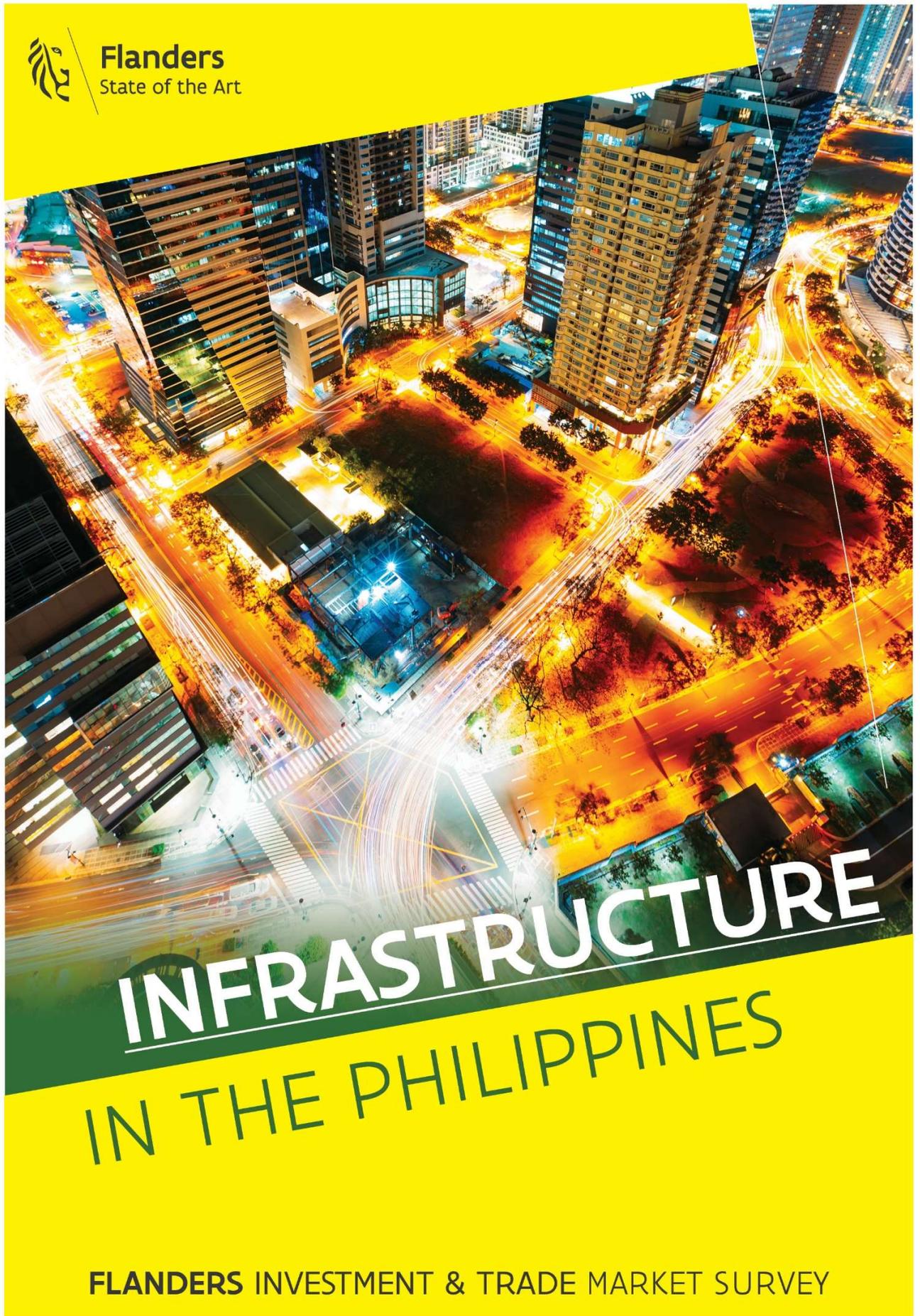




**Flanders**  
State of the Art



# INFRASTRUCTURE IN THE PHILIPPINES

FLANDERS INVESTMENT & TRADE MARKET SURVEY



# INFRASTRUCTURE IN THE PHILIPPINES

Transport, Water sources, Energy, ICT & Telecom



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15. Loakan (Baguio) Airport
16. Basco Airport
17. Francisco B. Reyes (Busuanga-Coron) Airport
18. Calbayog Airport
19. Camiguin Airport
20. Catarman National Airport
21. Godofredo P. Ramos (Caticlan/Boracay) Airport
22. Cuyo Airport
23. Jolo Airport
24. Marinduque Airport
25. Moises R. Espinosa (Masbate) Airport
26. Ormoc Airport
27. Sayak (Siargao) Airport
28. Surigao Airport
29. Tugdan (Tablas/Romblon) Airport
30. Tandag Airport
31. Sanga-Sanga (Tawi-Tawi) Airport
32. Virac Airport

### Busiest airports in the Philippines

by passenger traffic published by the Civil Aviation Authority of the Philippines. Passenger traffic data includes commercial passengers on domestic and international flights, general aviation flights and military flights.

