



# PEOPLE'S CLIMATE BUDGET

# 2016

An Overview Document of  
the Philippine Climate Budget





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## Foreword

We are at the threshold of a very important moment in world history. We are experiencing increasingly radical changes in climate, resulting in catastrophic impacts for billions of people. In order to better adapt to and contribute to mitigating these climatic changes, collective action is required by countries and people across the globe. The Philippines' contribution to the global climate response will help to bring about positive changes in our lives as well as those of succeeding generations.

To strengthen our national climate response, the Philippines has integrated Climate Change Expenditure Tagging (CCET) within DBM's budget systems. This has enabled us to more effectively channel resources to and deliver results on climate change adaptation and mitigation priorities identified in the National Climate Change Action Plan (NCCAP), and to improve our accountability to all Filipinos.

This People's Climate Budget shares with the public the findings from the CCET, including the identification of areas that have been prioritized and areas where further support may be required to support the implementation of the NCCAP. It also tells the story of how climate budgeting has improved the way we build our roads and flood mitigation infrastructure, how we approach the challenges of food and human security from a holistic perspective, and how we take seriously the importance of lowering greenhouse gas emissions. More importantly, it is the story of how our work impacts the lives of Filipinos today and lays the foundation for future generations.

We enjoin and encourage all of our colleagues in government to use this People's Climate Budget to help improve the Philippines' future climate response. In particular, we hope that this document will help you to identify more avenues for convergence of efforts between agencies. Let us not be held accountable by our grandchildren for not taking sufficient action to curb the detrimental impacts of climate change on our country and our planet.



**SECRETARY FLORENCIO B. ABAD**  
Department of Budget and Management



**SECRETARY EMMANUEL M. DE GUZMAN**  
Climate Change Commission



## Background & Context

**With strong commitment and leadership, the Government of the Philippines (GoP) continuously implements its climate reform agenda.** This includes the adoption of the country's roadmap to address climate change (CC) by adopting the National Climate Change Action Plan (NCCAP), and institutionalize the Climate Change Commission (CCC) to lead the Philippines' climate response. To complement this, the GoP also mobilized domestic financing to strengthen the delivery of its climate response. The Department of Budget and Management (DBM) and the Climate Change Commission jointly developed and implemented a climate budgeting system, with technical assistance from the World Bank, to strengthen the planning, execution, and financing framework for the government's climate response. The system for tagging, analyzing, and reporting on climate budget allocation, which started in 2014, has produced baseline information and results that may pave the way to enable better government reporting on the scope and focus of its climate response.

In 2015, the second year of implementation, the Climate Budgeting System serves as a strategic step to scale up and sustain the Philippines' transformative climate agenda. The second year focused on strengthening the quality of the climate budget and preparing for its institutionalization. These improvements in climate budget planning, tracking, monitoring, and reporting are key for assessing the Government's overall progress in achieving the commitments made in its climate policies and strategic plans, as well as for making informed decisions on adjustments to programs and strengthening coordination efforts at the national and local levels.

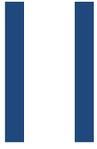
This document provides an overview of the 2016 National Climate Budget, as reflected in the budget approved in the FY2016 General Appropriations Act (GAA), and provides a comparison with the 2015 climate budget. It summarizes the total amount of national government financing directed towards attaining climate change adaptation and mitigation objectives and outcomes, as detailed in the government's NCCAP strategic priorities. Building on the previous year's pilot effort, this document aims to provide a better idea of how tagged projects contribute to the Government's climate response.

In addition, this document describes the progress made in formulating the 2016 Risk Resiliency Program (RRP), fostering greater convergence across NGAs under the DBM's Program Convergence Budgeting (PCB). The RRP, which is being led by the Department of Environment and Natural Resources (DENR), aims to strengthen the delivery of results under the government's environment and climate change Key Results Area (KRA), using a landscape management approach in the Philippines' 18 major river basins. Overall, the PCB strengthens results delivered from public sector expenditures on the KRAs by:

- (i) channeling the available fiscal space to essential priority programs,
- (ii) better targeting the appropriated resources to high priority areas, and
- (iii) catalyzing convergence among the NGAs in the planning and results delivery by fostering coordination during budget preparation. For 2016, the DENR has taken steps to strengthen the RRP's design as well as to increase coordination and convergence and to further institutionalize the RRP as a formal program of the government.

Furthermore, the pilot LGU-level climate change expenditure tagging (CCET) carried out in 2015 provided strong evidence of its feasibility and relevance for local-level decision-making on climate change adaptation and mitigation activities. Modeled after the national climate budgeting process, LGUs are encouraged to participate and tag CC response PAPs in their Annual Investment Programs. This document includes results of the pilot implementation of the CCET at the local level.

**Overall, this document seeks to communicate better the ways through which climate budgeting contributes to climate change adaptation and mitigation.** Comments and suggestions on the Overview of the 2016 National Climate Budget can be sent to the Climate Change Office (CCC), the Fiscal Planning and Reform Bureau (DBM), or through the Climate Budgeting Help Desk at [helpdesk@climate.gov.ph](mailto:helpdesk@climate.gov.ph).



## Summary of Key Facts

**Overall, 45 NGAs identified climate change expenditures totaling PHP 176 billion across 233 Programs, Activities, and Projects (PAPs) in the 2016, representing an increase of 25% from 2015. This corresponds to about 6% of the total National Government Budget, or 30% of the allocations made to NGAs.**

- **In line with the NCCAP, 89% of the approved climate budget is primarily designed to support adaptation** (compared with 87% in 2015). Climate adaptation expenditures are mainly directed to the construction and maintenance of flood mitigation structures and drainage systems. In addition, adaptation PAPs are focused on resiliency-building through enhancing capacity of social and ecological systems, policy and governance, and research and development. Meanwhile, the approved 2016 mitigation expenditures (11%) decreased 2% from 2015, which can be traced to the dropping of DOE's E-Trike Project in 2016. Large mitigation PAPs include the National Greening Program, promotion of mass transportation, and building of sanitary landfills.
- **As in 2015, the approved climate budget is again concentrated in very few NGAs.** With an increase of 34% from 2015, DPWH accounted for 74% (PHP 130 billion) of the approved climate budget in 2016. Meanwhile, 26% of the total approved climate budget is from five NGAs: DA, DENR, DOTC, DOST, and DOE.
- **Nearly all (97%) of the identified climate expenditures directly support climate activities as Operations (79%) or Projects (18%)<sup>1</sup>.** The approved climate budget for Operations increased by 26% from 2015, with climate expenditure concentrated in 11 of the 233 programs, accounting for 71% of the approved climate budget. Within projects, the majority (67%) are foreign-assisted (compared to 80% in 2015), while the remaining are funded locally. Foreign-assisted projects responsive to climate change have allocated 12% more compared to the previous year, wherein almost half (43%) are focused on agriculture.

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<sup>1</sup> Operations include PAPs supporting the NGA's major final output (MFOs), whereas Projects are also in support of the attainment of the mandates of the NGA, but either locally-funded or foreign-assisted.

- The PAPs in the FY2016 climate budget that received the largest increases in expenditures were mainly for some of FY 2015's largest PAPs, such as the National Road Network Services (+19%), flood mitigation structure (+42%), the National Greening Program (+14%) and the Philippine Rural Development Program (+25%). Additionally, financing for DOTC's light rail transit (LRT) and bus rapid transit (BRT) increased by 33%. In addition, PHP 7.3 billion was allocated for new PAPs.
- Among the most notable decreases in the climate budget were the E-trike Project (dropped), the Protected Area Development and Management Program (-22%), DPWH's feasibility studies and R&D (-14%), and PAGASA, as several of its projects were completed in FY 2015 (-69%). An additional 111 PAPs, totaling PHP 2.9 billion, were dropped and/or terminated in 2016.

**Relative to the GoP's climate change action roadmap, the approved climate budget in 2016 focuses primarily on two main strategic priorities: Water Sufficiency (41%) and Sustainable Energy (38%).** Compared to FY2015 GAA, this represents an increase in the share of the budget for Water Sufficiency, from 34% in FY 2015, and a decrease in the share for Sustainable Energy, from 42% in FY 2015. This shift in priorities results from a more dramatic increase in climate expenditures for WS (+54%) than for SE (+12%).

- WS climate expenditures are spread across 170 PAPs, with the majority (93%) of PAPs for flood control and drainage from three NGAs: DPWH, Metro Manila Development Authority (MMDA), and Pasig River Rehabilitation Commission (PRRC).
- For Sustainable Energy, large PAPs are focused on climate proofing and rehabilitation of infrastructures (DPWH, PHP 58.4 billion). As of FY2016, four SE outcome areas have climate expenditures, with the large majority (88%) by DPWH, despite DPWH not being designated as a lead NGA for SE in the NCCAP. Most of this (93%, or PHP 54.2 billion) is for the rehabilitation, reconstruction, and upgrading of roads.
- In addition to SE, the NCCAP identified Ecological and Environmental Services (EES) as a priority for 2011-2016. Seven percent (or PHP 11.4 billion) of the approved climate budget in 2016 is allocated to outcomes under this priority, representing a 13% increase in climate expenditures compared to the 2015 GAA. Of total EES expenditures, the large majority (99%) is for DENR. DENR's EES budget mainly supports the National Greening Program (NGP), which was allocated 14% more in 2016 (from PHP 7.0 billion to PHP 8.0 billion).
- Only one NCCAP priority experienced a decrease in its overall climate budget in FY16 – the Knowledge and Capacity Building strategic priority is 46% lower than in FY 2015.

**Nearly half (45%) of total climate expenditures in the 2016 GAA are included in the Risk Resiliency Program (RRP),** a significant innovation within the Program Convergence Budgeting (PCB) adopted by the DBM to foster greater convergence across NGAs during budget preparation. The RRP assists the GoP to deliver the outcomes of one of the five Key Result Areas (KRAs), particularly on strengthening the resiliency of natural ecosystems and the adaptive capacity of vulnerable groups to short- and long-term risks using a landscape management approach in the Philippines' 18 major river basins.

Building on the progress made in 2015, further steps have been taken in 2016 to strengthen the RRP's design in order to increase coordination and convergence, and to further institutionalize the RRP as a formal program of the government. Starting with the 2016 budget, DENR—as mandated by the DBM and CCAM—has led the CCAM in establishing and implementing an inter-agency review process at the Secretary level to screen and review programs for inclusion in the RRP. This review process has yielded a more focused program compared to the 2015 budget. Partially in recognition of the extended review, the

President's budget proposal included nearly all of the requests by CCAM Agencies in 2016, compared to 66% in 2015.

- The RRP budget in the FY16 GAA of PHP 97.9 billion is for 84 PAPs from 13 Participating NGAs. That is a 38% increase from the FY 2015 NEP of PHP 76.3 billion for the program. It is concentrated in 23 PAPs from five NGAs that account for more than 95% of the budget. The budget request includes the expansion of 20 PAPs (25%) and a request for one new PAP.
- More than 84% (or PHP 81.9 billion) of the approved 2016 RRP is estimated to address climate change, whereas 16% was approved for post-disaster work. The majority (67%) of its climate change activities are focused on adaptation. Compared to FY 2015, there is a greater focus on mitigation, with the share of mitigation expenditures rising from about 11% in the FY 2015 NEP to 33% in the FY16 budget request. The shift to mitigation can be attributed to the expansion of the National Greening Program and the Solid Waste Management Program, the addition of four DOTC LRT and BRT projects, and the increased selectivity of DA's submission to the RRP.

**In the FY16 climate budget, there are potential gaps in institutional arrangements, based on a comparison with the NCCAP that identified NGAs with lead roles in the attainment of specific outcome areas.** These gaps are identical to those described in FY2015.

- Although the NCCAP designates DA as a lead Agency under the Ecological and Environmental Stability priority, which is inconsistent with DA's mandate, the DA does not have any EES PAPs.
- Under Sustainable Energy, lead Agencies DOE, DOST, and DENR did not identify any PAPs supporting the output area on climate-resilient energy infrastructure, whereas DPWH allocated significant climate expenditures towards this area even though it was not designated as a lead Agency. Although DOE does not have its own energy infrastructure assets to manage, as the energy and power industry is deregulated, DOE may want to consider how climate change impacts its planning and regulatory services. DOE did, however, request PHP 0.03 billion in the FY16 OSBP for the National Energy Efficiency and Conservation Program, but this was not approved in the FY16 GAA.

- In addition, no approved climate budget was identified to support Executive Order 174, which mandates the development and monitoring of GHG emissions from various sectors. It remains unclear in FY16 how this will be achieved and who will be responsible for establishing baselines.
- To address these gaps in subsequent budget cycles, these NGAs could consider identifying whether improvements to their CCET, and/or strengthening their support for the respective NCCAP areas they lead are required, both through increased expenditures as well as institutional capacity.

**In addition, limited allocations to lead NGAs were observed for some NCCAP outcome and output areas.** Although the level of expenditures alone may not be indicative of government actions and achievements, there are few programs, of any size, identified in the climate budget supporting these areas. These gaps are nearly identical to those described in FY2015.

