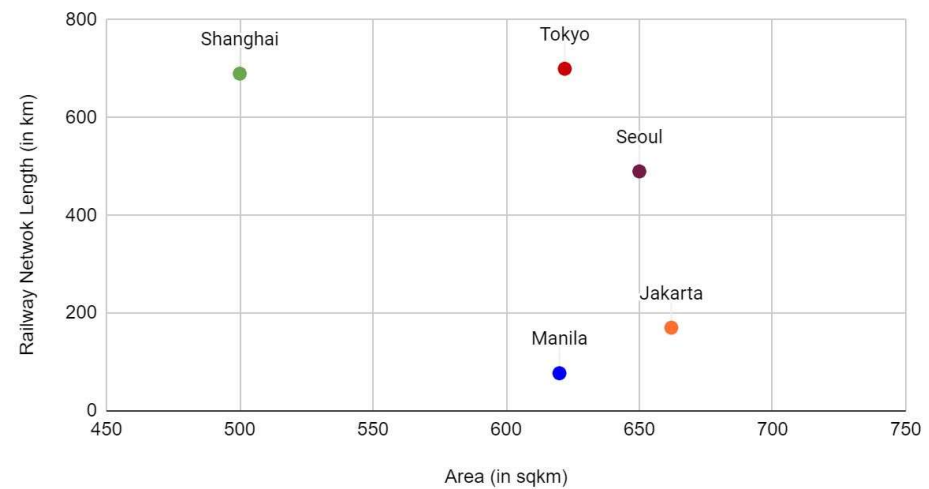
Railway Density of Metro Manila vs Key Cities



	Manila	Jakarta	Seoul	Tokyo	Shanghai
Area	620 sqkm	662 sqkm	650 sqkm	622 sqkm	500 sqkm
Km Rail	77 km	170.2 km	490 km	700 km	690 km
Rail Density	0.12 km/sqkm	0.25 km/sqkm	0.75 km/sqkm	1.12 km/sqkm	1.38 km/sqkm

Source: Manila Urban Transport Scoping Study by AECOM

Railway Density in Key Cities



PHILIPPINE RAIL NETWORK



LUZON RAIL SYSTEM
Commuter, Long-Haul,
and Freight Lines

MINDANAO RAIL NETWORK
Circumferential Lines
and Spur Lines



PHILIPPINES

Cebu City

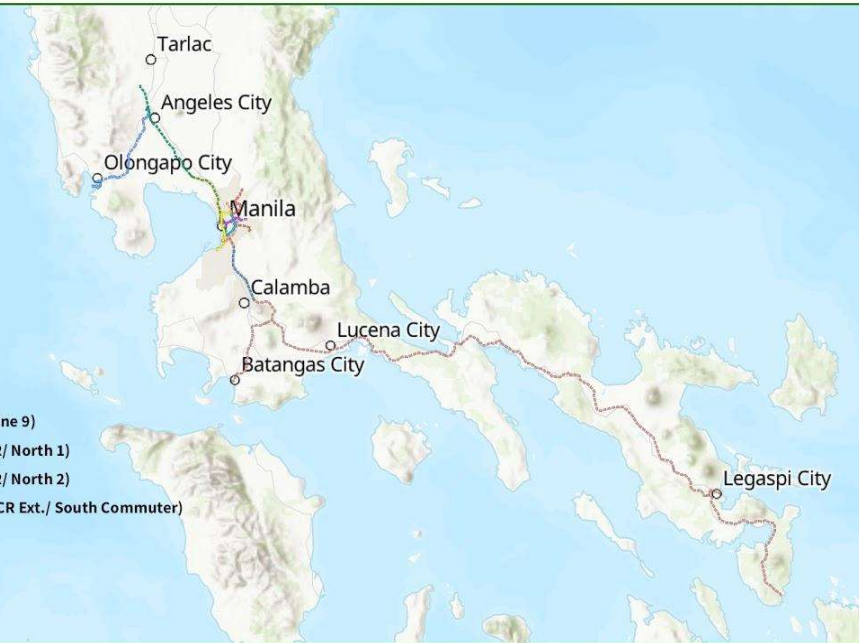
Davao City

Sulu Sea

Philippine Sea

LUZON RAIL SYSTEM

- LRT 1
- LRT 1 Ext.
- LRT 2
- LRT 2 East Ext.
- LRT 2 West Ext.
- MRT 3
- MRT 4
- MRT 7
- Subway (MMSP/ Line 9)
- PNR Clark 1 (NSCR/ North 1)
- PNR Clark 2 (NSCR/ North 2)
- PNR Calamba (NSCR Ext./ South Commuter)
- SCR
- SLH



MINDANAO RAIL NETWORK

- PHASE 1**
 - Tagum-Davao-Digos
- PHASE 2**
 - Digos-General Santos-Marbel
- PHASE 3**
 - Tagum-Butuan
- PHASE 4/5**
 - Marbel-Kabacan-Bukidnon-Cagayan de Oro
 - Davao-Bukidnon-Cagayan de Oro
 - Butuan-Cagayan de Oro
- PHASE 6/7/8/9/10**
 - Cagayan de Oro-Iligan-Pagadian
 - Pagadian-Cotabato-Kabacan-Digos
 - Pagadian-Dipolog
 - Pagadian-Zamboanga
 - Butuan-Surigao