Passenger Traffic (2016 – 2018)

| AIRPORT (top ten busiest)                          | 2018       | 2017       | 2016       |
|----------------------------------------------------|------------|------------|------------|
| Ninoy Aquino International Airport (NAIA) (Manila) | 45,054,308 | 42,022,484 | 39,516,782 |
| Mactan–Cebu International Airport (Cebu)           | 11,377,887 | 10,050,940 | 8,830,638  |
| Francisco Bangoy International Airport (Davao)     | 4,435,557  | 4,234,667  | 3,553,201  |

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|                                                         |           |           |           |
|---------------------------------------------------------|-----------|-----------|-----------|
| Clark International Airport (Angeles)                   | 2,664,378 | 1,514,531 | 951,007   |
| Iloilo International Airport (Iloilo)                   | 2,295,983 | 2,023,016 | 1,943,719 |
| Puerto Princesa International Airport (Puerto Princesa) | 2,146,350 | 1,790,115 | 1,644,003 |
| Laguindingan Airport (Cagayan De Oro)                   | 2,079,684 | 1,814,644 | 1,776,353 |
| Bacolod-Silay Airport (Bacolod)                         | 1,770,266 | 1,579,199 | 1,498,741 |
| Daniel Z. Romualdez Airport (Tacloban)                  | 1,443,318 | 1,165,194 | 1,182,951 |
| Kalibo International Airport (Kalibo)                   | 1,421,504 | 2,520,168 | 2,711,036 |

## 2.5 Inter-island water transport

Inter-island water transport is an equally important component of the national transport system as the other modes. It is most relevant in the pursuit of an interconnected archipelago through which efficient flow of passengers and cargo is facilitated.

In 2015, a total of 62.76 million passengers were recorded. In terms of cargo, 223 million metric tons were transported through the country's port system in 2015.

The utilization of the country's major container ports in the same year in terms of container volume (in twenty-foot equivalent unit) are as follows:

*Container Traffic in Major Ports in the Philippines (2015):*

| Port                                           | Operator                                                | Container Traffic |           |                  |
|------------------------------------------------|---------------------------------------------------------|-------------------|-----------|------------------|
|                                                |                                                         | Actual            | Capacity  | Utilization Rate |
| Manila International Container Terminal (MICT) | International Container Terminal Services Inc. (ICTSI)  | 1,960,699         | 2,500,000 | 78.42%           |
| Manila North Harbor (domestic)                 | Manila North Harbor Port Inc. (MNHPI)                   | 1,137,455         | 2,000,000 | 56.87%           |
| Manila South Harbor                            | Asian Terminals Inc. (ATI)                              | 877,593           | 1,200,000 | 73.13%           |
| Batangas Port                                  | ATI                                                     | 187,077           | +350,000  | 53.45%           |
| Subic Port                                     | ICTSI                                                   | 123,558           | 600,000   | 20.59%           |
| Cebu International Port                        | Oriental Port and Allied Services Corporation (OPASCOR) | 312,000           | 580,000   | 57.93%           |
| Davao International Container Port             | Davao International Container Terminal, Inc.            | 267,283           | 705,000   | 37.91%           |