- The Water Sufficiency NCCAP priority is only supported by 5% of DENR's climate budget (up from 3% in 2015), despite its lead role in several output areas, including through its support for the NWRB. This accounts for less than 1% of total WS expenditures. Additionally, despite DPWH's lead role for the installation of Rainwater Collection Systems in public schools and state facilities, less than 1% of its climate budget was approved for this program.
- For the Human Security strategic priority, although climate expenditures increased by 49% from the FY 2015 GAA (PHP 0.58 billion to PHP 0.87 billion), less than half a percent of total climate expenditures were allocated to achieve its outcomes and outputs, similar to FY 2015.
- Furthermore, allocations for Knowledge and Capacity Development were just 1% of total climate expenditures in FY16, representing a 46% decrease; and although allocations for Climate-Smart Industries and Services increased by 10%, they still remained at just 2% of the FY16 total climate expenditures.
- When preparing future climate budgets, the Government should facilitate discussions on these areas with limited resources to determine whether the level of expenditures reflect their prioritization relative to other areas.

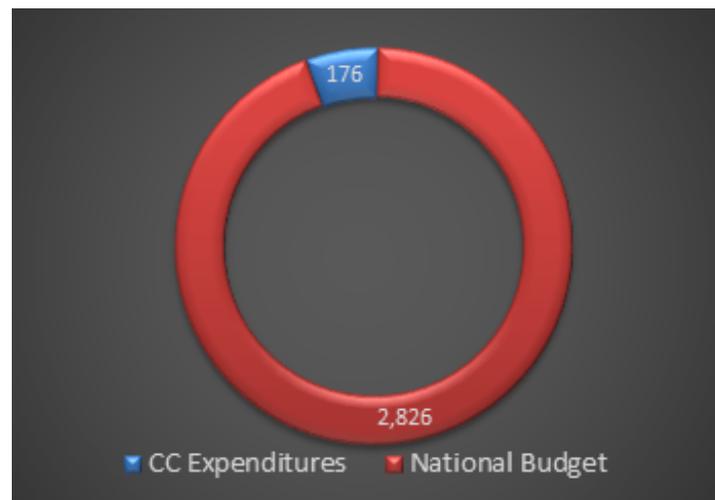
**Further engagement is necessary to strengthen climate action planning and budgeting.** Improving climate budgeting by ensuring quality assurance and review, engaging NGAs on internal policy dialogue, and improving transparency through reporting will lead to strengthened climate budgeting embedded in the GoP planning and budgeting system. Additionally, as the climate budgeting process is new, it remains a work in progress and will continue to be strengthened by building on the lessons learned from the first two years of implementation. In doing so, the Philippines will continue to improve its national response for climate change adaptation and mitigation.



## 2016 National Climate Budget

The approved climate budget in 2016 increased by about a quarter (25%) from 2015, which corresponds to about 6% of the total National Government Budget, or 30% of the allocations made to NGAs. Overall, 45 NGAs identified climate change expenditures totaling PHP 176 billion across 233 Programs, Activities, and Projects (PAPs) in the 2016 budget (Figure 1).

Figure 1:  
Climate Expenditure Appropriated  
in 2016 (Billion PHP)

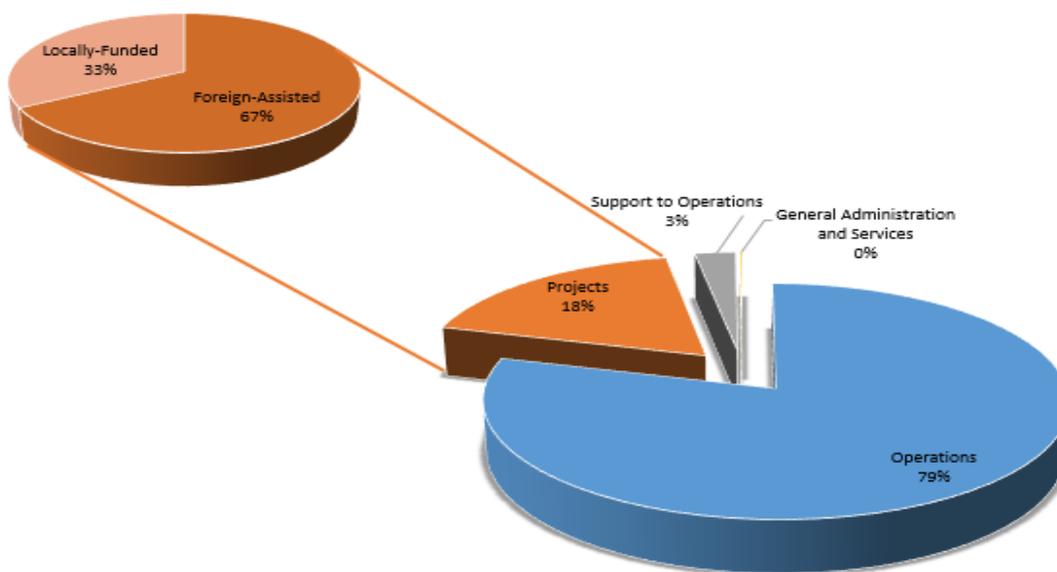


The upward trend in national government climate budget is mainly driven by increased allocation in select national programs. Most of the increase comes from DPWH's flood mitigation structures (PHP 16 billion more than 2015), construction and maintenance of bridges and national roads (PHP 4.6 billion, and PHP 4.4 billion, respectively more than 2015). Ninety new PAPs totaling PHP 7.3 billion were added, while about 120 PAPs totaling PHP 5.6 billion were dropped and/or terminated in 2016. In addition, climate expenditures have risen due to the inclusion of two more NGAs compared to 2015.

Ninety-seven percent of the approved 2016 climate budget is directly supporting climate activities as Operations (79%), and Projects (18%). Operations include PAPs supporting NGAs’ major final outputs (MFOs)<sup>2</sup>, whereas Projects are either locally- or foreign-funded to support the attainment of the institutional mandates of NGAs. Meanwhile, the remaining 3% is for the provision of staff, technical, and/or substantial support to agency programs (Support to Operations), and expenditures that deal with the provision of overall administration and management (General Administration and Support).

The approved climate budget for Operations increased by 26% from 2015, with climate expenditure concentrated in 11 of the 233 programs accounting for 71% of the approved climate budget. Foreign-assisted projects responsive to climate change have allocated 12% more compared to the previous year, wherein almost half (43%) are focused on agriculture. The biggest increase (112%) can be observed in locally-funded projects, with about 60% from DPWH’s flood control and drainage projects and water management projects, 14% from DA’s locally-funded farm-to-market roads, and 11% from DOTC’s Light Rail Transit extension project (LRT-2).

Figure 2:  
Distribution of CC Expenditure  
by Expense Class, 2016

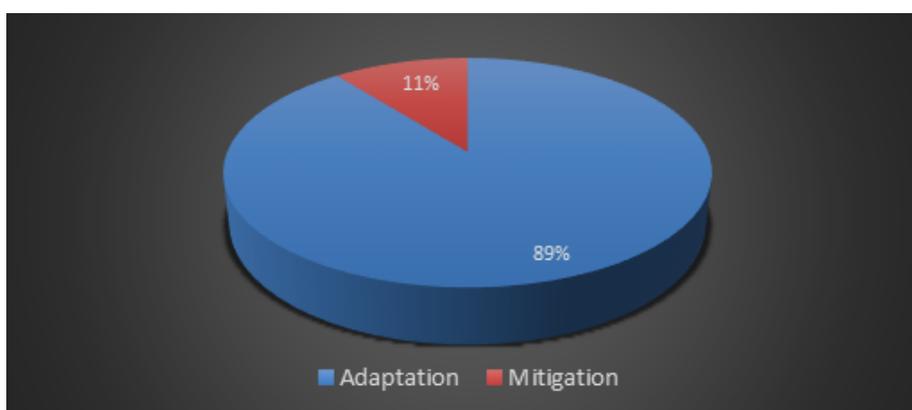


<sup>2</sup> A major final output (MFO) is a good or service that an NGA is mandated to deliver to external clients through implementation of PAPs. An MFO can be defined relative to: (i) the outcomes that it contributes to, (ii) the client or community group that it serves, and/or (iii) the business lines of the department/agency. An MFO may be a single output or a group of outputs that are similar in nature, targeted at the same organization/sector outcome, and capable of being summarized by a common performance indicator (e.g. different types of policy/advisory are grouped into a single MFO on policy and advisory services).

Similar to 2015, the approved 2016 climate budget has been largely focused (89%) on adaptation response. The majority of the adaptation responses are for service delivery and hard infrastructure, including DPWH's flood mitigation structures and upgrading of infrastructure design standards to incorporate climate risks. In addition, adaptation PAPs are focused on resiliency building through enhancing capacity

of both social and ecological system, policy and governance, and research and development. Meanwhile, the approved 2016 mitigation expenditures (11%) decreased by 2% from 2015, which can be attributed to the dropping of DOE's Energy Efficient Electric Vehicles Project. Large mitigation PAPs include the administration's forest rehabilitation program (NGP), promotion of mass transportation (LRT-2), and building of sanitary landfills.

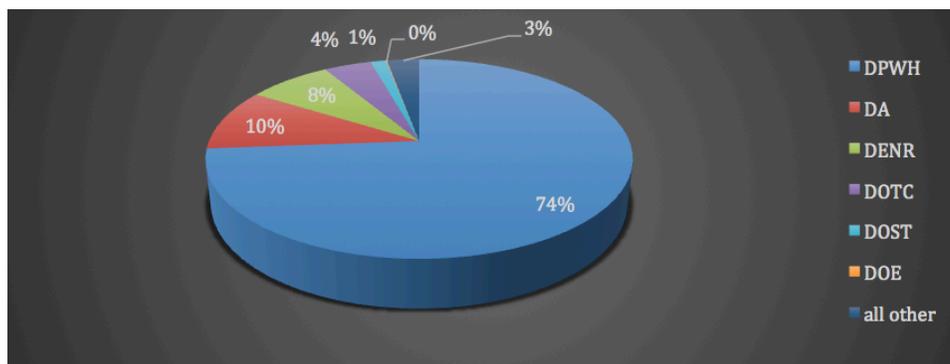
**Figure 3:  
Distribution of CC Expenditure by Objective, 2016**



As in 2015, the 2016 approved climate budget is also concentrated in very few NGAs. With an increase of 34% from 2015, DPWH accounted for 74% (or PHP 130 billion) of the approved climate budget in 2016. Meanwhile, 23% of the total approved climate

budget is from five NGAs: DA, DENR, DOTC, DOST, and DOE. Among the five NGAs, only DOST and DOE showed substantive declines (-46% and -95%, respectively) in their climate budgets. The remaining 3% (PHP 5.1 billion) was distributed among the other 23 NGAs.

**Figure 4:  
Climate Appropriations by Agency, 2016**



# IV

## Alignment of the 2016 National Climate Budget with Climate Change Agenda

**The Philippines continues to recognize its responsibility to ensure the country's climate resilience and contribute its fair share in building a low-carbon economy.** In 2015, in addition to establishing the 2016 climate budget, the Philippines submitted its Intended Nationally Determined Contributions (INDC) in October and led the Climate Vulnerable Forum (CVF)<sup>3</sup> during the Conference of Parties (COP) 21 in November. In the INDC, the Philippines commits to a 70 percent reduction in carbon emissions by 2030, with the support of external assistance to develop and adopt appropriate technologies, and to improve its adaptive capacity and resilience. In April 2016, the final Paris Agreement was signed by the Philippines and 176 additional countries with submitted INDCs, signaling a global commitment to mitigate GHG emissions.

**In response to these commitments, the Government of the Philippines continues to engage in active promotion of climate change response through policies, institutions, and increased financing for climate change adaptation and mitigation.** The Government examines its strategic allocation of resources at the national level in comparison with the seven strategic priorities in the National Climate Change Action Plan (NCCAP), which cover a total of 21 outcome areas. Additionally, the CCC has adopted a Results-Based Monitoring and Evaluation System (RBMES) for the NCCAP to establish accountability mechanisms to track climate expenditure disbursements and monitor climate results.