Philippine Sea

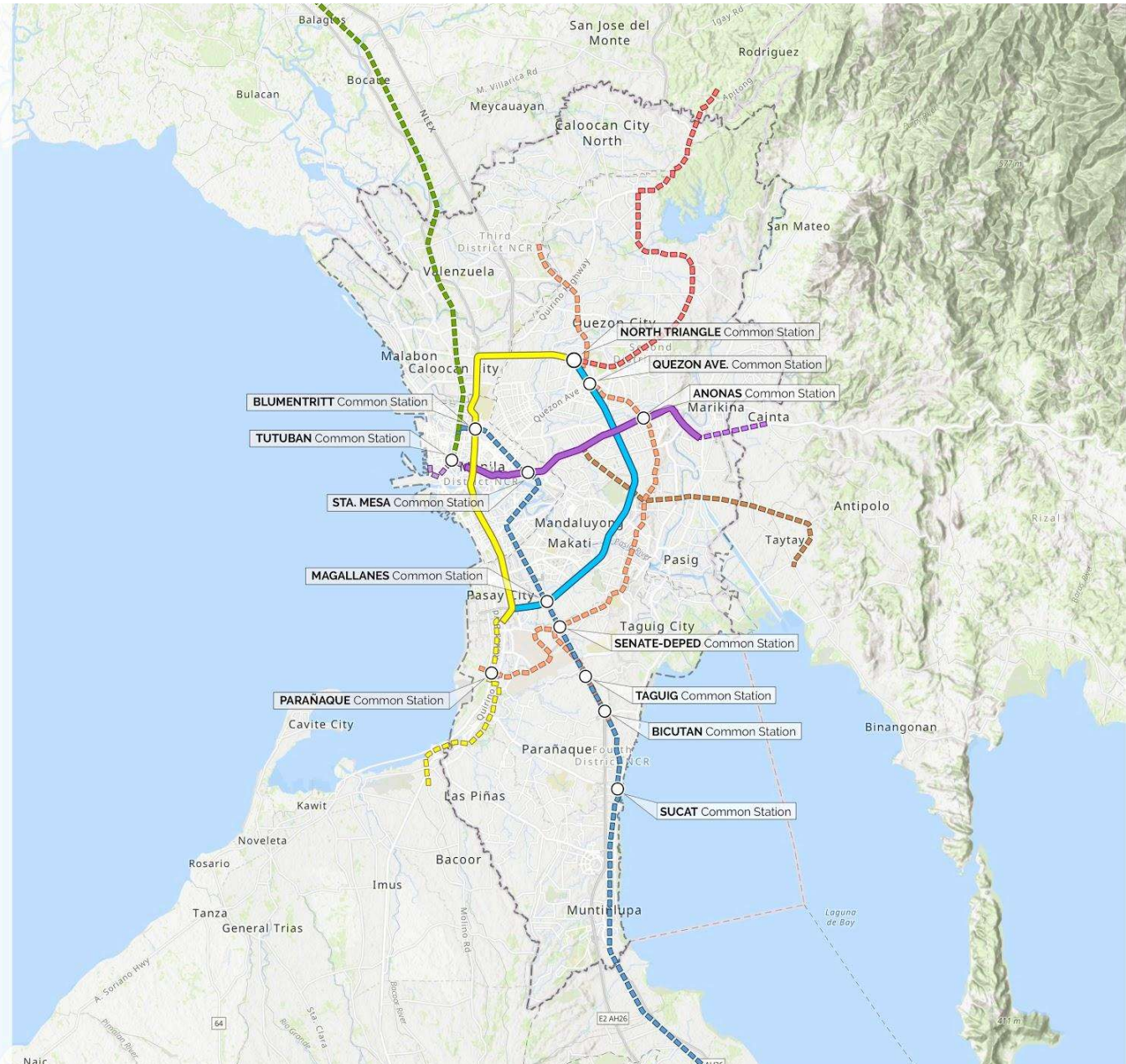
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METRO MANILA RAIL NETWORK

DEPARTMENT OF TRANSPORTATION

- LRT 1
- LRT 1 Ext.
- LRT 2
- LRT 2 East Ext.
- LRT 2 West Ext.
- MRT 3
- MRT 4
- MRT 7
- Subway (MMSP/ Line 9)
- PNR Clark 1 (NSCR/ North 1)
- PNR Calamba (NSCR Ext./ South Commuter)
- 12 Common Stations

