



SCOPING REPORT

Development of the Philippine Country Programme for
the Green Climate Fund

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WORLD AGROFORESTRY CENTRE (ICRAF) PHILIPPINES | MAY 2018

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List of Acronyms

ABS	Access and benefit-sharing
ACPC	Agricultural Credit Policy Council
ADP	Area Development Project
AE	Accredited entity
AF	Adaptation Fund
AFF	Agriculture, fisheries, and forestry

AMIA	Adaptation and Mitigation Initiative for Agriculture
APEC	Asia-Pacific Economic Cooperation
ASTI	Advanced Science and Technology Institute
AWIT-FE	Agriculture, waste, industry, transport, forestry, and energy
BAU	Business-as-usual
BBS	Bureau of Broadcast Services
BESF	Budget of Expenditures and Sources of Financing
BFAR	Bureau of Fisheries and Aquatic Resources
BMUB	German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety
BRT	Bus Rapid Transit
CADT	Certificate of Ancestral Domain Title
CBFMA	Community Based Forest Management Agreement
CBO	Community-based organization
CC	Climate change
CCA	Climate change adaptation
CCAM	Climate change adaptation and mitigation
CC CCAM-DRR	Cabinet Cluster on Climate Change Adaptation and Mitigation—Disaster Risk Reduction
CCE	Climate change expenditure
CCET	Climate Change Expenditure Tagging
CCM	Climate change mitigation
CDM	Clean Development Mechanism
CDP	Comprehensive Development Plan
CER	Certified Emission Reduction
CFSF	Climate Finance Support Facility
CICT	Commission on Information and Communications Technology
CIF	Climate Investment Fund
CLUP	Comprehensive Land Use Plan
CRA	Climate-resilient agriculture
CRRP	Comprehensive Rehabilitation and Recovery Plan
CSIS	Climate-smart industries and services
CSO	Civil society organization
CWC	Council for the Welfare of Children
DA	Department of Agriculture
DAR	Department of Agrarian Reform
DBM	Department of Budget and Management
DCP	Design Center of the Philippines
DENR	Department of Environment and Natural Resources
DepEd	Department of Education
DFA	Department of Foreign Affairs
DILG	Department of Interior and Local Government
DMAF	Disaster Management Assistance Fund

DND	Department of National Defense
DOE	Department of Energy
DOF	Department of Finance
DOST	Department of Science and Technology
DOT	Department of Tourism
DOTr	Department of Transportation
DPWH	Department of Public Works and Highways
DREAMS	Development for Renewable Energy Applications Mainstreaming and Market Sustainability
DRR	Disaster risk reduction
DRRM	Disaster risk reduction and management
DTI	Department of Trade and Industry
EbA	Ecosystem-based adaptation
EES	Ecological and environmental stability
EMB	Environmental Management Bureau
eNGP	Expanded National Greening Program
ENR	Environment and natural resources
EO	Executive Order
ERPA	Emissions Reduction Purchase Agreement
FIP	Forest Investment Program
FMR	Farm-to-market road
FS	Food security
GAA	General Appropriations Act
GCF	Green Climate Fund
GCFRP	Green Climate Fund Readiness Programme
GDP	Gross domestic product
GEF	Global Environment Facility
GEMP	Government Energy Management Program
GHG	Greenhouse gas
GOCC	Government owned and controlled corporation
GoP	Government of the Philippines
HLURB	Housing and Land Use Regulatory Board
HNRDA	Harmonized National Research and Development Agenda
HS	Human security
HUDCC	Housing and Urban Development Coordinating Council
IBRD	International Bank for Reconstruction and Development
ICRAF	World Agroforestry Centre
IEC	Information, education, and communication
IFC	International Finance Corporation
INDC	Intended Nationally Determined Contributions
ILS	Institute for Labor Studies
I&S	Industry and services
IRR	Implementing rules and regulations

IWRM	Integrated water resources management
JMC	Joint Memorandum Circular
KCD	Knowledge and capacity development
KRA	Key results area
LCCAP	Local Climate Change Action Plan
LDRRMC	Local Disaster Risk Reduction and Management Council
LDRRMF	Local Disaster Risk Reduction and Management Fund
LGA	Local Government Academy
LGU	Local government unit
LRT	Light Rail Transit
LWUA	Local Water Utilities Administration
M&E	Monitoring and evaluation
MGB	Mines and Geosciences Bureau
MMDA	Metro Manila Development Authority
MRRRP	Marawi Recovery, Rehabilitation and Reconstruction Program
MRV	Monitoring, reporting, and verification
MWSS	Metropolitan Waterworks and Sewerage System
NaLUA	National Land Use Act
NAMRIA	National Mapping and Resource Information Authority
NAPC	National Anti-Poverty Commission
NCCAP	National Climate Change Action Plan
NCIP	National Commission on Indigenous Peoples
NDA	National designated authority
NDC	Nationally Determined Contributions
NDCP	National Defense College of the Philippines
NDRRMC	National Disaster Risk Reduction and Management Council
NDRRMF	National Disaster Risk Reduction and Management Fund
NEDA	National Economic and Development Authority
NFSCC	National Framework Strategy on Climate Change
NGA	National government agency
NGP	National Greening Program
NIE	National implementing entity
NMIS	National Meat Inspection Service
NRA	Natural resource accounting
NSC	National Steering Committee
NSS	National Spatial Strategy
NSWMS	National Solid Waste Management Strategy
NWRB	National Water Resources Board
NYC	National Youth Commission
OCD	Office of Civil Defense
OD	Organizational development
ODA	Official Development Assistance
OP	Office of the President

PAGASA	Philippine Atmospheric Geophysical and Astronomical Services Administration
PAMB	Protected Area Management Board
PAPs	Programs and projects
PAR	Philippine Area of Responsibility
PCAARRD	Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
PCAF	Philippine Council for Agriculture and Fisheries
PCB	Program Convergence Budgeting
PCC	Philippine Carabao Center
PCG	Philippine Coast Guard
PCSD	Palawan Council for Sustainable Development
PD	Presidential Decree
PDP	Philippine Development Plan
PEP	Philippine Energy Plan
PhilMech	Philippine Center for Postharvest Development and Mechanization
PIA	Philippine Information Agency
PIP	Public Investment Program
PLLO	Presidential Legislative Liaison Office
PN	Philippine Navy
PO	People's organization
POEA	Philippine Overseas Employment Administration
POPCOM	Commission on Population
PPP	Public-Private Partnership
PRDP	Philippine Rural Development Program
PRRC	Pasig River Rehabilitation Commission
PSA	Philippine Statistics Authority
PSALM	Power Sector Assets and Liabilities Management Corporation
PSF	People's Survival Fund
PUV	Public utility vehicle
PWR Fund	Philippine Water Revolving Fund
QRF	Quick Response Fund
RA	Republic Act
RBMES	Results-Based Monitoring and Evaluation System
RE	Renewable energy
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RM	Results matrix
ROP	Republic of the Philippines
ROTC	Reserve Officers' Training Corps
RSP	Risk Resiliency Program
RTM	Risk transfer mechanism
SCCF	Special Climate Change Fund
SDG	Sustainable Development Goal
SE	Sustainable energy

SIAD	Sustainable integrated area development
SME	Small- and medium-sized enterprise
SPCR	Strategic Program for Climate Resilience
SREP	Scaling Up Renewable Energy in Low Income Countries Program
SST	Sea surface temperature
STI	Science, technology, and innovation
SUC	State university and college
SWM	Solid waste management
TA	Technical Assistance
TCCP	Technical Cooperation Council of the Philippines
TOR	Terms of Reference
TWG	Technical Working Group
UNCDD	United Nations Convention to Combat Desertification
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
VA	Vulnerability assessment
WB	World Bank
WRI	World Resources Institute
WS	Water sufficiency

Project overview

The United Nations Framework Convention on Climate Change (UNFCCC) provides opportunity for less developed and developing countries to achieve low-emission development and climate resilience. This can be done by implementing adaptation and mitigation actions through accessing the Green Climate Fund (GCF), which was created in 2010 by 194 countries with a total fund of USD 10.1 billion.

In accessing the GCF, the Philippines needs to develop a Country Programme for the period 2018 to 2022. The Country Programme for GCF will contain a portfolio of adaptation and mitigation projects/programs that will guide the Philippines to attain its ultimate goal of achieving climate resilience and green growth.

The development of the Philippines' Country Programme will be led by the Department of Environment and Natural Resources (DENR) as per their mandate of being National Designated Authority (NDA) for the GCF. As NDA, DENR will provide broad strategic oversight on the various GCF activities in the country, convene relevant public, private and civil society stakeholders to identify priority sectors and concerns to be financed by GCF, endorse nomination letters for accreditation as implementing entities, issue no objection letters for projects/programs, approve readiness support, and provide strategic oversight on alignment of proposed projects/programs with national sustainable development objectives and frameworks.

To provide support to the development of the Country Programme for GCF, the GCF Readiness Programme (GCFRP) was established. GCFRP is a global initiative funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and implemented by the United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), and World Resources Institute (WRI). The GCFRP primarily aims to support the Government of the Philippines (GoP) in strengthening national capacities to effectively and efficiently plan for, access, manage, deploy, and monitor climate financing—in particular through the GCF. Specifically, the program will support capacitation and empowerment of the DENR as the NDA to the GCF including relevant partner-government agencies. The Program will focus on two important aspects of the GCF approach, namely to access to funds and private sector engagement through the selection of national/sub-national implementing entities for accreditation and the preparation of prioritized programs/projects for submission to GCF.

The World Agroforestry Centre (ICRAF) Philippines was contracted by the UNDP on April 6, 2018 to provide technical assistance to the NDA and the GCFRP in developing the Philippines' Country Programme for GCF.

Objectives of the scoping report

The scoping process entails an extensive literature review that aims to:

1. Provide an overview of the country's socioeconomic status and key climate challenges;
2. Lay out the national priorities and strategies for climate change adaptation and mitigation (CCAM) as stipulated in select government frameworks, plans, and agenda;
3. Present the available funding facilities related to climate change;
4. Provide an overview of the current government CC expenditures and their alignment with country CCAM needs; and
5. Provide initial assessment on the gaps and opportunities for CC financing.

The scoping report shall inform the next phase of the development of the Philippine Country Programme for GCF where stakeholder consultations will be conducted to discuss and vet the findings in order to identify possible focus areas for the country's utilization of the GCF.

Country context on climate change and socioeconomic development

The Philippines continues its streak as an economic powerhouse contender in Asia as it bears witness to a strong economic growth in the recent years. Since 2000, the country's real gross domestic product (GDP) grew at an average of 4.5% annually and has even accelerated to an average of 6.2% since 2010. According to Chua (2018), the country had the third highest GDP growth in the region for 2017, amounting to 6.7% next to China and Vietnam owing to a sharp increase in exports for the year. It is projected that this same increase will be sustained until it levels off to a figure of 6.6% in 2020 in response to the current administration's public investment program of enhancing infrastructure density, quality, and interconnectivity—the success of which hinges upon, inter alia, a spur in infrastructure spending from over last year's performance of more than 5% of GDP to beyond 7% by the year 2022.

Currently, while the share of individuals living below the poverty threshold has been on a decline owing to factors such as the movement of employment out of agriculture, a sustained inflow of remittances, and the government's conditional cash-transfer program, the performance of various social indicators still does not illustrate a matching development trajectory consistent with the preconceived manifestation of a strong economic growth pattern. For instance, as of 2015, poverty incidence is still at 21.6 with the Gini coefficient well over 40%, and while unemployment rate has reached a low of 6.3%, underemployment remains at a standstill near its decade-long average of 18-20%. Per capita income per month is also low at PhP 6,173, which translates to a modest household income of only PhP 24,691 for a family of four where a fifth is already being spent to shoulder food expenses alone (Perez, 2016). In addition, unlike its high-performing East Asian neighbors with a booming manufacturing sector that provides higher rates of return to employment, majority of Filipino workers that transition out of the agricultural sector find themselves in the service industry dominated by low-paying, unstable jobs in a market saturated by informal enterprises with low scale-up potential. Thus, while the rate of employment increased between 2006 and 2015, mean wages remained stagnant with only a 4% increase in real terms over the same period. Living standards are

further affected as the rising inflation rate dampens the accumulation of real wage, contributing to a moderation in private consumption growth.

The following years will also present other intricate problems for the Philippines given the rising need for sustainable development. There is a clamor not only for strong, inclusive, and translatable economic growth, but also livable communities that are capable of functioning within the boundaries of the Earth's natural capacity.

One of the more pressing concerns in this light is the problem of CC as seen in the occurrence of various climate irregularities and other natural hazards that have worsened over time as a result of anthropogenic activities that have increased greenhouse gas (GHG) emissions way beyond pre-industrial level. These hazards include strong winds, floods, droughts, and storms, to name a few. From 1951 to 2010, the country has seen the onslaught of global warming and climate variabilities such as an increase in the mean temperature per decade, more hot days and warm nights, less cool days and cold nights, increased intensity and frequency of extreme rainfall events and dry spells, and increased sea surface temperature (SST) near the Philippines (Villarin, et al., 2016).

According to the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), temperature records from between 1951 and 2015 show an increase in mean temperature by 0.68°C with fewer cool days and cold nights, and more frequent hot days and warm nights. This has been projected to rise to between 0.9 and 2.3°C by 2050 and between 1.3 and 4.1°C by the end of the century. Meanwhile, records from 1951 to 2010 show a national trend of increased rainfall intensity and frequency with projections showing a series of more intense dry and wet seasons by 2050 where changes will vary per region due to the differences in topography and latitude among others. While the number of tropical cyclones entering the Philippine Area of Responsibility (PAR) has decreased over the years, the intensity has increased. It is expected that the wind speeds will further escalate by 2050 while the the total number of tropical cyclones will decrease or stay the same. More than 60% of the cities and municipalities are also situated along the shore, making them vulnerable to rising sea levels which were observed to have increased by twice the global average at 5-7 mm/year between 1993 and 2015. Projections show the mean sea level increasing by as much as 20 cm by the end of the 21st century, further increasing the exposure of communities to the threat of inundation (CC CCAM-DRR, 2017).

These climate-related phenomena translate to devastating sudden or slow-onset impacts in terms of damage to or loss of livelihood, property, habitat, and functioning of ecosystem services, which exacerbate already existing problems in the socioeconomic and environmental spheres. In fact, the World Risk Index puts the Philippines as the 3rd country with the highest risk¹ to hazards for seven years in a row since 2011 (Kirch et al., 2017).

¹ The concept of risk in the aforementioned index is not solely based on the probability of occurrence of natural hazards and their severity. It also considers human living conditions and the development status of the country in question. It assumes that a nation that possesses sufficient financial resources and functioning national and civil-societal structures, that confronts recurring natural events with an adaptive strategy, will be less adversely impacted by these events.

Synthesis of national frameworks, agenda, and funding facilities related to climate change

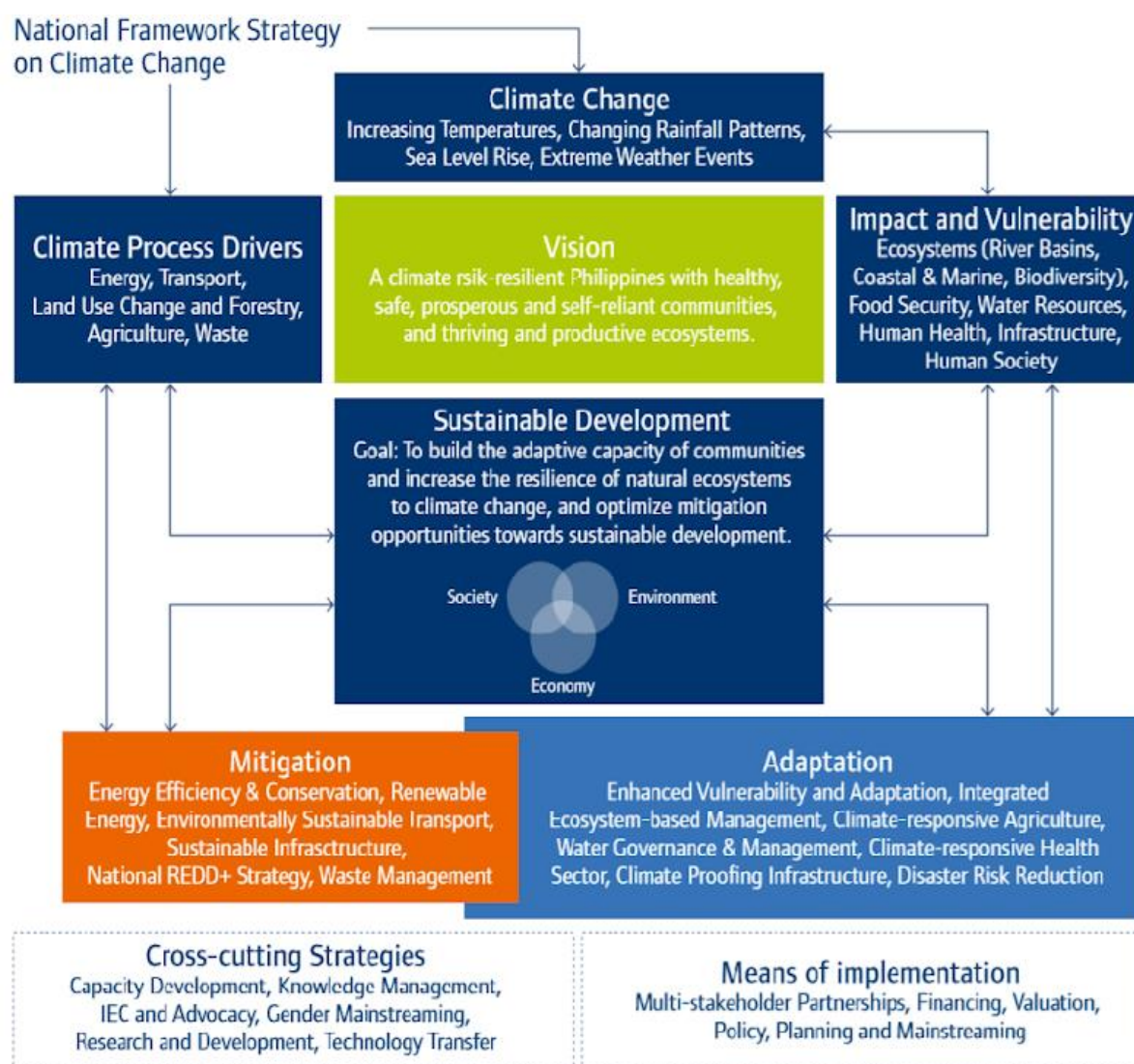
Cognizant of the need for a coordinated, active response to the demands of CC, the GoP put into effect Republic Act (RA) No. 9279 known as the Climate Change Act of 2009, which led to the establishment of the Climate Change Commission (CCC) to serve as the Philippines' policy-making body and lead in the coordination, evaluation, and monitoring of programs and projects (PAPs) and action plans of the government related to CC. The CCC also serves as Secretariat to the Cabinet Cluster on Climate Change Mitigation and Adaptation—Disaster Risk Reduction (CC CCAM-DRR-DRR), which is one of the five clusters resulting from the reorganization of the Cabinet as mandated by Executive Order (EO) No. 43 of 2011 to meet the five key results areas (KRAs) of the “Social Contract” in the 1987 Constitution, to wit: (i) transparent, accountable, and participatory governance; (ii) poverty reduction and empowerment of the poor and vulnerable; (iii) rapid, inclusive, and sustained economic growth; (iv) just and lasting peace and the rule of law; and (v) integrity of the environment and CCAM. The CC CCAM-DRR is responsible for meeting KRA 5, and shall serve as the primary mechanism of the Executive Branch to coordinate the planning, budgeting, and execution of the various CC initiatives of various government instrumentalities to ensure a synergistic approach in attaining the annual performance targets in partnership with other development partners. This Cabinet Cluster also serves as a high-level advisory committee to the Office of the President (OP) in evaluating and recommending policy and operational measures towards attaining such cause (ROP, 2009).