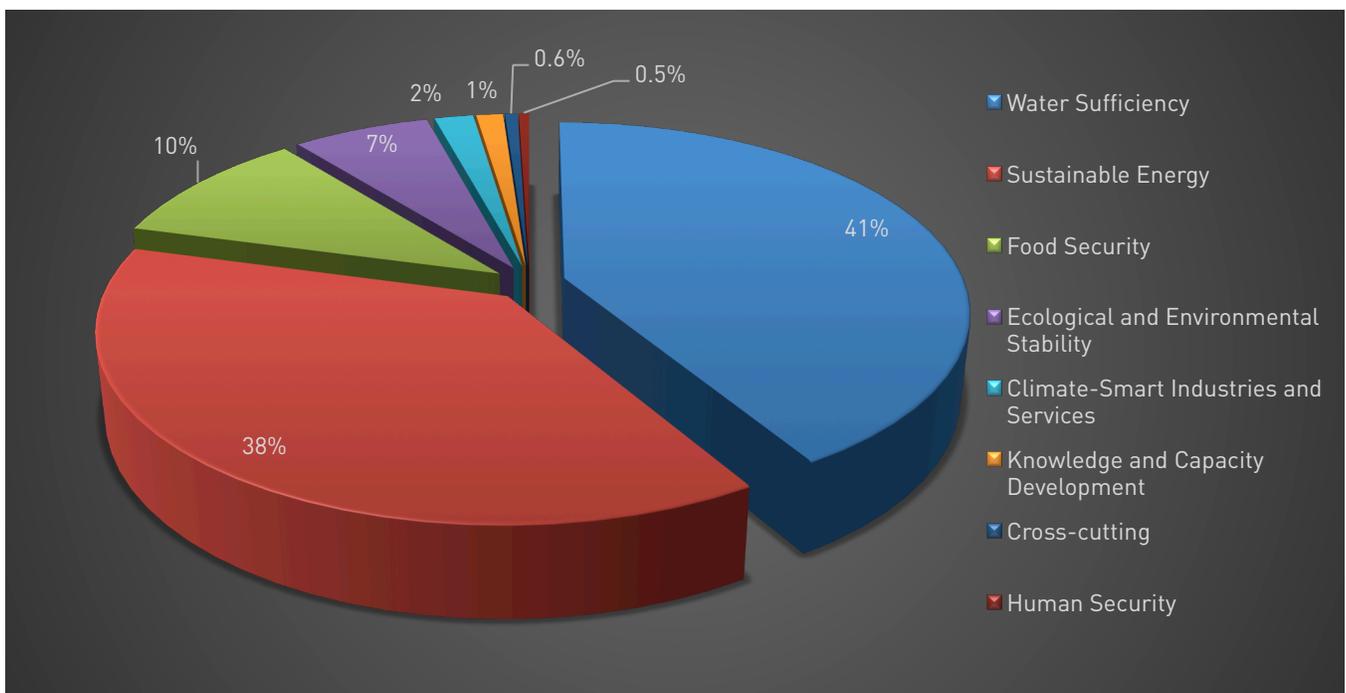
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<sup>3</sup> A meeting among an international partnership of countries highly vulnerable to the impacts of climate change, to agree on an ambitious and universal agreement during the Conference of Parties (COP) 21 and enshrine the critical goal of capping the global temperature below 1.5°C.

The approved 2016 climate budget is still concentrated (79%) in two NCCAP Strategic Priority: Water Sufficiency (41%) and Sustainable Energy (38%). Compared to the previous year, this represents an increase in the share of the budget for Water Sufficiency, from 34%, and a decrease in the share for Sustainable Energy, from 42%. This shift in priorities results from a more dramatic increase in climate expenditures for WS (+54%) than for SE (+12%). The majority of

the allocation for Water Sufficiency is directed to water governance (notably flood protection managed by DPWH). Additionally, around 10% of the FY2016 climate budget is allocated for Food Security and 7% for Ecological and Environmental Sustainability, while the remaining 4% is directed toward the remaining three priorities along with some cross-cutting programs (Figure 2). These allocation shares are similar to 2015.

**Figure 5: FY16 GAA Climate Budget by NCCAP Strategic Priority**



# A

## Water Sufficiency

*Enhancing convergence and  
employing a comprehensive approach  
to address flood risk*

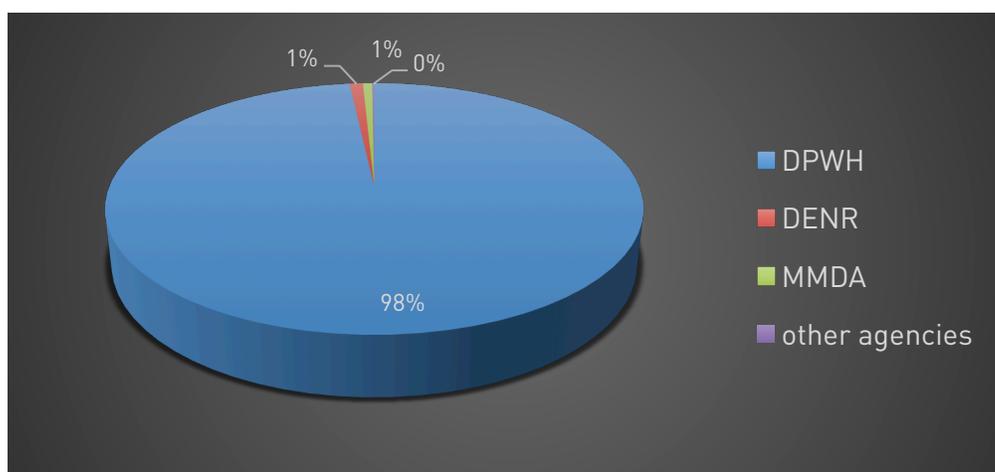
The NCCAP identified Water Sufficiency (WS) as a strategic priority due to the Philippines' vulnerability to extreme weather events such as typhoons and flooding, coupled with encroachment in waterways and massive urbanization. Nearly half (41%, or PHP 72.8 billion) of the climate expenditures in 2016 addresses Water Sufficiency. This represents a 54% increase compared to 2015. As of FY 2016, three WS outcome areas have climate expenditures, with support so far from three designated lead agencies— DENR and DPWH, along with additional support from DOST, DOTC, MMDA, PRRC, and DND (Table 1).

**Table 1: Water Sufficiency NCCAP outcomes, outputs, and NGA responsibilities and associated PAPs**

Outcome	Output Area	Lead Agency	Coordinating Agency	Agencies with budgeted PAPs
<b>Water governance restructured towards a climate- and gender-responsive water sector</b>	Enabling policy environment for IWRM and CCA created	NWRB	CCC, DA, DOE, NEDA, DOST, DOH, DPWH, NCIP	DENR (MGB, NWRB, PCSD), DOST (PAGASA), DOTC (PCG), DPWH, MMDA, PRRC
	CC adaptation and vulnerability reduction measures for water resources and infrastructure implemented	DENR, DPWH	DA, DOE, NEDA, DOST, DOH, DSWD	
<b>Sustainability of water supply and access to safe and affordable water ensured</b>	Water supply and demand management of water systems improved	NWRB	DA, DPWH, NEDA, DOST, LGUs, DOH, LWUA	DOST (ASTI), DPWH
	Water quality of surface and groundwater improved	DENR, DOH, NAPC	MWSS, DPWH	
	Equitable access of men and women to sustainable water supply improved	DOH, NWRB	DILG, DPWH, NAPC	
<b>Knowledge and capacity for CC adaptation in the water sector enhanced</b>	Knowledge and capacity for IWRM and water sector adaptation planning enhanced	NWRB, PIA	DILG, DA, DOH, LWUA, PWP	DENR (EMB), DND (PN), PRRC

The approved 2016 climate budget for WS increased by more than half (53%) compared to 2015, to PHP 71.6 billion. It is spread across 170 PAPs, concentrated in four departments. The majority (93%) of the PAPs are for flood control and drainage.

**Figure 6:  
Water Sufficiency, 2016 climate budget by NGA**



## Key PAPSs in the 2015 budget that contribute to WS objectives

DPWH's climate expenditures are mainly concentrated in the Flood Risk Management and Resiliency Program, which accounts for 97% of WS expenditures (PHP 67.7 billion, compared to PHP 45.9 billion in FY 2015). This Program has two key strategies:

- (1) Implementing a river basin approach for effective flood control, and
- (2) designing and constructing disaster-resilient public infrastructure facilities.

In support of these two strategies, DPWH supported several PAPS, including:

- **Construction/Rehabilitation of Flood Mitigation Structures along Major River Basins** (DPWH, PHP 3.4 billion, compared to PHP 3 billion in FY 2015): In FY2016, DPWH set a target of 970 projects for the construction and maintenance of flood mitigation structures and drainage and 120 projects for the construction and rehabilitation of 120 flood mitigation structures. This program uses a river basin approach and focuses on designing and constructing disaster-resilient public infrastructure facilities for effective flood control. However, only 8% of DPWH's flood management services expenditure goes to major and principal basins. Pilot spatial analysis on the Flood Mitigation programs of DPWH is completed for FY16 (Refer to Chapter VII),
- **Flood Forecasting and Hydro meteorological Services in Major River Basins** (DOST, PHP 0.06 billion, compared to PHP 0.16 billion in FY 2015): The Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) of DOST provides crucial services of generating flood forecast and information important to climate response, especially for early warning, along major and principal river basins. The allocation to support these activities is 62% smaller than the FY 2015 GAA, and has been moved from expenditures tagged as KCD to WS.

In addition, the DPWH's **Construction of Rainwater Collection Systems (RCS)** constitutes 1% of the total climate budget request for WS, in line with DPWH's responsibility to lead in implementing Republic Act No 6716 (Rainwater Catchment Law) for the installation of RCS in public schools and other state facilities. A total of 513 rainwater collection systems have been installed through 2013. To expand the program, DPWH's approved climate expenditure is 600% more than the program's FY 2015 GAA approved expenditure.

Finally, **evaluation, integration and coordination of water resources plans and programs at specific local sites are being implemented by the DENR-National Water Resources Board (NWRB)**, which allocated PHP 0.03 billion. Although this represents an increase of 60% from the 2015, it accounts for less than 1% of the DENR's climate budget for 2016.

# B

## Sustainable Energy

*Developing resilient roads with cleaner vehicles,  
and promoting renewable and efficient energy*

For 2011 to 2016, the NCCAP prioritizes the agenda on Sustainable Energy (SE), together with Ecological and Environmental Stability. Aligned with the NCCAP, more than one-third (38%, or PHP 66.7 billion) of the climate budget addresses sustainable energy. This represents a 12% increase compared to 2015. As of FY 2016, four SE outcome areas have climate expenditures, with support so far from three designated lead agencies—DOE, DOTC and DOST, along with additional support from DOLE, MMDA and DPWH (Table 2).

**Table 2: Sustainable Energy NCCAP outcomes, outputs, and NGA responsibilities and associated PAPs**

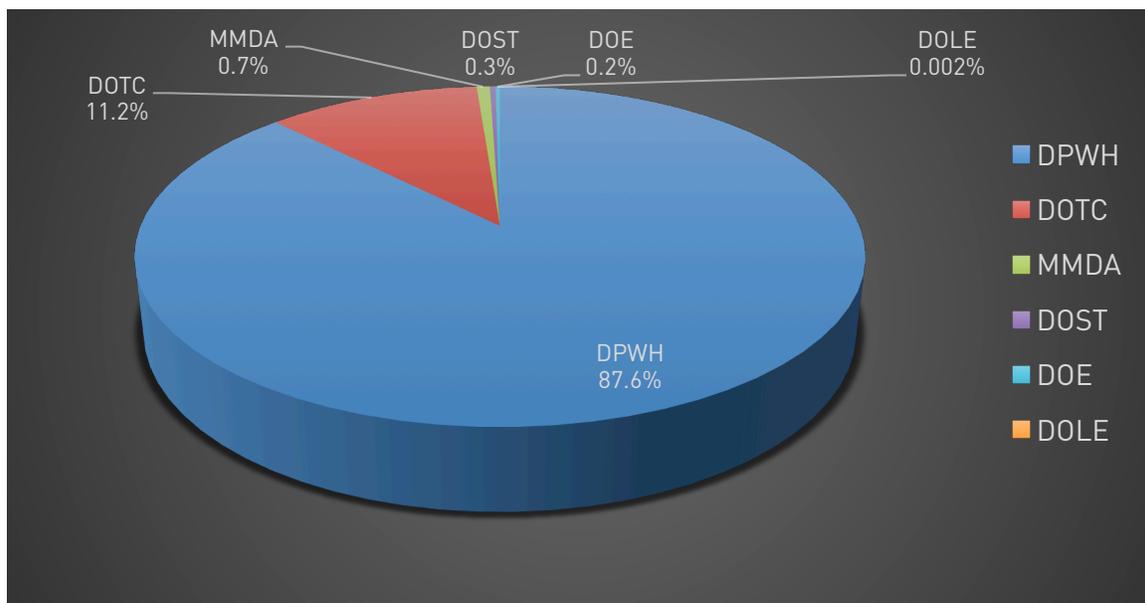
Outcome	Output Area	Lead Agency	Coordinating Agency	Agencies with budgeted PAPs
<b>Nationwide energy efficiency and conservation program promoted and implemented</b>	Government Energy Management Program (GEMP) implemented	DOE, DOST, DENR	All	DOLE (POEA), DOST (PCIEERD)
	Increase in private sector and community participation in energy efficiency and conservation	DOE, CCC	All	
<b>Sustainable and renewable energy (SRE) development enhanced</b>	National renewable energy program and technology roadmap based on RA9513 and its IRR developed and implemented	DOE	DTI, DOST, DOTC, DOF	DOE
	Off-grid, decentralized community-based renewable energy system to generate affordable electricity adopted	DOE	DILG, DOF	
<b>Environmentally-sustainable transport promoted and adopted</b>	Environmentally-sustainable transport strategies and fuel conservation measures integrated in development plans	DOTC, HADC, DILG	All LGUs through Leagues	DOE, DOTC, MMDA
	Innovative financing mechanisms developed and promoted	DOF, DOTC	All	
<b>Energy systems and infrastructures climate-proofed, rehabilitated, and improved</b>	Energy systems and infrastructures climate-proofed	DOE, DENR, DOST	All	DPWH
<b>GHG inventory developed</b>	GHG inventory developed, based on EO No. 174 and the GEMP	DOE		

Of total SE expenditures, the large majority (88%) has been by DPWH (Figure 7), which allocated a substantial share of its total climate budget request for SE (45%, or PHP 58.4 billion) despite not being designated as a lead NGA for SE in the NCCAP. The majority of this (93%, or PHP 54.2 billion) is for National Road Network Services. This

represents a 19% increase from the previous year, slightly higher than the amount requested by DPWH. The remaining PHP 4.2 billion for DPWH under the SE priority area is for conducting feasibility studies, taking into account climate change and variability impacts. However, DPWH’s approved budget for this activity declined by 14% compared to 2015.

