

Application from the Government of the Philippines to become a
Technical Partner of the Partnership for Market Readiness

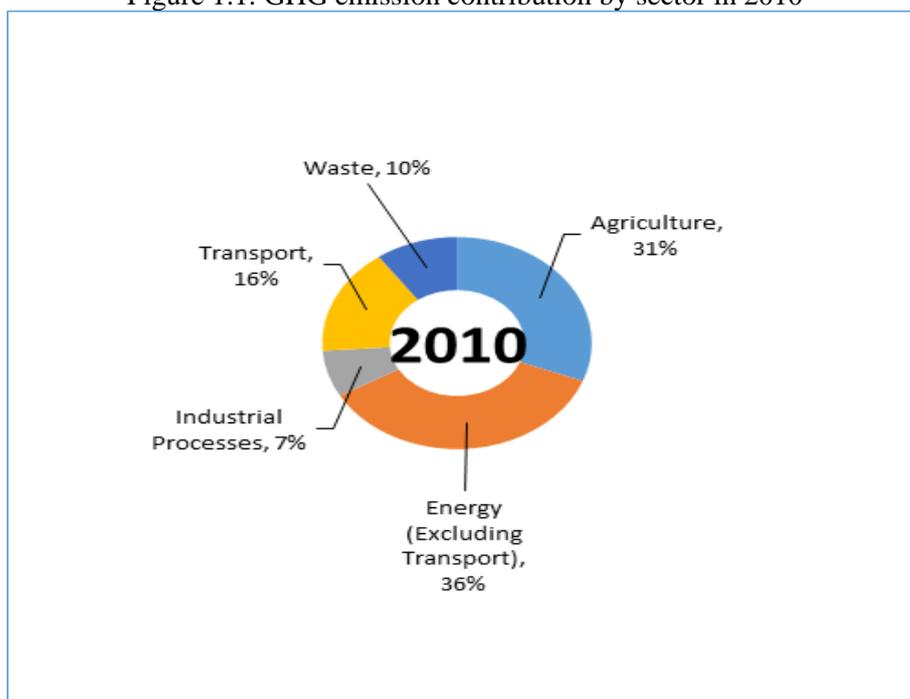
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Philippines' Climate Change Mitigation Strategy

The Philippines' greenhouse gas (GHG) emissions are currently a minor contributor to global warming. However, due to its economic development and rapidly growing population, the Philippines is confronted with sharp increases of CO₂ emission over the next decades. The Philippines' GHG emissions are dominated by the energy sector (36%), transport (16%), agriculture (31%), waste (10%) and industrial processes (7%) (Figure 1.1). The country's Growth Domestic Product (GDP) grew by an annual average of 6.5% over the last five years, relatively higher than the world average (3.1%). GDP growth is expected to strengthen further to 7-8% in medium term. In addition, the country's population is expected to increase from around 100 million in 2014 to around 140 million in 2050¹. These factors will lead to increased consumption particularly in the transport and power sectors. By 2030, energy demand is expected to increase by more than 70% of the current dependable capacity, while GHG emissions are projected to double in the transport sector by 2030. Under the Business-As-Usual (BAU) projection, GHG emissions are estimated to reach 320 Mt CO₂e in 2030², with forests capturing approximately 103 Mt CO₂e. Net emissions would therefore reach 218 Mt CO₂e which is more than triple the 2010 net GHG emissions. By 2050, GHG emissions are expected to have quadrupled since 2010 if no action is taken³ (Figure 1.2).

Figure 1.1: GHG emission contribution by sector in 2010

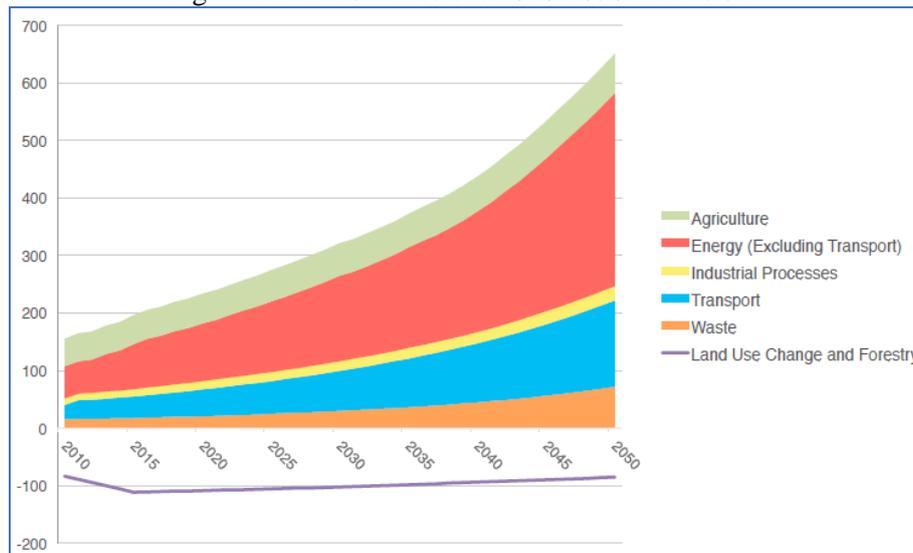


Source: CCC

¹ WWF Report "Building Momentum for Low Carbon Development in the Philippines" 2014.