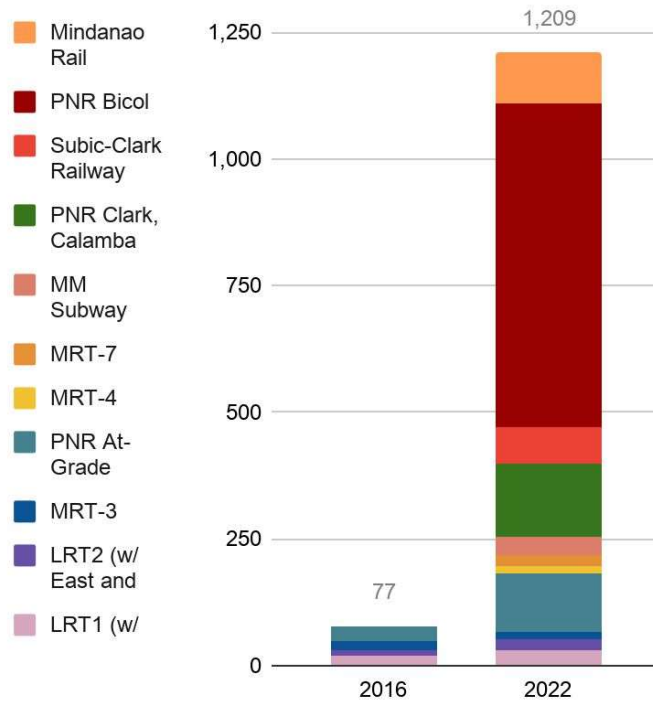


What are we building; Assets Build-up

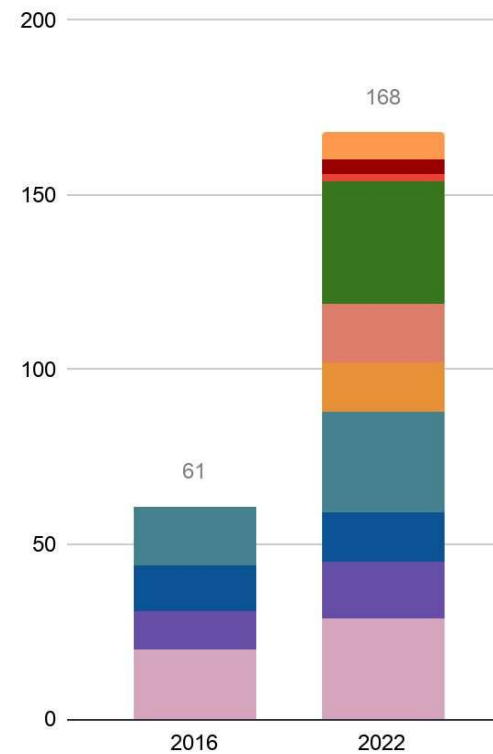


Route Length

in KM

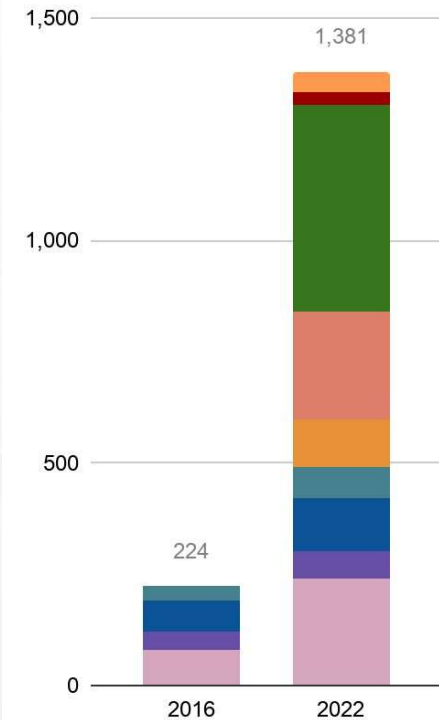


No. of Stations



No. of Trains

LRVs/Bagons/Coaches





How are we financing

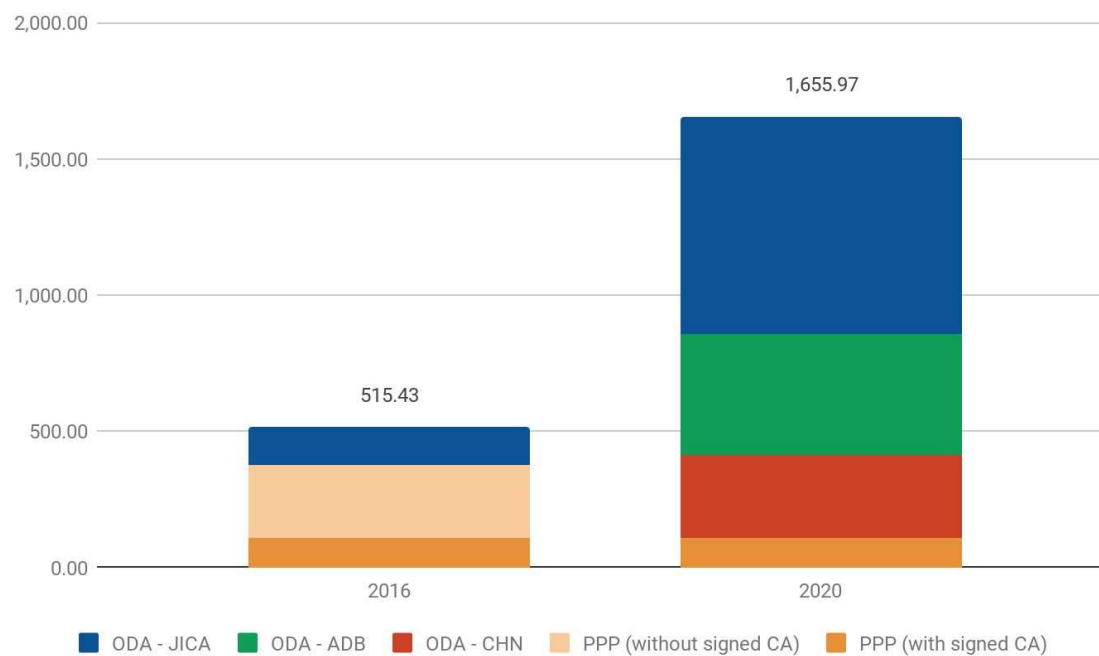
*ODA-PPP-LFP Funding Mix
and Programmed CapEx
Spend*