In addition, DOTC, a designated lead agency for SE, has climate expenditures under SE (11%, or PHP 7.5 billion), mainly supporting expansion of the **LRT system in Metro Manila** and **construction of BRT in Cebu**. This is a 33% increase in SE climate expenditures for DOTC from FY 2015.

**Figure 7:  
Sustainable Energy, 2016 climate budget by NGA**



### Key PAPs in the 2015 budget that contribute to SE objectives

Nearly all (93%) of the approved SE climate budget for FY16 is concentrated in one PAP:

- **National Road Network Services** (DPWH, PHP 58.4 billion, compared to PHP 45.5 billion in FY 2015): DPWH allocated nearly half (45%) of its approved climate expenditure in FY16 for the rehabilitation, reconstruction, and upgrading of roads and bridges. DPWH is the only department that has a budget for climate-resilient infrastructure in 2016.

In addition, DOTC has allocated PHP 7.3 billion for the expansion of the **LRT system in Metro Manila** and **construction of BRT in Cebu**, and DOST allocated PHP 0.2 billion for the **research program of Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD)**. PCIEERD's

research program covers research and development on a wide range of areas, including energy efficiency, renewable energy and low-carbon transport – to make them more attractive options. The program also conducts risk and vulnerability assessments of energy system in order to help encourage the adoption of renewable energy.

# C

## Ecological and Environmental Stability

*Increasing resiliency of natural resources  
is investing in the future*

The NCCAP identified Ecological and Environmental Stability (EES) as one of the top two priorities for the current Administration to address between 2011 and 2016. Seven percent (or PHP 11.4 billion) of the approved climate budget in 2016 is for this priority, which has a single outcome area. This represents a 13% increase compared to 2015. As of FY 2016, DENR had climate expenditures in EES, with additional support from one of the coordinating agencies (DOST), along with DND, NEDA and PRRC (Table 4). This is similar to the agencies with expenditures in FY2015; the only addition is support from DOLE.

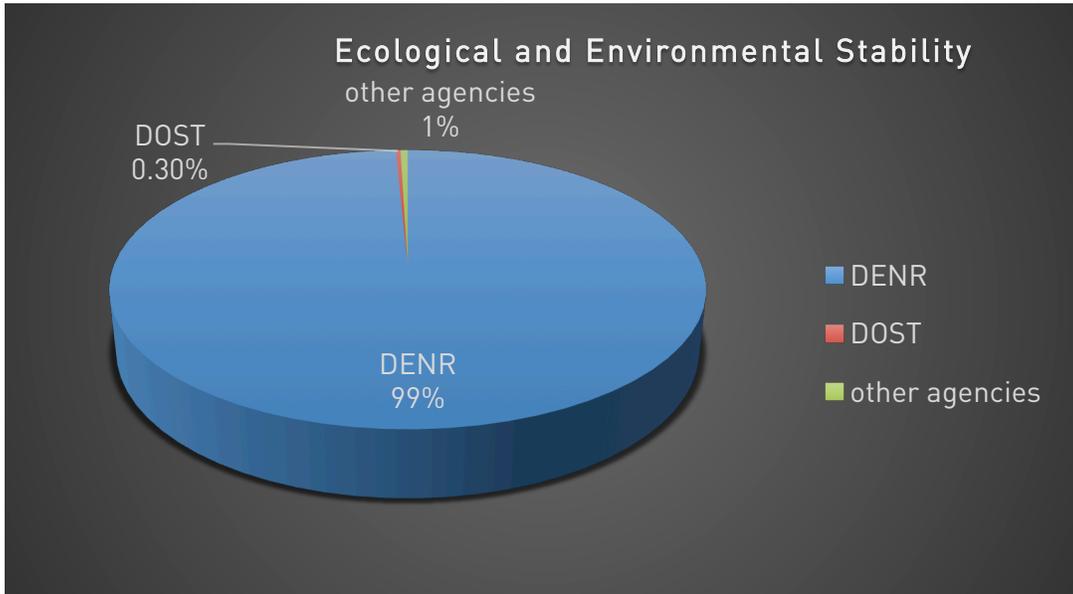
**Table 3: EES NCCAP outcomes, outputs, and NGA responsibilities and associated PAPs**

Outcome	Output Area	Lead Agency	Coordinating Agency	Agencies with budgeted PAPs
<b>Ecosystem protected, rehabilitated, and ecological services restored</b>	CC mitigation and adaptation strategies for key ecosystems developed and implemented	DA with LGUs	DENR, DOST, CCC, DAR, DILG, DOH, DTI	DENR (NAMRIA, PCSD), DND (AIRFORCE, PN), DOST (PCAARRD), DOLE (ILS), NEDA (PSA), PRRC
	Management and conservation of protected areas and key biodiversity areas improved	DENR, LGUs		
	Environmental laws strictly implemented	DENR, LGUs		
	Capacity for integrated ecosystem-based management approach in protected areas and key biodiversity areas enhanced	CCC, DENR	LGU, PAMB, All NGAs	
	Natural resource accounting institutionalized			

**Of total EES expenditures in 2016, the large majority (99%) are for DENR, which allocated a substantial share of its total climate budget for EES (86%, or PHP 11.4 billion). DENR's EES budget mainly supports the National Greening Program (NGP), which**

was allocated 14% more in 2016 (from PHP 7.0 billion to PHP 8.0 billion). Overall, compared to 2015, DENR's support for EES increased by PHP 1.4 billion (14%), whereas DOST's support for EES decreased by PHP 0.05 billion (-61%).

Figure 8:  
EES, 2016 climate budget expenditures by NGA



### Key PAPs in the 2015 budget that contribute to EES objectives

In FY 2016, nearly all (70%) of the approved climate expenditures for EES were concentrated in one PAP:

- The National Greening Program** (DENR, PHP 8.0 billion, compared with PHP 7.0 billion in FY 2015): The NGP is the administration's biggest forest rehabilitation program. It aims to plant 1.5 billion seedlings of indigenous and climate-resilient species in 1.5 million hectares of open and denuded forestland areas between 2011 and 2016. The Program had met 67% of its targets. This

allocation supports the planting of trees in an additional 490,437 hectares. Although the NGP is tagged as a mitigation program and its performance is tracked based on the number of seedlings planted, it is also viewed as an adaptation strategy by establishing mangrove and beach forest to serve as natural barriers against storm surges. The NGP also supports job creation.

Three additional projects and programs of the DENR account for another 9% of EES climate expenditures. These primarily focus on improving forest conservation and socio-economic conditions of upland dwellers, and contributing to disaster risk mitigation efforts in vulnerable areas:

- **The Integrated Natural Resources and Environmental Management** (DENR, PHP 0.45 billion, compared to PHP 0.06 billion in FY 2015): This project has three major components:
  - (i) river basin and watershed management planning,
  - (ii) smallholder and institutional investments in forest protection and conservation, and
  - (iii) strengthening of river basin and watershed management capacity and related governance mechanisms. INREMP is designed to address the unsustainable watershed management in four priority river basins namely: Chico River Basin in Cordillera Administrative Region; Wahig Inabanga River Basin in Bohol Island; Lake Lanao River Basin in Autonomous Region of Muslim Mindanao, and Upper Bukidnon River Basin in Bukidnon. The INREMP has a particular focus on indigenous peoples and resource-poor communities.
- **The Forestland Management** (DENR, PHP 0.22 billion, compared to PHP 0.19 billion in FY 2015): This is a foreign-assisted project that aims to strengthen forestland management through implementation of community-based forest management, including agroforestry and community-based enterprise development in three river basins in a sustainable manner: Upper Magat and Cagayan River Basin, and Pampanga River Basin in Luzon; and Jalaur River Basin in Panay Island.
- **The Protected Area Development and Management** (DENR, PHP 0.4 billion, compared to PHP 0.52 billion in FY 2015): This program includes measures to conserve biodiversity within and protect natural habitats within and adjacent to protected areas. The program aims to ensure continuity of the full stream of goods and ecological services, sustain habitat interconnectivity and wildlife corridors, and improve resilience of ecosystems in the face of climate change. The implementation of this Program can also contribute to carbon sequestration. The protected areas are home to indigenous peoples, who are among the marginalized sector of society; this project contributes to strengthening their adaptive capacity.

Additionally, the approved EES climate budget in 2016 allocated 9% of its expenditures for policy development, institutional strengthening, and the enforcement of regulations. In 2016, the budget for a PAP on the Formulation and Monitoring of Sector Policies, Plans, and Programs on Environmental and Natural Resources areas increased by more than three times (to PHP 0.39 billion). However, a PAP on the enforcement of laws, rules and regulations declined by 34% (to PHP 0.59 billion).

# D

## Food Security

*Ensuring availability, stability, accessibility, and affordability of safe and healthy food*

The NCCAP identified Food Security (FS) as a strategic priority due to the country’s dependency on the agriculture sector, and its innate vulnerability to climate risks and natural hazards. Ten percent (PHP 17.7 billion) of the approved climate budget in 2016 addresses Food Security. This represents a 21% increase

compared to 2015. As of FY 2016, the DA had climate expenditures in both of the two FS outcome areas (Table 4), as it did in FY 2015. Some support was also provided by the DFA, but this was very minimal (less than 0.02% of FS climate expenditures).

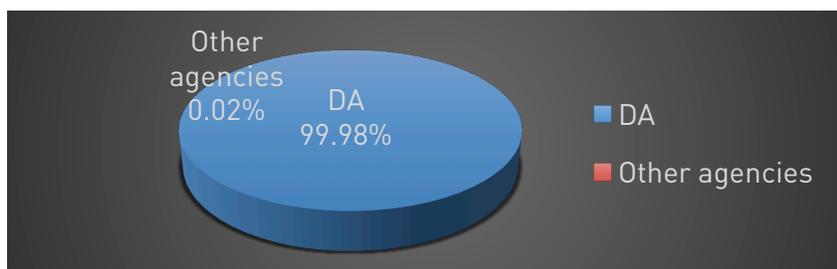
**Table 4: Food Security NCCAP outcomes, outputs, and NGA responsibilities and associated PAPs**

Outcome	Output Area	Lead Agency	Coordinating Agency	Agencies with budgeted PAPs
<b>Enhanced resilience of agriculture and fisheries production and distribution systems from climate change</b>	Enhanced knowledge on the vulnerability of agriculture and fisheries to the impacts of climate change	DA with LGUs	DENR, DOST, CCC, DAR, DILG, DOH, DTI	DA (BFAR, PCC, PHILMECH, NMIS, PCAF), DOST (FNRI)
	Climate-sensitive agriculture and fisheries policies, plans and program formulated	DA	DENR, DOST, CCC, LGUs, DILG, NEDA	
<b>Enhanced resilience of agriculture and fishing communities from climate change</b>	Enhanced capacity for CCA and DRR of government, farming and fishing communities and industry	DA	DENR, DOST, CCC, DILG, DepEd, CHED	DA (ACPC), DFA (TCCP)
	Enhanced social protection for farming and fishing communities	DA	DOST, DSWD, DOF, LGUs	

Of total FS expenditures, nearly all (99.9%) are for DA (Figure 9), which allocated 100% of its total climate budget request for FS (PHP 17.7 billion). DA's climate expenditure in the FY16 GAA is divided between the two output areas under Food Security: (i) enhancing resilience of production and distribution systems (49%), and

(ii) enhancing resilience of agriculture and fishing communities (51%). DA's FS budget in 2016 mainly supports the foreign-assisted project Philippine Rural Development Program (PRDP), as it did in 2015. Additionally, compared to the 2015 climate budget, expenditures for agricultural R&D increased by more than 11 times in 2016.

**Figure 9:  
Food Security, 2016 climate budget by NGA**



### Key PAPs in the 2015 budget that contribute to FS objectives

DA's climate expenditures are mainly concentrated in one PAP in the Office of the Secretary, which accounts for about 50% of DA's climate expenditure in 2015:

- **The Philippine Rural Development Program** (DA, PHP 9.1 billion, compared to PHP 7.3 billion in FY 2015): The six-year foreign-assisted project is designed to establish the government platform for modern, climate-smart, and market-oriented agri-fishery sector. More than 70% of the total financing of PRDP will be utilized for funding infrastructure

projects of LGUs, including farm-to-market roads, bridges, communal irrigation, potable water systems, post-harvest facilities, fish landing, green houses, solar driers, and slow stabilization works. These rural projects are selected based on an expanded vulnerability and suitability assessment (e-VSA).

