Build Better More: A Glimpse into the Philippines' Infrastructure Program

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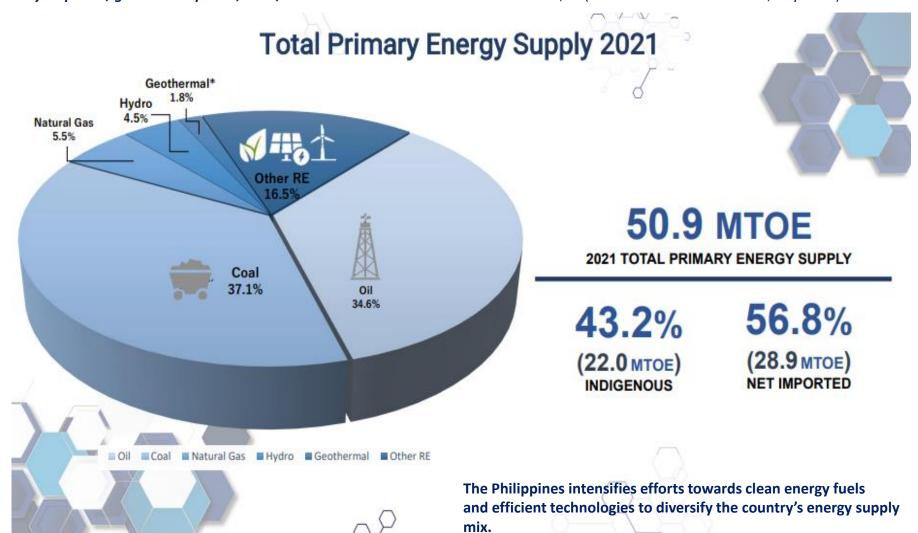
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Department of Energy

The Philippines aims for a sustainable, stable, secure, sufficient, and accessible energy

"The use of renewable energy is at the top of our climate agenda. We will increase our use of renewable energy sources such as hydropower, geothermal power, solar, and wind. " – President Ferdinand Marcos, Jr. (State of the Nation Address, July 2022)



The government is committed to enhance the country's renewable energy capacity and further increase its share in the current generation mix.