## 2.6 Water resources

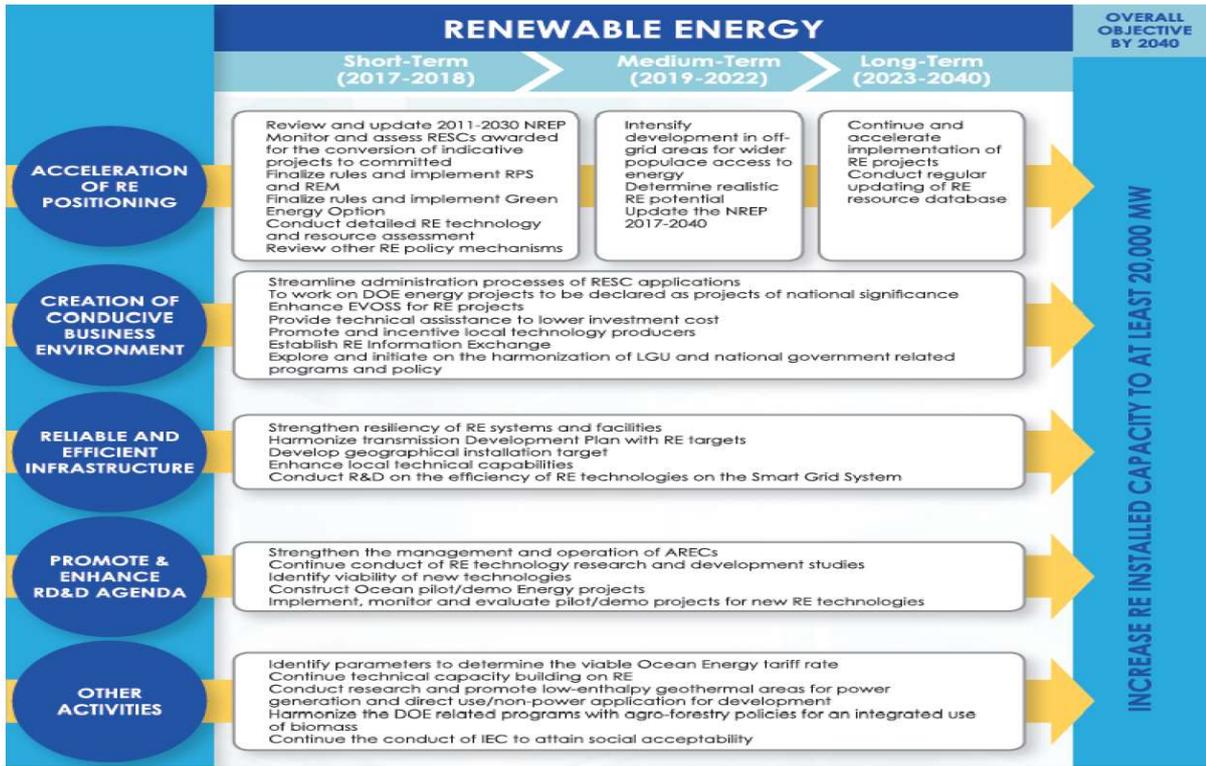
Of the country's total population, 14.5% are still not served by Water Service Providers and 337 municipalities located mostly in the nation's 10 poorest provinces are still considered waterless as of 2015.

In Metro Manila, two water concessionaires -- Manila Water and Maynilad - serve the potable water needs of the residents. On the other hand, in areas outside Metro Manila, 16% of the cities covered by Water Districts (WDs) still not have 24/7 water supply services, while only 39% of cities and municipalities under the jurisdiction of WDs have Level III water supply coverage as of 2015. By mid-2016, nonrevenue water (NRW) stood at an average of 26.97% for WDs, 12% for Manila Water and 35% for Maynilad.

Further, irrigation service to support agricultural production increased slightly from 56.57% of the total potential irrigable area in 2014 to 57.33 percent in 2015. Despite the increase, this fell short of the targeted total irrigable area of 70.91% for irrigation in the same year.

On flood management, the Department of Public Works and Highways/DPWH has increased the protected flood-prone areas through construction of flood management structures to 18.33% out of the total 717,524 km identified flood-prone areas nationwide in 2015. DPWH has implemented a total of 1,295 flood control projects in 2015 alone.





## 2.8 ICT

With the private sector continuing to lead the development of the ICT sector in the country, there have been notable improvements in ICT services in the country.

Despite the rapid developments in telecommunication technologies that transpired in the past years, the cellular mobile telephone system (CMTS) has been the most dominant means to access ICT services in the country. According to the National Telecommunications Commission (NTC), 99.38 % of the cities/municipalities have been reportedly covered by CMTS as of 2015.