How are we financing



Funding Mix

2016 vs 2020 (in B PHP)



Total Project Cost of Investment-Approved Rail Projects

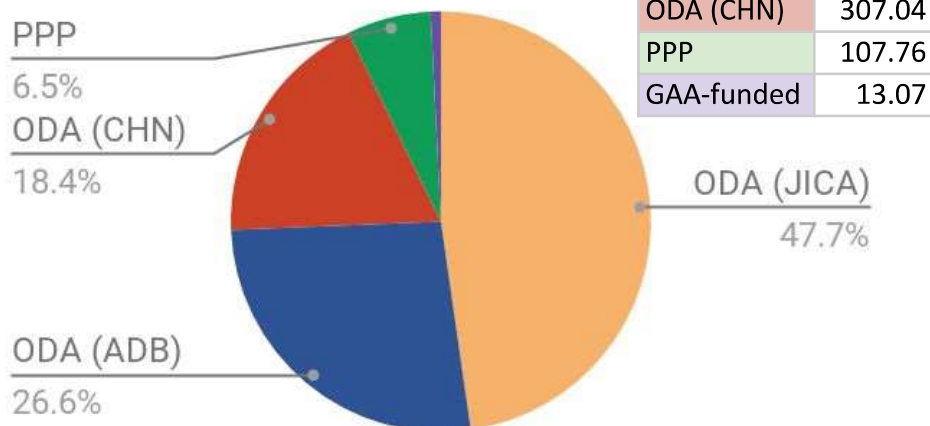
Financing	2016		2020	
	in B PHP	%	in B PHP	%
ODA (JICA)	140.17	27%	796.58	48%
ODA (ADB)	0.00	0%	444.60	27%
ODA (CHN)	0.00	0%	307.04	18%
PPP	375.26*	71%	107.76	6%
GAA-funded	13.07	2%	13.07	1%
TOTAL	528.50 (USD 11 B)	100%	1,669.05 (USD 35.3 B)	100%

*Php 107.76 (USD 2.24B) billion with signed Concession Agreement



ODA Financing Strategy

Rail Funding Mix



Economy	Total External Debt (Debt-to-GNI)		Total External Debt (Debt-to-GDP)		Total Debt to GDP	
	2018	2019	2018	2019	2018	2019
Indonesia	37.49%	37.03%	36.42%	35.93%	30.07%	30.49%
Philippines	19.98%	20.11%	22.8%	22.2%	39.9%	39.6%
Thailand	35.43%	34.07%	35.54%	34.21%	41.96%	41.09%
Vietnam	46.9%	48.9%	46.5%	45.24%	53.85%	54.88%

Sources: World Bank; IMF, ASEAN Integration Report 2019

Need for public mass transport



Rail = most efficient form of land-based transport

Insufficient internally-generated funds

PHL 2021 Gov't Budget: PhP 4.506 trillion (USD 93.06 billion)



Limited fiscal space, especially due to COVID-19

Access to cheap financing

Up to 0.10% p.a.; 40 yrs. to pay; 12 yrs. grace period



Lower middle income country



Rail is considered risky = higher cost of equity and debt if pure PPP

ODA Partners have access to Rail Technology



Funding Source per Project



Project	Total (in PhP)	Financing
LRT1 Cavite Ext.	25,350,120,000.00	ODA - JICA
	39,565,310,000.00	PPP
LRT2 East Ext.	9,510,660,000.00	ODA - JICA
LRT2 West Ext.	10,118,460,000.00	GAA
MRT3 Rehab	21,963,955,665.02	ODA - JICA
MRT4	49,840,620,000.00	ODA - ADB
MRT7	68,191,378,043.24	PPP
MM Subway	356,964,170,000.00	ODA - JICA
Common Station	2,954,250,000.00	GAA
NSCR (JICA)	382,792,580,000.00	ODA - JICA
NSCR (ADB)	394,758,490,000.00	ODA - ADB
Subic-Clark Railway	50,030,918,426.78	ODA - CHN
PNR Bicol	175,318,780,955.07	ODA - CHN
Mindanao Rail	81,686,305,000.00	ODA - CHN
TOTAL	1,669,045,998,090.11	