**In addition, six PAPs totaling PHP 5.1 billion account for about 29% of the FS climate budget by DA in 2016. These include:**

- one locally-funded project for the repair, rehabilitation, and construction of farm-to-market roads (PHP 1.5 billion, up 21% from FY 2015);
- an integrated food security program called SOCSKSARGEN, focused on Mindanao (PHP 0.47 billion, up 47% from FY 2015);
- a set of three programs to support rice production and distribution focused on irrigation, R&D, and production support services (PHP 2.5 billion, up 44% from FY 2015);
- production support services for high value crops (PHP 0.34 billion, up 18% from FY 2015); and
- general agricultural research and development (PHP 0.37 billion), which increased more than 11 times 2015.

# E

## Human Security

*Increasing human resilience  
to decrease vulnerability to  
current weather-related disasters*

Less than one percent (0.49%, or PHP 0.87 billion) of the climate expenditures in 2016 address Human Security (HS). This represents a 49% increase compared to 2015. As of FY 2016, three HS outcome areas have climate

expenditures, with support so far from two designated lead agencies—DND and HUDCC, along with additional support from DAR, DSWD, NAPC and HLURB (Table 5).

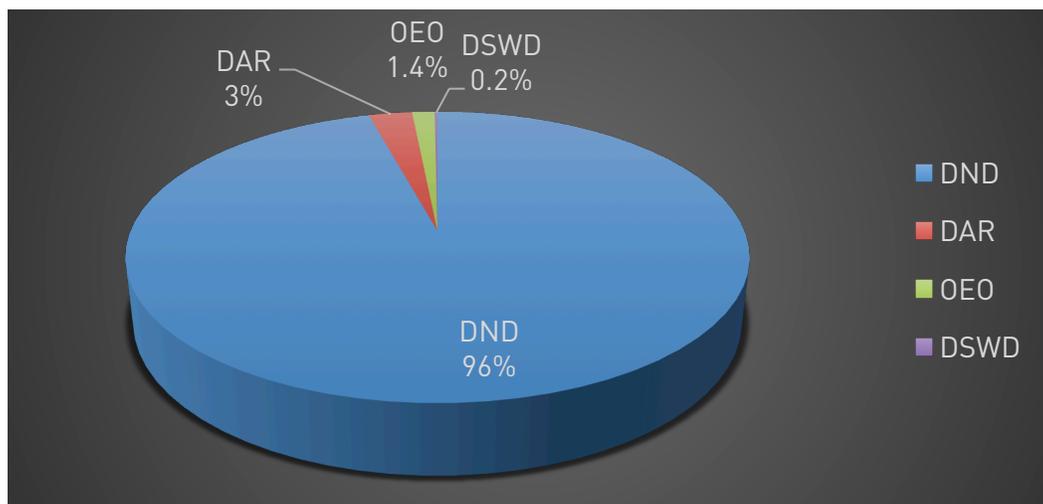
**Table 5: Human Security NCCAP outcomes, outputs, and NGA responsibilities and associated PAPs**

Outcome	Output Area	Lead Agency	Coordinating Agency	Agencies with budgeted PAPs
<b>CCA-DRRM implemented in all sectors at the national and local levels</b>	CCA-DRRM integrated in local plans	CCC, NDRRMC, LGUs	All Agencies	DND (OCD)
	Knowledge and capacity for CCA-DRRM developed and enhanced	CCC, NDRRMC, PIA	All NGAs, LGUs	
<b>Health and social protection delivery systems are responsive to climate change risks</b>	Health personnel and communities' capacities in CC health adaptation and reduction developed	CHED, DOH, DepEd	DSWD, TESDA	DAR, DSWD (NYC), NAPC
	Public Health surveillance system developed and implemented in all provinces	DOH	DSWD, LGUs, DILG	
	Health emergency response, preparedness and post-disaster management implemented at the national and local levels	DOH, NDRRMC	All NGAs, LGUs	
<b>CC-adaptive human settlements and services developed, promoted, and adopted</b>	Adaptive and secured settlement areas for vulnerable communities and climate refugees defined	LGUs, HUDCC		HUDCC, HLURB
	Population congestion and exposure to CC risks reduced	DOH, Population Commission		

Of total HS expenditures, nearly all (96%, or PHP 0.6 billion) is for Department of National Defense (DND) (Figure 10), which accounts for more than half

(61%) of DND’s total climate budget in 2016. As in 2015, this is mainly dedicated to leading emergency response, preparedness, and post-disaster management.

**Figure 10: Human Security, 2016 climate budget expenditures by NGA**



### Key PAPs in the 2015 budget that contribute to HS objectives

Nearly all (92%) of HS climate expenditures focus on disaster risk reduction, management, and response. The largest of these expenditures includes:

- Disaster Risk Reduction and Management** (DND, PHP 0.8 billion, up from PHP 0.6 billion in FY 2015): Through the DND, the Office of Civil Defense’s (OCD) climate budget is dedicated to leading emergency response, preparedness, and post-disaster management. Additionally,

OCD supports building knowledge and enhancing capacities for community- and local-level CCA-DRRM. This includes providing assistance to LGUs in enhancing their local disaster risk reduction and management plans, and creating official hazard and risks assessment maps for select LGUs.

# F

## Knowledge and Capacity Development

*Building climate-resilient communities and ecosystems requires appropriate capacity and knowledge on the science, issues, and risks*

Enhancing knowledge on climate change is just as critical as improving the infrastructure to be resilient to its impacts. Creating a pool of science and evidence-based information derived from research and development is important for sound policy reforms and actions. One percent (or PHP 2.2 billion) of the climate budget in 2016 addresses Knowledge

and Capacity Development (KCD). This represents a decrease of 46 percent from 2015. As of FY 2016, two KCD outcome areas have climate expenditures, with support so far from two designated lead agencies — DOST and DILG, along with additional support from DENR, PCOO, DND and PLLO (Table 6).

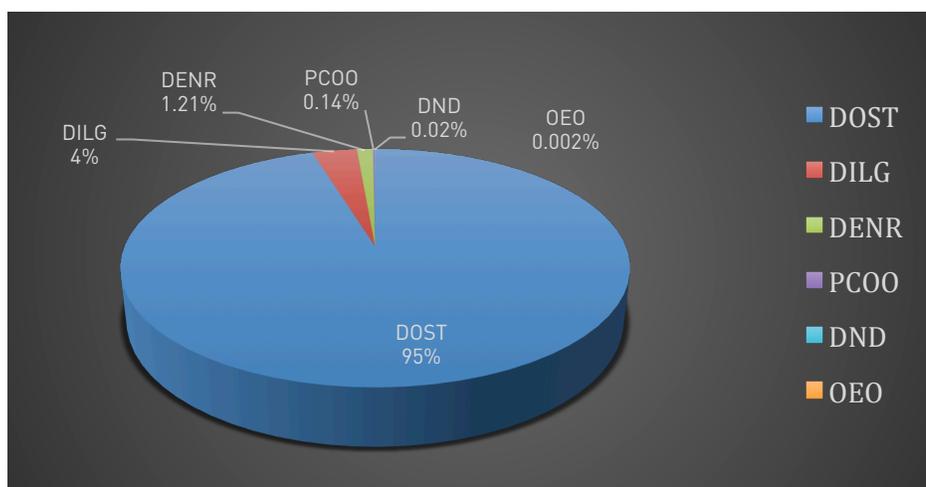
**Figure 6: KCD NCCAP outcomes, outputs, and NGA responsibilities and associated PAPs**

Outcome	Output Area	Lead Agency	Coordinating Agency	Agencies with budgeted PAPs
<b>Enhanced knowledge on the science of climate change</b>	Improved capacity for CC scenario modeling and forecasting	DOST, CHED	CCC, All NGAs, LGU Leagues	DENR (EMB, PCSD), DOST (PAGASA, PHIVOLCS), PCOO (BBS)
	Government capacity for CC adaptation and mitigation planning improved	DOST, CCC	All Agencies	
<b>Capacity for CC adaptation, mitigation, and disaster risk reduction at the local and community level enhanced</b>	CC resource centers identified and established	CICT, DILG, CCC	All government agencies	DENR (PCSD), DND (NDCP), DOST (PHIVOLCS), DILG (LGA), PCOO (PIA), PLLO
	Formal and non-formal capacity development program for climate change science, adaptation and mitigation developed	DepEd, CHED, TESDA, DILG, LGA	All NGAs, Academic and training institutions	
<b>Gendered CC knowledge management established and accessible to all sectors at all levels</b>	Gendered CC knowledge management established	CICT, DILG, CCC	All agencies	

Of total KCD expenditures, nearly all (95%, or PHP 2.1 billion) is for DOST, one of the designated lead NGAs (Figure 11). Compared to 2015, this is a 47% decrease in DOST's climate budget for KCD. DOST expenditures for KCD mainly support: (i) research, development and extension work for science and technology activities and (ii)

weather, climate, and flood forecasting and warning. Additionally, DILG, which is also designed as a lead for KCD, made up 4% of total KCD expenditures. However, no NGA has allocated a climate budget for the outcome on establishing a gendered CC knowledge management system.

**Figure 11: Knowledge and Capacity Development, 2016 climate budget expenditures by NGA**



### Key PAPs in the 2015 budget that contribute to KCD objectives

Nearly all (93%) of KCD climate expenditures are concentrated in two PAPs:

- **Funding Assistance to Science and Technology Activities** (DOST-OSEC, PHP 1.1 billion, compared to PHP .73 billion in FY 2015) aims to support and generate research, development, and extension work.
- **Weather and Climate Service** (DOST-PAGASA, PHP 0.94 billion, compared to PHP 2.9 billion in FY 2015): With its mandate, PAGASA generates and disseminates weather, climate, and flood forecasts and warning based on 260,304 real-time weather

observations from its 591 observation stations. PAGASA completed a number of locally-funded and foreign-assisted projects in 2015, leading to a decline in the climate expenditure in the 2016 (-69%). For example, the JICA-assisted rehabilitation of meteorological radar system in typhoon Yolanda-affected Guiuan, and the improvement of flood forecasting and warning system in Bicol river basin were both completed.

In addition, DOST seeks to improve KCD through the Philippine Institute of Volcanology and Seismology's (PHIVOLCS) activities on strengthening disaster preparedness from multiple hazards, including climate- and weather-related hazards (PHP 0.10 billion for five PAPs, compared to PHP 0.06 billion in FY 2015). While the PHIVOLCS has the smallest climate expenditure in the KCD strategic priority, it has the fastest rate of growth of 81% increase over the FY 2015 GAA.

# G

## Climate-Smart Industries and Services

*Developing, promoting, and sustaining climate-resilient, eco-efficient, and environment-friendly industries and services*

Two percent (or PHP 3.3 billion) of the approved climate budget in 2016 addresses the NCCAP priority on Climate-Smart Industries and Services (CSIS). This represents a 10 percent increase from 2015. As of FY 2016,

three CSIS outcome areas have climate expenditures, with support so far from four designated lead agencies—DENR, DOLE, DTI and DPWH, along with additional support from DOT and MMDA (Table 7).

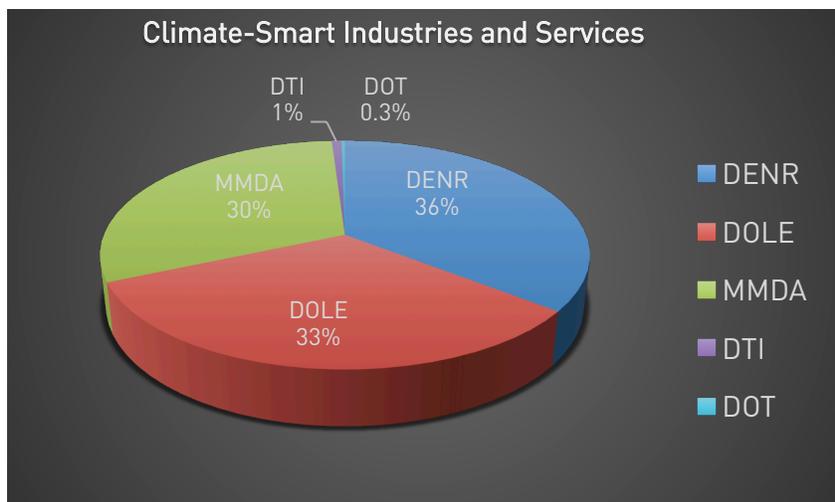
**Figure 7: CSIS NCCAP outcomes, outputs, and NGA responsibilities and associated PAPs**

Outcome	Output Area	Lead Agency	Coordinating Agency	Agencies with budgeted PAPs
<b>Climate-smart industries and services promoted, developed, and sustained</b>	Enabling environment for the development of climate-smart industries and services created	CCC, DTI, LGU	DENR, Cabinet Cluster on Economic Development	DENR (EMB), DOLE (POEA), DTI (DCP, TCCP) DOT
	Eco-efficient production adopted by industries	DTI, DENR, DOLE	DOF, NEDA DOST	
	IEC and capacity building program for climate-smart industries and services developed	DTI, DENR	DOF, DOST	
<b>Sustainable livelihood and jobs created from climate-smart industries and services</b>	Increased productive employment and livelihood opportunities in climate-smart industries and services	DOLE, CCC	All NGA, TESDA, LGUs, academic and training institutions	DOLE (ILS)
<b>Green cities and municipalities developed, promoted, and sustained</b>	Infrastructure in cities and municipalities developed, promoted, and sustained	LGUs, DILG, DPWH	All NGAs	DENR (EMB), DOLE (POEA), DPWH, DTI (DCP), MMDA
	CC adaptive housing and land use development implemented	LGUs, HUDCC	NEDA, DILG	
	Ecological solid waste management implemented towards climate change mitigation and adaptation	DENR	DILG, DA, DepEd, MMDA, LMP, LCP, Ligangmga Barangay	

CSIS expenditures are primarily split between two lead agencies (36% DENR, 33% DOLE) and one coordinating agency (30% MMDA). This represents a shift in focus from 2015 (20% DENR, 39% DOLE, and 33% MMDA). This is mainly due to the substantial

increases in two DENR PAPs—the implementation of ecological solid waste management and clean air regulations (totaling PHP 1.1 billion, compared to PHP 0.4 billion in FY 2015).