Prior to this, several PAPs and policies already exist that have linkages with CC but a number of these do not necessarily target the issue specifically as an end goal (Shrivastava, n.d.). In addition, such initiatives did not necessarily address the long-term, crosscutting needs of addressing the impacts of CC in a coordinated, sustainable fashion. This is best illustrated, for example, by a redirection of focus from mere disaster preparedness, relief, and response measures to a thorough consideration and planning of mechanisms to ensure prevention or increased adaptive capacity against natural and manmade hazards. The previous years also bore witness to a fragmented system where the strive for CCAM was yet to be a proactive movement in the development process from policy formulation to planning, monitoring, and investment programming. The establishment of the CCC subverts this scenario as the institution takes center stage in leading development efforts in the mainstreaming of CC in the national consciousness and agenda. Since then, for example, efforts have been geared towards revisiting existing legal frameworks and how these can be leveraged to support and advance the CC agenda. These include but are not limited to the Agriculture and Fisheries Modernization Act of 1997, Clean Air Act of 1999, Ecological Solid Waste Management (SWM) Act of 2000, Clean Water Act of 2004, Biofuel Act of 2006, and Renewable Energy Act of 2008.

In 2010, the CCC released the National Framework Strategy on Climate Change (NFSCC) that envisions a *“climate risk-resilient Philippines with healthy, safe, prosperous and self-reliant communities, and thriving and productive ecosystems”* for which the NFSCC stipulates the need to build the adaptive capacity of communities and ecosystems to CC while optimizing opportunities for GHG emissions reduction in areas with mitigation potential such as the energy, transport, and forestry sectors. Such goal is found supportive of the linkages between society, environment, and economy, which, in

tandem, engender viable, equitable, and bearable growth (i.e., the three pillars of sustainable development) (CCC, 2010). See Figure 1 for the framework followed by the NFSCC.

Figure 1. Climate change management framework from NFSCC²



² From Shrivastava, n.d., adapted from CCC, 2011

This sets the tone for the development of the National Climate Change Action Plan (NCCAP) 2011-2028, which provides an overview of the current country climate context and serves as the government's blueprint for CC action across seven identified thematic areas of operation or strategic priorities, namely: (i) food security (FS); (ii) water sufficiency (WS); (iii) ecological and environmental stability (EES); (iv) human security (HS); (v) sustainable energy (SE); (vi) climate-smart industries and services (CSIS); and (vii) knowledge and capacity development (KCD). The NCCAP provides a detailed results matrix with 326 activities spread across the 21 outcome areas of the 7 thematic areas. The plan also details the delineation with regards to the areas of operation and roles of government agencies and other stakeholders for its implementation (i.e., as lead, coordinating, or support body) (CCC, 2011).

The entire duration of the plan is divided into three segments of six years each, aligned with the set revision of the Philippine Development Plan (PDP) per change in the government administration. The PDP is the overarching document that articulates the country context, strategies, and desired outcomes per sector, and is used as the primary reference and prioritization tool in the formulation, enhancement, monitoring, appraisal, and evaluation of other government plans, legislation, and PAPs. It is also accompanied with a results matrix (RM) that details the sector and subsector outcomes, performance indicators, baseline figures, and annual targets to be achieved, including the responsible agencies, assumptions for the laid-out figures, means of verification, and reporting entities.

While the responsibility over various CCAM initiatives may initially appear to rest largely upon the hands of government agencies given the context of their NCCAP roles, local government units (LGUs) are very much expected to play a lead role as well in the pursuit of CCAM in their respective areas of jurisdiction as per the Climate Change Act and the decentralization of powers, functions, and resources afforded to them by the Local Government Code. The Climate Change Act requires LGUs to be at the frontline in formulating and executing their respective Local Climate Change Action Plans (LCCAPs) consistent with the provisions of the NCCAP and the Local Government Code. LGUs are encouraged to incorporate the results and findings therein into their Comprehensive Development Plans (CDPs) and Comprehensive Land Use Plans (CLUPs) (Shrivastava, n.d.).

Another major government agenda is the Draft Roadmap of CC CCAM-DRR for the period 2018-2022 subject to further deliberation and agreement. The roadmap aims to establish climate- and disaster-resilient communities supporting equitable and sustainable development in select areas of agricultural development, critical watersheds, and major river basins, marked with high poverty incidence and susceptibility to climate hazards. It will lay out the pipeline of PAPs and targets to be achieved annually for its four outcomes of: (i) increased resilience of vulnerable communities; (ii) ensured adequate supply of clean air, water, and other natural resources; (iii) increased resilience of critical infrastructure; and (iv) enhanced institutional capacity, knowledge, and access to information (CC CCAM-DRR, 2017). The roadmap will utilize the Program Convergence Budgeting (PCB) approach that calls for coordinated planning, budgeting, and implementation of inter-agency programs. The approach originally sprung forth from the Risk Resiliency Program (RSP) of the cluster, which serves as the umbrella program for converging the cluster's actions towards 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.

The Philippines also continues to recognize its responsibility to ensure the country's climate resilience and contribute its fair share in building a low-carbon economy. In October 2015, the GoP submitted its Intended Nationally Determined Contributions (INDC) where it states its commitment of a 70% reduction in carbon emissions by 2030 relative to its business-as-usual (BAU)³ scenario, which is referring to the 2010 value of 220.92 MtCO₂e. This will be achieved through emission reduction efforts in the areas of agriculture, waste, industry, transport, forestry, and energy, otherwise known as AWIT-FE. This is in response to the call of the Paris Agreement⁴ for a global binding commitment to mitigate GHG emissions—in particular, to keep the increase in global temperature to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the increase even further to 1.5 degrees Celsius. It should be noted however that the realization of this goal is purely conditional upon access to international support in terms of financial resources, technology transfer, and capacity building support for CCA (Andres, 2017). On account of the Philippines' vulnerability to CC impacts, the NDC will reflect adaptation as the anchor strategy and mitigation as a function of or co-benefit of adaptation. The GoP also posits that the country be allowed to peak its emissions in its pursuit of a stronger economy. Priority adaptation measures include: (i) institutional and system strengthening for downscaling climate change models, climate scenario-building, climate monitoring and observation; roll-out of science-based climate/disaster risk and vulnerability assessment process as the basis for mainstreaming CC and disaster risk and reduction (DRR) in development plans and PAPs; (iii) development of climate and disaster-resilient ecosystems; (iv) enhancement of climate and disaster-resilience of the agricultural, water, and health sectors; (v) systematic transition to a climate and disaster-resilient social and economic growth; and (vi) R&D on climate change extremes and impacts for improved risk assessment and management. The GoP intends to finalize its pledge and the terms of its commitment as it submits the country's Nationally Determined Contributions (NDC)⁵ this 2018 (CCC, 2017).

Other government laws, frameworks, and plans dealing with CC are discussed in detail in Tables 1 and 2.⁶

³ Among the assumptions used for the BAU scenario are annual average GDP growth rate of 6.5 % and average annual population growth of 1.85%. Mitigation options has a potential for reduction of 148 MtCO₂e, of which 31% comes from the energy sector.

⁴ The agreement was borne out of the 21st Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015. Key elements of the agreement include the following: (i) achievement of the NDCs; (ii) 50/50 focus on adaptation and mitigation intervention measures; (iii) emphasis on loss and damage; (iv) enhancement of the means for implementation, particularly finance, capacity-building, and technology development and transfer; and (v) efficient monitoring and reporting.

⁵ Unlike the INDC, the NDC is a binding commitment and will be subject to global stock-take and expert review every 5 years, with the first compliance period being 2020-2025.

⁶ The discussion mostly revolves around the national laws, frameworks, and agenda provided in the project's Terms of Reference (TOR).

Table 1. Overview of CC-related laws, frameworks, and plans

	Objectives	Thematic Areas (CC- and non-CC-related)	Foundation and Legal Premise	Duration
National Laws				
1. Climate Change Act <i>Source: RoP, 2009</i>	<ul style="list-style-type: none"> To serve as the legal precedent for the establishment of an overarching policy framework and institutional structure to address climate change 	<ul style="list-style-type: none"> Establishment of the Climate Change Commission Formulation of the NFSCC, NCCAP, and LCCAPs 	<ul style="list-style-type: none"> UNFCCC 	2009 onward
2. Green Jobs Act <i>Source: DOLE, 2017; ROP, 2016</i>	<ul style="list-style-type: none"> To facilitate the transition of the country into a green economy that is low-carbon and resource-efficient and that results in improved human well-being and social equity 	<ul style="list-style-type: none"> Increased participation of businesses and individuals to participate in, generate, and sustain jobs that promote the circulation of green goods and services that benefit the environment Poverty reduction and social justice through the pursuit of job security and presence of viable and sustainable livelihoods 	<ul style="list-style-type: none"> RA 9729 	2016 onward
3. NDC <i>Source: Andres, 2017</i>	<ul style="list-style-type: none"> To keep the increase in global temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the increase even further to 1.5°C 	<ul style="list-style-type: none"> The Philippines intends to pledge an emissions reduction of about 70% by 2030 relative to its projected BAU scenario of 2000-2030, to be achieved through corresponding efforts in the areas of agriculture, waste, industry, transport, forestry, and energy (AWIT-FE); however, this is tentative. The target will be finalized in 2018. 	<ul style="list-style-type: none"> NFSCC 2010- 2022 NCCAP 2011-2028 2015 Paris Agreement RA 9729 RA 10174 RA 10121 	2018-2030
National Frameworks and Plans				
1. NFSCC, NCCAP, and LCCAPs <i>Source: ROP, 2009; CCC, 2010; CCC, 2011</i>	<ul style="list-style-type: none"> To build the adaptive capacity of communities and increase the resilience of natural ecosystems to climate change while maximizing opportunities for CCM 	<ul style="list-style-type: none"> FS WS EES HS CSIS SE KCD 	<ul style="list-style-type: none"> RA 9729 RA 7160 UNFCCC Philippine Agenda 21 	NFSCC (2010 onward) NCCAP (2011-2028)

	Objectives	Thematic Areas (CC- and non-CC-related)	Foundation and Legal Premise	Duration
	towards sustainable development			LCCAPs (vary per LGU)
2. PDP <i>Source: NEDA, 2017</i>	<ul style="list-style-type: none"> ● To engender inclusive growth, a high trust society, and a globally-competitive economy as espoused in the <i>Ambisyon Natin 2040</i> ● To translate the vision from <i>Ambisyon Natin 2040</i> and other development frameworks into a medium-term plan of concrete, quantifiable, and vetted list of action mechanisms to serve as an anchor of country development strategies, government policies, and investment programming at all levels across sectors 	<ul style="list-style-type: none"> ● <i>Malasakit</i> or enhanced social fabric through good governance, efficient and fair administration of justice, and promotion of Philippine culture and values ● <i>Pagbabago</i> or reduced inequalities through expansion of economic opportunities in nature-based sectors (i.e. agriculture, forestry, fisheries (AFF)) and industry and services (I&S) as well as accelerating human capital development to reduce vulnerability and improve human security ● <i>Patuloy na Pag-unlad</i> or increased growth potential by reaching for the demographic dividend and vigorously advancing science, technology, and innovation (STI) 	<ul style="list-style-type: none"> ● <i>Ambisyon Natin 2040</i> ● 0+10 Point Socioeconomic Agenda ● Sustainable Development Goals (SDGs) ● EO No. 5, series 2016 	2017-2022
3. Draft Roadmap of CC CCAM-DRR <i>Source: CC CCAM-DRR, 2017</i>	<ul style="list-style-type: none"> ● To establish climate-resilient communities situated in critical watershed areas in response to susceptibility to climate-related hazards and high poverty incidence 	<ul style="list-style-type: none"> ● Increased resilience of vulnerable communities ● Ensured adequate supply of clean air, water, and other natural resources ● Increased resilience of critical infrastructure ● Enhanced knowledge, information access, and institutional capacity 	<ul style="list-style-type: none"> ● Sendai Framework for DRR 2015-2030 ● NFSCC 2010- 2022 ● National DRRM Framework 2011 ● Asia-Pacific Economic Cooperation (APEC) DRR Framework 2015 ● NCCAP 2011-2028 ● PDP 2017-2022 	2018-2022

	Objectives	Thematic Areas (CC- and non-CC-related)	Foundation and Legal Premise	Duration
Sectoral AWIT-FE Frameworks and Plans: On Agriculture				
1. Adaptation and Mitigation Initiative in Agriculture (AMIA) <i>Source: DA, 2016</i>	<ul style="list-style-type: none"> To enable the Philippine agri-fisheries sector to become progressive and climate-resilient 	<ul style="list-style-type: none"> Strengthened enabling environment of the Department of Agriculture (DA) to mainstream climate change Established climate-resilient agriculture (CRA) livelihoods and communities through the conduct of assessment and targeting studies and formulation of a CRA community action plan Upscaled CRA 	<ul style="list-style-type: none"> RA 9729 PDP 2017-2022 SDGs 	2015-2019
2. PDP (Chapter 8) <i>Source: NEDA, 2017</i>	<ul style="list-style-type: none"> To expand economic opportunities in agriculture and fisheries, especially for small farmers and fisherfolks, towards reducing inequality 	<ul style="list-style-type: none"> Improved productivity within ecological limit Increased number of enterprises Increased access to value-chains Increased access to innovative financing Increased access to technology Increased and protected access of small farmers and fisherfolk to land and water resources 	<ul style="list-style-type: none"> RA 9729 PDP 2017-2022 SDGs 	2015-2019
Sectoral AWIT-FE Frameworks and Plans: On Waste				
1. National Solid Waste Management Strategy (NSWMS) <i>Source: DENR, 2012</i>	<ul style="list-style-type: none"> To provide a medium-term plan to address the challenges of SWM and ensure a cleaner and healthier environment 	<ul style="list-style-type: none"> Bridged policy gaps and harmonized policies Capacity development, social marketing, and advocacy Sustainable SWM financing mechanisms Established economic opportunities Support for knowledge management on technology, innovation, and research Organizational development (OD) and enhanced inter-agency collaboration Compliance monitoring, enforcement, and recognition Good SWM governance Care for vulnerable groups Reduced disaster and CC risks 	<ul style="list-style-type: none"> Philippine Agenda 21 National SWM Framework PDP 2011-2016 Kyoto Protocol Basel Convention Stockholm Convention on Persistent Organic Pollutants RA 9003 RA 6969 RA 7160 RA 8749 RA 9725 RA 9512 RA 9513 RA 9710 RA 9729 RA 10068 RA 10121 	2012-2016

	Objectives	Thematic Areas (CC- and non-CC-related)	Foundation and Legal Premise	Duration
			<ul style="list-style-type: none"> • Presidential Decree (PD) 856 • PD 1151 • PD 1586 • PD 1160 • EO 774 • EO 785 	
2. PDP (Chapter 19) <i>Source: NEDA, 2017</i>	<ul style="list-style-type: none"> • To improve the capacities of LGUs to implement the Ecological Solid Waste Management Act (RA 9003) 	<ul style="list-style-type: none"> • Capacitated LGUs to comply with the requirements of Ecological SWM Act • Increased public awareness on proper waste management via information, education, and communication (IEC) campaign • Improved SWM through investments in relevant technologies and infrastructure-related R&D 		2017-2022
Sectoral AWIT-FE Frameworks and Plans: On Industry				
1. PDP (Chapter 9) <i>Source: NEDA, 2017</i>	<ul style="list-style-type: none"> • To expand and increase access to economic opportunities in I&S 	<ul style="list-style-type: none"> • Increased local and foreign investments • Enhanced competitiveness and innovation • Improved access to production networks • Improved access to finance • Improved productivity, efficiency, and resilience • Ensured consumer access to safe and quality goods and services • Improved market access 	<ul style="list-style-type: none"> • RA 10771 	2017- 2022
Sectoral AWIT-FE Frameworks and Plans: On Transport				
1. PDP (Chapter 19) <i>Source: NEDA, 2017</i>	<ul style="list-style-type: none"> • To enhance the efficiency of the transport sector towards sustaining economic growth and increasing competitiveness 	<ul style="list-style-type: none"> • Addressed traffic congestion • Upgraded road network quality • Improved infrastructure quality to encourage shift from private to public transport use • Improved operational efficiency of port facilities and airports • Ensured safe and secure public transport system by adopting security features 	<ul style="list-style-type: none"> • Department of Public Works and Highways (DPWH) Design Guidelines, Criteria and Standards 2015 • Green Building Code • Mindanao Logistics Infrastructure Network 	2017- 2022

	Objectives	Thematic Areas (CC- and non-CC-related)	Foundation and Legal Premise	Duration
Sectoral AWIT-FE Frameworks and Plans: On Forestry				
1. Philippine Master Plan for Climate Resilient Forestry Development <i>Source: DENR, 2016</i>	<ul style="list-style-type: none"> To climate-proof the forestry sector 	<ul style="list-style-type: none"> Strengthening resilience of forest ecosystems and communities to climate change; Responding to demands for forest ecosystems good and services; and Promoting responsive governance 	<ul style="list-style-type: none"> RA 9729 UNFCCC United Nations Convention on Biological Diversity (UNCBD) United Nations Convention to Combat Desertification (UNCCD) Kyoto Protocol 	2015- 2028
Sectoral AWIT-FE Frameworks and Plans: On Energy				
1. Philippine Energy Plan (PEP) <i>Source: DOE, 2016</i>	<ul style="list-style-type: none"> To serve as a long-term comprehensive roadmap of PAPs of the energy sector to ensure sustainable, stable, secure, sufficient, accessible, and affordable energy 	<ul style="list-style-type: none"> Ensured energy security Expanded access to energy Strengthened collaboration among government agencies involved in the energy sector Integrated, implemented, and monitored sectoral and technological roadmaps and action plans Strengthened consumer welfare and protection Stronger international relations and partnerships Promotion of a low-carbon future Passage of DOE's legislative agenda in support of their intended goals 	<ul style="list-style-type: none"> PDP 2017-2022 	2017-2040

Table 2. CCAM strategies/priorities of government laws, frameworks, and plans

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
1. Climate Change Act <i>Source: ROP, 2016</i>	<ul style="list-style-type: none"> Establishment of the CCC Formulation of the NFSCC, NCCAP, and LCCAPs 		
2. Green Jobs Act <i>Source: ROP, 2016</i>	<ul style="list-style-type: none"> Formulation of the National Green Jobs Human Resource Development Plan Conduct of market analysis of skillsets, technological applications, and job market as a whole Training and certification of workers for green jobs as well as business facilitation programs Provision of fiscal and non-fiscal incentives for businesses to promote low-carbon and resource efficient practices and that result in the generation of green jobs and improved well-being and social equity Creation of database of green careers, professions and skills, and business enterprises engaged in registered strategic activities Formulation of necessary regulations and mainstreaming into national and sectoral development plans 		
3. NDC⁷ <i>Source: Andres, 2017</i>	<ul style="list-style-type: none"> Institutional and system strengthening for downscaling climate change models, climate scenario-building, climate monitoring and observation Roll-out of science-based climate/disaster risk and vulnerability assessment process as the basis for mainstreaming climate and disaster risks reduction in development plans, programs and projects Development of climate and disaster-resilient ecosystems 		<ul style="list-style-type: none"> Reduction of CO2 emissions from AWIT-FE

⁷Commitment to the realization of the NDC is purely conditional upon access to international support in terms of financial resources, technology transfer, and capacity building support for CCA.