Programmed CapEx Spend (2021-2025)



In M PHP

Project	2021	2022	2023	2024	2025
LRT-1 Cavite Extension	2,660.78	5,712.54	32.14	18.41	-
LRT-2 East Extension	1,240.44	22.36	7.34	-	-
LRT-2 West Extension	1,081.52	-	-	-	-
MRT-3 Rehabilitation	3,141.39	1,634.40	353.74	-	-
MRT-4	-	12,157.05	9,968.12	13,857.72	9,968.12
Metro Manila Subway	28,948.02	43,742.43	44,342.17	40,357.85	15,753.93
Common Station	1,357.60	729.65	-	-	-
North-South Commuter Railway	38,628.97	128,796.64	101,200.94	31,134.83	19,757.41
Subic-Clark Railway	6,804.21	11,340.34	27,216.82		
PNR South Long Haul	2,981.99	31,367.43	16,131.37	11,080.23	
Mindanao Railway	3,911.89	42,774.97	23,496.03	7,658.52	
Total	90,756.80	278,277.82	222,748.66	104,107.56	45,479.46
	1,887 M USD	5,785 M USD	4,630 M USD	2,164 M USD	945 M USD

**Does not include amortization payments for MRT-7 from substantial completion onwards*



Who are building

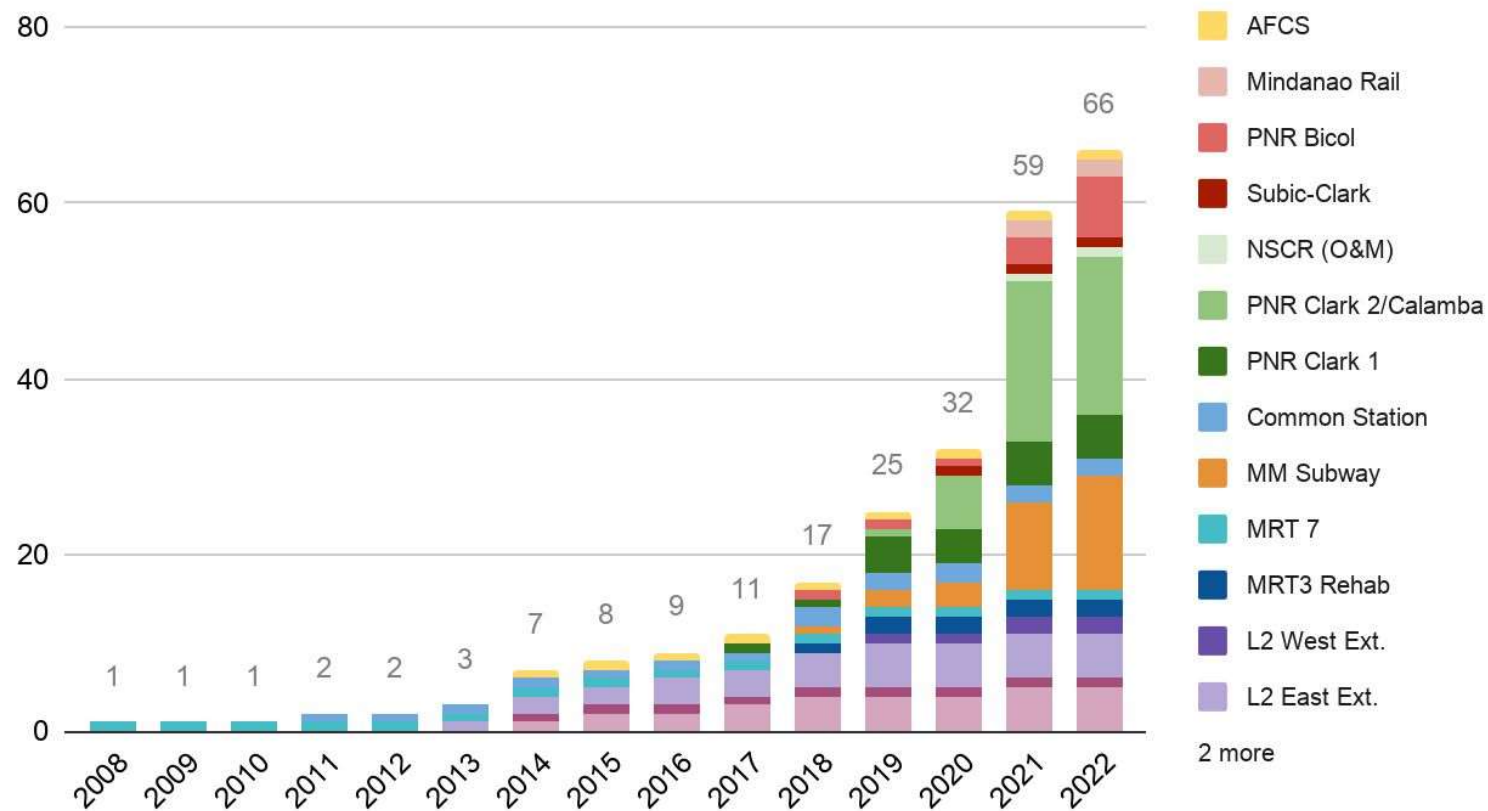
Contracts Pipeline

Who are building



Awarded Rail Contracts

Cumulative Number of Contracts Awarded



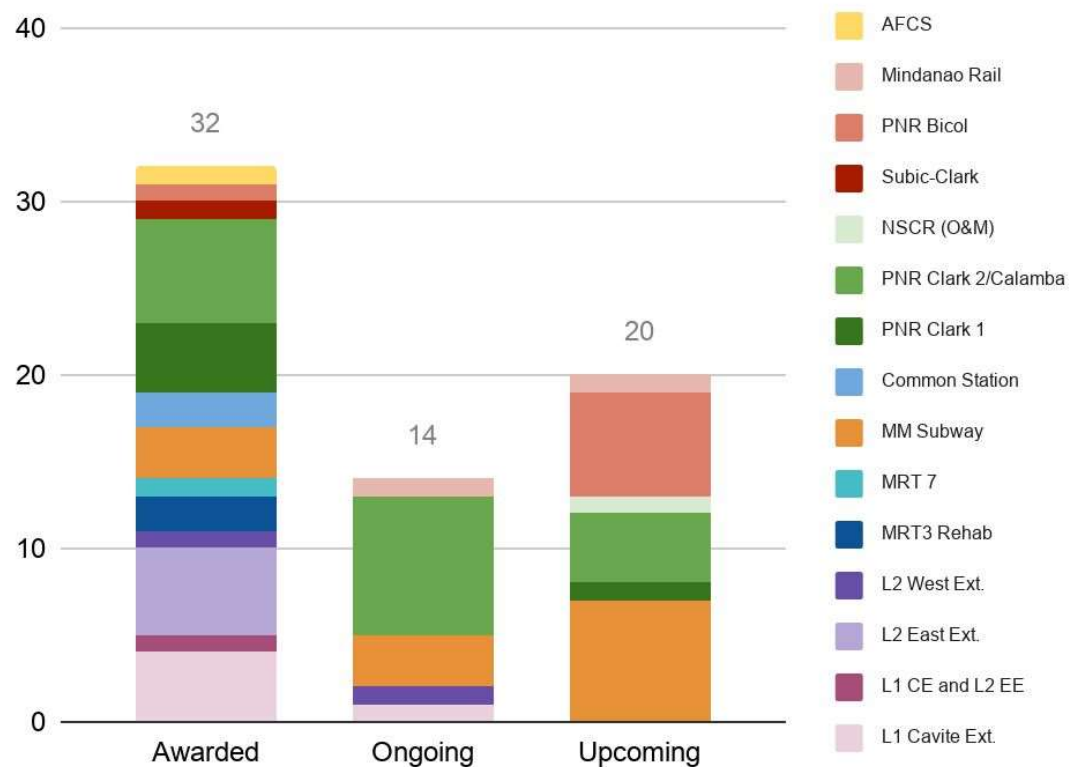
Average Contract Amount:
Php 17.73 billion
(366 million USD)