**Figure 12:  
CSIS, 2016 climate budget by NGA**



### Key PAPs in the 2015 budget that contribute to CSIS objectives

More than four-fifths (94%, or PHP 3.05 billion) of the approved CSIS climate budget for FY16 is concentrated in four PAPs:

- Livelihood Trainings and Enterprise Development** (DOLE, PHP 1 billion, compared to PHP 1.1 billion in FY 2015): This PAP supports the conduct of training, livelihood, and enterprise development and other capacity building programs for rural workers, as well as develops, nurtures, and sustains income-generating and job-creating enterprises across the country. This represents an 8% decrease from 2015 due to terminated programs, including the Rural and Emergency Employment Services.
- The Ecological Solid Waste Management Program** (DENR, PHP 0.59 billion, compared to PHP 0.14 billion in FY 2015): DENR’s Environmental Management Bureau (EMB) aims to achieve 50% waste diversion by the end of 2016. This project aims to establish 1,123 Material Recovery Facilities across the country and to support 73 provinces, 144 cities, and 1,490 municipalities in developing ecological solid waste management plans.
- The Air Quality Program** (DENR, PHP 0.5 billion, compared to PHP 0.3 billion in FY 2015): This project aims to reduce local air pollution through stricter implementation of air quality regulations, monitoring of ambient air quality, and adoption and implementation of EURO IV fuel standards for light and heavy duty vehicles.
- Sanitary Landfills** (MMDA, PHP 1.0 billion, compared to PHP 1.0 billion in FY 2015): MMDA’s expenditures supported the establishment of sanitary landfills in Metro Manila.

# V

## Local Complementation: Climate Investment Programming

**The Intergovernmental Panel on Climate Change (IPCC) has recognized the crucial role local governments will play in scaling up the adaptation of communities to climate change.** Recognizing the importance of stimulating local action, the Philippines' Climate Change Act specifically identifies local government units (LGUs) as the frontline agencies in the formulation, planning, and implementation of climate change action in their respective areas. It requires all LGUs to prepare a Local Climate Change Action Plan (LCCAP) that is integrated with their local development plans and consistent with the National Framework Strategy on Climate Change (NFSCC) and the National Climate Change Action Plan (NCCAP).

In 2014, policies have been developed that set in motion the national implementation of climate change expenditure tagging (CCET) at the local level. In June 2015, the DBM issued Local Budget Memorandum 70, which requires LGUs to identify, tag, and prioritize their respective climate change PAPs in their annual investing program (AIP). In July 2015, the three oversight agencies—DBM, CCC, and the DILG, issued a revised Joint Memorandum Circular (JMC 2015-01), providing updated guidelines for tagging climate change expenditures in the Local Budget. Starting in FY 2016, it requires provinces, cities, and municipalities to:

- (i) identify, prioritize, and tag climate change PAPs in their AIPs, by all departments and offices; and
- (ii) take stock of climate change PAPs, and track and report climate change expenditures of LGUs.

In addition to capturing the extent to which climate change adaptation and mitigation is taking place at the local level, tagging and tracking local climate expenditures enables LGUs to strengthen their decision-making and improve their accountability for their constituents. By generating baseline information on local climate expenditures and continuing to evaluate them over time, LGUs can better develop and make adjustments to programs and activities over time in order to respond to the impacts of climate change.

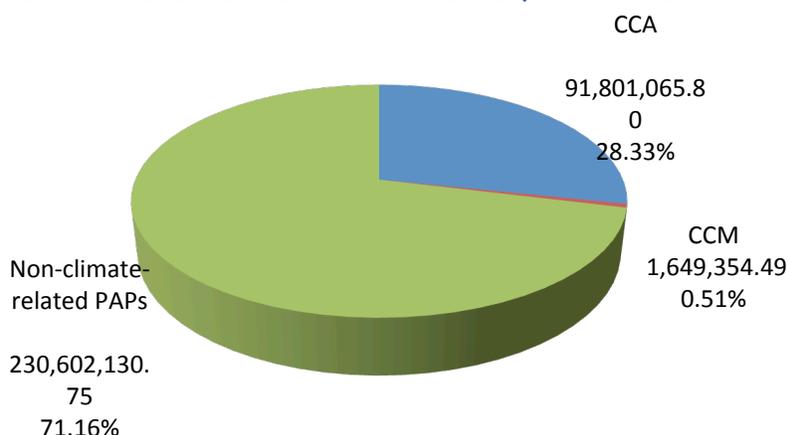
Efforts were made throughout FY 2016 to mainstream and institutionalize CCET based on the lessons from the FY 2015 experience. The main activities carried out for FY2016 aimed to:

- Build the capacity of government to mainstream CCET at the local level,
- Develop tools to strengthen the quality of tagging at the LGUs' pre-budget preparation stage,
- Facilitate efficient submission and consolidation of CC-Tagged AIPs, and
- Get buy-In and mobilize commitment of LGUs and ROs of agencies.

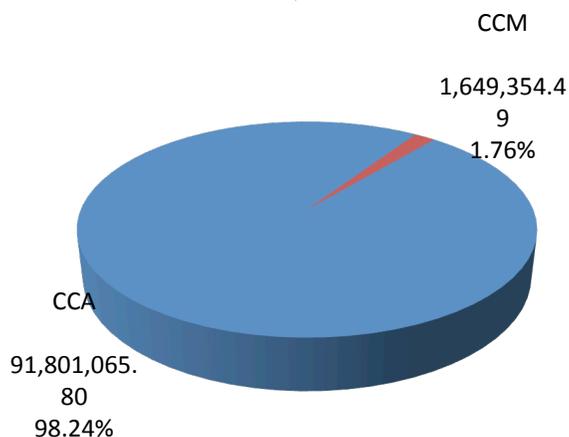
## Highlights of CC Investment Programs of Highly Vulnerable Provinces

Local governments from the Highly Vulnerable Provinces <sup>4</sup>have made good progress in mainstreaming climate change into their AIPs, with PPAs<sup>5</sup> that directly address the threats of climate change within their jurisdictions. Of the total AIP expenditures, 29% are tagged as climate change [Figure 13]. Of these, most are directed toward CC adaptation (98%), which is similar to the national results for 2016 [Figure 14].

**Figure 13: Share of Climate- and Non-Climate-related Investments (in Thousand Pesos)**



**Figure 14: Share of CCA and CCM Investments (in Thousand Pesos)**



<sup>4</sup> While the intent of the JMV 2015-01 was for the CCET to be implemented by all LGUs in FY2016, the Oversight Agencies chose to focus on the 27 highly vulnerable provinces (HVP) located in 13 regions. The 27 were identified in the READY Project funded by the Asian Development Bank, the Australian Government and the United National Development Program. The disaster risk assessment looked primarily at these threats: flood, storm surge, tsunamis, landslides, ground shaking, ground rupture, liquefaction. Data presented in this section is based on reviewed AIPs for 130 LGUs (22 provinces, 12 cities, and 96 municipalities) in the HVPs with submissions to the Help Desk from August 27, 2015 to February 9, 2016.

<sup>5</sup> Programs, projects and activities

**Most climate change adaptation measures identified by LGUs are structural responses to improve the resilience of government infrastructure to climate change and climate variability.** These include the upgrading and construction of roads, ports, and aviation infrastructure to climate-resilient design standards. Mostly, the specific standards used to make these investments climate-resilient are not known. Under the government’s risk resiliency program (RRP), farm-to-market roads should be at least six inches thick and five meters wide (PRDP-NPCO, 2015). Meanwhile, a number of provinces (e.g. Zamboanga, Bulacan, Sorsogon, Surigao del Sur, Albay) and municipalities (e.g. San Agustin, Isabela) are recipients of the Department of Agriculture–Philippine Rural Development Program (DA-PRDP), with identified investments in climate-resilient farm-to-market and provincial roads that have different design standards.<sup>6</sup> In addition, many of the tagged infrastructure PPAs financed by the national government are assumed to follow DPWH standards, and some LGUs (e.g. Albay) have used the design guidelines and standards prescribed by DPWH in 2012.

**Some LGUs are more advanced in addressing climate change than others, and in integrating CC adaptation within particular sectors.** In the Province of Pampanga, for instance, research on the impacts of climate change have been programmed for 2016, and sectors that are disproportionately vulnerable to the impacts of climate change, such as farmers, are being targeted for CCA. Furthermore, Bohol and Albay have CCA well integrated into disaster preparedness plans and programs. In Bohol’s Provincial Disaster and Risk Reduction and Management Plan (PDRRMP), CCA is well articulated in its vision, mission, and outcome statements. One of the objectives of the plan is to establish and institutionalize a PDRRM – CCA governance office. Among the programs identified in the plan are the scaling up use of renewable energy (e.g. solar panels), rainwater collectors, and climate-resistant seeds. Meanwhile, in Southern Leyte, the Local Disaster Risk Reduction and Management Fund (LDRRMF) is used for PPAs that reduce climate risks and minimize the impact of disasters. These include activities on Information, Education and Communication (IEC) campaigns on DRR/CCA, climate proofing of government infrastructure, and flood control. Similarly, the Province of Surigao del Norte (PSDN) has included CCA PPAs under their LDRRMPs, including a community-based monitoring system (CBMS).

**Mitigation expenditures make up around 2 percent of total CC expenditures.** Solid waste management PPAs account for the majority of mitigation expenditures (44%). Investments in urban traffic management to reduce GHG emissions per unit transported makes up around 9% of total CMC expenditures, followed by reforestation and afforestation projects at 8%.

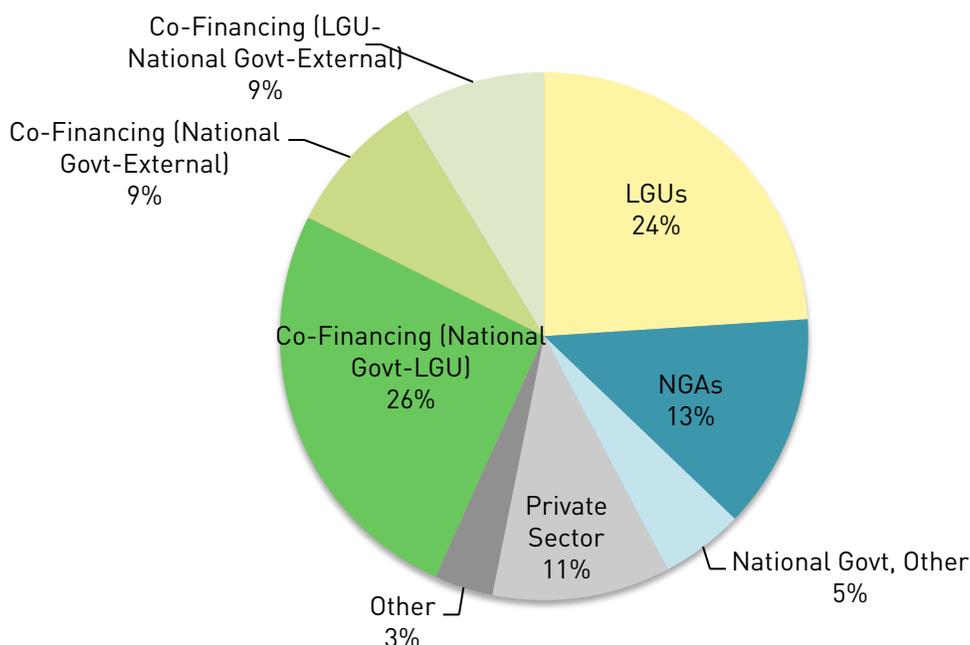
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<sup>6</sup> PRDP Operation’s Manual specifies that the designs (of roads and bridges) must adjust to the challenges brought about by climate change and the recent effect of typhoon Yolanda, which dictates the adjustment in wind load to about 250 to 300 km/hour. The document further states that “the technical specifications ... must be in consonance with the specifications of relevant government agencies and line agencies such as the National Building Code of the Philippines, DPWH Standard Specifications for Public Works Structures, 2004 edition Volume III, Buildings, Ports and Harbors, Flood Control and Drainage Structures and Water Supply Systems, NMIS, PhilMech and others.” (PRDP Operations Manual I-BUILD, March 31, 2015).