² The Department of Energy estimated the country's demand by 2030 to grow by 10,191 MW more, assuming a gross domestic product growth forecast of 5% and a population growth of 1.5%. The new estimate builds a case for new "baseload power" sources, which are currently supplied mostly by coal-fired power plants. 73% of the committed projects and nearly 84% of the required capacity will be coming from reliable power resources that include coal-fired power plants, geothermal facilities, biomass, and the projected revival of the Bataan nuclear power plant.

³ United States Agency for International Development (USAID), 2016. Building Low Emission Alternatives to Develop Economic Resilience and Sustainability Project (B-Leaders): Philippines Mitigation Cost-Benefit Analysis Integrated Report 2016.

Figure 1.2: BAU emissions 2010-2050 in MtCO₂e

Source: USAID, 2016

The Philippines has a significant opportunity to move towards a climate-resilient, low carbon economy. High recognition of its vulnerability to climate-related risks resulted in the Philippines' active engagement in the global and local climate change dialogue, commencing national reforms to increase its resilience while facilitating actions on low GHG emissions towards sustainable development. The country outlined its long-term agenda for mitigation from 2010-2022 in the National Framework Strategy on Climate Change (NFSCC) and 2011-2028 in the National Climate Change Action Plan (NCCAP). A number of climate change mitigation policies were likewise initiated such as the adoption of the Philippines' REDD+ Strategy and the institutionalization of the GHG inventory management and reporting system.

In October 2015, the Philippines' submitted its Intended Nationally Determined Contribution (INDC), with a conditional GHG emissions reduction of about 70% by 2030 relative to its BAU scenario. The mitigation contribution is conditioned on the extent of financial resources including technology development and transfer and capacity building that will be made available to the Philippines. The submitted INDC is anchored on the government's policy declaration under the Climate Change Law of 2009, as amended in 2012, whereby the country shall cooperate with the global community in the resolution of climate change issues. It was developed through an "exhaustive, inclusive, and participatory process", with "apparent significant analytical basis"⁴. In the identification and selection of the country's mitigation options, national circumstances, particularly the country's climate vulnerabilities and capacity to implement mitigation policy activities, were among the critical determinant factors. GHG emissions are projected using historical GDP from 2010-2014, with an annual average growth of 6.5% for 2015-2030, and average annual population growth of 1.85% are used as assumption for BAU scenarios. In identifying the 70% conditional reduction target, a number of tools were used such as the (i) Agriculture and Land Use (ALU) Software; (ii) Long Range Energy Alternative Planning (LEAP); (iii) Multi-Criteria Analysis (MCA); (iv) marginal abatement cost curve until 2030 for selected sectors; and (v) integration of climate change consideration in the assessment (see Table 1.1).

The INDC identified the sectors from which the GHG reductions are expected to come, namely energy, transport, waste, forestry, and industry. However, it does not include sectoral mitigation targets to achieve 70% GHG reduction. Implementation details, including total financing cost, source

⁴ Analysis of Intended Nationally Determined Contributions (INDCs) prepared by the USAID resources to Advance LEDS Implementation (RALI) Program by ICF International. June 2016.

of financing, capacity building, and technological needs⁵ are not indicated. In line with this, the recently published Philippine Development Plan 2017-2022 (PDP) mainstreams climate factors and recognize challenges in implementing mitigation reforms including the (i) changing socio-economic and environmental landscape, (ii) weak enforcement of environmental and climate change-related laws, (iii) lack of sustainable financing and limited access to available funding facilities, and (iv) limited engagement of the private sector in mitigation actions. Such gaps in the INDC are expected to be addressed in the development of the Philippine NDC Roadmap.

