

PPP TALK I JANUARY - JUNE 2019

CLIMATE-RESILIENT INFRASTRUCTURE

PROTECTING THE FILIPINOS' FUTURE





IN THIS ISSUE

- VIEW FROM THE CENTER 2
Harnessing Resilient and Sustainable Local PPPs for Development
- BANNER STORY 4
Advocating for Climate-Resilient PPP Projects
- FEATURE STORY 6
PPPs for Philippine Universal Health Care: A Bright Prospect
- PPP PROJECT UPDATES 8
- THE ECONOMIST 10
- NEWS IN BRIEF 11



VIEW FROM THE CENTER

HARNESSING RESILIENT AND SUSTAINABLE LOCAL PPPs FOR DEVELOPMENT

ATTY. MARIA LERMA L. ADVINCULA

Climate change is one of the most prevalent and threatening global phenomena that call for an urgent collective action. No less than the Sustainable Development Goals (SDGs) and the Paris Agreement prove this.

The SDGs provide a cross-cutting goal to “build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation” (SDG 9). Accompanying this goal is the target to develop quality, reliable, sustainable, and resilient infrastructure to support economic development.

To attain this goal is indeed complex. It requires the conventional infrastructure development to transition to a low-carbon, climate-resilient, and sustainable development pathway. This in turn entails innovation, significant financing, and a major shift in a way that all stakeholders can work more effectively.

The government plays a central role in catalyzing strategic climate-resilient actions, particularly in harnessing private sector engagement. While the public sector takes most of the responsibility to drive climate change solutions, it has become increasingly clear that the private sector is an essential partner in preparing for and responding to the impacts of this phenomenon. In other words, public-private partnerships (PPPs) are key in building a green and resilient economy. The private sector can contribute not only in bridging the infrastructure gap but also in implementing and innovating climate change solutions that encompass technical and sector-specific expertise, greater levels of financing, and efficiency, making it an indispensable ally.

Efforts toward climate change adaptation and mitigation are crucial, as the Philippines is classified as one of the most vulnerable to the changing climate. Recognizing that the country is also trying to close the infrastructure gap, our efforts and call to action toward this goal to accelerate infrastructure spending must also take into account the need to develop and make these infrastructures climate resilient. This is necessary in order to avoid costly

damage to properties and to minimize the potential negative impacts of climate change by making our infrastructure responsive and climate adaptive. To help address this concern, PPPs will be critical. Under a well-designed regulatory environment, PPPs can be one of the most viable options to maximize the innovation and resources of the private sector, while the government orchestrates collective action through programs, projects, and policies.

While investments in urban development are needed to implement climate-resilient infrastructure projects in cities due to population growth and rapid urbanization, a greater focus on rural economic growth and development is also necessary to address the wide disparities across regions. The lack of infrastructure has discouraged investments and led to inefficient public service delivery to communities in these severely lagging areas. These same areas are vulnerable to natural hazards such as extreme weather events, which impede its competitiveness, productivity, and development.

PPPs, therefore, need to be tailored and extended to the local context. As a response, the PPP Center, through its Local PPP Strategy, focuses its support to local governments and other local implementing agencies. The strategy involves the expansion of the pipeline of viable PPP projects and extension of its technical assistance and capacity development support to prepare and deliver PPP projects at the local level. The strategy also incorporates climate-conscious technologies and knowledge in infrastructure projects.

International fund donors also recognized the importance of helping the local governments in their projects relevant to climate change. In fact, the PPP Center received an additional funding of USD 3 million from the Urban Climate Change Resilience Trust Fund (UCCRTF) for the existing Asian Development Bank (ADB) Technical Assistance No. 7796-PHI. The additional funding is comprised of USD 2.5 million for Project Development and Monitoring Facility (PDMF) and USD 500,000 for capacity building. The UCCRTF funding targets emerging sectors such as urban resilience, renewable energy, water supply and sanitation, solid waste management, open/green spaces, food security, flood control, disaster risk

management, and green infrastructure. The PDMF, which is a revolving fund managed by the PPP Center, can now support more projects especially those coming from local government units, state universities and colleges, local government corporations, water districts, and economic zones, among others.