Although LGUs have become more creative in sourcing funds for CC PPAs, with most LGUs successful in mobilizing financing from external sources, the largest single source of funds for CC initiatives is still LGU funds (24%<sup>7</sup>). The LGU's general fund finances 8%, and the Local Disaster Risk Reduction and Management Fund (LDRRMF) 1.5%. In addition, climate change PPAs are financed through—

- (i) the national government (18%; of which 13% is from NGAs and 4% from the “20% development fund”<sup>8</sup>),
- (ii) 11% from the private sector<sup>9</sup>, and
- (iii) co-financing from LGUs, the national government and/or other external sources (44%) [Figure 15].

Figure 15: LGU sources of climate change finance<sup>10</sup>



<sup>7</sup> Funded through 1 or combination of internal sources (GF, LDRRMF, GAD fund, Special Education Fund, Senior Citizen/Persons with Disability Fund, Trust fund, and fund from other LGUs but does not include PPAs funded through combination of LGU and external fund sources.

<sup>8</sup> 20% of the Annual Internal Revenue Allotment (IRA) is for development projects; also referred to as “20% DF.” In accordance with Section 287 of the Local Government Code, every LGU shall appropriate in its annual budget no less than twenty percent (20%) of its IRA allotment for development projects. It may be utilized to finance the priority development projects and programs, as embodied in the duly approved local development plan that directly support the Philippine Development Plan, the Medium-Term Public Investment Program and the Annual Investment Program. All projects to be funded shall contribute to the attainment of desirable socio-economic development and environmental management outcomes and shall partake the nature of investment or capital expenditures.

<sup>9</sup> Public-Private Partnership-funded PPAs of Ilagan City Isabela. Does not include local or foreign grants, loans, and borrowings

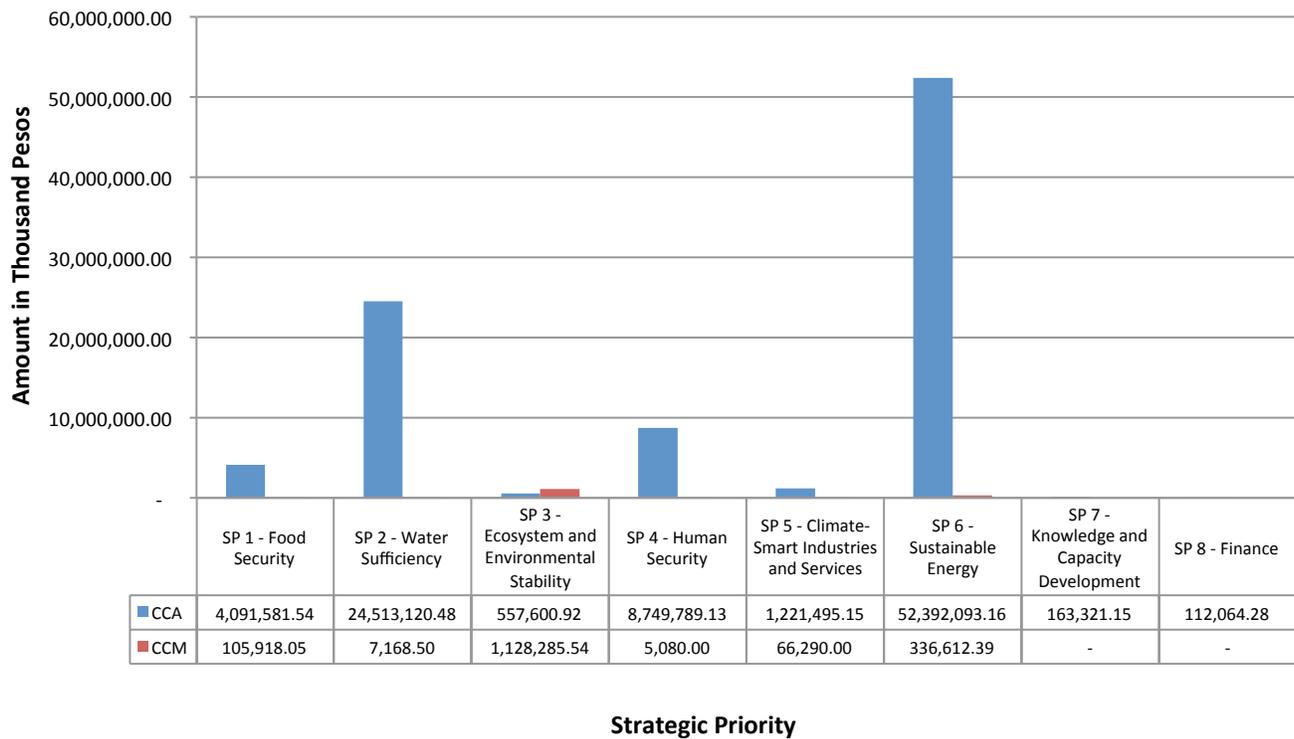
<sup>10</sup> “National Government, Other” includes 20% DF, and Grassroots Participatory Budgeting (i.e. Bottom-up Budgeting fund, and the Special Purpose Fund).

“Other” includes external grants and loans, and other external sources of funding.

## Aligning Local Actions to National Climate Policies

Programmed expenditures of LGUs for 2016 supports implementation of a number of NCCAP priorities. Sustainable Energy has the majority of the allocated amount, with more than PHP 52 billion, followed by Water Sufficiency at PHP 24 billion. A disaggregation of the investments under each strategic priority by adaptation and mitigation objectives is shown in Figure 15.

**Figure 16:  
Alignment with NCCAP Strategic Priorities**



## Sustaining the Gains towards Institutionalization

**There is strong ownership of the LGU climate budgeting initiative among oversight agencies and provinces from HVPs, including the leagues of LGUs.** Oversight agencies have actively promoted CCET through various means. The DILG and DBM regional offices have taken on the role of training provincial, city and municipalities within their respective jurisdictions. Additionally, composite teams from the two agencies have taken on the challenge of training LGUs within their regions.

**Local chief executives have also started to integrate CCET into their annual investment programming.** The issuance of JMC 2014-01 and its pilot testing for FY2015 spurred interest in the initiative, with requests for training from LGUs. Before the Training of Trainers was conducted, representatives from the oversight agencies and the World Bank were invited to serve as resource persons in LGU-initiated activities to prepare for 2016.

**The local-level CCET has enhanced collaboration among oversight agencies, provinces and the Leagues of LGUs.** The budget officers' leagues and the planning officers' leagues, in particular, have been active in popularizing and providing training on CC and CCET. Additionally, provinces from HVPs have partnered with the DBM and the DILG to improve the capacities of their cities and municipalities in CC and CCET.

Strategies for rolling out CCET to LGUs varied among regions.

**There is strong indication of buy-in of CCET from both officials and personnel of DBM and DILG, as well as from DILG regional officers.** Some of the regional officials who engaged directly in training LGUs in CCET issued directives for LGUs to implement CCET in their respective regions. Whenever possible, the DILG has incorporated CCET in orientations and trainings for LGUs. Additionally, in activities on Mainstreaming CC/DRR in Comprehensive Development Planning for 18 Major River Basins (MRBs)/Eastern Seaboard, a Briefing on CCET was included in the programs.

**Finally, oversight agencies are integrating the CCET into existing guidelines and training programs to make the initiative more sustainable.** The DILG is undertaking a retooling program to capacitate provincial focal persons and cluster heads on CCET. The DBM has included the CCET in the updating of the Budget Operations Manual (BOM) for LGUs. Furthermore, in the draft Updated Budget Operations Manual for LGUs, the AIP is now a requirement, with the budget becoming inoperative if the LGU does not submit an AIP. At present, not all LGUs submit the AIP to the oversight agencies. The manual is now under review and will be finalized within the next few months.

# VI

## 2016 Convergence Program Towards Risk Resiliency and Sustainability

**The cross-sectoral nature of the climate response has necessitated a number of important institutional reforms to facilitate dialogue across NGAs and within LGUs as well as strengthen convergence across programs.** In 2011, the GoP established five Key Results Areas (KRAs) for the government and accordingly reorganized the Cabinet into clusters to strengthen the delivery of results in each KRA. The Cabinet Cluster on Climate Change Adaptation and Mitigation (CCAM cluster), which includes secretaries from ten departments and agencies, aims to strengthen the delivery of results of the Key Result Area 5 corresponding to the integrity of the environment and climate change adaptation and mitigation.

The Government has demonstrated a strong effort to increase finance for climate adaptation and mitigation, particularly through the mobilization of domestic resources in the context of a growing national budget. To foster convergence across NGAs during budget preparation and support the achievement of KRA 5, the CCAM Cluster has developed the Risk Resiliency Program (RRP). It is one of the programs under the DBM's Program Convergence Budgeting (PCB). The RRP includes three components and outcomes, aligned with the three subsectors of the Sustainable and Climate-Resilient Environment and Natural Resources chapter of the Philippine Development Plan (PDP):

- (i) Resiliency of the natural systems – Improved conservation, protection or rehabilitation of natural resources aimed to enhance resiliency of the natural systems to the risks brought about by hydro-meteorological and geological factors;

- (ii) Cleaner, safer, and healthier environment – Improved air and water quality, reduced greenhouse gas (GHG) emissions from transport, energy and waste, and proper waste management aimed at reducing risks to human health and ecosystems from environmental degradation; and
- (iii) Enhanced adaptive capacities of communities and government institutions at local and national levels – Reduced threats to human security from risks and disasters by addressing the sources of vulnerability and strengthening coordination on disaster risk reduction and climate change adaptation.

The RRP budget in the FY16 NEP is PHP 90.7 billion for 66 PAPs from 11 Participating NGAs. Compared to the FY 2015 NEP, the overall RRP budget in the FY16 NEP includes 15 additional PAPs from three additional Participating NGAs, totaling PHP 14.3 billion. This represents a 19% increase from PHP 76.4 billion in FY 2015 (Table 8).

**Table 8:  
RRP Budget in the FY16 NEP: Size and Trends**

	FY 2015 NGA Request	FY 2015 NEP*	FY16 NGA Request**	FY16 NEP	% NGA Request included in FY16 NEP	% Change FY 2015 NEP to FY16 NEP
Number of Participating NGAs	14	8	13	11		
Number of PAPs	117	51	83	66	80%	29%
Budget ('000s PHP)	107,335,135	76,361,598	97,886,690	90,703,725	93%	19%

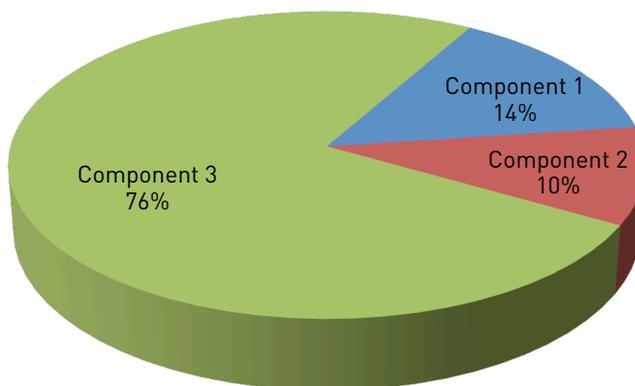
\* The DBM only tracks the RRP during budget preparation and through the NEP.

\*\* This reflects the program as endorsed by the Cabinet Cluster through the Cluster Resolution.

The RRP includes three components, each of which aims to deliver specific outcomes. However, the guiding documents do not provide targets or the relative priorities to guide the allocation of budgets or review the budget request.

- The largest component, **Component III (Enhanced adaptive capacities of communities and government institutions)**, is composed of 37 PAPs from seven Participating NGAs for PHP 68.8 billion (or 76% of the RRP budget in the FY16 NEP). The flood protection-related programs account for about two-thirds of the RRP budget in the FY16 NEP. In addition, the budget requests from DA and DOST exceed PHP 1 billion.
- **Component I (Resiliency of natural systems)** has the next highest budget – composed of 10 PAPs from two Participating NGAs for PHP 12.5 billion (or 14% of the RRP budget in the FY16 NEP). It is smaller (12%) than the FY16 NGA budget request, but represents an increase of more than 42% over the 2015 NEP. It includes the expansion of a number of PAPs, including PHP 3.1 billion for the National Greening Program and PHP 0.8 billion for the Forest Protection Program.
- **Component II (Cleaner, safer, and healthier environment)** has the smallest budget, with 19 PAPs from five Participating NGAs for PHP 9.4 billion (or 10% of the RRP budget in the FY16 NEP). It is significantly smaller than the FY16 NGA budget request, but represents an increase of 42% over the 2015 NEP. While the FY16 NEP does not include DENR-EMB’s request to expand the Solid Waste Program and scales down the expansion of the DOTC’s LRT/BRT projects, it does include a new PAP for the LRT-2 West line.