Table 1.1: Assumptions, Methodologies and Tools used in the Development of the Philippines' INDC

Assumptions	Methodology and Tools
<ul style="list-style-type: none"> • For the baseline scenario, historical GDP from 2010-2014 and an annual average growth of 6.5% for 2015-2030; • Average annual population growth of 1.85% • Loss and damages from climate change and extreme events will not require substantial diversion of resources for rehabilitation and reconstruction thereby affecting development targets as well as mitigation commitment under this INDC • Identified co-benefits for mitigation options such as environmental and socio-economic benefits are realized • Climate projections were considered in the assessment of mitigation options 	<ul style="list-style-type: none"> • 2006 IPCC Guidelines for the GHG Inventory • Tools used: <ul style="list-style-type: none"> ○ 2006 IPCC software ○ Agriculture and Land Use (ALU) software for agriculture, forestry, and other land uses ○ Long Range Energy Alternative Planning (LEAP) ○ Multi-criteria analysis (MCA) • Assessment conducted: <ul style="list-style-type: none"> ○ Integration of climate change considerations in the assessment, such as analysis of climate projections' impacts on hydropower potential as an RE option for mitigation ○ Cost-benefit analysis including the marginal abatement cost curve until 2030 for sectors with mitigation potential ○ Multi-criteria analysis for prioritizing mitigation actions

In 2016, the country's accession to the Paris Agreement is a testimony that the Philippines is ready to cooperate with the global community in keeping the global temperature rise of the century at well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius as mechanism towards achieving the country's development in a more sustainable manner. The Climate Change Commission (CCC) is taking the lead in developing the country's NDC to submit to the United Nations Framework Convention on Climate Change (UNFCCC) before 2020. Consultation meetings are being conducted to revisit the parameters of the submitted INDC, assess applicability to the NDC, and ensure alignment to the country's medium- to long-term development plan (see Table 1.2). The CCC, in coordination with sectoral agencies, are reviewing the projections and calculations, and are conducting sectoral cost-benefit analyses to inform mitigation options, and assessment of policy, financial and technical support needed to implement the NDC roadmap. The NDC will present a paradigm shift toward low carbon development and should be attuned to the socio-economic development goals and the Post-2015 global frameworks. Mirroring the INDC, the NDC will prioritize adaptation and adopt it as its anchor strategy; pursuing mitigation as a function of adaptation, optimizing the co-benefits as the country adopts a low carbon development pathway and at the same time strengthens communities' resilience against the effects of climate change.

The CCC is expected to present a finalized priority mitigation actions by the second quarter of 2018 (see Figure 1.3). In addition, the CCC also conducted several regional business and climate summits to enhance the partnership between the public and the private sector, and to encourage the business

⁵ The INDC identified technical needs mainly for adaptation such as (i) technology transfer needed to support and minimize loss and damage, (i) support to enabling environment for adoption of technologies to improve capacities and resilience.

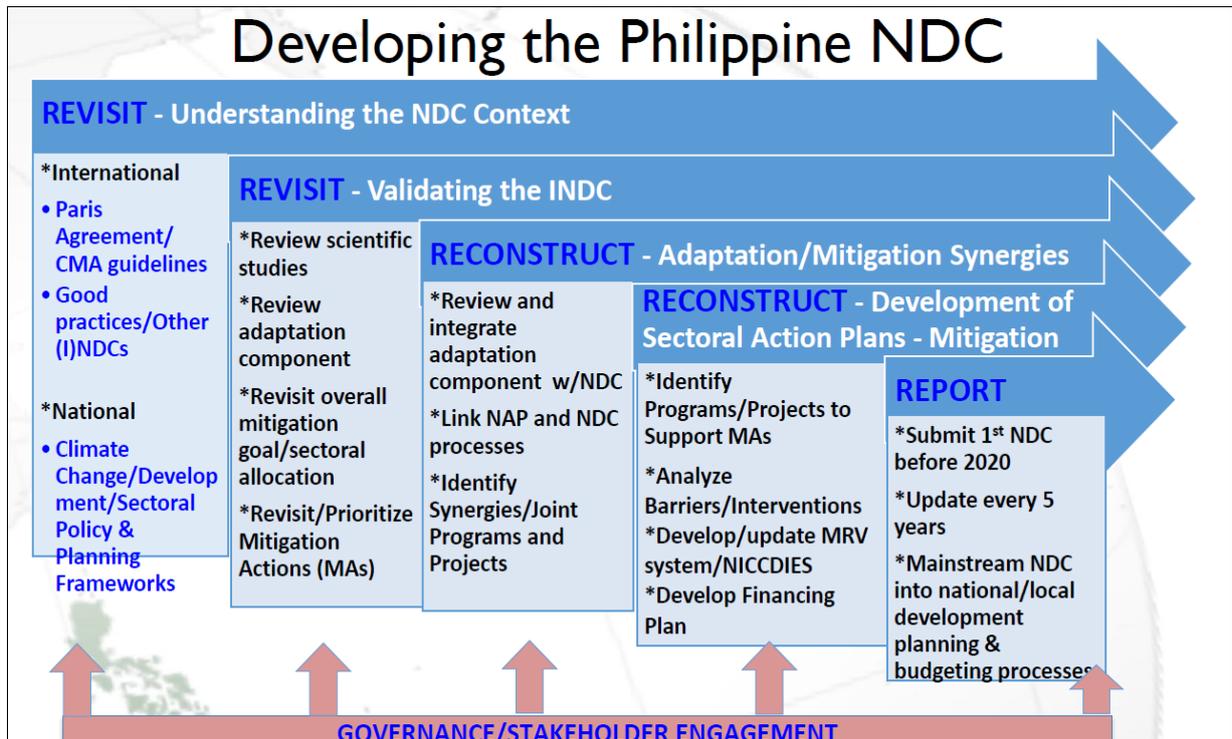
sector to be active leaders in implementing climate change mitigation strategies and adaptation measures that contribute to the NDC.