This year, the PDMF supports local-government-led PPP projects, which provide climate-resilient infrastructure to vulnerable communities and mainstream climate resiliency in local PPP projects. This development would further enhance PPPs at the local level, as the PPP Center will continue strengthening the capacities of local governments as well as providing them with technical assistance to include climate change mitigation and adaptation components in their portfolio of PPP projects. In the long run, the development of numerous climate-resilient infrastructures is foreseen to benefit the public.

Although the task at hand of developing and implementing infrastructure projects has become more challenging due to the climate change considerations, the effective cooperation among stakeholders, from the government, the private sector, and down to the general public, can stir up the actions and make the efforts worth pursuing. The efforts of the PPP Center in providing technical assistance, capacity building services, in-house project development support, as well as making the PDMF more accessible, can jumpstart the process in responding to the pressing need of our communities at the local level to develop their climate-resilient and sustainable projects. These efforts, complemented with the private sector innovation as well as support of other stakeholders, can help reach the global goal of developing a quality, reliable, sustainable, and resilient infrastructure, while supporting the country's economic development.

ABOUT THE COVER

An editorial illustration on how Filipinos, be it in the public or private sector, work together to provide a responsive pipeline of infrastructure projects that are both environmentally sound and climate-resilient.



BANNER STORY

ADVOCATING FOR CLIMATE-RESILIENT PPP PROJECTS

RESPONDING TO A CHANGING CLIMATE

The 2019 Global Peace Index report says that the Philippines ranks first among all the nine Asian countries that are most vulnerable to multiple climate hazards such as cyclones, floods, tsunami, drought, and rising sea levels. The report found that 47 percent of the country's population are in areas regularly visited by climate-induced disasters. The memory of Typhoon Yolanda wreaking havoc in Leyte in 2013 is a lesson etched deeply in the country's spirit and speaks clearly of the vulnerability of the Philippines to natural disasters.

The government's call to action is to equip the country with strategies to mitigate the effects of a rapidly changing climate. At the 2019 State of the Nation Address (SONA), the President called to "to fast-track renewable energy resources to reduce the country's dependence on traditional energy sources such as coal."

EVERYONE'S RESPONSIBILITY

With the President's pronouncement setting the direction on climate change, both government and the private sector must now partner to use its resources and rise to the challenge of building climate-resilient infrastructures that can both sustain the nation's environment and protect the most vulnerable Filipino communities.

The need to undertake adoption strategies and policies that focus on climate change is immediate and pressing. In a report published by the United Nations (UN) Global Compact, UN Environment Program, PPPs were identified as having a significant role in addressing climate change.

"Public-private partnerships for climate-change adaptation can combine the power, authority, social responsibility and accountability of the public sector, with the finance, technology, managerial efficiency and entrepreneurial abilities of the private sector and the informed voice, energy, drive and oversight responsibilities of civil-society organizations. Partners share project risks, but also the benefits," the report said.

One of the recommendations stated in the UN report was for governments to integrate environmental and social safeguards into national laws, policies, and regulations, and government contracts to reward business behavior, avert maladaptation, and improve community vitality and resilience to climate change.



WORKING TOWARD CLIMATE RESILIENCY

In the Philippines, PPPs have been engaged in climate resiliency projects that support the climate adoption efforts being undertaken by government, both at the national and local level. In June 2019, PPP Center's Executive Director Ferdinand A. Pecson spoke before the 2019 Asia-Pacific High-Level Forum on Green Economy in Bangkok, Thailand, where various successful green economy solutions that have been designed and carried out by countries in the Asia-Pacific region were showcased.

Here in the Philippines, green PPPs are supported by creating and mainstreaming environment, social, and gender concerns. "The idea is to ensure that the environmental, social, and gender concerns and displacement of affected people are factored into the process," said the PPP Center chief.