On-Grid Power Capacity and Generation Mix 2021

COAL



43% 11,669 MW INSTALLED CAPACITY

46%

10,913 MW DEPENDABLE CAPACITY

58%

62,052 GWh

RENEWABLE ENERGY



7,914 MW

29%

7,005 MW
DEPENDABLE
CAPACITY

22%

23,771 GWH

OIL-BASED



14%

3,847 MW INSTALLED CAPACITY

11%

2,650 MW

DEPENDABLE CAPACITY

2%

1,616 GWh

NATURAL GAS



13%
3,453 MW
INSTALLED CAPACITY

14%

3,286 MW

DEPENDABLE

18%

18,675 GWh



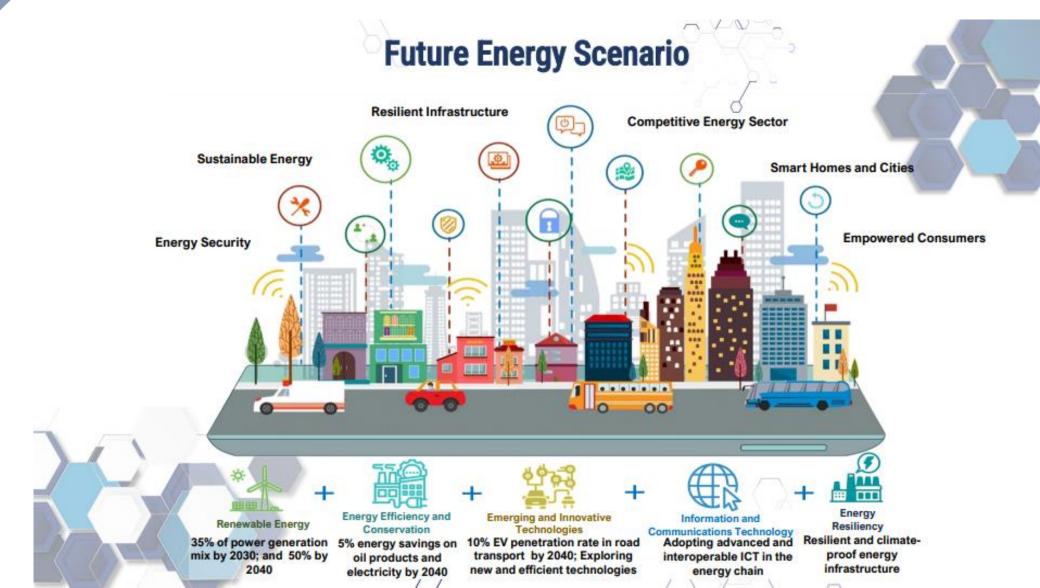
16,036 MW

LUZON: **11,640 MW**VISAYAS: **2,252 MW**MINDANAO: **2,144 MW**

106,114_{GWh}

Indigenous: 45.1% Imported: 54.9%

RE Share: 22% Fossil Share: 78% The realization of energy supply security in the long-term requires a harmonious interplay of the various energy sub-sectors and a well-coordinated energy value chain for stability, from resource development up to utilization.



As the government gradually shifts from fossil to cleaner and more sustainable energy technologies, the Department of Energy is moving fast to meet this transformational goal. The priority is on policies and regulatory framework that will mobilize and accelerate Renewable Energy (RE) deployment.

RE Policies and Programs

RENEWABLE PORTFOLIO STANDARDS (RPS) - GRID AND OFF- GRID

Requires all load-serving entitites to source or produce a specified portion of their supply from eligible RE facilities

RE MARKET (REM)

Serves as the venue for the transparent and fair trading of RE Certificates

PREFERENTIAL DISPATCH OF RE

All RE generating units are given preference in the Wholesale Electricity Spot Market dispatch schedule to ensure its maximum output injection in the grid.

ENHANCED NET-METERING PROGRAM

Allows end-users to generate electricity from REbased systems up to 100 kW for own use and sell their excess to the grid

GREEN ENERGY OPTION PROGRAM (GEOP)

Provides end-users the option to choose RE resources as their source of energy



GREEN ENERGY AUCTION PROGRAM (GEAP)

Intends to provide additional market for RE through a competitive electronic bidding of RE capacities

RE TRUST FUND

Pursuant to Section 28 of the RE Act, the RETF was established to promote the development and greater utilization of RE

OMNIBUS GUIDELINES FOR RE CONTRACTS

Aims to harmonize and enhance existing guidelines governing the application and awarding of RE Contracts

PRODUCTIVE USES OF RE (PURE)

Involve the utilization of RE for activities that enhance income and livelihood, and deliver social services, particularly in rural and off-grid areas.

RE RESOURCE DEVELOPMENT

Geothermal Energy, Offshore Wind, Waste-to-Energy, Ocean and Tidal Energy, Expanded Rooftop Solar Program



Recognizing that the energy sector is a capital-intensive venture, the DOE envisages a more active private sector participation and public-private partnerships (PPP) to pour in the required investments over the planning period.

Energy Investment Requirements





UPSTREAM



USD 10.05 Billion

Oil and Gas Exploration and Development



USD 13.12 Billion

Coal Exploration and Production



Renewable Energy (Pre-Development Activities)

DOWNSTREAM



USD 2.94 Billion

Oil Distribution Depots and Import Terminals



USD 1.78 Billion

Liquefied Natural Gas (LNG) Terminals

USD 2.38 Billion
Biofuels Production





USD 115.3 Billion

Construction of New Power Plants

Conventional: USD 21.0 Billion Renewable Energy: USD 94.3 Billion



USD 6.97 Billion

Transmission Projects

Department of Public Works and Highways

The government is committed to continue and further expand the "Build, Build, Build" program.

"I would like to reiterate the marching order of the President during his State of the Nation Address...the infrastructure development program will be pursued relentlessly" — Sec. Bonoan, DPWH

TRAFFIC DECONGESTION PROGRAM

- High Standard Highways and Expressways
- By-passes and diversion roads
- Flyovers, interchanges and underpasses

SEAMLESS AND INCLUSIVE CONNECTIVITY VIA NATIONAL AND LOCAL LINKAGES

- Daang Maharlika Highway (N1)
- Inter-Island Linkage Bridge Program
- Gaps and Missing Links along National Roads
- Nautical Highway Network
- Convergence Programs
 - Roads Leveraging Linkages of Industry and Trade (ROLL IT) Program – 2.0 *Logistics Efficiency and Transport Seamlessness to Enhance Agribusiness Trade* - LETS EAT (with DTI)
 - Tourism Road Infrastructure Program –TRIP (with DOT)
 - KAlsada TUngo sa Paliparan, Riles at daungAN (KATUPARAN) Program (with DOTr)
 - Agri-Infrastructure Support Program (with DA / NIA)