Table 1.2: PH Medium-term Strategies towards Low Carbon Development (2017-2022)

Strategies in the 2017-2022 PDP supporting low carbon development
<p><u>Energy Sector:</u></p> <ul style="list-style-type: none"> • Encourage competition to drive down electricity costs • Implementation of Energy Efficiency and Conservation program • Expedite implementation of remaining policy mechanisms under Renewable Energy Act of 2008 to further encourage RE development • Encourage RE development in missionary areas • Promote climate-smart structures and designs • Strictly implement the Green Building Code <p><u>Transport Sector:</u></p> <ul style="list-style-type: none"> • Implement road-based transport initiatives, such as environmentally sustainable urban transport systems • Promote environmentally-sustainable transport <p><u>Forestry Sector:</u></p> <ul style="list-style-type: none"> • Sustain the rehabilitation of degraded forestlands including reforestation efforts <p><u>Cross Cutting:</u></p> <ul style="list-style-type: none"> • Develop database to measure emission reduction per sector • Provide incentives to improve the adoption of energy efficient technologies • Identify technological and research priorities and capacity needs for low carbon development • Promote current innovations in green technology • Maximize the use of Design Guidelines and Criteria and Standards 2015 from the Department of Public Works and Highways, which incorporates resilient design • Promote sustainable consumption and production through: (a) formulation of a “polluters pay” policy and implement corresponding measures; (b) establishment of a sustainable market for recyclables and recycled products; (c) strengthening the certification and establishment of information systems for green products and services; and (d) strengthening the implementation of Philippine Green Jobs Act, among others

Source: Philippine Development Plan 2017-2022

Figure 1.3: Stages of the Development of the Philippine NDC



Source: CCC

I. Level of Political Commitment to Carbon Pricing

Recognizing the vulnerability of the country to the impacts of the climate change, adaptation remains to be the Philippines' anchor strategy as espoused by the NFSCC and NCCAP. The higher priority to adaptation is evidenced by a larger public expenditure⁶. In the 2017-2022 Public Investment Programs (PIPs), priority programs, projects and activities (PAP) identified PHP 2.34 trillion or (22%) of the total PIP investment is identified for CCAM-DRRM. Of this amount, 51 percent or PhP1.195 trillion covering 304 PAPs are related to CC adaptation and DRR while 49 percent are/will be invested in just 23 mitigation PAPs. Ninety-nine (99) percent of the mitigation PAPs or PhP1.19 trillion is allocated for the transport sector (e.g. construction of bus rapid transit and numerous railways) and only 0.14 percent (PhP1.32 billion) for the energy sector (e.g., RE promotion), 0.19 percent (PhP2.22 billion) for forestry (e.g. REDD+ activities, reforestation activities), and 0.03% (PhP320 million) for waste (e.g., waste recycling).

Ambitious mitigation targets called for innovative mechanisms to enhance the cost effectiveness of mitigation actions along with the continuous and aggressive implementation of adaptation strategies. Lowering the cost of mitigation investments shouldered by the government while decreasing GHG emissions is the biggest challenge towards low carbon development. Considering the size and urgency of issues posed by the climate change, a full range of mechanisms is required, along with supporting policies and regulations. In achieving the target under the (I)NDC without compromising the country's industrialization goal, the government is recognizing the high potential of private sector involvement/investment in the implementation of mitigation options.

The role of carbon pricing instrument in enhancing the cost-effectiveness of mitigation actions is wanting. The Government, through the Department of Environment and Natural Resources (DENR) has been active in the Clean Development Mechanism (CDM) and the recently-signed Joint Crediting Mechanism⁷ (JCM) between the Philippines and Japan. To date, 119 CDM project applications⁸ have been received, 70 of which have been registered comprising of 21 large-scale and 49 small-scale projects, most of which are renewable energy initiatives generating an estimated average annual CERs of 3,490,997 tCO₂e. The Government will continue to explore the potentials of domestic, bilateral, regional, and international market mechanisms as well as various approaches that can facilitate, expedite, and enhance technology development and transfer, and capacity building and access to financing resources that support the Philippines' efforts towards achieving sustainable, low-carbon and climate-resilient development.