In support to this move, the PPP Governing Board issued a resolution titled "Safeguards in PPP: Mainstreaming Environmental, Displacement, Social and Gender Concerns" in December 2018. The aim is to prevent negative impacts on people and the environment in the implementation of PPP projects.

Aside from instituting policies that promote green PPPs, the PPP Center is also exploring the role of green financing for PPPs in the Philippines. While the country is relatively new to green financing, the PPP Center is already taking part in such financing programs to fund the nation's PPP program that features climate resiliency projects.

In June 2019, the PPP Center received a USD 3 million technical assistance (TA) grant from the Asian Development Bank (ADB) to build its capacity in developing climate-resilient projects. The grant, financed by the Urban Climate Change Resilience Trust Fund (UCCRTF), will support the agency's capacity building program and the development and procurement of local climate-resilient PPP projects through its Project Development and Monitoring Facility (PDMF). The PDMF is a revolving fund managed by the Center. It will enable local government units (LGUs) and local implementing agencies (IAs) to access a panel of PPP experts with proficiency in climate change resiliency, which will provide assistance in developing and implementing their PPP projects, from the feasibility study stage to approval, procurement, and implementation stages.

This development will further enhance PPPs at the local level, as the PPP Center will help strengthen the capacities of LGUs and other local IAs such as water districts and state universities and colleges (SUCs), among others, to include climate change mitigation and adaptation components in their portfolio of PPP projects.

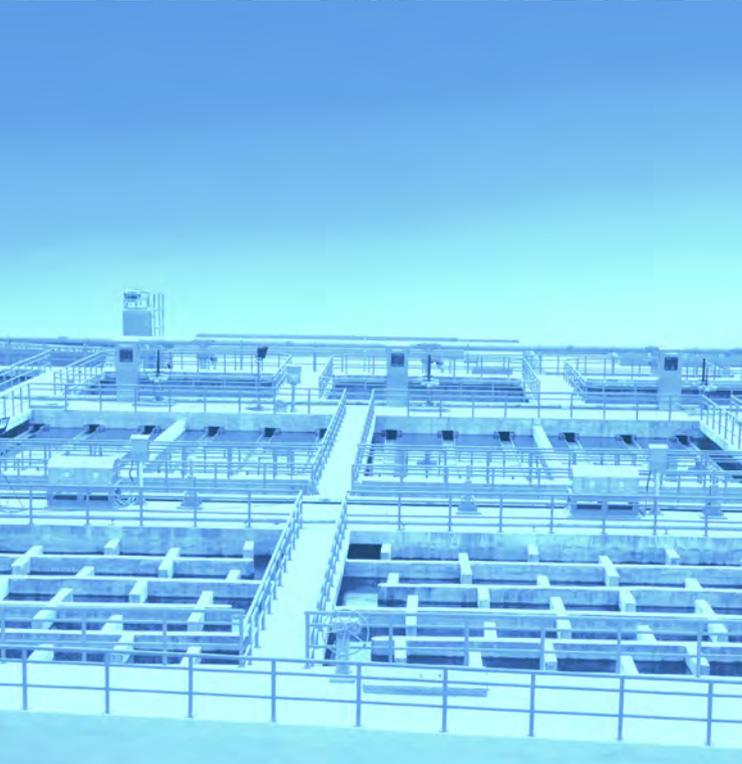


EARLY ADAPTORS AT THE LOCAL LEVEL

Local governments have been turning to PPPs to fund their various climate-resilient projects. These include projects on waste to energy, bulk water supply projects, septage management, solid waste management, renewable energy, flood control, hydroelectric power plant, and preservation and development for endangered areas.