RESILIENT AND SUSTAINABLE COMMUNITIES

- Integrated Water Resources Management Program
 - Flood Mitigation Structures in Major River Basins and Principal Rivers.
 - Small Water Impounding Projects.
 - Water Supply (Level I and II)
 - Septage & Sewerage
 - Rain Water Collectors
 - Drainage Capacity Improvement
- Disaster Risk Reduction and Climate Change Adaptation Program
 - National Bridge Rehabilitation and Seismic Improvement
 - Road Network Redundancy Projects
- Social Infrastructure Programs
 - Evacuation Centers
 - Basic Education Facilities
 - Multi-Purpose and other Public Buildings
 - Quarantine and Isolation Facilities
 - Tatag ng Imprastraktura para sa Kapayapaan at Seguridad (TIKAS) Program
- Active Transport Program
 - Bike lanes Network
 - Pedestrian Infrastructure

Bridges will be constructed in the area to provide alternative linkages between major thoroughfares and increase the number of usable roadways that would decongest traffic in EDSA and other major roads in Metro Manila



The government will continue to address traffic congestions along vital road networks in the country particularly in highly urbanized areas through projects under the Master Plan on High Standard Highway Network Development.



Expanding the country's highways and expressways network will alleviate overconcentration of population and development in the urban areas and will give way to regional development.



The Inter-Island Linkage / Mega Bridge Program will provide linkages among the various islands of the country through the construction of a series of short and long span bridges.



The government aims to modernize the country's infrastructure backbone to sustain rapid growth, attract investments and spread economic opportunities for all Filipinos.



DPWH MAJOR INFRASTRUCTURE PROJECTS

CAVITE-LAGUNA EXPRESSWAY

45 km expressway connecting CAVITEX in Kawit, Cavite and SLEX-Mamplasan interchange in Biñan, Laguna Project Cost: Php 35.7 Billion Target Completion Date: October 2024 Status: 59% complete



NLEX-SLEX CONNECTOR ROAD

8 km elevated expressway from the end of Seg. 10 in C3 Road, Caloocan City to PUP Sta. Mesa, Manila & connecting to the Skyway Stage 3 Project Cost: Php 23.2 Billion Target Completion: December 2023 Status: 72% complete



CENTRAL LUZON LINK EXPRESSWAY, PHASE I

30 km. (Tarlac City - Cabanatuan City, Nueva Ecija)
Project Cost: Php 14.9 Billion
Target Completion Date: March 2023
Status: 97% complete. Aliaga Interchange to San Juan Interchange Section proposed for inauguration in June 2023



FLOOD RISK MANAGEMENT PROJECT IN CAGAYAN DE ORO RIVER

Project Cost: Php 8.5 Billion Target Completion Date: August 2023 Status: 93.4% complete. Contract Package 2 proposed for inauguration in March 2023



SAMAR PACIFIC COASTAL ROAD

11.6 km (including 3 bridges)
Project Cost: Php 1.2 Billion
Target Completion Date: June 2023
Status: 81% complete. Proposed for inauguration in July
2023



IMPROVING GROWTH CORRIDORS IN MINDANAO ROAD SECTOR PROJECT 151.96 kms. (7 road subprojects), Guicam Bridge and

Tawi-Tawi Bridges
Project Cost: Php 25.3 Billion
Target Completion Date: 2024
Status: 1 sub-project completed. 9 sub-projects ongoing- 53% complete. 3 Sub-projects proposed for inauguration in May 2023



The government aims to modernize the country's infrastructure backbone to sustain rapid growth, attract investments and spread economic opportunities for all Filipinos.



DPWH MAJOR INFRASTRUCTURE PROJECTS

ROAD NETWORK DEVELOPMENT PROJECT IN CONFLICT-AFFECTED AREAS IN MINDANAO

175 kms. access roads
Project Cost: Php 12.9 Billion
Target Completion Date: Dec. 2028
Status: 4 contract packages on-going. Proposed for inauguration in May 2023



LAGUNA LAKESHORE ROAD NETWORK

51 kilometer Road Network along Laguna Lakeshore Project Cost: Php 175.3 Billion Target Completion Date: 2026 Status: DED-81% complete.