To date, the Government of the Philippines has implemented some implicit carbon pricing approaches. Various policies and sectoral plans of the country provides for a possible adoption of carbon pricing mechanism for its implementation (Table 2.1). The existing feed-in-tariff⁹ and net metering mechanism¹⁰ promoted the utilization of renewable energies stated in the Renewable Energy Act of 2008, which propelled the increase in the use of wind and solar by 51% (144 MW increase)

⁶ 2017-2022 Public Investment Program (PIP) as of September 2017, unpublished

⁷ The JCM is a system to cooperate with developing countries for reducing greenhouse gas emissions, in which the result of reduction is assessed as contribution by both partner countries and Japan. It is a low carbon growth partnership that facilitates greenhouse gas emission reductions or removals through projects implemented by companies or cities from the partner countries. JCM is expected to promote the transfer and use of clean and green technology. Potential projects under the mechanism are in the areas of renewable energy, energy efficiency and waste handling and disposal.

⁸ No new CDM projects have applied and registered since November 2013, and some registered projects have been discontinued the CDM process mainly due to low market prices of carbon credits, change in management priorities, lack of incentives in national policies, issues on additionality, and low emission reduction potential.

⁹ FIT refers to the technology-specific prices at which the government commits to buy RE generation for a period of 20 years.

¹⁰ Net Metering mechanism enables RE installations at the end-user level (now capped at 100 kilowatts capacity) to sell back to their utility any unconsumed RE generation at an approved rate. Current rules place this rate at the blended generation rate of the distribution utility which is significantly lower than the rate paid by consumers.

and 616% (142 MW increase) respectively from 2014 to 2015¹¹. However, the country does not have an explicit Carbon Pricing Instrument (CPI) in place. The present Administration’s Tax Reform Acceleration and Inclusion (TRAIN) being led by the Department of Finance (DOF) includes the increase of fossil fuels taxes. The Vice Chairperson¹² of the CCC stated that the TRAIN is “visionary because it seeks to end subsidies for polluting behavior while it seeks to correct market outcomes and ensure the power sector is genuinely competitive”¹³

Table 2.1. Sectoral plans for Carbon Pricing Mechanisms

Sector	Laws and other Issuances	Plan	Lead Responsible Agencies
Energy	<ul style="list-style-type: none"> • Republic Act (RA) 9513: Renewable Energy Act of 2008¹⁴ • RA 9367: Biofuels Act of 2006¹⁵ 	<ul style="list-style-type: none"> • National Renewable Energy Plan 2012-2030 • Energy Efficiency and Conservation Roadmap • National Energy Efficiency and Conservation Action Plan 2016-2020 • Biofuels Development Roadmap 	<ul style="list-style-type: none"> • Department of Energy (DOE)
Transport	<ul style="list-style-type: none"> • RA 8749: Philippine Clean Air Act of 1999 • Executive Orders No. 290¹⁶ and 396¹⁷ 	<ul style="list-style-type: none"> • National Implementation Plan (NIP) on Environment Improvement in the Transport Sector • National Environmentally Sustainable Transport (NEST) Strategy 	<ul style="list-style-type: none"> • Department of Transport (DoTr) • DENR
Waste	<ul style="list-style-type: none"> • RA 9003: The National Solid Waste Management Act 	National Solid Waste Management Strategy	<ul style="list-style-type: none"> • DENR-National Solid Waste Management Commission • Local Government Units (LGUs)

Multi-stakeholder dialogues have been conducted to finalize agreement on sectoral mitigation targets (Table 2.2). Aligned with the finalization of the NDC roadmap in Q2 of 2018, the DOF led several consultations with select agencies¹⁸ to discuss the financing of the priority mitigation actions. The meetings considered the Partnership for Market Readiness (PMR) as a vehicle for the country to understand feasible CPIs to implement select sectoral mitigation priorities. The provision of advisory services and technical assistance under the PMR will lead to well-informed decision making by the Government. Following the endorsement of the PMR to include the Philippines’ as one of its new

¹¹ Department of Energy: Philippine Power Situation January – December 2015, Taguig City, 2016, as stated in the draft Energy Policy Review (2016)

¹² Secretary Emmanuel de Guzman

¹³ http://climate.gov.ph/index.php?option=com_content&view=article&layout=edit&id=286