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
	<ul style="list-style-type: none"> • Enhancement of climate and disaster-resilience of key sectors – agriculture, water and health • Systematic transition to a climate and disaster-resilient social and economic growth • Research and development on climate change extremes and impacts for improved risk assessment and management 		
National Frameworks and Plans			
1. NFSCC, NCCAP, and LCCAP			
<i>Source: ROP, 2009; CCC, 2010; CCC, 2011</i>			
1.1 FS		<ul style="list-style-type: none"> • Knowledge on the vulnerability of agriculture and fisheries to the impacts of climate change enhanced • Capacity for CCA and DRR of government, farming and fishing communities, and industry enhanced • Social protection for farming and fishing communities enhanced • Climate-sensitive agriculture and fisheries policies and PAPs formulated 	
1.2 WS		<ul style="list-style-type: none"> • Enabling policy environment for integrated water resources management (IWRM) and climate change adaptation (CCA) created • CCA and vulnerability reduction measures for water resources and infrastructure implemented • Water quality of surface and groundwater improved • Equitable access of men and women to sustainable water supply improved • Knowledge and capacity for IWRM and water sector adaptation planning enhanced • Water supply and demand management of water systems improved 	
1.3 EES	<ul style="list-style-type: none"> • CCAM strategies for key ecosystems developed and implemented • Management and conservation of protected areas and key biodiversity areas improved • Environmental laws strictly implemented 		

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
	<ul style="list-style-type: none"> • Capacity for integrated ecosystem-based management approach in protected areas and key biodiversity areas enhanced • Natural resource accounting (NRA) institutionalized 		
1.4 HS		<ul style="list-style-type: none"> • CCA-DRRM integrated in local plans • Knowledge and capacity for CCA-DRRM developed and enhanced • Capacity of health personnel and communities in CC health adaptation and reduction developed • Public health surveillance system developed and implemented in all provinces • Health emergency response, preparedness, and post-disaster management implemented at the national and local levels • Adaptive and secured settlement areas for vulnerable communities and climate refugees defined • Population congestion and exposure to CC risks reduced 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
1.5 CSIS	<ul style="list-style-type: none"> • Enabling environment for the development of climate-smart industries and services created • Eco-efficient production adopted by industries • Information, education, and communication campaign (IEC) and capacity-building program for climate-smart industries and services developed • Productive employment and livelihood opportunities in climate-smart industries and services increased • Infrastructure in cities and municipalities developed, promoted, and sustained • CC adaptive housing and land use development implemented • Ecological SWM implemented towards CCAM 		

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
1.6 SE		<ul style="list-style-type: none"> • Energy systems and infrastructures climate-proofed 	<ul style="list-style-type: none"> • Government Energy Management Program (GEMP) implemented • Private sector and community participation in energy efficiency and conservation increased • National renewable energy program and technology roadmap based on RA 9513 (Renewable Energy Act of 2008) and its Implementing Rules and Regulations (IRR) developed and implemented • Off-grid, decentralized, and community-based RE system • Environmentally-sustainable transport strategies and fuel conservation measures integrated in development plans • Innovative financing mechanisms developed and promoted • Energy systems and infrastructures climate-proofed • GHG inventory developed based on EO No. 174 and the GEMP
1.7 KCD	<ul style="list-style-type: none"> • Government capacity for CCAM improved • Formal and non-formal capacity development program for climate change science, adaptation, and mitigation developed • Gendered CC knowledge management established • CC resource centers identified and established 	<ul style="list-style-type: none"> • Capacity for CC scenario modeling and forecasting improved 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
2. PDP 2017-2022			
<i>Source: NEDA, 2017</i>			
2.1 Ensuring People-Centered, Clean, and Efficient Governance (Chapter 5)		<ul style="list-style-type: none"> Government agencies including LGUs will be capacitated on climate change adaptation and disaster risk reduction and will be encouraged to adopt business continuity practices to improve their adaptive capacities and minimize disruption in service 	
2.2 Promoting Philippine Culture and Values (Chapter 7)		<ul style="list-style-type: none"> Crafting of mechanisms to mitigate the adverse impact of climate change and human-induced disasters to heritage structures Pursue institutional reforms for cultural development to ensure that the existing mechanisms are culturally-sensitive and could address issues caused by climate change or human-induced disasters 	
2.3 Expanding Economic Opportunities in Agriculture, Forestry, and Fisheries (Chapter 8)	<p><i>Economic opportunities in Agriculture, Fisheries, and Forestry (AFF) expanded</i></p> <ul style="list-style-type: none"> Strengthen community-based enterprises in upland areas by reducing their vulnerability to climate and disaster risks 	<p><i>Economic opportunities in Agriculture, Fisheries, and Forestry (AFF) expanded</i></p> <ul style="list-style-type: none"> Accelerate the construction of disaster- and climate-resilient, small-scale irrigation systems and retrofit existing ones Promotion of effective and efficient water saving and management technologies, especially during El Niño Provision of timely and site-specific weather and climate advisories <p><i>Access to economic opportunities by small farmers and fisherfolk increased</i></p> <ul style="list-style-type: none"> Design transport networks in consideration of climate and disaster risks Raise investments on research and development that are related to formulation of climate and disaster-responsive technologies and innovation Increase the number of small farmers and fisherfolk that are provided with agricultural insurance by 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
		<p>promoting innovative schemes such as weather index-based and area-based yield index insurance.</p> <ul style="list-style-type: none"> ● Complement strategic efforts with environmental and governance strategies such as strengthening resilience to climate and disaster risk <p><i>Legislative Agenda</i></p> <ul style="list-style-type: none"> ● Abolish the irrigation service fees for farmers ● Amend the Revised Charter to the PCIC Act of 1995 or RA 8175 as well as other relevant laws 	
2.4 Expanding Economic Opportunities in Industry and Service through Trabaho at Negosyo (Chapter 9)	<ul style="list-style-type: none"> ● Fully implement the Green Jobs Act to promote green growth, blue economy, and innovation among others 		<ul style="list-style-type: none"> ● Provide incentives for green manufacturing to encourage companies to shift to energy efficient technologies
2.5 Accelerating Human Capital Development (Chapter 10)		<ul style="list-style-type: none"> ● Address health consequences of climate change and disasters ● Responsive and resilient service delivery networks (SDNs) in times of emergencies and disasters. ● Adopt a “Nutrition and Health in All Policies” agenda in which disaster risk reduction is one of focus areas. ● Integrate environment, disaster risk reduction and management, and climate change to the science and technology curriculum ● Implement of enhanced workplace emergency plans and disaster risk reduction programs 	
2.6 Reducing Vulnerability of Individuals and Families (Chapter 11)		<p><i>To deal with natural hazards</i></p> <ul style="list-style-type: none"> ● Roll out climate and disaster vulnerability and risk assessment nationwide ● Develop facilities for adaptation including risk transfer mechanisms (RTM) ● Provide adequate transition households and livelihood opportunities for disaster victims during early rehabilitation and recovery period 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
		<ul style="list-style-type: none"> ● Provide adequate mental health and psychosocial support services (MHPSS) <p><i>To achieve universal protection</i></p> <ul style="list-style-type: none"> ● Capacitate program and local partners on anticipatory planning (multi-scenario analysis including climate change scenarios) or future-oriented culture <p><i>Legislative agenda</i></p> <ul style="list-style-type: none"> ● Crafting and issuance of Evacuation Center Act 	
2.7 Building safe and secure communities (Chapter 12)	<ul style="list-style-type: none"> ● Passage of the National Land Use Act (NaLUA) 	<ul style="list-style-type: none"> ● Ensure that the quality of housing and location of human settlements are compliant with DRRM and CCA requirements ● Harnessing the services of volunteers from the academe, corporate, non-government, and international organizations in responding to disasters 	
2.8 Vigorously Advancing Science, Technology, and Innovation (Chapter 14)	<ul style="list-style-type: none"> ● Engage in more collaborative research and development activities related to disaster risk reduction and climate change adaptation and mitigation. ● Invest in the establishment to climate and disaster risk reduction facilities ● Become the global hub for DRR and CCAM ● Engender collaborations between STI institutions and international partners in developing research platforms to seek solutions on issues related to climate change, disaster risk reduction, resiliency and preparedness 		
2.9 Ensuring Sound Macroeconomic Policy (Chapter 15)		<ul style="list-style-type: none"> ● Encourage and support innovations on state-of-the-art disaster and climate-resilient technologies to improve the capacity of the export-oriented industries ● Enhance resiliency to disaster and climate change impact by developing policies that ensure business 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
		continuity and mitigate risks to businesses and enterprises during disasters	
2.10 Attaining Just and Lasting Peace (Chapter 17)		<ul style="list-style-type: none"> ● Integrate DRRM into the peace process to address humanitarian concerns resulting from internal armed conflict 	
2.11 Ensuring Security, Public Order, and Safety (Chapter 18)		<ul style="list-style-type: none"> ● Enhance the capability of the security sector in disaster response ● Advance the passage of the following legislative agenda <ul style="list-style-type: none"> ○ Mandatory Reserve Officers' Training Corps (ROTC) to provide additional human resource for disaster response ○ Amendment of DRRM Act 	
2.12 Accelerating Strategic Infrastructure Development (Chapter 19)		<ul style="list-style-type: none"> ● Department of Public Works and Highways (DPWH) Design Guidelines, Criteria and Standards 2015, which incorporates resilient design, will be maximized to address the impact of climate change on all transport infrastructure ● Secure tenure in affordable, safe, and disaster-resilient housing will be provided to underprivileged and homeless families ● DRR and CCA strategies will be considered to ensure resilient infrastructure facilities ● Formulate and implement a national master plan for flood and drainage, which will outline concrete projects for the different flood-prone and affected areas in the country ● Pursue programs to develop R&D on climate change- and disaster resilient infrastructure designs 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
2.13 Ensuring Ecological Integrity, Clean and Healthy Environment (Chapter 20)	<ul style="list-style-type: none"> ● Setting standards and requirements to integrate local DRRM and CC action plans ● Ensuring the inter-operability of databases to develop a decision support system ● Implementing appropriate DRRM and CC actions ● Establishing coordinated monitoring, reporting, and evaluation system ● Enhance climate resilience through rationalization of identification of MPAs and their networks ● Proper and effective management of delineated protection forests and protected areas ● Increased private sector investments on production zones ● Sustain forest rehabilitation and strengthen protection of natural forests including those from previous reforestation activities ● Ensure strict and strengthened environmental law enforcement 		
3. Draft Roadmap of the Cabinet Cluster on Climate Change Mitigation and Adaptation – Disaster Risk Reduction (CC CCAM-DRR) <i>Source: AMIA, 2018</i>			
3.1 On DRR management (prevention, mitigation, preparedness, response, rehabilitation, and recovery)		<ul style="list-style-type: none"> ● Construction and rehabilitation of evacuation centers ● Resettlement of communities situated in danger zones ● Flood mitigation program ● Establishment of emergency operation centers ● Enhancement of the fire protection facilities and equipment ● Upgrade of early warning system ● Emergency communication system ● Provision of solar lamps to communities ● Acquisition of multi-role response vessels ● Improvement of disaster relief and shelter assistance ● Yolanda rehabilitation and recovery program ● Post-disaster risk assessment ● Recovery and rehabilitation planning 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
3.2 On climate-related diseases		<ul style="list-style-type: none"> ● Modernization of health facilities ● Improvement of monitoring systems for climate-induced diseases ● Provision of additional health professionals to the Barrios Program ● Expansion of the National Health Insurance Program 	
3.3 On livelihoods and enterprises	<ul style="list-style-type: none"> ● Cash-for-work programs and/or micro enterprises ● Agricultural and ecotourism program 		
3.4 On disaster risk transfer		<ul style="list-style-type: none"> ● Distribution of climate-resilient seeds and planting materials ● Development of a medium-term social protection plan ● Completion of LGU training on the social protection handbook and vulnerability and protection manual ● Expansion of the scope of initiatives and projects to be funded by NDRRMF ● Streamlining of the processing and requirements of proposed calamity projects under NDRRMF and PSF ● Expansion of risk insurance and credit facilities 	
3.5 On the National Spatial Strategy (NSS)		<ul style="list-style-type: none"> ● Implementation to address agglomeration economies, connectivity, and vulnerability 	
3.6 On environmental quality (air and water)	<ul style="list-style-type: none"> ● Strengthening of relevant law enforcement efforts 		<ul style="list-style-type: none"> ● Implementation of the Environmentally Sustainable Transport Program ● Promotion of cost-effective renewable energy and alternative fuels ● Promotion of Energy Efficiency and Conservation Program ● Improvement and expansion of sewage and septage treatment ● Adequate wastewater treatment facilities in point and non-point sources of pollution ● Improvement of water quality in lakes and rivers

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
			<ul style="list-style-type: none"> ● Improvement of the operationalization of materials recovery facilities in urban centers and Manila Bay region
3.7 On natural resources	<ul style="list-style-type: none"> ● Complete delineation and zoning of municipal waters ● Delineation of final forest limits and establishment of use zones ● Enhanced NGP (eNGP) ● Strengthen sustainable management of natural resources through the issuance of appropriate tenure and management arrangement ● Mangrove Reforestation Program ● Implementation of the management plan for major river basins ● Coastal and Marine Ecosystem Management Program ● Strengthening of law enforcement and rationalization behind marine protected areas ● Wetland Management Program 	<ul style="list-style-type: none"> ● Implementation of water demand management 	<ul style="list-style-type: none"> ● Forest Fire Protection and Response Program
3.8 On livelihoods and enterprises	<ul style="list-style-type: none"> ● Promotion and development of ecotourism and cultural sites ● Promotion of sustainable forest-based, fish-based, and marine-based industries 		
3.9 On consumption and production	<ul style="list-style-type: none"> ● Strengthen the implementation of Philippine Green Jobs Act ● Strengthen the promotion, development, transfer, and adoption of eco-friendly technologies and systems 	<ul style="list-style-type: none"> ● Construction of resilient shelters 	<ul style="list-style-type: none"> ● Establishment of a sustainable market for recyclables and recycled products ● Implementation of polluter's pay principle ● Intensify the use of renewable energy and increase its share in the energy mix ● Promote the conduct of a GHG inventory in the public and private sectors

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
			<ul style="list-style-type: none"> ● Crafting of a monitoring reporting and response system at the national and local levels
3.10 On water supply and distribution		<ul style="list-style-type: none"> ● SALINTUBIG project ● Rehabilitate Lusaran Dam as additional water source in Cebu ● Complete the Bulacan Bulk Water Supply Project ● Complete the Angat Dam and Dike Strengthening ● Transmission Improvement Project ● Construct the Centennial Water Source-Kaliwa Dam Project 	
3.11 On food supply and distribution		<ul style="list-style-type: none"> ● Expand support services to farmers and fisherfolks ● Expand/retrofit rainwater harvesting Facilities/ including small water impounding and irrigation systems in uplands ● Crop diversification and expansion of food sources to include more R&D on more flood and drought species and crops ● Construction of resilient food processing plants 	
3.12 On transportation		<ul style="list-style-type: none"> ● Retrofit roads, bridges and transportation ● Build new resilient roads & bridges in accordance with new standards 	
3.14 On real time climate and natural hazard information and data		<ul style="list-style-type: none"> ● Develop a data protocol to facilitate access and sharing of available scientific researches and studies, geospatial information, and climate projections ● Conduct National Vulnerability and Risk Assessment ● Enhance the Philippine Seismic Network ● Upscale the Doppler Radar ● Enhance the high-resolution earthquake and multi-hazard maps ● Complete and launch DIWATA 2 Program ● Establish more local weather stations ● Conduct nationwide groundwater resource assessment to include vulnerability to climate and natural hazards ● Improve the farm weather information system 	

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
3.15 On community consciousness in climate and disaster resilience	<ul style="list-style-type: none"> ● Extension Support and Training Services Program ● Climate Field Schools Program ● Extensive and continuing IEC on CC hazards, its impacts and what can be done 	<ul style="list-style-type: none"> ● Establish Climate Change Information Data Platform ● Promote climate and disaster-resilient structures and designs following established measures and standards ● Ensure integration of CC in the curriculum ● Maximize access to climate change and DRR financing and risk transfer mechanisms 	
3.16 On climate and disaster resilience laws and policies	<ul style="list-style-type: none"> ● Research and development initiatives and passing of relevant laws/policies on land use, geospatial information, and climate projections ● Continue to mainstream CCAM and DRRM in national and local development plans and policies ● Identify technological and research priorities and capacity needs on CCAM and DRRM 	<ul style="list-style-type: none"> ● Strengthening/upgrading resilience standards for buildings, roads, bridges, water system transport network, and other critical infrastructure ● Creation of a strong and empowered department responsible for disaster resiliency and effective disaster management ● Science-based and rational land use policy and data protocol on access and sharing on geospatial information 	
Sectoral AWIT-FE frameworks and plans			
4. PEP 2017-2040 <i>Source: DOE, 2016</i>			<p>Including but not limited to:</p> <ul style="list-style-type: none"> ● Adopting a technology-neutral approach for an optimal energy mix ● Increasing the indigenous petroleum and coal reserves ● Increasing the renewable energy installed capacity ● Developing biofuels ● Developing liquefied natural gas in anticipation of Malampaya depletion ● Establishing an efficient natural gas industry ● Privatizing Power Sector Assets and Liabilities Management Corporation (PSALM)