BATAAN-CAVITE INTERLINK BRIDGE

32 km bridge connecting Mariveles, Bataan and Naic, Cavite Project Cost: Php 175.6 Billion

Target Cost: Php 175.6 Billion Target Completion Date: 2028 Status: DED-69% complete.



PANGUIL BAY BRIDGE

3.17 km Bridge connecting Tangub City, Misamis Occidental to Tubod, Lanao del Norte. Project Cost: Php 7.4 Billion Target Completion Date: December 2023 Status: 64% complete



SAMAL ISLAND-DAVAO CITY CONNECTOR BRIDGE

3.98 km - Cable-Stayed Bridge Project Cost. Php 23.0 Billion Target Completion Date: September 2027 Status: Ground Breaking Ceremony on October 27, 2022



DAVAO CITY BYPASS CONSTRUCTION PROJECT

46 km highway including 2-2.3 km mountain tunnels Project Cost: Php 46.8 Billion Target Completion Date: December 2026 Status: Package I-1 -24% complete

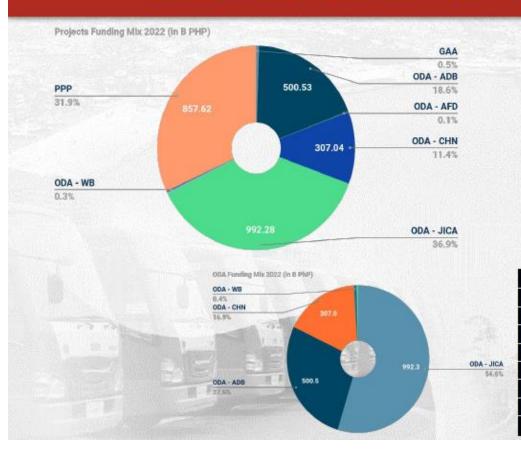


Department of Transportation

The Department of Transportation (DOTr) provides the backbone for growth and enhances the country's competitive edge by providing effective and efficient transportation infrastructure systems that connect the country, its islands, and its people to the rest of the world.

DOTr will BUILD BETTER by...

BROADENING AND DIVERSIFYING FUNDING STRATEGIES



Projects Funding Mix	2022	% of Total
ODA - JICA	992.3	36.91%
PPP	857.6	31.90%
ODA - ADB	500.5	18.62%
ODA - CHN	307.0	11.42%
GAA	13.1	0.49%
ODA - WB	7.8	0.29%
ODA - AFD	3.2	0.12%
ODA - KEXIM	6.2	0.23%
DDA - ADB (ASEAN-IF)	0.8	0.03%
TOTAL	2688.5	100.00%

ODA Funding Mix	2022
ODA - JICA	54.59%
ODA - ADB	27.53%
ODA - CHN	16.89%
ODA - WB	0.43%
ODA - AFD	0.17%
ODA - KEXIM	0.34%
ODA - ADB (ASEAN-IF)	0.05%
TOTAL	100.00%

Legend:

ODA-Official Development Assistance
ADB-Asian Development Bank
CHN- China
WB- World Bank
AFD-Agence Française de Développement
KEXIM- Korea Eximbank

ASEAN-IF-ASEAN Infrastructure Fund
JICA-Japan International Cooperation
Agency

The government will continue to implement the Build, Build, Build ("BBB") Program, with a more diversified funding strategy and strategic utilization of PPPs.

Investment-Approved PPP Projects; Pre-Construction and Ongoing Construction

LIST OF PROJECTS (not exhaustive) Clark Int'l. Airport **Caticlan Airport LRT-1 Cavite** Taguig Integrated **PROJECT** MRT-7 **Expansion Project** Development Project Terminal Exchange Airport (Bulacan) Extension Indicative PHP 64,915 Billion PHP 5.20 Billion PHP 735.60 Billion PHP 12.55 Billion **PHP 77 Billion** PHP 2.506 Billion Cost (inc. ODA Component) (inc. access ramp & land cost) **PPP Structure** BOT CAOT BTO **BGTOM** BT **BTO** Cooperation 32 years 35 years 50 years 25 years 25 years None Period (inclusive of construction Region III Region III Region VI NCR, Region IV-A NCR, Region III NCR Location BCDA CAAP DOTr, LRTA DOTr DOTr **DOTr** San Miguel Megawide-GMR **Light Rail Manila SMC-Mass Rail ARCA South** Trans Aire **Construction Joint** Development Transit 7, Inc **Integrated Terminal** Aerocity Inc. Corporation **Holdings Corporation** Incorporated (ASITI) Venture, Inc. Private Proponent MIA MGCJV TRANS AIRE DEVELOPMENT

New Manila International Airport – Planned to be the largest airport in the Philippines with an initial capacity of 35 mn passengers, 100 mn passengers once fully completed annually. This new international gateway is positioned to serve Metro Manila as well as its neighboring regions

Clark International Airport Expansion Project —a new passenger terminal to double the capacity of Clark International Airport, one of the country's busiest gateways, to 8 mn passengers per year.