**Figure 17:**  
RRP Budget in the FY16 NEP by Component (‘000s PHP)



Climate change is a major area of focus of the RRP, composed of 96% of the PAPs and 92% of the RRP budget in the FY16 NEP (or PHP 83.2 billion) (Table 9). This represents a 40% increase in the climate expenditure in the RRP compared to the FY 2015 NEP, slightly higher than the growth in the overall RRP budget.

- Three factors contribute to real growth in climate expenditure between the FY 2015 NEP and FY16 NGA requests:
  - increases in the budget request for PAPs in line with the increases in the overall budget for the PAP (most NGAs),
  - new or expansion requests from NGAs (DPWH, DOTC, DENR), and
  - changes in the PAPs included in the FY16 NGA request resulting from the TRC review process (DA, DOST).

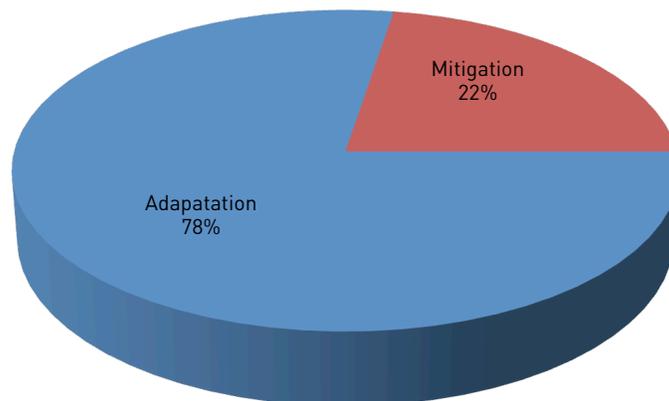
**Table 9:**  
**RRP Climate Expenditure in the FY16 NEP: Size and Trends ('000s PHP)**

	FY 2015 NEP	FY16 NGA Request	FY16 NEP	% of NGA Request included in NEP	% Change from FY 2015 NEP to FY16 NEP
RRP Climate Change Expenditure	59,395,495	81,898,320	83,152,223	102%	40%
RRP Total Budget	76,361,798	97,886,690	90,703,752	93%	19%
Budget share of CC-tagged PAPs in RRP	92%	96%	96%		
Share of RRP climate expenditure in the RRP budget	78%	84%	92%		
RRP CCE as share of national climate expenditure	43%	45%	50%		

Adaptation response in the FY16 NEP RRP continues to be broad-based, although less diverse, with the exclusion of a quarter (23%) of the PAPs in the FY16 NGA request (Figure 16). The mitigation response is narrowly focused on 16 PAPs from five NGAs, covering

only four strategic priorities. The shift to mitigation from the FY 2015 NEP can be attributed to the expansion of the NGP, the addition of four DOTC LRT and BRT projects, and the increased selectivity of the DA's submission to the RRP.

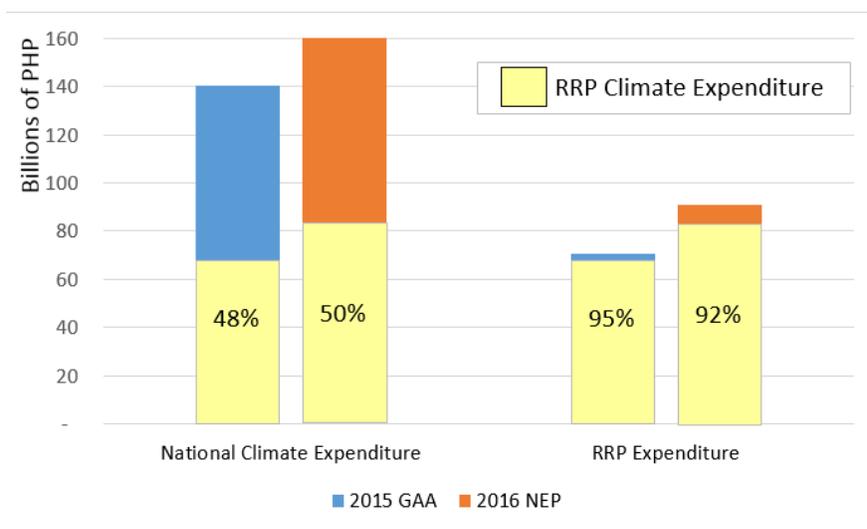
**Figure 16: RRP Climate Expenditure in the FY16 NEP: by Climate Pillar**



The RRP is an important vehicle for operationalizing the NCCAP, as it comprises half (50%) of the climate expenditure in the FY16 NEP (Figure 17). The RRP budget in the FY16 NEP has increased the mitigation budget, with the share of

mitigation rising from about 11% in the FY 2015 NEP to more than a fifth (22%) in FY16. However, this partially scales back the shift towards mitigation in the RRP FY16 NGA budget request, which reached one-third (33%).

**Figure 17:**  
**RRP Climate Expenditure in the FY16 NEP:**  
**by Climate Pillar**



The RRP accounts for nearly all of the FY16 NEP climate expenditure for Water Sufficiency (99.3%) and Ecological and Environmental Stability (85%), along with about half of the Knowledge and Capacity Development priority and half of cross-cutting programs—making the PAPs in the RRP critical for attaining outcomes in these areas.

Despite this strong progress, commitment, and leadership, there are significant opportunities for the Government’s response to climate change to further improve on a programmatic basis. The planning and execution, implementation, and operational frameworks remain a work in progress and, building on the lessons and achievements over the past three years, the budgeting process could also be strengthened. Further development of the Government’s national

response program for climate change may include improvements in understanding adaptation and resilience investment needs, mobilizing investments to support them, developing appropriate and results-oriented plans to achieve their objectives, and evaluating and learning from these experiences to inform future investments. As a result, the climate processes between NGAs, LGUs and communities, as well as coordination and consensus-building among them, will be continually strengthened.

# VII

## Strengthening the National Climate Budgeting Towards a Sustainable and Full-Functioning System

Over the last three years, the Government of the Philippines has led a dynamic reform program to improve the mobilization of the climate budget and institutionalize the process. Tools and processes developed in 2014 have provided early indications for the need and utility of these reforms in supporting improved planning, prioritization, budgeting and reporting of the Philippines' climate response. The quality of climate change expenditure tagging (CCET) and the process of climate budgeting have been refined progressively to strengthen coordination and to improve the relevance and usefulness of results.

Although initial results of the climate budgeting system have produced substantial products, there are several areas where the system could be strengthened to improve its functionality and long-term sustainability. First, there are several potential areas of improvement for linking NGAs' climate budgets with their designated NCCAP roles and institutional mandates. In 2016, five of the seven NCCAP priorities have gaps in their coverage of outcome areas by NGAs with designated lead roles. These gaps are identical to those described in 2015. NGAs could consider identifying whether improvements to their CCET are required, and/or strengthening their support for the respective NCCAP areas they lead, both through increased expenditures as well as institutional capacity. Second, the Oversight Agencies such as DBM, CCC or the National Economic Development Authority (NEDA) can facilitate more policy level dialogues to address NCCAP outcome and output areas with limited allocations by select NGAs. Although the level of expenditures alone may not be indicative of government actions and achievements, there are few programs, of any

size, identified in the climate budget supporting these priorities and their respective output areas.

In addition, continued efforts are required to further institutionalize the planning and prioritization of programs and to strengthen the analysis and reporting of CC expenditures. When fully implemented, the climate budgeting system will give the best available indication of public resources being channeled to address specific CC priorities and the extent to which the national policy and institutional context and priorities guide these expenditures.

Overall, the Philippines' implementation of the Climate Budgeting System has proven to be a feasible and relevant approach for generating information to prioritize climate response at the national and local levels. This experience in the Philippines may be of interest to other developing countries in the context of their respective Nationally Determined Contributions.

## Definitions of Key Terms

### **CLIMATE CHANGE:**

A change in climate that can be identified by changes in the mean and/or variability of its properties and that persists for an extended period, typically decades or longer, whether due to natural variability or as a result of human activity.

### **CLIMATE CHANGE ADAPTATION:**

An activity should be classified as adaptation-related if it intends to reduce the vulnerability of human or natural systems to the impacts of climate change and climate-related risks by maintaining or increasing adaptive capacity and resilience.

### **CLIMATE BUDGET:**

The total amount of public financing directed towards programs, activities, and projects (PAPs) that are responsive to climate change adaptation and/or climate change mitigation.

### **CLIMATE BUDGETING:**

Classifies public expenditures through a process called climate change expenditure tagging, which uses a typology of the climate responses as identified in government policies.

### **CLIMATE CHANGE MITIGATION:**

A PAP should be classified as climate change mitigation if it aims to reduce greenhouse gas (GHG) emissions, directly or indirectly, by avoiding or capturing GHGs before they are emitted in the atmosphere or by sequestering those already in the atmosphere by enhancing 'sinks' such as forests.

## **CLIMATE CHANGE EXPENDITURE:**

Any PAP that includes components that are responsive to climate change adaptation and/or climate change mitigation.

## **CLIMATE-SMART INDUSTRIES AND SERVICES:**

A strategic priority of the National Climate Change Action Plan (NCCAP), with the main objectives of prioritizing the creation of green and eco-jobs, and sustainable consumption and production.

## **ECOLOGICAL AND ENVIRONMENTAL STABILITY:**

A strategic priority of the NCCAP, with the main objectives of protecting and rehabilitating critical ecosystems and restoring ecological services.

## **FOOD SECURITY:**

A strategic priority of the NCCAP, with the main objective of ensuring availability, stability, accessibility, and affordability of safe and healthy food amidst climate change.

## **FOREIGN-FUNDED PROJECTS:**

Government projects that are wholly or partly financed by foreign loans and/or foreign grants.

## **HUMAN SECURITY:**

A strategic priority of the NCCAP, with the main objective of reducing risks of women and men to climate change and disasters.

## **KNOWLEDGE AND CAPACITY DEVELOPMENT:**

A strategic priority of the NCCAP, with the main objectives of: (i) enhancing knowledge on the science of climate change, (ii) enhancing capacity for adaptation, climate change mitigation, and disaster risk reduction at the local and community levels, and (iii) establishing gendered climate change knowledge management accessible to all sectors at the national and local levels.

## **LOCALLY-FUNDED OPERATIONS:**

Projects financed out of revenue collections and domestic borrowings.

## **MAJOR FINAL OUTPUT (MFO):**

A good or service that a department/agency is mandated to deliver to external clients through implementation of programs, activities, and projects (PAPs).

An MFO can be defined relative to:

- (i) the outcomes that they contribute to,
- (ii) the client or community group that they serve, and/or
- (iii) the business lines of the department/agency.

An MFO may be a single output or a group of outputs that are similar in nature, targeted at the same organization/sector outcome, and capable of being summarized by a common performance indicator (e.g. different types of policy/advisory are grouped into a single MFO on policy and advisory services).

## **NATIONAL CLIMATE CHANGE ACTION PLAN (NCCAP):**

The National Climate Change Action Plan 2011-2028, adopted by the Climate Change Commission, outlines a three-phase action plan to implement specific programs and strategies for CC adaptation and mitigation. NCCAP's main goals are to build the adaptive capacities of women and men in their communities, increase resilience of vulnerable sectors and natural ecosystems to climate change, and optimize CC mitigation opportunities towards gender-responsive and rights-based sustainable development.

## **PAPs:**

Refers to programs, activities, and projects undertaken by a department/agency to achieve the purpose for which it was established or created. It should be directly linked to the Major Final Outputs (MFOs) to drive performance improvements.

## **PROGRAM:**

A homogenous group of activities necessary for the performance of a major purpose for which a government agency is established, for the basic maintenance of the agency's administrative

operations, or for the provision of staff support to the agency's administrative operations or line functions.

### **PROJECTS:**

Special agency undertakings that are to be carried out within a definite time frame and that are intended to result in some pre-determined measure of goods and services.

### **RESILIENCE:**

The ability of a social or ecological system to absorb disturbances while retaining the same basic structure, functionality, and capacity for self-organization, and to adapt to stress and change.

### **RISK:**

The combination of the magnitude of an impact (a specific change in a system caused by its exposure to climate change) with the probability of its occurrence.

### **SUSTAINABLE ENERGY:**

A strategic priority of the NCCAP, with the main objectives of: (i) prioritizing the promotion and expansion of energy efficiency and conservation; (ii) developing sustainable and renewable energy; (iii) promoting environmentally-sustainable transport; and (iv) supporting climate-proofing and rehabilitation of energy system infrastructure.

### **TAGGING:**

A process of identifying and tracking PAPs in a particular sector or category.

### **VULNERABILITY:**

The degree to which geo-physical, biological, and socio-economic systems are susceptible or unable to cope with the adverse impacts of climate change.

### **WATER SUFFICIENCY:**

A strategic priority of the NCCAP, with the main objectives of sustainably managing and ensuring equitable access to water resources.



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