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
			<ul style="list-style-type: none"> Promoting efficient use of power among consumers through an IEC
5. Philippine Master Plan for Climate Resilient Forestry Development <i>Source: DENR, 2016</i> 5.1 Strengthening resilience of forest ecosystems and communities to climate change	<ul style="list-style-type: none"> Ecosystem-based vulnerability assessments Rehabilitation and conservation of mangroves Livelihood support to holders of Community Based Forest Management Agreement (CBFMA) and Certificate of Ancestral Domain Title (CADT) Formulation of integrated watershed management and forest land use plans Implementation of Reducing Emissions from Deforestation and Forest Degradation (REDD+) for climate change adaptation and mitigation Management of protection forests and protected areas 	<ul style="list-style-type: none"> CCA planning 	
5.2 Responding to demands for forest ecosystems good and services	<ul style="list-style-type: none"> Delineation and demarcation of forest management zones Commercial forest plantation development for round wood production Fuel wood plantation development Management of grazing lands Watershed management and rehabilitation 		
5.3 Promoting responsive governance	<ul style="list-style-type: none"> Inventory of forest occupants Issuance of tenure/ management instruments to close open access forestlands Enhancement of forestry policies Institutionalizing collaborative management Mainstreaming climate change into the DENR's policy and institutional processes Capability enhancement 		
6. Nationally Determined Contributions			
6.1 Agriculture sector <i>Source: DA, 2017</i>	<ul style="list-style-type: none"> Climate-resilient livelihoods and affordable farming methods and technologies 		

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
	<ul style="list-style-type: none"> Reduced if not prevented weather/climate-related losses and damages to life, livelihoods, and assets Enhanced agri-ecological systems Diversified income and increase investments in climate support services 		
6.2 Waste sector <i>Source: EMB, 2017</i>			<ul style="list-style-type: none"> Municipal Solid Waste Digestion Composting Eco-efficient soil cover Methane recovery from sanitary landfills Methane flaring Wastewater treatment
6.3 Industry sector <i>Source: EMB, 2017</i>	<ul style="list-style-type: none"> Mainstreaming and scaling up ecosystem-based adaptation (EbA) in development planning / Sustainable Integrated Area Development (SIAD) Sites Conduct of natural resources accounting (NRA), vulnerability assessment (VA), and ecosystem services valuation across ecosystems Capacity development on climate science for data knowledge management 		<ul style="list-style-type: none"> Cement clinker reduction Cement waste heat recovery Increase glass cullet us Biomass in cement Biomass co-firing Shift to natural refrigerants Replacement of inefficient chillers Mitigation of short-lived pollutants
6.4 Transport sector <i>Source: DOTr, 2017</i>			<ul style="list-style-type: none"> Public Utility Vehicle (PUV) Modernization Program Integrated Terminal Exchange Bus Rapid Transit System Intelligent Transport System Congestion reduction especially in highly urbanized areas Improved passenger welfare in public transport
6.5 Energy sector <i>Source: DOE, 2017</i>		<ul style="list-style-type: none"> Equip disaster-prone areas with solar lamps and SHS Institutionalize resiliency in energy infrastructure 	<ul style="list-style-type: none"> Renewable energy Alternative fuels

	Crosscutting (CCAM) Priorities	Adaptation Priorities	Mitigation Priorities
		<ul style="list-style-type: none"> ● Vulnerability assessment for existing and new facilities to upgrade standards and design guidelines 	<ul style="list-style-type: none"> ● Energy efficiency and conservation ● Clean energy technology ● Energy resiliency
6.6 Forestry sector Source: FMB, 2017	<ul style="list-style-type: none"> ● Program to strengthen resilience of forest ecosystems and communities to climate change ● Programs to respond to demands for forest goods and ecosystem services ● Programs to promote responsive governance in the forestry sector 		<ul style="list-style-type: none"> ● Area of denuded and degraded forestland decreased ● Area of forestland under effective management ● Production and protection forests delineated

Overview of the country's climate financing landscape

The commonly held view of climate finance is that which is specific to climate change, particularly funds that stream from developed to less developed countries such as the case with the Global Environmental Facility (GEF) and other related trust funds. However, a considerable portion of government budget, private investments, ODA-funded projects, and CSO initiatives are also often the case climate-responsive although they may or may not address climate change specifically as an end goal but rather as a by-product. This report will adopt the broader definition of climate finance as that which is used to fund PAPs that are climate-responsive as a whole or as a component, regardless of source and financing mechanism utilized and whether CCAM has been proposed as an objective (UNDP, 2011).

Opportunities for climate financing have seen tremendous improvement in the Philippines. Currently, there is a multitude of sources with each having a myriad of available intermediaries, financing mechanisms, modes of access,⁸ and means for delivery⁹ for deploying funds. This includes those that may or may not have been arranged specifically for CC.

⁸ In the case of global public funds, there are different modes of access.

⁹ This applies to development assistance, such as those provided by international partners.

Sources of climate financing

Aside from the various accounts lodged under the national and local government budget, climate finance is also found manifest in separate funding windows in the private sector, academe, people's organizations (PO's), and development partners such as international organizations. It is important to note however that while funds are sourced from CC-related activities such as the case with coastal tourism access fees and environmental fines imposed by an LGU, the generated revenue is not necessarily earmarked for the same purpose. It may in high likelihood be lumped together with other revenues under a general fund, which covers all appropriations regardless of end-user and nature of expenditure.

Financial intermediaries

Various financial intermediaries exist that serve as mediators in facilitating financial transactions between parties. These can be public entities—either national, bilateral, or multilateral organizations whose nature could be that of a development finance institution (DFI)—or private entities such as commercial banks, insurance companies, and investment companies. Such institutions that are found active in supporting the Philippine CC agenda include but are not limited to the following:

- **At the national/local level:**
 - State banks/DFIs such as Development Bank of the Philippines (DBP), Land Bank of the Philippines (LBP), and Al-Amanah Islamic Investment Bank of the Philippines (AAIIBP);
 - Other government-related financial institutions such as the Philippine Crop Insurance Corporation (PCIC); and
 - Private banks such as cooperatives and universal, commercial, thrift, and rural banks; and
- **Bilateral, multilateral, and other foreign organizations** such as Asian Development Bank (ADB), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), World Bank (WB), Agence Française de Développement (AFD), Korea International Cooperation Agency (KOICA), United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), Global Green Growth Institute (GGGI), International Climate Initiative of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB-IKI), and various bodies under the UN system such as UNDP, UNEP, International Fund for Agricultural Development (IFAD), and Food and Agriculture Organization (FAO).

Modes of access for global public funds¹⁰

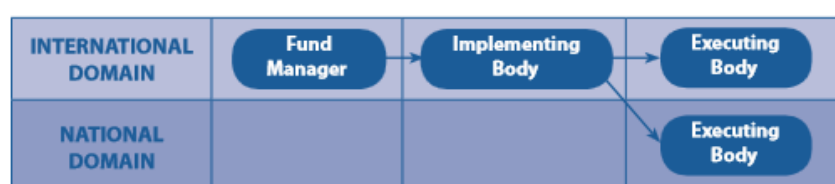
Three modalities are possible in accessing global public funds, namely: indirect (multilateral), direct, or enhanced direct access. Each of these arrangements differ in the institutional architecture through which their key management players, namely the fund manager, implementing body, and executing entity, are set.

¹⁰ Source: UNDP's report on *Direct Access to Climate Finance: Experiences and Lessons Learned* (2011)

The fund manager—usually a Board with active support from the fund’s secretariat—has the authority to develop strategies, policies, and guidelines for accessing and managing the fund. It oversees the review and approval of project proposals and has the authority to instruct the transfer of funds to the implementing bodies. It also tracks the use of the fund. Acting as the country’s supervising entity is the implementing body that is tasked to identify and appraise projects for approval of the Board in addition to holding the funds released by the trustee and supervising and evaluation of the project implementation. Meanwhile, executing entities are organizations that receive these funds to undertake and lead projects. They may utilize contract and subcontract agreements with other organizations to ensure the smooth delivery and completion of these activities.

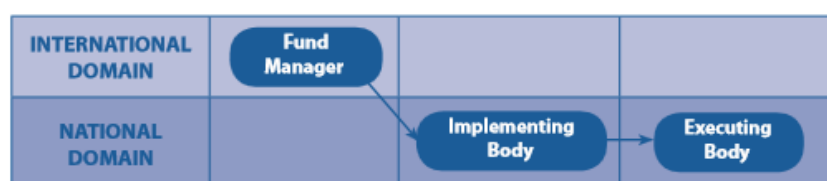
In a multilateral access modality¹¹, the management of the fund and implementation of the GCF are under the jurisdiction of a multilateral or international institution. Execution may be lodged at the international level as well or this time with a national entity. In either case, there is use of largely multilateral systems, which may have implications on the level of country ownership of the GCF-funded projects.

Figure 2. Institutional framework for indirect (multilateral) access modality



This is where direct access differs as the management or oversight of the fund is delegated at the international level.¹²

Figure 3. Institutional framework for direct access modality

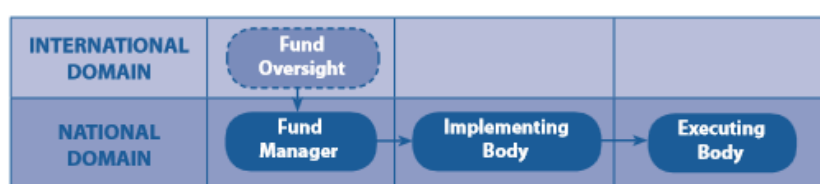


All three functions—fund oversight, implementation, and project execution—are lodged under national entities in the enhanced direct access modality. Under such a scenario, a country allocation or clearing house mechanism would operate at the international level to guide the level of internationally sourced funding to different countries. However, even with this kind of arrangement, at least some degree of oversight is maintained at the international level as the fund manager is required to report on the fund’s activities and ensure sound practice among accredited entities.

¹¹ Many international public climate funds use this model such as GEF, GCF, AF, and CIF.

¹² The AF has piloted this particular model on climate finance.

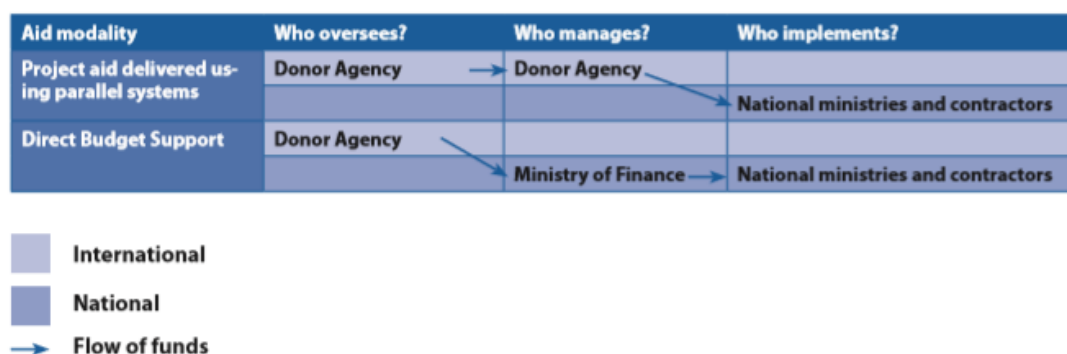
Figure 4. Institutional framework for enhanced direct access modality



Methods of delivery of Official Development Assistance¹³

Country governments provide what is known as Official Development Assistance (or ODA) to governments of developing countries in either two ways, namely as project aid or direct budget support. Project aid refers to funds that have been packaged as specific programs or projects. This is in contrast with direct budget support, which can either be general, unearmarked support to the central bank or the national budget, or assistance for a particular sector or thematic area. In direct budget support, the funds are channeled to the receiving country via direct (bilateral) transfer between two national governments. This should be in accordance with both the receiving country's standards on procurement, appropriation, and accounting principles and also the funder's existing safeguards, policies, expenditure priorities, and accounting provisions. Figure 5 presents the institutional framework in both methods of delivery.

Figure 5. Institutional framework for delivery methods of ODA



The project aid modality in ODA could be likened as the counterpart of the indirect access modality in global public funds. In both cases, multilateral organizations retain control of the project's overall management and financing such that the role of national/local bodies is largely confined to the implementation role and the flow of funds usually remains outside the national budgetary system.

Direct budget support differs from this scenario in that the national government plays a key role in the management of finances. It enables the country to appropriate the funds in accordance with the national priorities and lead the implementation and monitoring of the programs and projects to which it has decided to allocate such funds. Ownership and accountability of funds lie mostly with the national government in this scenario.

¹³ Source: UNDP's report on *Direct Access to Climate Finance: Experiences and Lessons Learned* (2011)

Financing mechanisms

There are various mechanisms available for climate financing, which may or may not be classified as financial instruments. These instruments refer to any medium or agreement that results in a financial asset in exchange for liability or equity from the receiving entity. Common examples include loans, equities, and risk transfer mechanisms (RTMs). Non-financial instruments include but are not limited to grants, subsidies, fees, and debt-for-nature swaps. See Table 3 for details.

Table 3. Definition of terms of common financing mechanisms

Financing Mechanism	Definition
Financial instruments	
Loan	A form of financial assistance that is expected to be paid upon maturity with interest. Usually, for development projects, including those for CC, this comes in the form of a concessional loan that offers more favorable interest rates and grace periods to the receiving entity vis-à-vis the case with typical commercial loans that follow the prevailing market conditions.
Equity	An investment that enables the person to hold part ownership of the company as well as a portion of its earnings, known as dividends, that are given in proportion to the amount of investment made and only after debts have been paid. One popular type is what is called a private equity where investors focus on the later (less risky) stages of the project, from which they expect to be able to pull out their investment and make returns within a three- to five-year period (UNDP, 2011).
Risk transfer mechanism	RTMs comprise a wide group of instruments that are used to transfer financial-related risks to another party either in the form of borrowers defaulting on their debt (otherwise known as credit-linked securities) or the risk of a disaster event (also known as insurance-linked securities) (OECD, n.d.). In the context of CC, the latter is what applies.
Non-financial instruments	
Grant	Requires no condition of repayment. In many cases, this is derived from ODA or public climate funds.
Subsidy	A direct payment or tax reduction issued typically by the government to an entity for compliance with existing government protocols. One example of this is the Green Jobs Act whose stipulations entail the provision of incentives to business enterprises that meet the demands of a green economy, namely: (i) special deduction from the taxable income equivalent to a percentage of the total expenses for skills training and research development expenses, which is over and above the allowable ordinary and necessary business deductions for said expenses; and (ii) tax- and duty-free importation of capital equipment provided that it is actually, directly, and exclusively used in the promotion of green jobs. ¹⁴
Fee	A payment required by an institution for making available certain products or services or as a collection made in violation of the rules by said entity. Examples of these include access fees to ecotourism sites and fines imposed for the discharge of unprocessed industrial wastewater.
Debt-for-nature swap	An agreement where in which a portion of a country's foreign debt is foregone or transferred to another entity in exchange for local investments in environmental management.

¹⁴ The Act also pushes for the availability of financial packages coursed through government financial institutions (GFIs). The amount necessary to carry out this Act shall be included in the General Appropriations Act (GAA) of the national government. The GAA contains the approved budget and allocations in a given year.

Local climate financing windows in the Philippines

General Appropriations Act

This contains the approved national budget, passed into law by Congress on a yearly basis, to be spent during the fiscal year in question. It serves as the official authorization for the financial requirements proposed by all government agencies, including the provisions for any special purpose fund. Kindly refer to the sections tackling the results of the national and local level Climate Change Expenditure Tagging Program (or CCET) for the status.

Municipal Development Fund Office¹⁵

The Municipal Development Fund Office (MDFO) was created under the umbrella of the Department of Finance (DOF) by virtue of EO No. 41 dated 1998 to make available to LGUs the Municipal Development Fund (MDF), which is a revolving fund created under Presidential Decree No. 1914 of 1984. The fund is sourced from the proceeds of foreign loans or grants and is used to finance development projects at the local level (COA, 2016).

The office issues concessional loans, grants, bonds, and securities. The office also provides technical assistance to LGUs to enhance their capacity with regards to the whole project cycle (i.e., identification, development, implementation, monitoring, and evaluation). It aims to establish creditworthiness among LGUs to help access private funds.

Currently, the office is implementing the MDF Second Generation Fund (SGF), which is sourced from the accumulated resources of foreign loan proceeds on-lent to LGUs. Records from 2016 show that the fund has PhP 18.678 billion at its disposal in which 86.41% (PhP 16.14 billion) has been allocated to its eleven financing windows. Currently, the MDFO has a total number of 298 approved projects, and six of these windows are particularly important for CC and DRR (see Table 4 for the list).

Table 4. MDFO financing windows relevant for CC and DRR¹⁶

MDFO Financing Window	Focus	Approved No. of LGUs	Approved No. of Projects
Municipal Development Fund (MDF) Project	LGU priority development projects that involve the need for equipment, facilities, and/or infrastructure in any of the following categories of sanitation, sewerage, SWM, social development, environmental management, and public economic enterprises	99	143
Project Technical Assistance and Contingency (PTAC) Fund	Financial assistance in acquiring the contingency requirements and Technical Assistance (TA) needed for LGU subprojects that are financed by MDFO	6	6

¹⁵ From Municipal Development Fund Office, n.d.

¹⁶ The approved number of LGUs and projects are as of March 31, 2018.

MDFO Financing Window	Focus	Approved No. of LGUs	Approved No. of Projects
Disaster Management Assistance Fund (DMAF)	Development of disaster mitigation, prevention, relief, and rehabilitation efforts of LGUs	72	96
Municipio Fund	Establishment of municipal halls in some LGUs, and the need to relocate or rehabilitate municipal halls due to disasters or natural dilapidation	20	20
Philippine Water Revolving (PWR) Fund	Mobilization of private capital for water supply and sanitation projects at terms acceptable to PFIs at the same time affordable to LGUs	-	-
Public-Private Partnership (PPP) Fund¹⁷	Advancement of infrastructure development in the areas of transportation, power, sanitation, water, education, and tourism through private sector support	-	-

The DMAF has what is called a Standby Credit Facility (SCF), for which LGUs can apply to ensure that the fund could be tapped immediately for response and relief in times of calamities. The PWR Fund also has a SCF. Many water supply and sanitation projects are funded by private financing institutions (PFIs), whose loans are inherently short in duration and as such mismatch the long payback period that is characteristic of such projects. The SCF of the PWR Fund is meant to serve as a standby loan to lengthen the tenure and consequently make these projects more sustainable and financially viable.

Table 5 lists the more specific CC-related activities or initiatives that can be financed by the MDFO.

¹⁷ PAPs to be financed include those that were not yet built or developed as well as those that have already begun but need augmentation of resources from the private sector or additional support/backing by the LGU.