Who are building



Rail Sector Procurement Status

Number of Contracts

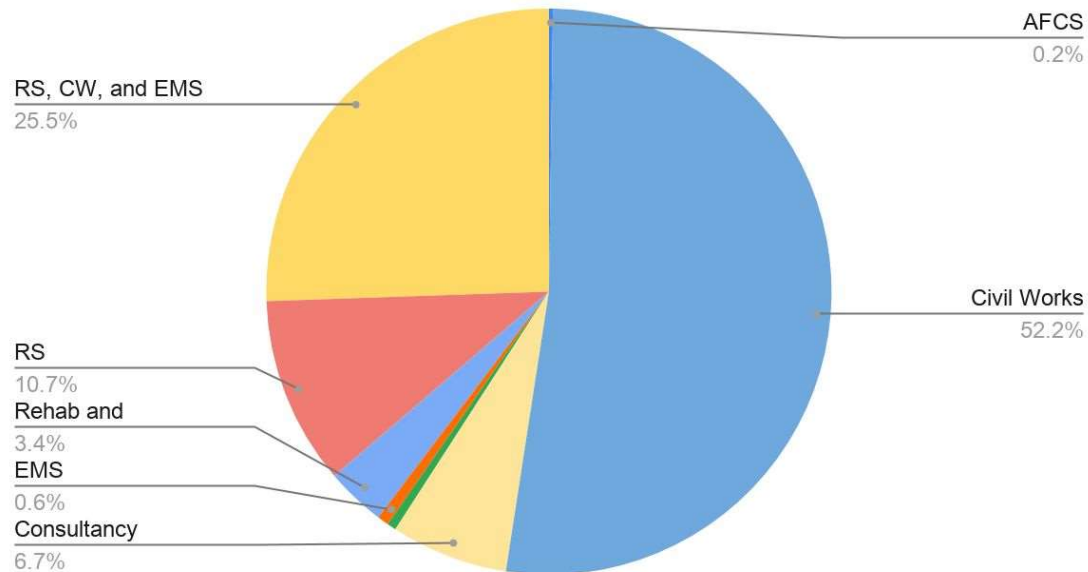


Project	Awarded	Ongoing	Upcoming	Grand Total
AFCS	1			1
Common Station	2			2
L1 Cavite Ext.	4	1		5
L1 CE and L2 EE	1			1
L2 East Ext.	5			5
L2 West Ext.	1	1		2
Mindanao Rail		1	1	2
MM Subway	3	3	7	13
MRT 7	1			1
MRT3 Rehab	2			2
NSCR (O&M)			1	1
PNR Bicol	1		6	7
PNR Clark 1	4		1	5
PNR Clark 2/Calamba	6	8	4	18
Subic-Clark	1			1
Grand Total	32	14	20	66

Contract Types



Total Amount per Contract Type



Type of Contract	Count	Amount (in PHP)
Consultancy	13	21,093,198,286.41
Civil Works	32	250,891,114,218.67
EMS	4	3,117,312,294.59
RS	7	51,619,919,866.34
CW and EMS	2	2,484,821,428.57
RS, CW, and EMS	4	122,716,259,074.83
Rehab and Maintenance	1	16,390,000,000.00
O&M	2	
AFCS	1	1,088,103,900.00
Grand Total	66	469,400,729,069.41

Projects and Contracts Status as of July 2016

Projects and Contracts Status as of July 2016	LICE/L2EE Consultant w/ NEDA Board Approval & Live Contract; No Construction 	L3 Rehab No NEDA Board Approval	MMSP CW CP105 No NEDA Board Approval	CS Consultant MetroLink JV w/ NEDA Board Approval & Live Contract; No Construction	PNR Clark 2/ Calamba GC No NEDA Board Approval	PNR Clark 2 CW CPN05 No NEDA Board Approval	PNR Calamba CW CPS06 No NEDA Board Approval	PNR Bicol DB P4 No NEDA Board Approval
	L2 EE Consultant (CW) w/ NEDA Board Approval & Live Contract; Ongoing Construction 	L3 Rehab Consultant No NEDA Board Approval	MMSP EMS No NEDA Board Approval	CS CW EMS w/ NEDA Board Approval, No Live Contract	PNR Clark 2/ Calamba EMS No NEDA Board Approval	PNR Calamba CW CPS01 No NEDA Board Approval	PNR Calamba CW CPS07 No NEDA Board Approval	PNR Bicol RS P5a No NEDA Board Approval
	L2 EE Consultant (Interfacing) w/ NEDA Board Approval, No Live Contract	MRT-7 PPP  w/ NEDA Board Approval & Live Contract; Ongoing Construction	MMSP RS No NEDA Board Approval	PNR Clark 1 GC No NEDA Board Approval	PNR Clark 2/ Calamba Commuter RS No NEDA Board Approval	PNR Calamba CW CPS02 No NEDA Board Approval	NSCR O&M No NEDA Board Approval	PNR Bicol RS P5b No NEDA Board Approval
LICE IC  w/ NEDA Board Approval & Live Contract; No Construction	L2 EE CW Viaduct  w/ NEDA Board Approval & Live Contract; Ongoing Construction	MMSP GC No NEDA Board Approval	MMSP CW CP108 No NEDA Board Approval	PNR Clark 1 CW CP01 No NEDA Board Approval	PNR Clark 2/ Calamba Airport RS No NEDA Board Approval	PNR Calamba CW CPS03a No NEDA Board Approval	SCR EPCC No NEDA Board Approval	MRP PMC No NEDA Board Approval
LICE RS w/ NEDA Board Approval, No Live Contract	L2 EE CW Stations w/ NEDA Board Approval, No Live Contract	MMSP CW CP101 No NEDA Board Approval	MMSP CW CP109 No NEDA Board Approval	PNR Clark 1 CW CP02 No NEDA Board Approval	PNR Clark 2 CW CPN01 No NEDA Board Approval	PNR Calamba CW CPS03b No NEDA Board Approval	PNR Bicol PMC No NEDA Board Approval	MRP DB No NEDA Board Approval
LICE Depot w/ NEDA Board Approval, No Live Contract	L2EE EMS w/ NEDA Board Approval, No Live Contract	MMSP CW CP102 No NEDA Board Approval	MMSP AW P1 No NEDA Board Approval	PNR Clark 1 RS No NEDA Board Approval	PNR Clark 2 CW CPN02 No NEDA Board Approval	PNR Calamba CW CPS03c No NEDA Board Approval	PNR Bicol DB P1 No NEDA Board Approval	AFCS PPP  w/ NEDA Board Approval & Live Contract; Ongoing Contract Implementation
LICE PPP  w/ NEDA Board Approval & Live Contract; No Construction	L2WE Consultancy w/ NEDA Board Approval, No Live Contract	MMSP CW CP103 No NEDA Board Approval	MMSP AW P2 No NEDA Board Approval	PNR Clark 1 EMS No NEDA Board Approval	PNR Clark 2 CW CPN03 No NEDA Board Approval	PNR Calamba CW CPS04 No NEDA Board Approval	PNR Bicol DB P2 No NEDA Board Approval	IPIF Consultant No Live Contract
LICE Depot Equipment w/ NEDA Board Approval, No Live Contract	L2WE RS CW EMS w/ NEDA Board Approval, No Live Contract	MMSP CW CP104 No NEDA Board Approval	MMSP O&M No NEDA Board Approval	PNR Clark 1 CW CP05 No NEDA Board Approval	PNR Clark 2 CW CPN04 No NEDA Board Approval	PNR Calamba CW CPS05 No NEDA Board Approval	PNR Bicol DB P3 No NEDA Board Approval	MRT-4 DEDC No NEDA Board Approval