Some of the climate-resilient PPP projects that local governments have undertaken include the following: Quezon City Waste to Energy Project, Baggao Water Supply Project, Cebu City Solid Waste Management Project, Pampanga Bulk Water Supply (District 2), Pampanga Bulk Water Supply Project (District 1, 3 & 4), Puerto Galera Sewerage and Wastewater Treatment Plant Project, Taguan Water District Bulk Water Supply Project, Butuan City Water District Joint Venture Agreement for Water Supply Development and Water Treatment, Financing, Development, Rehabilitation, Expansion, Improvement, Operation and Maintenance of the Water Supply and Septage Management System of Jaen Water District, Joint Venture Project on Bulk Water Supply (JV1), Financing, Development, Rehabilitation, Improvement, Expansion, Operation and Maintenance of the Water Supply System of Tarlac City, Zamboanga City Water District Non-Renueve Water Reduction Project, Preservation and Development of Laguna de Bay Project, Manila Bay Integrated Flood Control, Coastal Defense and Expressway Project, Angat Hydroelectric Power Plant (AHEPP) Project Rehabilitation, Operation and Maintenance of Auxiliary #4 and #5, Bulacan Bulk Water Supply Project, and the Subic Water and Sewerage Project.

Today, the PPP Center continues to strive to address the challenges wrought by climate change as it provides IAs with the option to look at PPPs to finance their climate resilient projects. This is how strong partnerships between government and the private sector can mitigate the devastating effects of climate change. Even as we strive toward progress with our infrastructures and our modernization plans, we all should not lose sight of our responsibilities to the next generation—we should not compromise the ability of future generations to meet their own needs.





FEATURE STORY

PPPs FOR PHILIPPINE UNIVERSAL HEALTH CARE: A BRIGHT PROSPECT

The Universal Health Care Act has been signed into law and Filipinos now have accessible health care. But the question still lingers: how can health services in the country become truly accessible and genuinely effective?

Public-private partnerships (PPPs) are seen to help in the implementation of the newly passed Universal Health Care (UHC) Act by putting up primary care health facilities that feature modern facilities and are operated by private sector partners.

This was one of the key topics discussed by a host of health stakeholders during the forum organized by the PPP Center and the Asian Development Bank (ADB) at the ADB Headquarters on March 22, 2019.

Themed “Fostering Universal Health Care through PPPs,” the forum gathered together national government agencies, spearheaded by the Department of Health (DOH), local government units, hospitals, health sector representatives, legislators, and development partners to discuss the challenges of implementing the UHC Act, the government’s grand plan to provide health care coverage for all Filipinos.

During the forum, PPP Center Assistant Secretary and Deputy Executive Director Mia Mary G. Sebastian highlighted

current PPP projects in the health sector that will contribute to the improvement of health services in the country. Some of the projects she mentioned are the hemodialysis centers at Baguio General Hospital and Cagayan Valley Medical Center which are now being developed with assistance from the Project Development and Monitoring Facility (PDMF), a government revolving fund that can be tapped to hire international consultants.

Ms. Sebastian also mentioned the University of the Philippines Diliman–Philippine General Hospital operations and maintenance project as another PPP that may be replicated in the implementation of the UHC Act. The project includes a multi-storey tertiary care hospital, medical research center, ancillary facilities, and commercial areas. The project is also designed to be implemented as a hybrid project—the design and construction will be funded via government budget, while the Operation and Maintenance (O&M) component will be bid out to the private sector via PPP.

Health Secretary Francisco T. Duque III, meanwhile, opened the event and encouraged further the participation of the private sector in the crafting of the implementing rules and regulations of the new law, which is currently being drafted by the DOH and Philippine Health Insurance Corporation (PhilHealth).

“Public consultations are now underway,” said the health chief. “I encourage investors and private sector partners to take part in the deliberations on how both the government and other sectors can work together in achieving better health outcomes for the Filipinos.”

Present also in the forum were representatives and speakers from various stakeholders in the private sector. Representative Jose Enrique Garcia III, Vice Chairperson of the House Committee on Health, talked about critical provisions of the law such as automatic health insurance

coverage of all Filipinos. He also discussed better health promotion programs and the importance of local PPP codes in enabling local health projects.