Table 5. Examples of climate-related initiatives for possible funding by the MDFO

	Crosscutting (CCAM)	Adaptation	Mitigation
MDF Project			
Revenue-generating subprojects			<ul style="list-style-type: none">Local electrification such as through mini-hydro power, solar energy, and wind power
Environmental subprojects	<ul style="list-style-type: none">Mangrove and watershed protectionRiver and seashore protectionReforestationAgroforestrySoil conservationEcotourismBiodiversity conservation		
SWM, sewerage, and sanitation subprojects		<ul style="list-style-type: none">Drainage systems	<ul style="list-style-type: none">Materials recovery facilities (MRFs)Recycling plantsSanitary landfillsSewerageWastewater treatment facilitiesWaste-to-energy facilitiesSeptage management
PTAC Fund			
	<ul style="list-style-type: none">Meeting the contingency requirements of MDFO subprojectsAcquiring the TA needed in MDFO subprojects		
DMAF			
Disaster prevention and mitigation	<i>Soft Component</i> <ul style="list-style-type: none">Mainstreaming of CC and DRR into local development plans and programsPreparation of Comprehensive Land Use Plan (CLUP), Local Disaster Risk Reduction and Management Plan (LDRRMP), and Contingency PlanDevelopment of IEC and other advocacy materials	<i>Soft Component</i> <ul style="list-style-type: none">DRM-related trainingHazard mapping, vulnerability assessment, and risk mappingConduct of community drills/exercisesAugmentation for health-related epidemics	

Crosscutting (CCAM)		Adaptation	Mitigation
		<i>Hard Component</i>	
		<ul style="list-style-type: none">• Reforestation• Afforestation• Rehabilitation of declared watersheds• Establishment of green areas• Slope stabilization and riverbank projects• Construction of seawalls and embankments• Early warning system• Emergency and life support vehicles• Emergency tools and equipment• Safety of Life at Sea (SOLAS) equipment set• Life support vehicles for rescue and evacuation	
Disaster response and relief		<ul style="list-style-type: none">• Food• Water• Medicine• Clothing• Temporary shelter• Emergency tools and equipment	
<i>Soft Component</i>		<i>Soft Component</i>	
Long-term recovery and restoration	<ul style="list-style-type: none">• Training on small-scale livelihood projects• Capacity building	<ul style="list-style-type: none">• Counseling• Mental health care services due to trauma brought about by disaster/calamity• Augmentation of health-related epidemics	
		<i>Hard Component</i>	
		<ul style="list-style-type: none">• Repair and reconstruction of critical facilities• Resettlement	
Municipio Fund			
		<ul style="list-style-type: none">• Relocation of communities• Rehabilitation of infrastructure	

	Crosscutting (CCAM)	Adaptation	Mitigation
PWR Fund			<ul style="list-style-type: none"> • Wastewater treatment • Water use reduction • Use of energy-saving equipment
PPP Fund			
Environmental subprojects	<ul style="list-style-type: none"> • Mangrove and watershed protection • Ecotourism 		
SWM, sewerage, and sanitation subprojects		<ul style="list-style-type: none"> • Drainage systems 	<ul style="list-style-type: none"> • Recycling plants • Sanitary landfills • SWM • Sewerage • Wastewater treatment • Waste-to-energy facilities • Septage management

The office also serves as the conduit of the PSF and the following foreign-assisted projects (FAPs) where the financing arrangement is characterized by a cost-sharing agreement between the national government and the LGU where for instance, the former can be delivered as a grant and the latter as equity. See Table 6 for the list.

Table 6. MDFO conduit foreign-assisted projects¹⁸

Conduit Projects	Objective	Executing Agency	Loan Package	Approved No. of LGUs	Approved No. of Subprojects	As of
Second Agrarian Reform Communities Project (ARCP2)	To promote equitable distribution of production and productivity gains complemented by good governance and institutional reforms and reduce poverty among the agrarian reform communities	DAR	Asian Development Bank (ADB) Loan Agreement No. 2465-PHI, dated 08 December 2008 with co-financing from OPEC Fund for International Development (OFID)	16	19	Jun. 30, 2017
Help for Catubig Agricultural Advancement (HCAA) Program	To increase farmer's agricultural productivity through the provision of infrastructure support facilities and mechanisms that would improve rice crops yields, reduce costs of hauling and handling of farm produce, facilitate farmer's access to agricultural support services, and health improvement of farming households	NIA	Japan Bank for International Cooperation (JBIC) Loan Agreement No. PH-221, dated May 30, 2001	3	9	Mar. 2013
Health Sector Development (HSD) Project	To improve the health status for the poor and vulnerable groups by increasing their access to and utilization of improved health services through better governance and reforms	DOH	ADB Loan Agreement Nos. 2136/2137 dated 12 January 2005	4	10	Mar. 2013
Infrastructure for Rural Productivity Enhancement Sector (INFRES) Project	To improve agricultural productivity and reduce poverty through provision of access to irrigation, water supply systems, and other infrastructure	DA	ADB Loan Agreement No. 1772-PHI, dated 22 October 2001	92	141	Mar. 2013

¹⁸ Some of the projects have already been completed. Not included in the list are the Metro Cebu Development Project Phase III (MCDP3) and the National Program Support for Environment and Natural Resources Management Project (NPS-ENRMP), whose data are not readily available.

Conduit Projects	Objective	Executing Agency	Loan Package	Approved No. of LGUs	Approved No. of Subprojects	As of
Republic of the Philippines-Japan Increase in Food Production Program (KR2)	To contribute to the increase of food production	NEDA	Government of Japan/Japan International Cooperation Agency (JICA)	243	752	Mar. 2013
Laguna de Bay Institutional Strengthening and Community Participation Project – Additional Financing (LISCOP-AF)	To improve the state of environmental management in the Laguna de Bay watershed through investment for ecotourism, SWM facilities, water and wastewater management facilities, local drainage and flood control prevention, slope and riverbank stabilization and protection, among others	LLDA	IBRD-WB Loan Agreement No. 8035-PH, dated 12 May 2011	1	1	Jan. 31, 2015
Mindanao Rural Development Program – Adaptable Program Loan Phase 2 (MRDP 2)	To improve access to basic rural infrastructure services and address diverse investment priorities of rural communities, which consists of financing the Community Fund for Agricultural Development (CFAD) sub-project and responding to local priorities such as food security interventions and income-generating activities	DA	IBRD-WB under Loan Agreement No. 7440-PH, dated 03 May 2007	1	2	Jan. 31, 2018
Integrated Coastal Resources Management (ICRM) Project	To support LGUs with social and environmental services and facilities such as the improvement of water supply and sanitation, management of solid wastes, mitigation of coastal pollution and erosion, and provision of add-on classrooms and day care centers	DENR	ADB Loan Agreement No. 2311-PHI dated 28 March 2007	1	1	Jan. 31, 2015

People's Survival Fund¹⁹

Established in 2012 via RA 10174, the PSF is a special fund in the National Treasury that is meant to finance CCA initiatives at the local level following the NFSCC. Specifically, these can be used to fund initiatives by LGUs and accredited local community organizations. The fund is meant to supplement the annual appropriations allocated by relevant government agencies and LGUs for CC-related PAPs.

These adaptation efforts can be in the field of ENR, health, and AFF-related livelihood such as those serving as a guarantee for risk insurance, development of early warning systems and weather forecasting, capacity-building of government personnel for DRR and CC, monitoring and control of vector-borne diseases triggered by CC, and establishment of regional information networks.

An amount of PhP 1 billion was appropriated under the GAA as opening balance of the PSF. Thereafter, the balance from all sources including the amount appropriated in the GAA for the current year shall not be less than the said amount and cannot be reverted back to the general fund. External and local sources can be tapped for grants, contributions, donations, endowments, bequests, or gifts in cash to further augment the fund, which also encourages co-financing agreements with the private sector, LGUs, and other entities.

What is good about the PSF is that in terms of financing agreements, LGUs are only required to provide counterpart funding of at least 10% of the total project cost. This can be provided in financial terms or in-kind.²⁰

However, to date, there have only been four approved projects with a total fund requirement of PhP 232.8 million, of which 85.1% (or PhP 198.1 million) is set to be financed by PSF and the rest by the LGUs concerned. See Table 7 for details.

Table 7. Overview of approved PSF projects²¹

Project Title	LGU	Approval Date	Share of PSF (millions PhP)	Share of LGU (millions PhP)
Disaster Risk Reduction and Management Response (Ridge-to-Reef Approach) as Adaptation Mechanism to Resiliency	Lanuza, Surigao del Sur	Nov. 2016	39.08	8.41
Siargao Climate Field School for Farmers and Fisherfolk	Del Carmen, Surigao del Norte	Nov. 2016	80.70	12.80
Building Resilience through Community-Based Ecological Farming	San Francisco, Camotes Island, Cebu	Aug. 2017	33.89	2.17
Promoting Resiliency and a Climate-Informed Gerona	Gerona, Tarlac	Aug. 2017	38.10	17.63

¹⁹ From Republic Act No. 10174.

²⁰ This can be in the form of manpower or personnel services, equipment, and use of office space and facilities, to name a few.

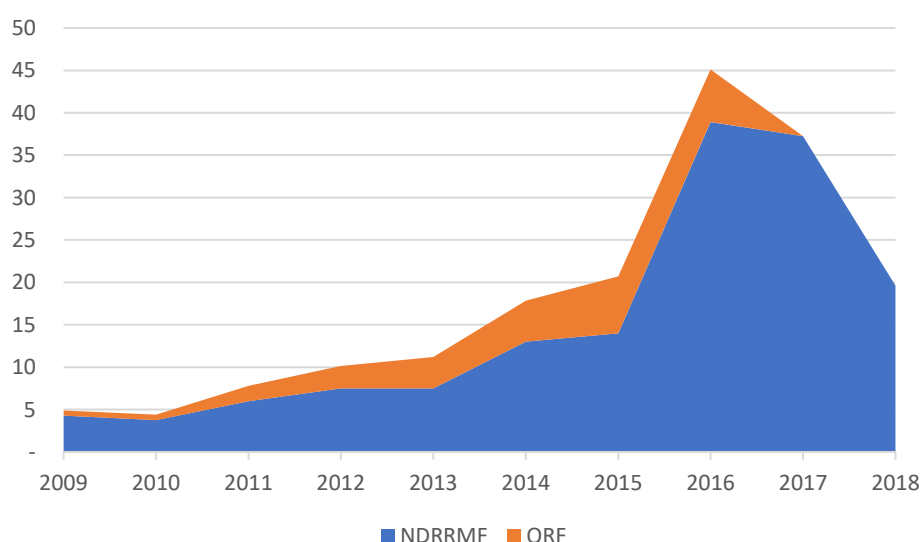
²¹ From the Department of Finance (2018).

National Disaster Risk Reduction and Management Fund

The National Disaster Risk Reduction and Management Fund (NDRRMF), previously called the National Calamity Fund, shall be used to finance disaster risk reduction, mitigation, prevention, and preparedness activities such as but not limited to the training of personnel and investment in capital expenditures. It can also be utilized for relief, recovery, reconstruction, and other works and services in connection with natural- or human-induced calamities, which may occur during the budget year or those that occurred in the past two years from the budget year. The total amount to be allocated to the NDRRM Fund, including the appropriations for each agency and LGU, shall be determined upon approval of the President of the Philippines in accordance with the favorable recommendation of the National Disaster Risk Reduction and Management Council (NDRRMC) (RoP, 2010).

Originally, 30% of this shall be allocated for the Quick Response Fund (QRF), which is a standby facility for the immediate relief and recovery programs of communities stricken with disasters, epidemics, and other such emergencies (RoP, 2010). Starting 2012 however, the QRF has been separated from the NDRRMF, to be sourced from other calamity-related funds of various agencies to enable the quick release of funds (DBM, 2018). Figure 6 shows the total budget allocation for the NDRRMF over the years.

Figure 6. Total appropriations for the NDRRMF across the years²²



As the figure shows, the fund has an increasing trend over the years, possibly due to increasing government priority to address the needs for DRR. The fund shoots up even further with massive increase of 178% from 2015 to 2016 in due recognition of the devastating effects of Typhoon Yolanda in 2013, whose impacts in terms of loss of habitat, lives, property, and livelihood are still felt until today. Of the PHP 38.9 billion worth of NDRRM funds for 2016, about 48.6% (PHP18.9 billion) was allotted for the Comprehensive Rehabilitation and Recovery Plan (CRRP) for the affected areas of the

²² From the Philippines' Annual Budget of Expenditures and Sources of Financing (BESF). Note that the budget figures for the QRF are not readily available for 2017-2018.

typhoon. This decreased over the years owing to the completion of the CRRP (SEPO, 2017). For 2018, the fund amounts to PhP 19.6 billion, of which more than half (PhP 10 billion) is meant for the Marawi Recovery, Rehabilitation and Reconstruction Program (MRRRP) while 10.2% (PhP 2 billion) is reserved as insurance coverage of government facilities (DBM, 2018).

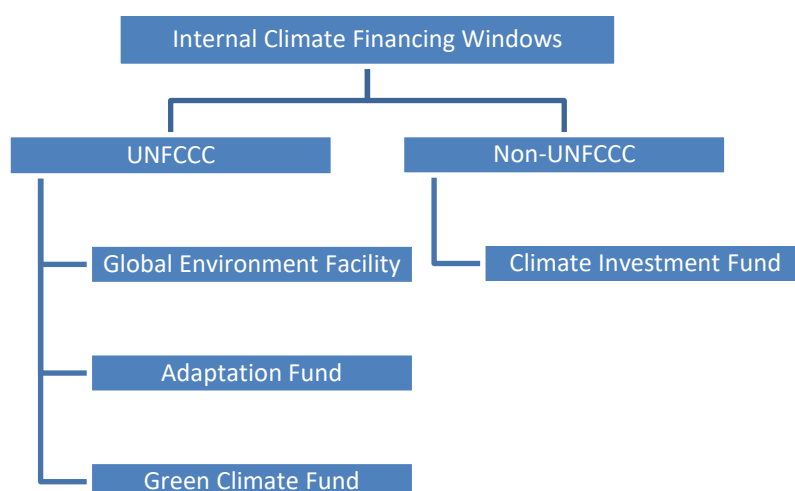
Local Disaster Risk Reduction and Management Fund

The Local Disaster Risk Reduction and Management Fund (LDRRMF), previously known as the Local Calamity Fund, is a fund that should amount to at least 5% of the estimated LGU revenue from regular sources. This is set aside to support DRRM activities such as the conduct of disaster preparedness training, purchase of rescue equipment, supplies, and medicines, post-disaster activities, and payment of premiums on calamity insurance. The fund could also be used support DRR work of other Local Disaster Risk Reduction and Management Councils (LDRRMCs) that are declared under a state of calamity. Of this fund, 30% shall be allocated as QRF (RoP, 2010).

International climate financing windows for the Philippines

These financing windows can be classified into two groups, namely those that were established by or used to serve as a financing mechanism for the UNFCCC²³ and those that are not related to the convention. Figure 7 lists the financing windows available.

Figure 7. International climate financing windows for the Philippines



²³ Article 11 of the UNFCCC on Financial Mechanism provides for financial resources on a grant or concessional basis, including the transfer of technology for climate change related actions. As a signatory to the Convention, the Philippines is eligible to access these financing facilities.

Global Environment Facility

Started in 1991 as a trust fund coming from the contributions of developed countries, the GEF serves as the financial mechanism for the UNFCCC, United Nations Convention on Biological Diversity (UNCBD), United Nations Convention to Combat Desertification (UNCCD), Stockholm Convention on Persistent Organic Pollutants, and Minamata Convention on Mercury. The facility was established to achieve environmental benefits at a larger scale. It works with implementing entities such as UNDP, WB, and ADB as well as executing entities such as government agencies and CSOs (DENR-FASPO, 2016).

The facility has two funds at the national, regional, and global scale, namely the GEF Trust Fund and the Special Climate Change Fund (SCCF). Established in 2001, the SCCF prioritizes the funding of adaptation projects although it can also finance efforts in economic diversification, technology transfer, and CCM (particularly in the sectors of AWIT-FE). Through the GEF Trust Fund, the Philippines has seen 51 national projects amounting to USD 218.6 million in GEF grants and USD 2.9 billion in co-financing since the first cycle of the fund. In addition, through the same fund, the country has been involved in 57 regional/global projects with a total GEF grant amount of USD 346.2 million and co-financing resources of USD 1.7 billion. With regards to the SCCF, the Philippines has only 2 projects (both at the national scale) with a total GEF grant of USD 6 million and co-financing of PhP 66.7 million. Table 8 lists the Philippine CC-related efforts of the GEF Trust Fund (with a total of 18 projects) and SCCP (2).²⁴

Table 8. List of climate change-related projects of the GEF Trust Fund and SCCF in the Philippines

Project	Objectives	Agency	GEF Grant (USD)	Co-financing (USD)	Project Status
GEF Trust Fund					
1. Promotion of Low Carbon Urban Transport Systems in the Philippines	To create an enabling environment for the commercialization of low carbon urban transport systems	UNDP	2,639,726	22,439,979	Approved
2. Development for Renewable Energy Applications Mainstreaming and Market Sustainability (DREAMS)	To promote and facilitate the commercialization of the renewable energy (RE) markets through the removal of barriers to increase investments in RE based power generation projects	UNDP	5,200,000	38,302,222	Approved

²⁴ Details from the Online GEF Country Profile Database

Project	Objectives	Agency	GEF Grant (USD)	Co-financing (USD)	Project Status
3. Scaling up Risk Transfer Mechanisms for Climate Vulnerable Agriculture-based Communities in Mindanao	To strengthen the resilience of vulnerable agriculture-based rural communities in Mindanao through climate risk transfer mechanisms and productivity enhancement measures	UNDP	1,050,000	16,250,000	Approved
4. CTI Integrated Natural Resources and Environmental Management Sector	To restore productive capacity of critical watersheds, enhance biodiversity conservation in the production landscape and reduce poverty of resources-dependent communities in selected watersheds	ADB	2,500,000	151,630,000	Approved
5. Chiller Energy Efficiency Project	To accelerate the conversion of energy inefficient chillers to new and more efficient technology through the provision of financial incentives and a robust policy framework	WB	2,600,000	45,300,398	Approved
6. CF: Industrial Energy Efficiency	To introduce the ISO 50001 energy management standard along with the system optimization approach for enhancing the industrial energy efficiency of the Philippines	UNIDO	3,166,065	24,000,000	Approved
7. Climate Change Adaptation Project, Phase I	To strengthen existing institutional frameworks for climate change adaptation and demonstrate cost-effective adaptation strategies in agriculture and natural resources management	WB	4,974,000	50,450,000	Approved
8. Philippines Sustainable Energy Finance Program	To further mobilize private financial sector investment in sustainable energy projects in order to reduce GHG emissions, improve energy security, and advance economic development in the Philippines	WB	5,300,000	28,534,540	Approved
9. Rural Power	To reduce the primary market barrier to public and private investments in NRE in off-grid areas by providing to government planners and potential private participants a detailed comprehensive analysis of key issues and options for investment decision making	WB	10,000,000	26,500,000	Approved
10. Climate Change Enabling Activity (Additional Financing for Capacity Building in Priority Areas)	-	UNDP	100,000	0	Approved