Caticlan Airport Development Project –to upgrade Caticlan Airport, nearest airport to Boracay Island

LRT-1 Cavite Extension - to increase the LRT-1's capacity from 500,000 to 800,000 daily and extend to highly populated city southwest of Manila. (This extension will reduce travel time between Baclaran, Paranaque and Bacoor, Cavite to 25 minutes, from one hour and 10 minutes.)

MRT-7 – The project involves the financing, design, construction, operation & maintenance of the 23-kilometer elevated railway line connecting the capital to a highly urbanized areas of Bulacan, an adjacent province.

Taguig International Terminal Exchange - A six-storey building on a 5.57-hectare property which would house a passenger concourse, centralized ticketing area and several business and retail establishments.

The government will implement a more holistic Build, Build, Build ("BBB") Program, including strategic utilization of PPPs.

Upcoming PPP Projects according to Project Preparation Partner



PPP CENTER

Project Development and Monitoring Facility (PDMF)



ASIAN DEV'T. BANK

Office of Public-Private Partnership (OPPP)



WORLD BANK GROUP International Finance

Corporation (IFC)



MaPaLLa Ferry

Capacity Expansion and Level of Service Improvement

NAIA

Rehabilitation, Capacity Expansion, and O&M

9 Unsolicited Proposals for Regional Airports

New Bicol, New Bohol, Laguindingan, Iloilo, Puerto Princesa, Bacolod-Silay, Davao, Kalibo, and Siargao

Sangley Airport Redevelopment

Various Toll Roads Construction and O&M

Seafarers Training Vessels

Acquisition and O&M

Metro Manila Subway Project

North-South Commuter Railway

System

Solicited PPPs for Other Regional Airports

Solicited PPPs for Railway Projects

North Long Haul, San Mateo Railway, Northern Mindanao Railway

MRT-3

Cebu Bus Rapid Transit*

Bus Supply and O&M

LTFRB IT

NSCR EDSA Busway

O&M, Capacity Expansion, and

Bike Sharing

Air Traffic System (ATS)/

Davao Public Transport Modernization Project

Philippine Automated Fare Collection System

Air Navigation System (ANS)

6 Unsolicited Proposals for Railway Projects

LRT 6A, LRT 6B&C, C5 MRT 10, MRT 11 Fort Bonifacio Sky Train, Cebu Monorail North-South Commuter Railway (NSCR) -O&M of 163-kilometer urban rail transit system allows greater connectivity between

The Manila Bay-Pasig River-Laguna Lake

Manila and provide commuters an

Ninoy Aquino International Airport-

main international gateway to the

will decongest the capital's major

thoroughfare and expand the public

Philippines

transport network

rehabilitation, capacity expansion and

operations and maintenance (O&M) of the

Metro Manila Subway Project- Operations

and Maintenance (O&M) of the subway that

alternative mode of transport

(MAPALLA) Ferry System Project- involves the development of a ferry system that would traverse the waterways in Mega

MRT 3- O&M of an existing light rapid transit system line in Metro Manila

Central Luzon and Southern Luzon

MRT 4- O&M of a railway project that will connect the capital to adjacent highly urbanized province

Sangley Airport- Construction of a new airport that will serve as an alternative to the NAIA