Dr. Troy Cepte, representative of Senator Joseph Victor G. Ejercito, who is the principal sponsor of the Senate version of the health bill, also discussed important provisions such as reserving 90 percent of hospital beds in all public hospitals for non-paying, indigent patients. These will be complemented by health policy initiatives in Congress, making local health services as a priority, and by continuing public and private sector efforts on health literacy. It is essential that Filipinos in both urban and rural environments are aware of health concerns in their area and how to access health services to address them.

In his special remarks, Mr. Diwakar Gupta, ADB Vice-President for Private Sector and Cofinancing Operations, acknowledged the contributions of the PPP Center and the strong commitment of the Philippines in making the country a dynamic PPP market in the region. “The Philippines has strengthened the legal, regulatory, and institutional framework, as well as the underlying financial support structure to the degree that the country now scores high (seventh position) in the global ranking of PPP readiness, joining countries like Japan or Korea,” he said.

PPP Center Undersecretary and Executive Director Ferdinand A. Pecson, meanwhile, identified the areas where PPPs can support implementing agencies in pursuing their PPP projects in the health sector, and to learn how PPPs can be a viable option to attain the objectives of the UHC Act. “It is not about banning PPP in health care. It is about regulating it properly such that the goals of universal health care are achieved,” he said.

The UHC Act is off to a good start, thanks to joint efforts by both the public sector and the private sphere. But a lot of work lies ahead of this partnership. Readiness of the various



institutions is important especially when the law and its IRR will be rolled out in the near future. The DOH-PPP unit, in coordination with the PPP Center, is seen to play pivotal role in engaging the private and public institutions to actively participate in the realization of the UHC for all Filipinos.

To further facilitate the role of PPPs in the health sector, a joint program by the PPP Center, Japan International Cooperation Agency (JICA), and DOH—Guidebook on the Screening, Scoping, and Prioritization of PPPs for Health Project—was developed. This will assist Centers for Health Development, DOH-retained hospitals, and LGUs in identifying, developing, and prioritizing solicited proposals. These crucial next steps plus the realization of the proposals and ideas of forum participants in March spell the success of the universal health care in the country.





PPP PROJECT UPDATES



1 FEBRUARY 4, 2019

COMPARATIVE PROPOSAL/BID SUBMISSION OF THE QUEZON CITY INTEGRATED SOLID WASTE MANAGEMENT FACILITY PROJECT

The comparative proposal/bid submission for the Quezon City Integrated Solid Waste Management Facility Local PPP Project was held at the Quezon City Hall. There were no submitted bids to challenge the unsolicited proposal submitted by the original proponent, which is comprised by Metro Pacific Investments Corporation, Covanta Energy LLC, and Macquarie Capital Limited.



3 MARCH 27, 2019

BID SUBMISSION AND OPENING OF BID FOR THE BAGGAO WATER SUPPLY PPP PROJECT

Baggao LGU conducted the bid submission and opening of bid for the Baggao Water Supply Project. The lone pre-qualified bidder, Tubig-Pilipinas Consortium, submitted its bid proposal.



4 MAY 7, 2019

CONSTRUCTION OF THE LRT-1 CAVITE EXTENSION PPP PROJECT

The start of the construction of the LRT-1 Cavite Extension PPP Project was attended by officials and representatives from the government and private sector representatives at Brgy. San Dionisio, Parañaque City.



2 MARCH 27, 2019

GROUNDBREAKING CEREMONY OF THE CAVITE-LAGUNA EXPRESSWAY (CALAX) PROJECT

The groundbreaking ceremony of the 27-kilometer Cavite-Laguna Expressway (CALAX) Project was held at Brgy. Alapan 2-B, Imus City, Cavite.



5 JUNE 13, 2019

GROUNDBREAKING CEREMONY OF THE KALIBO MEAT PLANT PROJECT

The groundbreaking of the Kalibo Meat Plant Joint Venture Local PPP Project with Municipality of Kalibo and private partner Philippine Slaughterhouse Management and Operation (PSMO), Inc. was held at Tinigaw, Kalibo, Aklan.