Project	Objectives	Agency	GEF Grant (USD)	Co-financing (USD)	Project Status
11. Enabling the Philippines to Prepare National Communication Program in Response to its Commitments to UNFCCC	To facilitate the preparation of the first national communication of the Philippines to the Conference of the Parties (COP), in accordance with Article 12.1of the UNFCCC, and the guidelines adopted by COP-2 for the preparation of national communications of non-Annex I Parties	UNDP	154,500	0	Approved
12. Electric Cooperative System Loss Reduction Project	To achieve significant and sustained energy efficiency improvements in rural electric cooperatives in order to provide current and prospective viable customers with reliable and least-cost power supply over the long term	WB	12,000,000	50,300,000	Completed
13. Capacity Building to Remove Barriers to Renewable Energy Development	To remove key market, policy, technical, and financial barriers to renewable energy	UNDP	5,143,000	18,326,000	Completed
14. Efficient Lighting Market Transformation Project	To remove remaining technical and market barriers to the accelerated introduction and large-scale promotion of energy-efficient fluorescent lighting systems in the Philippines	UNDP	3,130,655	12,000,000	Completed
15. Metro Manila Urban Transport Integration Project - Marikina Bikeways Project Component	To promote the expanded use of non-motorized transport as an alternative to fossil-fuel burning motorized transport by providing facilities for bicycle transport	WB	1,300,000	0	Completed
16. CEPALCO Distributed Generation PV Power Plant	To provide the first, full-scale demonstration of the environmental and economic benefits of the conjunctive use of hydro and PV-based power as well as the first significant use of grid-connected PV in a developing country	WB	4,000,000	1,775,000	Completed
17. Leyte-Luzon Geothermal	To assist in meeting the rapidly increasing demand for electrical power using technology that substantially reduces greenhouse gas (GHG) emissions	WB	30,000,000	1,303,600,000	Completed

Project	Objectives	Agency	GEF Grant (USD)	Co-financing (USD)	Project Status
18. Palawan New and Renewable Energy and Livelihood Support Project	To reduce the long-term growth of GHG emissions through removing barriers to commercial utilization of renewable energy systems to substitute for the use of diesel generators in Palawan.	UNDP	750,000	1,800,000	Completed
SCCF					
19. Scaling up Risk Transfer Mechanisms for Climate Vulnerable Agriculture-based Communities in Mindanao	To strengthen the resilience of vulnerable agriculture-based rural communities in Mindanao through climate risk transfer mechanisms and productivity enhancement measures	UNDP	1,050,000	16,250,000	Approved
20. Climate Change Adaptation Project, Phase I	To strengthen existing institutional frameworks for climate change adaptation and demonstrate cost-effective adaptation strategies in agriculture and natural resources management	WB	4,974,000	50,450,000	Approved

Currently, the GEF is on its 6th cycle, which covers the period of July 2014 – June 2018, for which the GoP has 7 thematic areas that served as basis for the programs and proposals it has endorsed to the GEF Secretariat for funding (DENR-FASPO, 2016).

In addition to the abovementioned funds, there is also the Small Grants Programme (SGP). Launched in 1992, the program is a grant facility that supports community-based resource management initiatives. It provides grants of up to USD 50,000 to NGOs, people's organizations and other community-based organizations for projects in the same GEF focal areas of biodiversity, climate change, and land degradation (UNDP, n.d.). Since 1992, the Philippines has received a total grant of USD 11.4 million with co-financing of USD 6.7 million for 323 projects executed by CSOs, NGOs, and CBOs.

The most recent undertaking of the SGP is the 5th Operational Phase (SGP5), whose set duration is June 2013 – July 2017, implemented by the UNDP with BMB as a partner. With a fund of USD 4.5 million, its objectives include:

- Demonstrating effective models for community-based governance of protected areas;
- Integrating biodiversity conservation objectives in community-managed landscapes and seascapes explicitly;
- Producing and marketing alternative biodiversity friendly agriculture, fisheries and forestry products of 30 communities;

- Increasing capacity of GEF-SGP stakeholders to diagnose and understand the complex and dynamic nature of global environmental problems and developing local solutions; and
- Enhancing capacities of GEF-SGP grantees to monitor and evaluate their projects and environmental trends (DENR, FASPO, n.d.).

SGP5 is focused on Region II (Cagayan, Isabela, Quirino, and Nueva Vizcaya), Region III (Aurora, Bulacan, and Nueva Ecija), Region IV-A (Laguna, Quezon, and Rizal), Region IV-B (Palawan), and Region VIII (Northern, Western, and Eastern Samar) (DENR-FASPO, n.d.)

Clean Development Mechanism

The Kyoto Protocol of the UNFCCC set the stage for putting an economic value on emission reductions. To help countries meet their emission targets and encourage private sector involvement, Parties to the Protocol agreed upon various market-based mechanisms, one of which is the Clean Development Mechanism (CDM). The CDM incentivizes the development of emission-reduction projects in developing countries through the provision of what is known as certified emission reduction (CER) credits. These are bought by industrialized countries to meet a part of their target emission reductions as set through the Protocol, thereby allowing them some flexibility on how they meet these targets while at the same time advancing the rate of development in less well-off countries.

One particular example of a CDM undertaking here in the Philippines is the Carbon Finance Support Facility (CFSF) of LBP. Started in 2015, the bank provides loan and technical assistance to project proponents for the development, implementation, and monitoring of certain CDM project facilities, namely methane waste recovery programs in pig farms and sanitary landfills. The WB serves as the buyer of the generated CERs as per the Emission Reduction Purchase Agreement (ERPA) with LBP (LBP, 2016).

Green Climate Fund

Set up by the UNFCCC in 2010, the GCF seeks to promote a paradigm shift to low-emission and climate-resilient development, taking into account the needs of nations that are particularly vulnerable to climate change impacts. It aims to deliver equal amounts of funding to mitigation and adaptation over time. Funds come mainly from developed countries and these can be channeled to interested parties in the form of grants, loans, equity, or guarantees. The fund is particularly known for its drive to ensure maximum impact and resource allocation by including a direct access modality and stimulating private finance support. It should also be noted that the GCF can provide zero interest loans payable for 40 years for sustainable development projects from the public sector (Lazaro, 2017).

Project proposals must fit at least one of the GCF's eight strategic impact areas. In the line of adaptation, these would be to increase the resilience of: (i) health, food, and water security; (ii) livelihoods of people and communities; (iii) ecosystem and ecosystem services; and (iv) infrastructure and the built environment. Meanwhile, for mitigation, these would involve reducing emissions from: (i) energy generation and access; (ii) transport; (iii) buildings, cities, industries, and appliances; and (iv) forest and land use (DENR, 2017).

Currently, the country has yet to access the fund is still in the readiness phase. For this end, there are three types of support facilities from the GCF that are helpful to access the Fund, namely the GCF Readiness and Preparatory Support Programme, Private Sector Facility (GCF-PSF), and Project Preparation Facility (GCF-PPF).

The GCF Readiness and Preparatory Support Programme provides grants and technical assistance for strengthening the institutional capacities of National Designated Authorities (NDAs)²⁵ and direct access entities to efficiently engage with the fund. In 2015, the Philippines submitted to the GCF the Philippine GCF Support Project proposal which was approved by the GCF Board with a grant amount of USD 300,000. This is to strengthen the institutional capacities of the NDA to effectively fulfil its roles and responsibilities in relation to the Funds and to prepare the country program.

The GCF-PSF supports the potential of the private sector for clean energy and climate resilience projects in developing countries. In particular, the facility offers up to USD 500 million to fund, mobilize, and engage private sector investors, developers, entrepreneurs, corporations, and small- and medium-sized enterprises in mitigation and adaptation projects in developing countries.²⁶

The GCF-PPF supports program and project preparation requests from all accredited/implementing entities (AEs), especially direct access entities and projects requiring smaller funds. The facility offers an amount of USD 40 million for the implementation of the initial phase of the PPF with each request support subject to a cap of USD 1.5 million through grants (both repayable and non-repayable).²⁷

Aside from the support and facilities set up by the GCF itself, the country is also supported by the Philippines' Green Climate Fund Readiness Program (GCFRP), funded by the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) thru the UNEP. The program runs from July 2016 to October 2018 with the World Resources Institute (WRI), UNDP, and UNEP joining as development partners. See Table 9 for the delineation of roles.

²⁵ The NDA is the focal point of the GCF system in a given country.

²⁶ In fact, according to Schalatek (2017), mid-September of 2017, around 53 % of the approved total GCF funding was committed to PAPs that engage the private sector. This focus is deliberate. The GCF believes that private sector involvement will guarantee long-term support from developed countries. These countries hope that GCF co-financing deals will leverage private-sector investments and thus secure a growing volume of private funding to fulfil the climate-finance obligations by 2020.

²⁷ Equity may be considered for projects involving private sector engagement.

Table 9. Summary of the roles of WRI, UNDP, and UNEP for the Philippines' GCFRP

Output	Partner	Activities	Remarks
1	WRI	Selection of a national/subnational body as the national implementing entity (NIE) for direct access to the GCF Develop guidelines and procedures for screening and selection Select candidate entities Conduct roundtable discussions with NDA and candidate NIEs	Completed
2	UNDP	Development of a pipeline of prioritized climate change programs/projects ready for submission to GCF Develop guidelines and procedures for prioritizing climate change need and interventions aligned with existing development plans Support preparation of a pipeline of prioritized projects ready for GCF submission	In progress
3	UNDP	Support for the accreditation process of a selected potential NIE Support in the accreditation process including submission of documentation and conduct of capacity gap assessment Assist candidate NIE in project concept note development	In progress
4	UNEP	Support for the preparation of a public-private partnership (PPP) modality to implement climate adaptation and mitigation solutions Conduct analysis to map out institutional actors, gaps, risks, and monetization of environmental services in connection to PPPs Provide technical assistance to local financial institutions in the development of financial products and services for prioritized climate sectors	Completed

Output 1. Selection of a national/subnational body as the NIE for direct access to the GCF. Led by the WRI, all activities under this output have been completed already. Specific accomplishments include:

- Development of the no objection procedure for NIE selection;
- Development of the project approval process; and
- Selection of LBP as the lead candidate NIE for direct access to GCF.

Output 2. Development of a pipeline of prioritized climate change PAPs ready for submission to GCF. Currently in progress, this component is handled by the UNDP. It supports the following activities in particular:

- Establishment of a national coordinating mechanism in accessing the GCF (i.e., a National Steering Committee (NSC) and its Technical Working Group (TWG));
- Formulation of a strategic communications plan;
- Development of a screening and prioritization tool (SPT) for PAPs;
- Development of a no objection procedure for PAPs;
- Development of a pipeline of PAPs for GCF; and
- Formulation of concept notes/project proposals.

Output 3. Support for the accreditation process of selected NIEs. Currently in progress, this UNDP component supports the following activities:

- Conduct of capacity gap assessment of potential NIEs;
- Support for the accreditation process, including the submission of required documents to the GCF Board/Secretariat; and
- Assistance to the candidate NIEs in developing a project concept note.

Output 4. Support for the preparation of a public-private partnership (PPP) modality to implement CCAM. Lodged under the responsibility of UNEP, this component is considered completed. Specific accomplishments include:

- Formulation of a Climate Smart Roadmap focusing on Mindanao;
- Conduct of a study on developing climate finance products for financing institutions by the Frankfurt Business School; and
- Expansion and strengthening of local partnerships through initiatives such as the establishment of a Climate Smart Network and Climate Smart Readiness Program.

Adaptation Fund

Also established under the Kyoto Protocol of the UNFCCC, the Adaptation Fund (AF) aims to finance initiatives that help vulnerable communities in developing countries adapt to the effects of CC.

The AF initiated the use of direct access as a modality for global public climate funds. The AF is also the first fund to be financed by a truly international revenue source—in this case, the CERs. In fact, the fund is financed by a 2% share in the proceeds of CER trading; the remaining is financed by government and private donors.

As of October 2017, the DOF is still in the process of complying with the requirements to become the NIE that will allow the country to access the maximum allocation of USD 10 million.

Official Development Assistance²⁸

The structure of ODA²⁹ can either be bilateral such that it is directly given to developing countries or multilateral such that it is coursed through international organizations. ODA can also be in the form of a grant—that is, without the condition of repayment—or as a concessional loan that offers more favorable interest rates and grace periods to the receiving entity vis-a-vis either commercial counterparts.

Majority of what constitutes the ODA portfolio in the Philippines contain adaptation components. In 2016 for instance, nine loans and sixteen grants with a total allocation of PhP 56.51 billion targeted CCA, which includes. Meanwhile, eight loans and four grants were directed towards CCM, amounting to a total of PhP 26.88 billion, while six loans and seven grants were related to both adaptation and mitigation with a total amount of PhP 28.96 billion being allotted for the said purpose.

In total, this amounts to 50 CC-related and ODA-funded projects with a total cost of PhP 112.32 billion; however, this is equivalent to only a tenth of the total number of loans and grants in the country's ODA portfolio. It is possible that these CC figures may potentially be higher given that the numbers presented were based on NEDA classification of ODA projects. Projects that do not specifically target CC and DRR management as their main objective but have such components may have not been fully considered.

Climate Investment Fund

Since 2008, the Climate Investment Fund (CIF) has been providing developing and middle-income countries with urgently needed resources to manage the impacts of climate change and reduce GHG emissions. In particular, the fund has been leading efforts to empower transformations in terms of climate resilience, energy, transport, and forestry.

²⁸ Sources: ROP (1996); ROP (1998); and NEDA (2016).

²⁹ The nature of ODA-funded projects can be classified into 5 groups: (i) agriculture, agrarian reform, and natural resources; (ii) industry, trade, and tourism; (iii) infrastructure development; (iv) governance and institutions development; and (v) social reform and community development.

As of October 2017, two of the four financing windows³⁰ of the CIF have been accessed by the Philippines, namely the Clean Technology Fund (CTF) and Pilot Program for Climate Resilience (PPCR).

The CTF provides middle-income countries with highly concessional resources to scale up the demonstration, deployment, and transfer of low-carbon technologies in RE, energy efficiency, and sustainable transport. The Philippines is currently tapping USD 134.52 million worth of CTF funds to leverage an amount of USD 1.76 billion in co-financing for 6 projects on RE, energy efficiency, and sustainable transport (see Table 10).

Table 10. CTF Projects in the Philippines³¹

	CTF Funding (in millions USD)	Co-financing (in millions USD)	Development Bank
Cebu Bus Rapid Transit Project	25	204	IBRD
Market Transformation through Introduction of Energy Efficient Electric Vehicles Project	13.06	399	ADB
Philippines Manila BRT	23.9	86	IBRD
Renewable Energy Accelerator Program (REAP)	25.11	477	IFC
Renewable Energy Development (PHRED)	44	516	IBRD
Sustainable Energy Finance Program	3.45	77	IFC

The PPCR is a funding window of the CIF for CCA. Specifically, it assists national governments in integrating climate resilience into development planning across sectors and stakeholder groups. It also provides additional funding to put the plan into action and pilot innovative public and private sector solutions to pressing climate-related risks.

In 2015, a grant amount of USD 1.5 million has been available by the PPCR to the Philippines in order to assist the GoP in developing the country's Strategic Program for Climate Resilience (SPCR). The SPCR provides the operational framework as well as the list of possible priority investments that can advance the state of risk resiliency in the country.

Overview of the government's climate change budgeting system

To further strengthen CC investment, a CC budgeting system was deemed necessary and proved to be a crucial hallmark in the country's move to further strengthen, align, synergize, and monitor the country's progress in achieving the CC commitments detailed in the various governments frameworks, plans, and agenda. In 2012, the Department of Budget and Management (DBM) and CCC began initial work on the CCET framework with the objective to formulate a set of guidelines for classifying

³⁰ The two other windows are the Forest Investment Program (FIP) and Scaling Up Renewable Energy in Low Income Countries Program (SREP).

³¹ From the online CIF country profile database.

government PAPs, including a series of typologies and coding structures to map any CC-related PAP or their component with the 7 NCCAP thematic areas and their corresponding target outcomes. This was supported by the conduct of the Climate Public Expenditure and Institutional Review, a collaboration between the World Bank (WB), CCC, and DBM that involved a select number of national government agencies (NGAs) and local government units in the identification and collection of expenditure data, including the classification of these expenditures, test runs, and conduct of various policy and technical dialogues to ensure stakeholder buy-in and the smooth implementation of the program (DENR, n.d.).

The year 2013 saw the formal release of the approved CCET with the issuance of DBM-CCC Joint Memorandum Circular (JMC) 2013-01 mandating the national government, state universities and colleges (SUCs), and government owned and controlled corporations (GOCCs) to track their climate change expenditure (CCE) beginning with the NGA budget request for 2015 (DBM, 2013). This was amended by JMC 2015-01 with regards to the guidelines (DBM 2015), and was also followed by DBM-CCC-DILG JMC 2014-01, providing guidelines at the provincial and municipal government to track their climate expenditures in their Annual Investment Programs (AIPs). Coupled with this is the formulation of the annual People's Climate Budget (PCB) technical report that details the findings and ways forward from the CCET initiative.

This climate budgeting system provides insights into the current alignment between government spending and national priorities stated in NCCAP and other CC-related government agenda. It contributes in the advancement of the core mandate of the CC CCAM-DRR as it advocates PCB through improved coordination between NGAs. It allows stakeholders to better assess areas of need and overlap, including opportunities for collaboration and pathways to increase the effectiveness and efficiency of meeting target goals. It can also provide inputs in further strengthening any existing M&E system for CC.

The entire cost of a PAP is reflected as a CCE if its profile indicates the provision of a direct CCA/M initiative as a primary goal. Otherwise, only the cost of specific components of the target CCAM which match the CC response typologies found in DBM-CCC-DILG JMC No. 2015-01 can be reflected.

Highlights from the national-level CCET³²

Forty-five NGAs identified climate change expenditures (CCE) of PhP 176 billion (or about 6% of the total 2016 GAA) spread across 233 PAPs, showing an increase of 25% in value from the 2015 figure of PhP 140.4 billion spread across 260 PAPs of 43 NGAs. This is likely due to the increased number of NGAs reporting for the CCET as well as the increased number of PAPs and funding allocated to CC. For 2016, the CCET reported the inclusion of 2 more NGAs and while 120 PAPs worth PHP 5.6 billion were dropped or terminated in 2016, there was to be noted an introduction of 90 new PAPs worth PHP 7.3

³² This section reflects the findings from the People's Climate Budget reports based on the 2015 and 2016 approved budget as per the General Appropriations Act (GAA). Such reports for 2017 and 2018 are not yet publicly available. While existing studies have estimates for the prior years (i.e., before 2015), these were not considered as they did not make use of the same methodology as the one adopted by the CCET.

billion, of which majority came from additional funding for the construction, rehabilitation, and/or maintenance of flood mitigation structures, bridges, and national roads of DPWH (amounting to PhP 16 billion, PhP 4.6 billion, and PhP 4.4 billion respectively compared to 2015 GAA).