Projects and Contracts Status as of July 2020

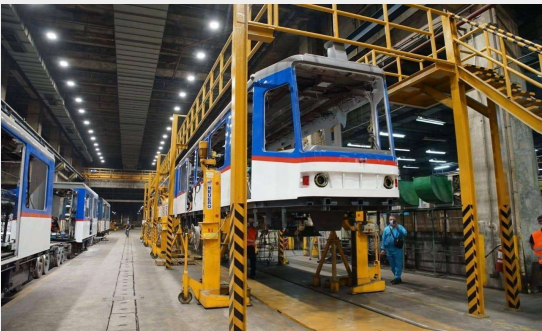
Projects and Contracts Status as of July 2020	LICE/L2EE Consultant 	L3 Rehab  	MMSP CW CP105	CS Consultant 	PNR Clark 2/ Calamba GC 	PNR Clark 2 CW CPN05 	PNR Calamba CW CPS06 ONGOING	PNR Bicol DB P4
	L2 EE Consultant (CW) 	L3 Rehab Consultant  MRT3 REHABILITATION PROJECT-SUPERVISION CONSULTANT	MMSP EMS ONGOING	CS CW EMS 	PNR Clark 2/ Calamba EMS ONGOING	PNR Calamba CW CPS01 ONGOING	PNR Calamba CW CPS07 ONGOING	PNR Bicol RS P5a
	L2 EE Consultant (Interfacing) 	MRT-7 PPP 	MMSP RS  	PNR Clark 1 GC 	PNR Clark 2/ Calamba Commuter RS ONGOING	PNR Calamba CW CPS02 ONGOING	NSCR O&M	PNR Bicol RS P5b
LICE IC  Egin Rail, Egin International, Gintex Pagine, Hedyg Tebich and ECP Joint Venture	L2 EE CW Viaduct 	MMSP GC 	MMSP CW CP108	PNR Clark 1 CW CP01  	PNR Clark 2/ Calamba Airport RS ONGOING	PNR Calamba CW CPS03a	SCR EPCC 	MRP PMC ONGOING
LICE RS  	L2 EE CW Stations 	MMSP CW CP101    	MMSP CW CP109	PNR Clark 1 CW CP02 	PNR Clark 2 CW CPN01  (HYUNDAI-MEGAWIDE-DONGAH JOINT VENTURE)	PNR Calamba CW CPS03b	PNR Bicol PMC  	MRP DB
LICE Depot 	L2EE EMS  	MMSP CW CP102	MMSP AW P1	PNR Clark 1 RS  	PNR Clark 2 CW CPN02  	PNR Calamba CW CPS03c	PNR Bicol DB P1	AFCS PPP 
LICE PPP 	L2WE Consultancy 	MMSP CW CP103	MMSP AW P2 ONGOING	PNR Clark 1 EMS	PNR Clark 2 CW CPN03 	PNR Calamba CW CPS04 ONGOING	PNR Bicol DB P2	IPIF Consultant ARUP
LICE Depot Equipment	L2WE RS CW EMS	MMSP CW CP104 ONGOING	MMSP O&M	PNR Clark 1 CW CP05	PNR Clark 2 CW CPN04  	PNR Calamba CW CPS05 ONGOING	PNR Bicol DB P3	MRT-4 DEDC ONGOING



Pi-Girder Span S202
Wednesday, September 30, 2020 16:04



CLUSTER 3 | BATASAN TO MANGGAHAN GUIDEWAY



Railway Assets Build-up



2016

2022*

77 k.m.
ROUTE LENGTH



Total Project Cost of NB Approved Rail Projects



1,209 k.m.
ROUTE LENGTH

61 Stations
NO. OF STATIONS



Financing	2022
ODA (JICA)	796.58
ODA (ADB)	444.60
ODA (CHN)	307.04
PPP	107.76
GAA-funded	13.07
TOTAL	1,669.05



168 Stations
NO. OF STATIONS

234 Trains
NO. OF TRAINS



1,381 Trains
NO. OF TRAINS

**ordered, ongoing production, delivered, or operational*