The Philippines ranked second in the Economist Intelligence Unit's (EIU) ranking of Asian countries most conducive to public-private partnership (PPP)

“The Philippines has updated its previous regulations (1994 revisions) to streamline processes and now has comprehensive PPP policies and guidelines that are accessible online, policies and procedures for dealing with unsolicited bids, and independent dispute-resolution procedures. Its PPP Center connects to core organs of government as it is attached to the National Economic and Development Authority, the central planning agency, and it also reports to a PPP governing board composed of several national agencies.”

The Economist Intelligence Unit
 "Evaluating the environment for public-private partnerships in Asia"
 The 2018 Infrascope | Published May 2019



THE ECONOMIST

PHILIPPINES RANKS SECOND FOR HAVING A MATURE PPP ENVIRONMENT—THE ECONOMIST INTELLIGENCE UNIT

In its 2018 Infrascope Index Report, The Economist Intelligence Unit (EIU) of the London-based The Economist Group ranked the Philippines second in the top overall category for having a mature PPP environment garnering a score of 81%, with Thailand taking the top spot with 83% and China getting an 80% mark.

“The regulatory environment in the Philippines is notably good: other than Thailand, the Philippines is the only country in the ‘mature’ tier,” it added. “The Philippines has updated its previous regulations (1994 revisions) to streamline processes and now has comprehensive PPP policies and guidelines that are accessible online, policies and procedures for dealing with unsolicited bids, and independent dispute-resolution procedures. Its PPP Center connects to core organs of government as it is attached to the National Economic and Development Authority (NEDA), the central planning agency, and it also reports to a PPP governing board composed of several national agencies,” the EIU said.

CATEGORY FINDINGS

The Infrascope Index is a benchmarking tool that evaluates the capacity of countries to implement sustainable and efficient public-private partnerships (PPPs). The index evaluates the PPP environment across five components: enabling laws and regulations, the institutional framework, maturity, the investment and business climate, and financing.

The EIU report revealed that 9 of the 19 countries and subnational governments scored in the “developed” category for their regulatory environment, with Thailand and the Philippines ranking top as “mature.” Regulatory performance looks at PPPs as a procurement modality, having commonly adopted best practices, including provisions guiding selection criteria, mechanisms for conciliation and arbitration, and mandatory environmental impact assessments. The Philippines has also been scored high in terms of institutional transparency with the EIU report stating that “the Philippines and its PPP unit has a well-structured website with up-to-date information including laws, administrative orders, circulars, executive orders and guidelines (such as guidelines for unsolicited proposals).”

The maturity domain meanwhile covers the extent to which countries and subnational governments have experience in delivering PPPs, and also the stability and predictability of their infrastructure sector. One measure of maturity is how many PPP projects have been delivered. The most experienced countries are PRC and India, followed by Thailand and the Philippines. The EIU report explains, “a large number of PPPs does, in and of itself, indicate a level of maturity, since without the right frameworks and norms in place, it is unlikely that the modality would be so regularly utilized.”

Meanwhile, four countries and one subnational government score in the “mature” category for their investment and business climates: India (90), the Philippines (87), PRC (85), Gujarat (83) and Thailand (80). The Philippines, scores highly, for its bipartisan support from the current political leadership and the opposition.

And finally, under the financing category, which measures the level of government payment risk, the depth of capital markets for private infrastructure, the participation of institutional investors, and currency risk, the Philippines shares the top spot with Thailand, India, PRC and Gujarat. These countries have very low sovereign payment risk. The EIU report also noted that the Philippines, issued a USD \$150 million green bond from BDO Unibank in 2017 which was the first green bond investment by the International Finance Corporation (part of the World Bank Group) to be used to finance projects including renewable energy and green buildings.

In its 2014 Infrascope Report, the EIU ranked the Philippines as the most improved country in the Asia-Pacific region for PPP readiness, categorizing the country as a developed PPP market.