An increasing trend also shows for the particular attention given to adaptation funding, which constitutes 89% (PhP 157 billion) of the total CC budget vis-à-vis the 87% (PhP 121.1 billion) of 2015. For both years, a considerable portion of these adaptation expenditures was geared towards the construction and maintenance of flood mitigation structures and drainage systems of DPWH. Meanwhile, major mitigation PAPs include the National Greening Program (NGP) of DENR and the construction/expansion of mass transportation projects such as the Light Rail Transit (LRT) of the Department of Transportation (DOTr). The share of mitigation PAPs declined from 13% to 11% in the total budget due to the dropping of the Energy Efficient Electric Vehicles Project of the Department of Energy (DOE). This small share of mitigation may partly be due to the current CCET guidelines that requires PAPs to be tagged using a single typology code.

The approved climate budget for 2015-2016 focused on the NCCAP strategic priority of attaining WS and SE with shares of at least 30% each for both years, followed by FS and EES. SE had the highest share in 2015 at 42% but this dropped to 35% the following year, replaced by WS whose share grew from 34% to 37%. Consistently at the bottom is HS whose meager share of only 5% plummeted further to 1%. Figures 8 and 9 show the allocation per strategic priority and the changes for 2015-2016.

Figure 8. Distribution of the total budget climate per NCCAP strategic priority

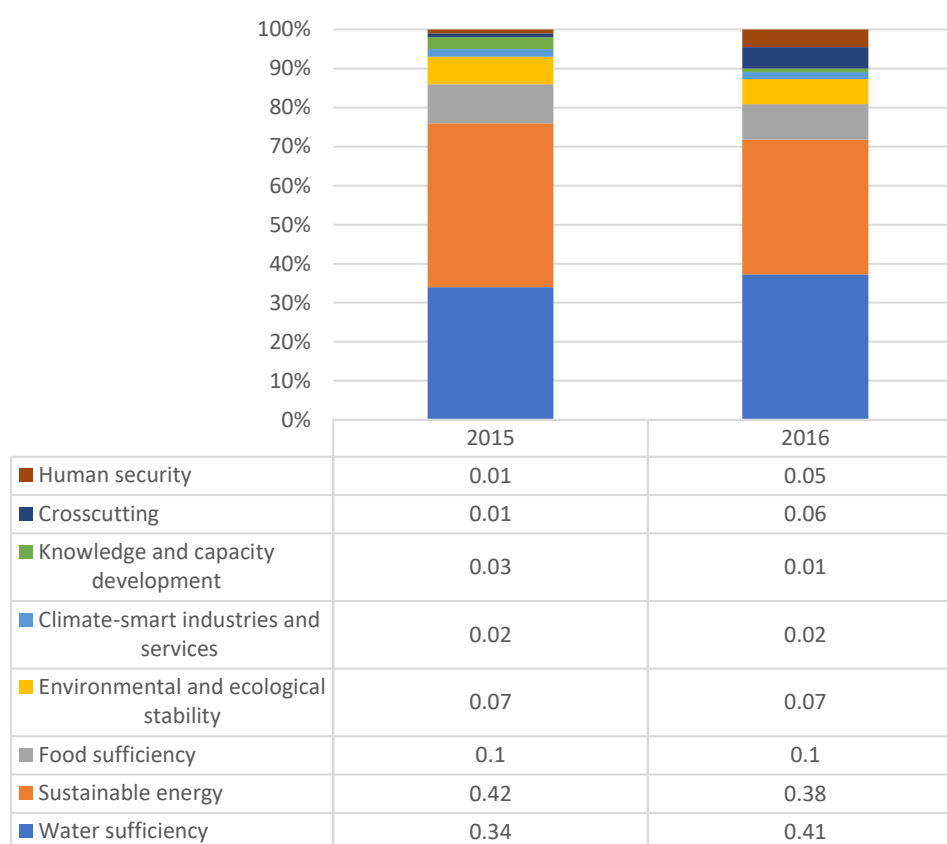
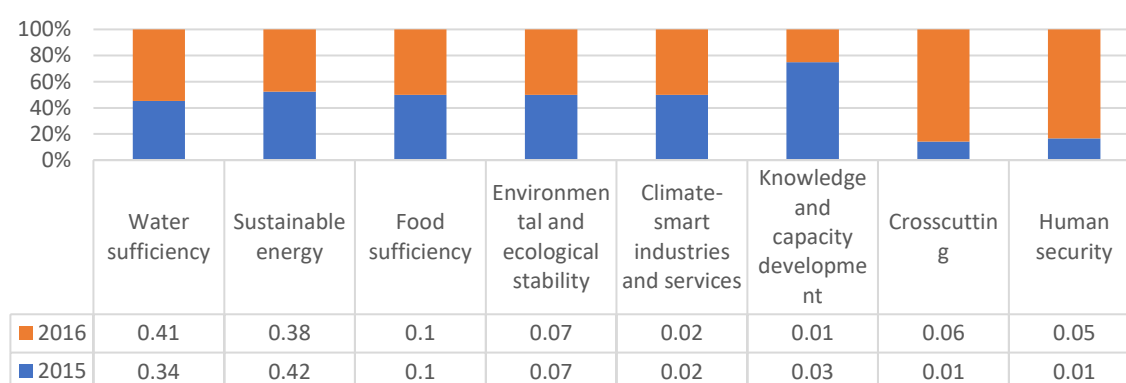


Figure 9. Changes in the distribution of the total budget climate per NCCAP strategic priority



For both years, at least two-thirds of the total approved climate budget is solely concentrated on DPWH. For 2015, the agency's budget constituted 69% (Php 97 billion), which ballooned even further to 74% (Php 130 billion) by 2016. The remaining share was dominated by 5 NGAs, namely the Department of Agriculture (DA), DENR, DOTr, and Department of Science and Technology (DOST), and DOE. Among the five NGAs, only DOST and DOE showed substantive declines (46% and 95% respectively) in their climate budget. Figures 10 and 11 show the distribution and changes in the total climate budget per agency.

Figure 10. Distribution of the total climate budget per NGA

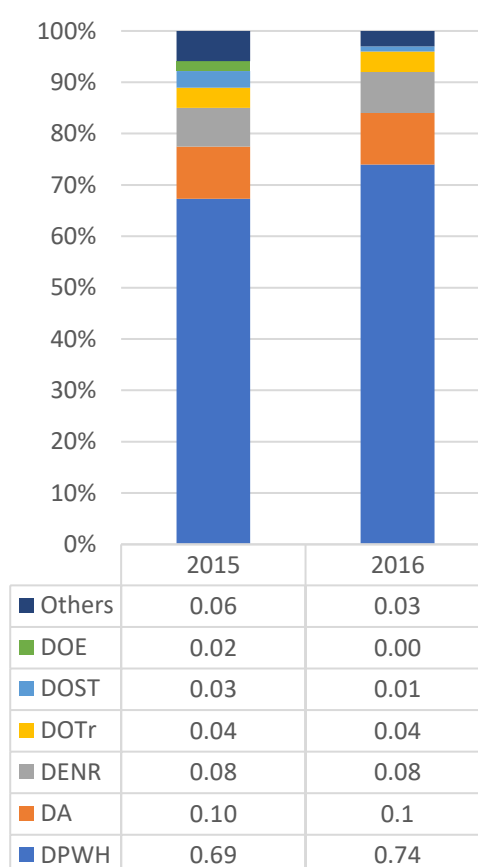
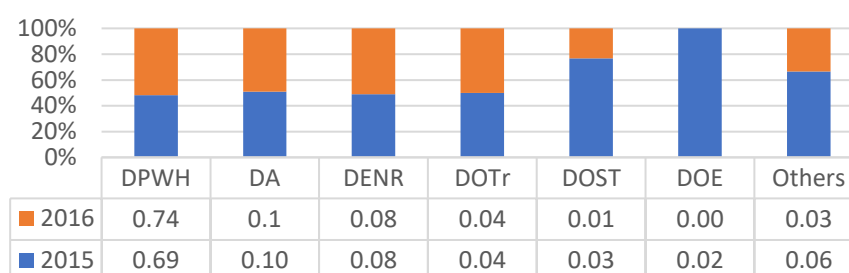


Figure 11. Changes in the distribution of the total budget climate per agency



On water sufficiency

There were 170 PAPs that target WS as its goal, comprising 41% or PhP 72.8 billion of the total climate budget in 2016. This shows a 54% increase relative to the 2015 value of 34% or PhP 47.2 billion. For both years, the budgeted PAPs addressed the following:

- Restructuring the governance of the water sector towards a climate- and gender-responsive water sector by the Mines and Geosciences Bureau (MGB), National Water Resources Board, Palawan Council for Sustainable Development (PCSD), Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA), Philippine Coast Guard (PCG), DPWH, Metro Manila Development Authority (MMDA), and Pasig River Rehabilitation Commission (PRRC);
- Ensuring access to safe and affordable water and sustainability of water supply by DPWH;³³ and
- Enhancing knowledge and capacity CCA in the water sector by the Philippine Navy and PRRC.³⁴

In terms of the total WS allocation, majority was covered by the DPWH for the implementation of the Flood Risk Management and Resiliency Program that aims to design and construct flood control facilities capable of withstanding disaster events along major river basins. This constituted 70.5% (PhP 67.7 billion) of the total WS budget for 2015 and 97% (PhP 45.9 billion) for 2016. DPWH also served as the lead in the installation of rainwater catchment systems. A total of 513 rainwater collection systems have been installed since 2013, and budget for this was increased six times more than the 2015 GAA approved expenditure of PhP 0.1 billion.

³³ The Advanced Science and Technology Institute (ASTI) also contributed to this but only in 2016.

³⁴ The Environmental Management Bureau (EMB) had a PAP oriented towards this goal for 2016 only.

On sustainable energy

Although the budget share for SE fell from 42% to 35%, its actual value increased from PhP 59.6 billion to PhP 66.7 billion. With the exception of the development of a GHG inventory, all NCCAP outcome areas for this strategic priority had CCE for 2015-2016 as detailed below:

- Promotion and implementation of a nationwide energy efficiency and conservation program by the Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD);³⁵
- Development of sustainable RE by DOE;
- Promotion and adoption of environmentally-sustainable transport by DOE, DOTr, and MMDA; and
- Rehabilitation and retrofitting of energy systems and infrastructures for CC by DPWH.

Major PAPs in the field of SE targeted the rehabilitation and climate-proofing of infrastructure by DPWH, making it the largest contributor to the achievement of SE despite having no designated lead role for the thematic area as per the provisions in the NCCAP; however, a closer look shows that the agency's budget was actually intended for the National Road Network Services of DPWH, which involves the rehabilitation and retrofitting of roads alone, accounting for 90% (PhP 45.4 billion) in 2015 and 93% (PhP 54.2 billion) in 2016.

Among the other large expenditures include the DOTr's support for the expansion of the LRT system in Metro Manila as well as the Bus Rapid Transit (BRT) in Cebu, which saw a 33% increase to PhP 7.5 billion in 2016. The GoP also approved a PhP 0.2 billion allocation to PCIEERD's research agenda covering RE, energy efficiency, and low-carbon transport among others.

On food security

The share of the FS budget grew from PHP 17.7 billion in 2015 to PhP 14.6 billion in 2016. This accounts for 10% of the total approved climate budget for both years.

Only three agencies had initiatives towards this strategic priority, namely the Department of Foreign Affairs (DFA)—Technical Cooperation Council of the Philippines (TCCP), DOST—Food and Nutrition Research Institute (FNRI),³⁶ and the various bodies lodged under the DA.³⁷ The funding is divided almost equally between the PAPs that aim to enhance the adaptive capacity of the communities reliant on the agriculture and fisheries sector and those that improve the climate resilience of their production and distribution systems.

³⁵ The Philippine Overseas Employment Administration (POEA) also assisted in this outcome area for 2016.

³⁶ It should be noted that the institute was involved only in 2016.

³⁷ For both years, there had been PAPs from DA's Agricultural Credit Policy Council (ACPC), Bureau of Fisheries and Aquatic Resources (BFAR), Philippine Carabao Center (PCC), and Philippine Center for Postharvest Development and Mechanization (PhilMech). Meanwhile, 2016 saw the inclusion of 2 other DA bodies: National Meat Inspection Service (NMIS) and Philippine Council for Agriculture and Fisheries (PCAF).

The DA dominated the share in the total FS CC budget. Its budget allocation amounted to 99.9% (PhP 14.6 billion) and 100% (PhP 17.7 billion) for 2015 and 2016 respectively. For both years, the agency's FS budget was for a large part used to fund the foreign-assisted Philippine Rural Development Program (PRDP), comprising in fact a half of the DA's total CCE. This translates to PhP 7.3 billion in 2015 and PhP 9.1 billion for 2016. The program was designed to serve as the government's platform for a modern, climate-smart, and market-oriented agri-fishery sector. A bulk of its budget is meant to fund the infrastructure projects of LGUs, including farm-to-market roads (FMRs), bridges, communal irrigation, potable water systems, fish landing sites, greenhouses, and post-harvest facilities such as solar driers.

This aside, there had been six PAPs comprising at least a fifth of the total FS budget of the DA, and these cover the following: (i) construction and repair of FMR; (ii) support activities for rice production and distribution; and (iii) production support services for high value crops; and (iv) SOCKSARGEN Area Development Project (ADP) that focused on delivering food security to the region.

On ecological and environmental stability

There had been a 13% budget increase for this strategic priority; from PhP 10.2 billion in 2015, the budget went up to PhP 11.4 billion in 2016. For both years, the following agencies that were observed to have PAPs for this strategic priority were: DENR through PCSD and the National Mapping and Resource Information Authority (NAMRIA); Department of National Defense (DND) through PN; DOST through the Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCAARRD); National Economic and Development Authority (NEDA) through the Philippine Statistics Authority (PSA); and PRRC.³⁸

Nearly all of the total EES budget was allocated to DENR. This was computed to be at 98% (PhP 9.9 billion) in 2015 and 99% (PhP 11.4 billion) for the following year. This allocation made up 86% and 92% of the agency's total climate budget for 2015 and 2016 respectively, where majority was used to fund the National Greening Program (NGP).³⁹ As the largest forest rehabilitation effort to date, it aimed 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.

A considerable portion of the budget also focused on other areas such as policy development and institutional strengthening for both years, carried out by DENR, making up 1.4% (PhP 1.4 billion) in 2015 and 9% (PhP 1 billion) in 2016. In 2016, there had been an increase in the budget for a PAP focused on the formulation and monitoring of sector policies, plans, and programs on environmental and natural resources (ENR) by more than three times to PhP 0.39 billion, but the year also reported a 34% decline in the budget of a PAP related to the enforcement of laws, rules, and regulations to PhP 0.59 billion.

³⁸ For 2016 only, there had been PAPs from DND-Airforce and the Institute for Labor Studies (ILS) of the Department of Labor and Employment (DOLE).

³⁹ The Executive Order No. 26 stated that the DENR is the primary agency responsible for the implementation with support of m (any other agencies).

On human security

The thematic area of HS receives the least appropriation in the total climate budget, accounting for 0.41% (0.58 billion) in 2015 and 0.49% (PhP 0.87 billion) in 2016. The nature of the PAPs can be summarized as follows:

- Integration and implementation of CCA-DRRM by Office of Civil Defense (OCD) of the DND.⁴⁰
- Rendering the responsiveness of health and social protection delivery systems to CC risks by the National Youth Commission (NYC) and National Anti-Poverty Commission (NAPC).⁴¹
- Promotion, development, and adoption of CC-adaptive human settlements and services by Housing and Urban Development Coordinating Council (HUDCC) and Housing and Land Use Regulatory Board (HLURB).⁴²

For both years, 96% of the total HS budget was comprised of appropriations to the DND, equivalent to 100% (PhP 0.56 billion) of the agency's total climate budget in 2015 and 61% (PhP 0.53 billion). Nearly all of the HS appropriations were for the OCD's efforts in disaster preparedness, emergency response, and post-disaster management, involving assistance in the enhancement of local DRRM plans and creation of LGU-specific hazard and risk assessment maps.

On climate-smart industries and services

The thematic area of CSIS continued to hold its share of 2% of the total climate budget despite the 10% increase in its budget from PhP 2.95 billion in 2015 to PhP 3.3 billion in 2016. The funded PAPs for the two-year duration were oriented towards the following:

- Promotion, development, and sustaining of CSIS by EMB, POEA, TCCP, Department of Tourism (DOT), and the Design Center of the Philippines (DCP) of the Department of Trade and Industry (DTI).⁴³
- Creation of sustainable livelihood opportunities from CSIS by ILS.⁴⁴
- Promotion, development, and sustaining of environmentally-sound cities and municipalities by EMB, DPWH, DCP, and MMDA.⁴⁵

The total budget for CSIS was mostly split between DENR, DOLE, and MMDA for 2015-2016. The 2016 CCET reported a sudden shift in the distribution of shares with DENR showing a stark increase in funding from 20% to 36%. This was in light of the increased appropriation for the agency's implementation of the Clean Air Act and the Ecological SWM Act amounting to PhP 1.1 billion from the previous PhP 0.4 billion. Figures 12 and 13 show the allocation per agency and the changes thereof.

⁴⁰ With efforts from NAMRIA in 2015.

⁴¹ With addition of DAR in 2016.

⁴² With addition of PCSD in 2016.

⁴³ The year 2016 also saw the inclusion of PCSD's PAP for this particular outcome.

⁴⁴ With addition of TESDA for 2016.

⁴⁵ With addition of POEA for 2016.