¹⁴ An Act Promoting the Development, Utilization and Commercialization of Renewable Energy Resources and for Other Purposes

¹⁵ An Act to Direct the Use of Biofuels, Establishing For This Purpose the Biofuel Program, Appropriating Funds Therefor, And For Other Purposes

¹⁶ EO 290: Implementing the Natural Gas Vehicle Program for Public Transport

¹⁷ EO 396: Reducing the Rates of Import Duty on Compressed Natural Gas Motor Vehicles and Natural Gas Vehicle Industry- Related Equipment, Parts and Components Under Section 104 of the Tariff and Customs Code of 1978 (PD No, 1464), As Amended

¹⁸ Climate Change Commission, National Economic Development Authority, Department of Transportation, Department of Energy, and Department of Environment and Natural Resources – Environmental Management Bureau

technical partners, the DOF led workshop meetings to develop and finalize the focus and scope of the proposal to be submitted to PMR. The interagency consultations led to the decision of strengthening and promoting climate resilience particularly in the energy, transport, and waste sectors.

Energy: The Philippines' electricity mix relies heavily on coal-based generation, accounting for 48% of total electricity generation in 2016¹⁹. In addition, the power generation business is now fully in the hands of the private sector except for the remaining government owned assets in Mindanao, leaving them the primary responsibility for the identification of suitable resources and technologies for investment.. The Department of Energy needs to sustain and the share of renewable energy in power generation mix by attracting private investments in renewable energy capacity through competitive auctions. To offset the potential increase in the GHG emissions from the additional coal-fired plants, the country needs to beef up its mitigation policies, especially with the use of market mechanism.

Transport: The Government adopted a three-year Rolling Infrastructure Program (TRIP) to increase investment in transport infrastructure. Investments in public and mass transportation are progressive, benefiting low- and middle-income Filipinos, and delivering significant mitigation co-benefits. In addition, the Government includes a discussion in increasing excise tax on fuel as part of the tax reform program.

Waste: The country's total solid waste generation is estimated at 40,000 tons per day or 14.6 million tons per year. Despite policy reforms, only 31.28% of barangays are covered by Solid Waste Management (SWM) facilities and 30.92% by Materials Recovery Facilities (MRF); both are below 2016 targets of 67.39% and 77.10% respectively. The high capital investments associated with the establishment and operation of SWM facilities, the perceived low willingness of LGU constituents to pay for SWM services, and the LGUs' lack of financial and technical capacity continue to hamper the full implementation of RA 9003.

The relevance of CPI is further being sought to guide the adoption of carbon pricing mechanisms. The Senate presented a resolution²⁰ directing the Committee on Climate Change and Ways and Means to look into the viability of establishing carbon pricing mechanisms in the country to ensure its contribution in the attainment of targets for GHG emissions reductions set in the country's INDC. The Senate Resolution highlighted the need to ensure the introduction of carbon pricing legislation is part of a holistic approach to pricing that takes into account the impact and cost-effectiveness of other policy instruments that discourage the emission of GHG as well as policies which may inadvertently encourage emissions. It also stated revenue-neutral carbon tax or emissions trading system as options for the country under a carbon pricing regime.

Table 2.2: List of inter-agency meetings and stakeholders' consultations on the NDC

	Sector/ Topic	Date
Inter-agency meetings	Review of the INDC projections and calculations	January 24, 2016
	Review of parameters and adaptation messaging	September 7, 2016
9 cost-benefit analyses consultations	Revisit mitigation options and calculations (waste, industry, transport, forestry, energy)	April 2016
7 focused group discussions	Assess policy, financial, and technical support required	December 2015-October 2016
5 multi-stakeholder consultations	Strategies to integrate NDC roadmap in national and local plans	March – December 2016

¹⁹ <https://www.doe.gov.ph/electric-power/2016-philippine-power-situation-report>

²⁰ Senate Resolution No. 13, introduced by Senator Loren Legarda, July 2016.

Private sector (business summits) and CSO consultations	Orientation on INDC and NDC updates	February – July 2017
2 inter-agency meetings	Agree on the new parameters and workplan	March – April 2017
Cost-benefit analyses (CBA) training workshops	CBA training workshops for the government agencies handling key sectors (solid waste, waste water, industry, transportation, forestry, and energy)	September 2017
LEAP Training Workshops	Training workshop on the use of LEAP modeling software	September 2017
3 validation meetings	Review mitigation options and adaptation priorities	June – July 2017
	Consultation meeting on financing mitigation for the energy, transport, and waste sectors (led by DOF)	September 22, 2017 November 9, 2017 November 23, 2017