Meanwhile, 76.44 % of the cities/municipalities have access to broadband in the country in the same year. In terms of broadband speed, the country has been continuously outperformed by its ASEAN counterparts, the Asia Pacific region and the rest of the World. Below is a comparison among Philippines and the rest of the ASEAN based on the WEF Global Information Technology Report 2016:

ASEAN ICT Indicators (2016):

|                                                          | PHILIPPINES | SINGAPORE | MALAYSIA | INDONESIA | VIETNAM |
|----------------------------------------------------------|-------------|-----------|----------|-----------|---------|
| Mobile network coverage (% of population)                | 99.00       | 100       | 95.4     | 100       | 70      |
| International Internet bandwidth (kb/s per user)         | 27.7        | 616.5     | 27.2     | 6.2       | 20.7    |
| ICT use for business to business transactions (high = 7) | 4.8         | 5.8       | 5.7      | 4.9       | 4.9     |
| Business to consumer Internet use (high = 7)             | 4.8         | 5.5       | 5.9      | 5.4       | 4.8     |
| Prepaid mobile cellular tariffs (PPP \$/min)             | 0.40        | 0.19      | 0.09     | 0.19      | 0.15    |
| Fixed broadband Internet tariffs (PPP \$/month)          | 54.59       | 46.31     | 42.47    | 27.92     | 2.59    |



duopoly of the Philippine Long-Distance Telephone Company (PLDT) and Globe Telecom. Below is a table showing the breakdown of mobile and broadband subscribers from Globe and PLDT, as of December 2018:

|                       | GLOBE TELECOM                                                 | PLDT                                                          |
|-----------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| Mobile Subscribers    | 74.1 million<br>(71.5 million pre-paid/ 2.6 million postpaid) | 60.5 million<br>(58.2 million pre-paid/ 2.3 million postpaid) |
| Broadband Subscribers | 1.6 million                                                   | 2.1 million                                                   |

But in November 2018 Mindanao Islamic Telephone Company (Mislattel) was awarded an operating license and will thus become the third mayor operator on the market, with a planned commercial launch in 2020. Mislattel might rename itself as DITO Telecommunity Corp.

Apart from consolidation, the early 2000's also saw the rise of Chinese telecommunications equipment providers. The Department of Information and Communications Technology/DICT indicated that the Philippine telecommunications network is about 80 % reliant on Chinese telecom equipment led by Huawei and ZTE. U.S. telecom equipment providers found it difficult to compete against the aggressive financing packages of their Chinese competitors.

**Leading Sub-Sectors:**

1. Fiber Optic Network – given the new investments in broadband
2. Cyber Security – significant cyber investments for both the public and private sectors
3. Cloud Services – there is a policy shift towards cloud services, but further market education is needed to address misconceptions and better understand how it may be procured
4. Networking equipment – continuous upgrades for telecom companies and for enterprise customers
5. Storage and servers – to support automation and continuous upgrades
6. Smartphones – the preferred connectivity device of Filipino consumers

**Opportunities**

- Globe has announced US\$ 1.2 billion capital expenditure in 2019 while
- PLDT will invest US\$ 1.5 billion.
- LDT and Globe have announced 5G partnerships; Globe with Huawei and PLDT with Nokia for 5G in universities, and with Cisco “help transform its fiber transport network into a fully automated, software-defined 5G-ready IP transport network over the next three years.” Globe is preparing to launch 5G for home (home broadband service) in June 2019.
- MISLATEL is expected to invest US\$800 million in the next five years as part of its commitment as the new major telecommunications player.
- Apart from MISLATEL, companies like Converge ICT Services, NOW Corporation and PT&T are investing in telecom infrastructure.
  - Converge ICT has announced a US\$ 1.5 billion, five-year expansion of its fixed broadband capabilities. It has committed to lay its own fiber optic network and domestic sub-sea cable.
  - PT&T plans to upgrade its core network, expand its fiber footprint, and build cyber security, IoT, and Smart City opportunities.
- The DICT launched the “National Broadband Plan” in 2017 with the goal to connect government offices nationwide, provide internet access to far-flung areas that are either un-served or underserved by the private sector, and stimulate economic growth through the digital empowerment of the people.