National Transportation Database

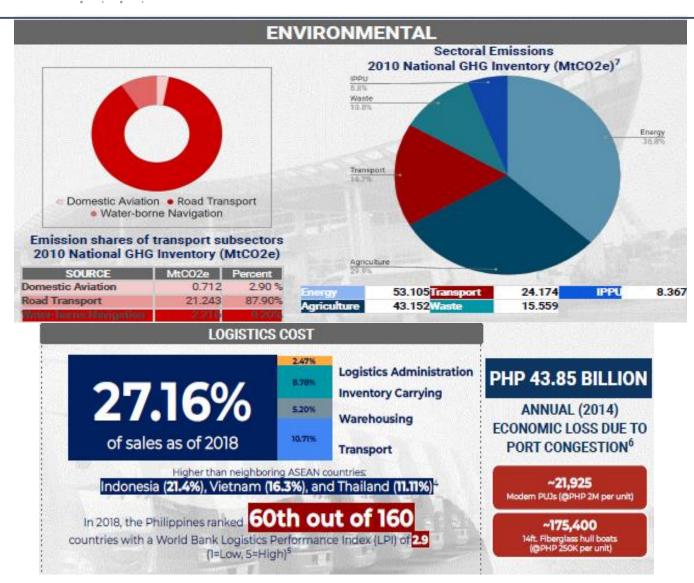
Addressing Economic Losses and Traffic Congestion in Key Urban Centers





- [1] Travel & Tourism Development Index 2021: Rebuilding for a Sustainable and Resilient Future Insight Report. World Economic Forum. May 2022.
- [2] Roadmap for Transport Infrastructure Development for GCR (JICA 2019)
- [3] Philippines's Road Safety Country Profile (World Bank Global Road Safety Facility 2016)

Addressing Environmental and Logistical Challenges



- [4] An Assessment of Logistics Performance of Manufacturing Firms in the Philippines (DTI and IFC (WB) 2018)
- [5] Travel & Tourism Development Index 2021: Rebuilding for a Sustainable and Resilient Future Insight Report. World Economic Forum. May 2022.
- [6] Philippine Institute of Development Studies (PIDS 2014)
- [7] 2010 Philippine National GHG Inventory (Climate Change Commission)

Public-Private Partnership Center

Reconfiguring public – private partnerships (PPP) can help address cross-cutting issues of a weak competition environment and the digital divide, as well as boost the country's campaign to attract foreign investments.

"Public Private Partnerships or PPPs hold great potential for that expansion, for infrastructure development and for innovation."

— President Ferdinand Marcos, Jr.

PPP Center of the Philippines



The PPP Center facilitates the implementation of the country's PPP Program. It serves as a central coordinating and monitoring agency for all PPP projects in the country.

Provide technical assistance in PROJECT DEVELOPMENT AND IMPLEMENTATION



Advocate for **POLICY** reforms to enhance enabling environment



Provide technical assistance in PROJECT MONITORING AND EVALUATION



Conduct CAPACITY
BUILDING activities to
improve skills of agencies



The government is creating a "more competitive and enabling environment" Public Private Partnerships (PPPs) to accelerate infrastructure development.

Summary of PPP projects



210

AWARDED PROJECTS

PHP 2,335 Billion

	No.	PhP (bn)	USD (bn)
National	88	2,156	39.58
Local	122	179	3.29

as of 31 December 2022

98

PROJECTS IN THE PIPELINE

PHP 3,044 Billion*

	No.	PhP (bn)	USD (bn)
National	73	2,914	53.49
Local	25	130	2.39

1 USD = 55

^{*}Total cost does not include projects undergoing studies and with costs that are yet to be finalized



The government has a robust pipeline of PPP projects across key sectors.

PPP projects in the pipeline

TRANSPORTATION

VERTICAL INFRASTRUCTURE

DIGITAL CONNECTIVITY

	No.	PhP (bn)	USD (bn)
N	55	1,378.63	25.30
L	4	69.23	1.27
	Total	1,447.86	26.57

	No.	PhP (bn)	USD (bn)
N	6	1,493.72	27.25
L	5	19.17	0.35
	Total	1,512.89	27.6

	No.	PhP (bn)	USD (bn)
N	4	0.41	0.0075
L	1	0.02	0.00036
	Total	0.43	0.00786

TOURISM

	No.	PhP (bn)	USD (bn)
N	1	TBD	TBD
L	2	11.69	0.21
	Total	11.69	0.21

HEALTH

	No.	PhP (bn)	USD (bn)
N	6	26.41	0.48

SOLID WASTE MANAGEMENT

	No.	PhP (bn)	USD (bn)
L	3	22	0.39

POWER

	No.	PhP (bn)	USD (bn)
L	3	TBD	TBD

WATER SUPPLY AND SANITATION

	No.	PhP (bn)	USD (bn)
N	1	14.49	0.26
L	7	7.75	0.14
	Total	22.24	0.40

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