In addition, the Government is working with development partners to strengthen mitigation actions in the country. The INDC stated that mitigation contribution is conditioned on the extent of financial resources, including technology development and transfer, and capacity building that will be made available to the Philippines. The country has participated in the Enhancing Capacity for Low Emission Development Strategies and the European Union (EU), Germany, and Australia through the United Nations Development Program’s (UNDP) Low Emission Capacity Building (LECB) Project to operationalize the GHG inventory management system, formulate Nationally Appropriate Mitigation Actions (NAMAs), and design measurement, reporting, and verification (MRV) system to support the implementation of mitigation actions. In the review of the mitigation targets, the Government is building on the long list of NAMA options per sector and developed a customized Multi-Criteria Analysis for prioritization. Additional inputs were also provided by the USAID-BLEADERS project in the form of CBA with marginal abatement cost curves per NAMA per sector. Specifically for the transport sector, the GIZ INDC project conducted a technical study on “Formulating an INDC for the Philippine Transportation Sector”.

II. Proposed Targeted Technical Support

The key objective of the proposed targeted technical support (TTS) is to assist the Government in determining the most effective and feasible carbon pricing instrument for the attainment of the country's NDC mitigation goals and for the implementation of priority mitigation option in transitioning towards low carbon development, particularly on the energy, transport, and waste sector.

The outputs are envisioned to help facilitate informed dialogue among key stakeholders and policy-making processes for the country's preparation of the 1st NDC in the short term and the country's attainment of its NDC mitigation objectives in the mid-/long term. The following are the key questions and issues expected to be answered by the TTS:

- What are the cost-effective carbon pricing instruments (CPIs) that are feasible and advantageous to the Philippines economic conditions and will contribute to the achievement of the country's NDC mitigation targets?
- What are the critical success factors that would need to be in place to be able to successfully introduce CPIs? What are the key sector bottlenecks and what type of regulations would need to be in place to support such market introduction for carbon pricing?
- What is the greenhouse gas emission reduction potential for the identified carbon pricing instruments in the sectors? What other accompanying environmental benefits could be expected from such measures?
- Looking at current policies and measures in the key sectors (energy, transport and waste), what are the good combination of carbon pricing instruments that will effectively contribute to the NDC mitigation targets?
 - What are the implications of carbon pricing options on other relevant existing and planned sector policies (in energy, transport and waste sectors) in terms of effectiveness and sustainability?
 - How do possible carbon pricing options fit into overall sector priorities and sector strategy?
 - Are there any existing or planned policies that are complementary, overlapping or countervailing the impact of these carbon pricing instruments?
 - How could coordination be achieved between new carbon pricing options and such existing and planned policies?
 - Are there any existing and planned policies that would need to be addressed to stimulate the alignment and increase synergy between those policies and carbon pricing instruments?
- What are the possible economic and social impacts of different design of carbon pricing options on specific sectors, and on different type of enterprise within specific sectors?
- How to mitigate the negative economic and social impacts of different design of carbon pricing options if any?

Task 1: Identify carbon pricing instruments for the energy, transport, and waste sectors and analyze how the country's NDC mitigation targets could be met through CPIs, and develop a plan to implement those instruments

Key Output: (i) Option study for carbon pricing instruments feasible to the Philippines in attaining its NDC mitigation goals; (ii) Summary notes and policy briefs, including critical success factors to introduce and operationalize CPIs, and (iii) Slide deck/presentations to aide stakeholder consultations on carbon pricing instruments to achieve the country's NDC mitigation targets.

This activity is to identify and assess the carbon pricing instruments feasible and applicable to the Philippines, and its interaction and consistency between current existing and planned sector policies and regulations, for the overall attainment of the NDC mitigation targets, focusing on the sectors of energy, transport and waste.

This task would include:

1. Desk review of international experiences of carbon pricing instruments, mechanisms, and functionalities relevant to the Philippine's political economy;
2. Map out existing/planned sector policies in the energy, transport, and waste sectors of the Philippines, which would have complementary, overlapping, and countervailing impacts of the carbon pricing instruments. This includes identification of the relevant development partners' initiatives for supporting the government of Philippines in mitigation.
3. Develop an implementation and financing plan (including the needs for the international cooperation) for selecting priority measures (within the three sectors), identifying actions and timelines

Task 2: Support development and dissemination of information to improve understanding on the effectiveness of carbon pricing instruments for the country's attainment of the mitigation objectives.