### 3.1.2 Unsolicited projects under negotiation, approval and procurement

| PROJECT TITLE                                                                                     | IMPLEMENTING AGENCY                                | PRIVATE PROPONENT                                                                                               | REGION                              | STAGE / STATUS                                                | INDICATIVE PROJECT COST (In PHP Billion) |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------|------------------------------------------|
| Quezon City Integrated Solid Waste Management Facility                                            | Quezon City Government                             | Consortium composed of Metro Pacific Investments Corporation, Covanta Energy LLC, and Macquarie Capital Limited | National Capital Region             | Procurement Stage - Ongoing Challenge Process                 | 22.00                                    |
| PEZA Electronic Payment and Collection System (EPCS) Project                                      | Philippine Economic Zone Authority (PEZA)          | I-Pay MYEG Philippines, Inc. (IPMPI)                                                                            | National Capital Region             | Procurement Stage - Ongoing Preparation for Challenge Process | 0.02                                     |
| Bulacan International Airport Project (New Manila International Airport)                          | Department of Transportation                       | San Miguel Holdings Corporation                                                                                 | CALABARZON, National Capital Region | Procurement Stage - Ongoing Preparation for Challenge Process | 735.63                                   |
| Pasay City Reclamation Project                                                                    | Pasay City Government                              | Ulticon Builders, Inc., Udenna Corporation, and China Harbor Corporation                                        | National Capital Region             | Procurement Stage - Ongoing Challenge Process                 | 62.00                                    |
| Pampanga Bulk Water Supply Project (District 1, 3 & 4)                                            | Provincial Government of Pampanga                  | MetroPac Waters Investment Corp.                                                                                | Central Luzon                       | Approval Stage - Under Negotiation                            | 15.80                                    |
| Pampanga Bulk Water Supply (District 2)                                                           | Provincial Government of Pampanga                  | Manila Water Philippine Ventures                                                                                | Central Luzon                       | Approval Stage - Under Negotiation                            | 6.50                                     |
| Unsolicited Proposal for the Redevelopment of the Panabo Town Center                              | Local Government of Panabo City (Davao del Norte)  | Philippine Primark Properties, Inc.                                                                             | Davao Region                        | Approval Stage - Under Negotiation                            | 0.42                                     |
| East-West Rail Project                                                                            | Philippine National Railways                       | East West Rail Corporation and AlloyMTD                                                                         | National Capital Region             | Approval Stage - Under Evaluation by relevant Approving Body  | 55.46                                    |
| Manila Bay Integrated Flood Control, Coastal Defense and Expressway Project *                     | Department of Public Works and Highways            | Coastal Development Consortium (San Miguel Holdings Corporation and New San Jose Builders, Inc.)                | National Capital Region             | Approval Stage - Under Evaluation by relevant Approving Body  | 536.03 (not including reclamation cost)  |
| 50 year Integrated Development Plan for Mactan Cebu International Airport (MCIA) Project *        | Mactan Cebu International Airport Authority        | GMR-Megawide                                                                                                    | Central Visayas                     | Approval Stage - Under Evaluation by relevant Approving Body  | 160.56                                   |
| Preservation and Development of Laguna de Bay Project *                                           | Laguna Lake Development Authority                  | San Miguel Holdings Corp (SMHC) and Muhibbah Engineering Philippines Corp (MEPC)                                | CALABARZON, National Capital Region | Approval Stage - Under Evaluation by relevant Approving Body  | 905.12                                   |
| IT Project for the City of Naga, Cebu-UNLAD BAYAN Local Government Information System Project     | Naga City Local Government                         | Cylis Technologies                                                                                              | Central Visayas                     | Approval Stage - Under Evaluation by relevant Approving Body  | 0.065                                    |
| Fort Bonifacio-Makati Skytrain Project *                                                          | Department of Transportation                       | INFRACORP                                                                                                       | National Capital Region             | Approval Stage - Under Evaluation by relevant Approving Body  | 3.52                                     |
| C5 MRT-10 Project *                                                                               | Department of Transportation                       | C5 Mass Transit Corporation Limited                                                                             | National Capital Region             | Approval Stage - Under Evaluation by relevant Approving Body  | 80.17                                    |
| LRT 6 Cavite Line A *                                                                             | Department of Transportation                       | Prime Asset Ventures Inc. (PAVI)                                                                                | CALABARZON                          | Approval Stage - Under Evaluation by relevant Approving Body  | 56.27                                    |
| Davao People Mover *                                                                              | Department of Transportation                       | Udenna Corporation                                                                                              | Davao Region                        | Approval Stage - Under Evaluation by relevant Approving Body  | 30.00                                    |
| Upgrade, Expansion, Operations and Maintenance of the New Bohol International Airport (Panglao) * | Department of Transportation                       | Aboitiz InfraCapital, Inc.                                                                                      | Central Visayas                     | Approval Stage - Under Evaluation by relevant Approving Body  | 25.45                                    |
| Davao International Airport Development, Operation, and Management *                              | Civil Aviation Authority of the Philippines (CAAP) | Chelsea Logistics Holdings Corp.                                                                                | Davao Region                        | Approval Stage - Under Evaluation by relevant Approving Body  | 48.80                                    |