NEWS IN BRIEF



NEW PROJECTS APPROVED FOR PDMF SUPPORT

In the first half of 2019, the Project Development and Monitoring Facility (PDMF) Committee approved four PPP projects to be supported under the PDMF revolving fund.

On February 1, 2019, the Committee approved PDMF support for project preparation and transaction advisory services for the Cultural Center of the Philippines (CCP) Asset Development Project, and assistance in the management of the challenge process for the Davao and General Santos Port projects.

Support for project preparation and transaction advisory services was also granted to the University of the Philippines Los Banos (UPLB) Agro-Industrial and Information Technology Parks Project on May 30, 2019.



ORIENTATION ON UNSOLICITED PROPOSALS FOR GOCCs

The PPP Center conducted an orientation for eight government-owned and -controlled corporations (GOCCs) comprised of Laguna Lake Development Authority (LLDA), National Dairy Authority (NDA), National Irrigation Authority (NIA), National Housing Authority (NHA), Philippine Economic Zone Authority (PEZA), Philippine National Oil Company (PNOC), Social Security System (SSS), and Tourism Infrastructure and Enterprise Zone Authority (TIEZA) on how to manage unsolicited proposals received from private sectors on June 27, 2019.



PPP CENTER, MARIKINA CITY GOVERNMENT SIGN MOA FOR COOPERATION

The PPP Center signed a Memorandum of Agreement (MOA) with the City Government of Marikina on April 25, 2019, formalizing the areas of cooperation and support by the Center for the development of Marikina City's PPP projects.

Under the MOA, both parties agree to provide a framework for cooperation and coordination with the goal of developing a robust pipeline of PPP projects for Marikina City.

The MOA was signed by Marikina City Mayor Marcelino Teodoro and PPP Center Executive Director Ferdinand Pecson.



PLANNING WORKSHOP FOR NEDA REGIONAL OFFICES PPP FOCAL PERSONS

The PPP Center conducted a three-day planning workshop for the NEDA Regional Office (NRO) Focal Persons for the initial assessment of the NRO PPP Knowledge Corners at the Sequoia Hotel in Quezon City on March 27-29, 2019.

As part of the signed Memorandum of Agreement between the PPP Center and the NEDA, the workshop was intended to harmonize the plans and programs on PPPs for local implementing agencies and to provide the NRO PPP Focal Persons with technical inputs on how they can effectively relay information on the PPP Program to both implementing agencies and the private sector.

STUDY VISIT OF THE DELEGATION FROM COLOMBO PLAN STAFF COLLEGE

The PPP Center conducted a briefing on the Philippine PPP Program for members of the delegation from the Colombo Plan Staff College (CPSC), an inter-governmental international organization for human resources development in the Asia-Pacific region on February 14, 2019. The delegation, whose members are from TVET institutions from the Philippines and CPSC staff from Pakistan and Bangladesh, were on a study visit program that aims to gain insights and learn about how PPP projects are monitored or audited particularly on value for money analysis, commercial viability, bankability, and financial structuring.



EDITORIAL BOARD

FEROISA FRANCISCA T. CONCORDIA
JOMEL ANTHONY V. GUTIERREZ
EMERSON KIM J. LINESES
Managing Editors

ATTY. MARIA LERMA L. ADVINCULA
ALMA MAE A. AGNE
DARWIN JOHN A. SONEJA
RAMIL E. LUTERIA
Contributors

AYLA CHRISTADEL S. VIRGINO
Layout & Design

MYRA S. JOCSON
MELIZA M. CERCADO
Circulation

ISSN: 2350-7943



REPUBLIC OF THE PHILIPPINES

PUBLIC-PRIVATE PARTNERSHIP CENTER

8th Floor, One Cyberpod Centris, EDSA cor.
Quezon Avenue, Quezon City 1100, Philippines
Trunkline: (+632) 709-4146

Copyright 2019. All rights reserved.