Key output: (i) Technical workshops, stakeholder consultations, and/or other communication modals (such as internet, and mass media etc.); (ii) information and communication materials; and (iii) slide deck/ presentations and summary notes

This activity will include:

1. **Public Awareness and information enhancement campaign:** This activity will aim to enhance public awareness and understanding on the role of carbon pricings in achieving the country's achievement of the NDC targets through technical workshop, stakeholder consultations, internet, and/or mass media, focusing on government, private sector and the general public.
2. **Technical consultation:** This will aim to provide technical discussions on the carbon pricing options, enabling environment for a successful implementation, and implications on the sectoral mitigation strategies. This would mainly focus on government agencies and stakeholders directly involved in climate policy financing and carbon-pricing instruments. It would provide knowledge and information on the carbon pricing instruments to ensure the better understanding of the effectiveness and sustainability of the carbon pricing instruments and relationship with the other existing sector policies for the country's attainment of the NDC mitigation targets.

The tasks above, particularly in understanding carbon pricing instruments and assessing its impacts and barriers, will provide just-in time analytical inputs in the development and finalization of sectoral mitigation action and financing plans, and the overall NDC roadmap implementation. The technical and analytical studies will also assist the Government in understanding the carbon pricing's effectiveness and alignment with the other sector policies of its tax reform plan, particularly on carbon tax.

III. Budget, Timeline and Outputs

Overview of activities and estimated overall budget

Activity	Output(s)	Time required for completion	Estimated completion date	Overall budget (in USD)
Task 1: Identify carbon pricing instruments for the energy, transport, and waste sectors, and analyze how the country's NDC mitigation targets could be met through CPIs, and develop a plan to implement those instruments				
1. Desk review of international experiences of carbon pricing instruments, mechanics, and functionalities relevant to the Philippine economy	Stocktaking report on carbon pricing instrument	3 months	June 2018	20,000
2. Map out existing/planned sector policies in the energy, transport, and waste sectors of the Philippines, which would have complementary, overlapping, and countervailing impacts of the carbon pricing instruments. This includes identification of the relevant development partners' initiatives for supporting the government of Philippines in mitigation.	Options study on carbon pricing instruments; Policy briefs for each sector;	18 months	June 2019 (First draft by 4Q 2018)	150,000
3. Develop an implementation and financing plan for select priority measures (in energy, transport, waste), identifying actions and timelines	Proposed implementation and financing plan, including technical briefs and recommendations	9 months	December 2019	200,000
Task 2: Support capacity building of the target groups in the public and private sectors, facilitation of the stakeholder consultations, and enhancement of the public awareness on the carbon pricing to improve understanding on the effectiveness of carbon pricing instruments for the country's attainment of the mitigation objectives.				
1. Awareness and information campaign	Two events (at least one high level); Information materials, video presentations on carbon pricing		December 2019	40,000
2. Policy development consultation	At least 5 consultations/ dialogues per sector; Information materials (video presentations, infographics etc)		December 2019	90,000
Total estimated budget (in USD)				500,000

Overview of activities and PMR funding request

Activity	Output(s)	Sources of Funding		
		<i>PMR funding request (in USD)</i>	<i>National government (in USD)</i>	<i>Others (in USD)</i>
Task 1: Identify carbon pricing instruments for the energy, waste and transport sectors, and analyze how the country's NDC mitigation objectives could be met through CPIs and develop a plan to implement those instruments	- Stocktaking report on carbon pricing instrument; -Options study on carbon pricing instruments; -Policy briefs for each sector; -Proposed implementation and financing plan, including technical briefs and recommendations	370,000		
Task 2: Support capacity building and dissemination of information to improve understanding on the effectiveness of carbon pricing instrument	- Two public awareness events (at least one high level); -At least 5 consultations/ dialogues per sector; -Information materials (video presentations, infographics etc)	130,000		
Total estimated budget (in USD)		500,000		

IV. Expected Outcomes and Monitoring and Evaluation (M&E)

The overall objective of the proposal is to enhance the Government's understanding and technical capacity on carbon pricing instruments to support policy dialogue and decision-making processes on suitable policy options for the achievement of the Philippines' NDC mitigation goals. The proposal is expected to achieve the following outcomes:

- **Improved understanding:** In-depth understanding in the government of the various impacts of carbon pricing options from a fiscal, economic, social, and environmental perspective.
- **National consensus:** Consensus across government, and related public and private stakeholders on the role of carbon pricing in the implementation of the country's NDC mitigation plan, and its contribution to national development goals through maximized co-benefits.

The following are the proposed set of indicators to measure progress towards achieving the stated outcomes:

- Studies and policy recommendations reported to the congress, oversight agencies (DOF, NEDA, CCC) and line agencies as inputs for consideration of carbon pricing in the NDC Roadmap and its financing plan
- Number of stakeholder consultations and dialogues organized for various targeted stakeholders (policy makers, oversight and line agencies, private sector, civil society)
- Number of information materials produced, including policy briefs, analytical reports.