Figure 12. Distribution of the total budget climate for CSIS per agency

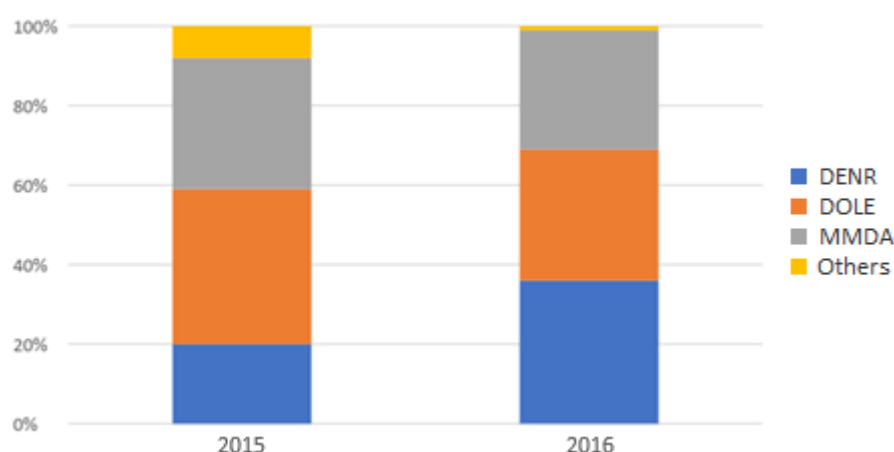
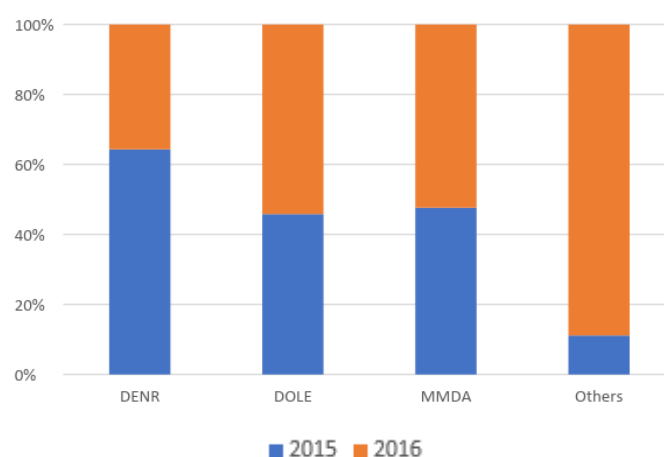


Figure 13. Changes in the distribution of the total budget climate for CSIS per agency



For both years, at least four-fifths of the GAA for CSIS was centered on PAPs dealing with the following: (i) implementation of the Clean Air Act and Ecological SWM Act; (ii) conduct of capacity-building programs for rural workers; (iii) development and sustaining of viable enterprises; and (iv) formulation and implementation of policies and standards for sanitary waste disposal; and (v) construction and operation of material recovery facilities (MRFs) and sanitary landfills.

Nearly all of DOLE's climate expenditures are appropriated for the creation and promotion of sustainable livelihoods and jobs (99% in 2015 and 99.8% in 2016).

On knowledge and capacity development

CC-related GAA for KCD experienced a sharp decrease from Php 4.2 billion (3% of the total budget) to Php 2.2 billion (1%). For 2015-2016, the budgeted PAPs for this strategic priority include those linked to:

- Enhancement of the knowledge on CC science by EMB, PCSD, PAGASA, Philippine Institute of Volcanology and Seismology (PHIVOLCS), and the Bureau of Broadcast Services (BBS); and
- Enhancement of the community-level capacity for CCAM and DRR by PCSD, National Defense College of the Philippines (NDCP), PHIVOLCS, Local Government Academy (LGA), and Philippine Information Agency (PIA).⁴⁶

There were no PAPs that addressed the establishment and accessibility of gendered CC knowledge management.

Almost all of the GAA for KCD was covered by DOST alone as the lead NGA in charge of this thematic area, with a share of 98% (PhP 4.1 billion) and 95% (PhP 2.1 billion) in 2015 and 2016 respectively. This was followed by co-lead Department of Interior and Local Government (DILG), which reported an increase from a 2% to 4% share. A sizable portion of DOST's KCD budget constituting 71% in 2015 and 45% in 2016 was allocated for PAGASA for the generation and dissemination of weather, climate, and flood forecasts and warning advisories. This includes the necessary capital outlay and enhancements to the monitoring systems. The budget cut of PAGASA resulted from its completion of several PAPs in 2015.

Highlights from the local-level CCET⁴⁷

The following section synthesizes the findings of the People's Climate Budget Report for 2016 basing on the review of the AIPs of 130 LGUs comprising of 22 provinces, 12 cities, and 96 municipalities.⁴⁸

The total AIP budget was calculated at PhP 324.1 billion, of which 29% was classified as related to climate change, and similar to the national results for 2015-2016, a bulk (98%) of this was for funding adaptation initiatives.

Majority of the CCA initiatives involved the construction and upgrading of roads, ports, and aviation infrastructure that were supposed to utilize a climate-resilient approach but whose standards were not specified or that which follow different design standards. The construction of roads and bridges under the PRDP for instance should be capable of withstanding a wind load of 250-300 km/hour. The PRDP I-BUILD Operations Manual further adds 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.”*

⁴⁶ With addition of NAPC in 2015 and Presidential Legislative Liaison Office (PLLO) in 2016.

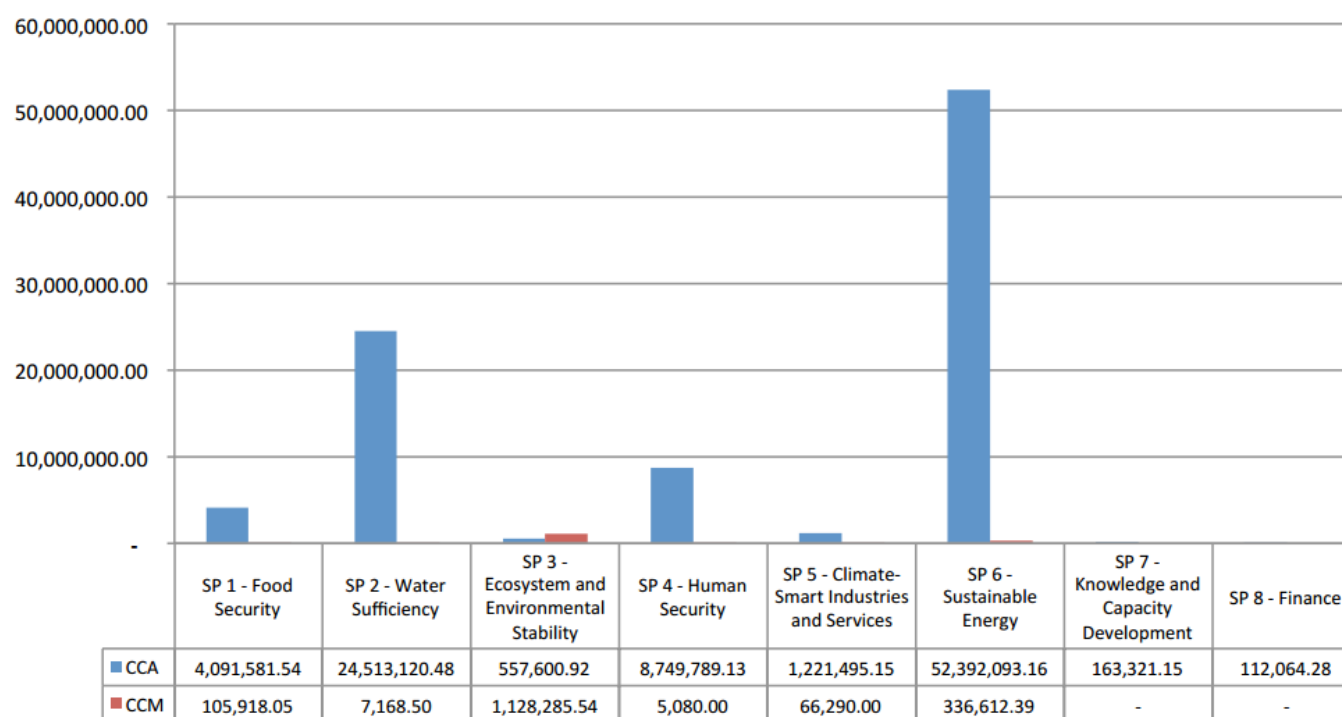
⁴⁷ This section reflects the findings from the People's Climate Budget reports based on the 2015 and 2016 approved budget as per the General Appropriations Act (GAA).

⁴⁸ While the intent of the JMC 2015-01 was for the CCET to be implemented by all LGUs in 2016, the oversight agencies decided to focus on the 27 highly vulnerable provinces (HVP) identified in the Hazards Mapping for Effective Community-Based Disaster Risk Mitigation (or READY Project) led by the National Disaster Coordinating Council (NDCC).

The programmed budget for mitigation constituted 2% of the total climate budget, with major allocations given to PAPs that address SWM (44%), urban traffic management (9%), and reforestation and afforestation (8%).

In terms of NCCAP strategic priorities, SE had 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 14.

Figure 14. Distribution of the total AIP budget per NCCAP strategic priority⁴⁹



⁴⁹ In thousands, PhP.

Priority climate change investments for 2017-2022

The PDP is accompanied by a Public Investment Program (PIP) of the same duration that serves as the programming document for the current administration. In particular, it provides the list of priority programs and projects (PAPs) to be implemented by the government and their sources of funding.⁵⁰ PAPs included in the PIP should be: (i) responsive to the 0+10-pOINT Socioeconomic Agenda as well as the strategies, sector and subsector outcomes being addressed, and their specific targets and indicators in the PDP and its supporting Results Matrix; and (ii) included in any of the following: National Expenditure Program (NEP), GAA, Multi-Year Obligational Authority, existing master plan/sector studies/procurement plan, signed multilateral/bilateral agreements, and list of projects endorsed by regional development councils. Additionally, these should be implemented within the current administration period and should have pre-investment studies available. This ensures a sound basis for public sector resource allocation and for pipelining PAPs for processing at the Investment Coordination Committee (ICC).

Out of the 5,673 PAPs in the latest version of the PIP, 316 are related to CC-DRR with a total investment requirement of PhP 1.5 trillion (or 14% of the total investment target of PhP 10.61 trillion) for the duration of 2017-2022 (see Table 11).

Table 11. Summary of CC-DRR PAPs for PIP 2017-2022

Total No. of CC-DRR PAPs	Total No. of PAPs	Number of CC-DRR PAPs as % of Total No. of PAPS	Total CC-DRR Investment (PhP)	Total Investment Target (PhP)	Value of CC-DRR PAPs as % of Total Investment Target	Example Nature/ Components of CC-DRR PAPs
Chapter 5. Ensuring People-Centered, Clean, and Efficient Governance						
8	129	6.2%	217,784,666,756.00	260,403,696,551.26	84%	<ul style="list-style-type: none"> • Risk assessment and impact analysis of government operations in face of disaster events • Creation of data recovery systems and back-up facilities or retrofitting of structures to ensure business continuity within select government agencies in times of disasters

⁵⁰ Excluded in the PIP are PAPs financed purely by LGUs, private sector, and NGOs as well as the recurrent cost on the general operation of the government, personnel services, relending and/or guarantee-related activities to private institutions, and other administrative capital expenditures.

Total No. of CC-DRR PAPs	Total No. of PAPs	Number of CC-DRR PAPs as % of Total No. of PAPs	Total CC-DRR Investment (PhP)	Total Investment Target (PhP)	Value of CC-DRR PAPs as % of Total Investment Target	Example Nature/ Components of CC-DRR PAPs
						<ul style="list-style-type: none"> • Promotion of DRR-CCA and the Environment and Solid Waste Management Program (ESWMP) • Capacity-building to strengthen performance management with respect to DRRM and disaster preparedness of the national and local government
Chapter 6. Pursuing Swift and Fair Administration of Justice						
0	83	0%	-	36,663,983,641.74	0%	
Chapter 7. Promoting Philippine Culture and Values						
0	151	0%	-	24,440,395,895.00	0%	
Chapter 8. Expanding Opportunities in Agriculture, Forestry and Fisheries						
27	301	9.0%	365,600,473,610.53	682,392,020,786.95	54%	<ul style="list-style-type: none"> • Integration of climate change impacts in area development plans • Establishment of and research on climate-resilient livestock systems • Establishment of climate-resilient, sustainable mariculture and agri-based farming technology and production strategies • Establishment of climate-smart farmers field/business schools • Implementation of crop insurance • Creation of agri-ecotourism areas
Chapter 9. Expanding Economic Opportunities in Industry and Services through Trabaho and Negosyo						
1	33	3.0%	2,074,640,000.00	36,934,589,196.00	6%	<ul style="list-style-type: none"> • Incorporation of climate resilient approach in development plans for MSEs
Chapter 10. Accelerating Human Capital Development						
3	140	2.1%	6,954,281,574.00	715,069,286,230.18	1%	<ul style="list-style-type: none"> • Provision of access to information on disaster risk and preparedness
Chapter 11. Reducing Vulnerability of Individuals and Families						

Total No. of CC-DRR PAPs	Total No. of PAPs	Number of CC-DRR PAPs as % of Total No. of PAPs	Total CC-DRR Investment (Php)	Total Investment Target (Php)	Value of CC-DRR PAPs as % of Total Investment Target	Example Nature/ Components of CC-DRR PAPs
2	8	25%	9,259,588,000.00	457,127,734,115.00	2%	<ul style="list-style-type: none"> Relief assistance through provision of food and non-food items Provision of housing materials as assistance to calamity victims
Chapter 12. Building Safe and Secure Communities						
6	20	30%	68,025,160,000.00	351,895,523,533.68	19%	<ul style="list-style-type: none"> Provision of housing units
Chapter 14. Vigorously Advancing Science, Technology and Innovation						
1	76	1.3%	99,866,000.00	101,152,125,574.96	0%	<ul style="list-style-type: none"> Establishment of center for technology research and development for green composites and other areas of materials for environment and energy Formulation of roadmap for technologies related to water treatment
Chapter 15. Ensuring Sound Macroeconomic Policy						
0	13	0%	-	1,389,280,731.20	0%	
Chapter 17. Attaining Just and Lasting Peace						
0	2	0%	-	8,726,504,636.00	0%	
Chapter 18. Ensuring Security, Public Order, and Safety						
0	31	0%	-	89,513,029,473.00	0%	
Chapter 19. Accelerating Infrastructure Development						
225	4502	5.0%	712,876,230,384.72	7,755,074,227,311.17	9%	<ul style="list-style-type: none"> Construction of structures and facilities meant for flood control or drainage structures such as riverwalls, slope protection works, seawalls, and paved road widening with drainage Construction of rain catch basins Construction of renewable energy facilities such as solar panels, wind turbines Establishment of research centers to mainstream the applicability and use of RE systems

Total No. of CC-DRR PAPs	Total No. of PAPs	Number of CC-DRR PAPs as % of Total No. of PAPs	Total CC-DRR Investment (PhP)	Total Investment Target (PhP)	Value of CC-DRR PAPs as % of Total Investment Target	Example Nature/ Components of CC-DRR PAPs
						<ul style="list-style-type: none"> • Enhancement of weather forecast systems • Integration and analysis of meteorological and hydrological data • Dissemination of relevant weather forecasts, bulletins, and advice for farmers • Construction or retrofitting of structures to incorporate eco-efficient technology • Construction of waste management facilities such as MRFs and sewage treatment plants
Chapter 20. Ensuring Ecological Integrity, Clean and Healthy Environment						
58	184	31.5%	115,338,183,226.71	131,188,610,898.87	88%	<ul style="list-style-type: none"> • Delineation of forest limits • Establishment of additional conservation areas • Preparation of management plans for subwatersheds • Creation and enhancement of relevant governing bodies, including increased technical capacity • Rehabilitation of degraded forestlands and other critical habitats • Production of quality planting materials • Establishment of clonal nurseries of indigenous forest species • Establishment of IEC campaigns on biodiversity • Establishment of community-based livelihood projects such as ecotourism sites, agroforestry areas, and high-value products inter-cropped with tree plantations • Provision of logistical and material support for enhanced forest law enforcement

Total No. of CC-DRR PAPs		Total No. of PAPs	Number of CC-DRR PAPs as % of Total No. of PAPS	Total CC-DRR Investment (PhP)	Total Investment Target (PhP)	Value of CC-DRR PAPs as % of Total Investment Target	Example Nature/ Components of CC-DRR PAPs
							<ul style="list-style-type: none"> Assessment of climate change impacts on groundwater supply
TOTAL	331	5673	5.8%	1,498,013,089,551.96	10,651,971,008,575.00	14%	

Gaps and ways forward for Philippine climate financing

On the duplication of projects

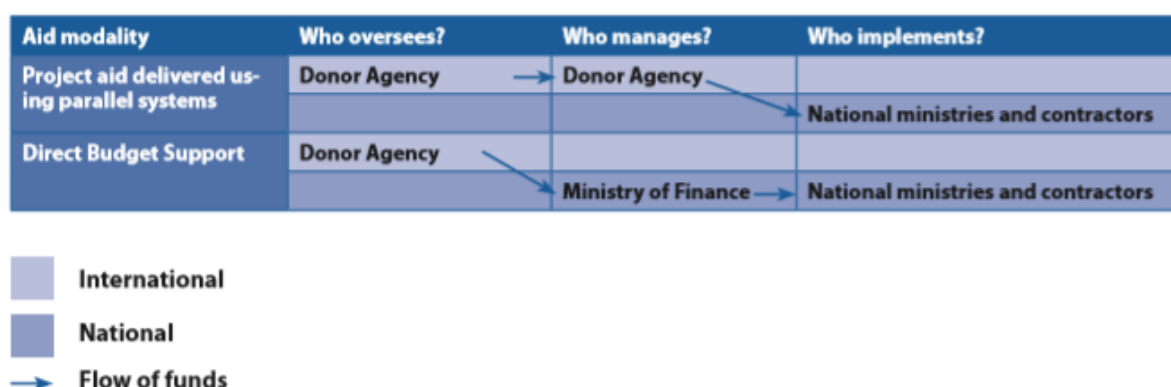
This is particularly the case for local-level projects. Stakeholders are cautious on the duplication of the projects vis-à-vis national government-funded projects. It is suggested that LGUs direct the implementation and/or funding of the “business-as-usual” projects to the appropriate agencies to ensure maximum impact (ICSC, 2016). The RBMES (n.d.) also suggests that proposed CC programs be anchored onto existing initiatives, where possible.

On project aid and budgetary support

Complementing the discussion over the principles underpinning the delivery of international development assistance, there has been considerable inquiry to determine what forms of aid are appropriate in specific country circumstances. ODA can be delivered as project aid, which comes in packaged programs or projects or as direct budget support. The latter can either be general, un-earmarked financing to the national budget or sector budget support to a particular theme within government spending. In both cases, funds are not delivered as PAPs (UNDP, 2011).

Figure 15 highlights the architecture associated with the delivery of budget support and contrasts this with the scenario for project aid. The first point to note is that traditional project-based support equates with the notion of multilateral access as it is perceived in climate change circles. Under this arrangement, the role of national bodies is largely confined to the implementation role and the flow of funds usually remains outside the national budgetary system. This architecture is radically altered with budget support, as the national ministry of finance plays a key role in the management of funded actions, with external funding being transferred into an account over which the government has full financial authority. There is also significant use of government systems for monitoring and accountability (UNDP, 2011).

Figure 15. Institutional framework for the delivery of project aid and direct budget support



On the accreditation of implementing entities for global public climate funds

The institutions nominated must meet certain standards that ensure sound fiduciary management and oversight, which are competencies and functions that are usually found in multilateral agencies. Table 12 presents the fiduciary standards for implementing entities set by the Board of the AF, which are more or less followed by other existing global public climate funds (AF, n.d.).

Table 12. Fiduciary standards for implementing entities of the AF

REQUIRED COMPETENCY	SPECIFIC CAPABILITY REQUIRED	ILLUSTRATIVE MEANS OF VERIFICATION
I Financial Management and Integrity	Accurately and regularly record transactions and balances in a manner that adheres to broadly accepted good practices, and are audited periodically by an independent firm or organization	Production of reliable financial statements prepared in accordance with internationally recognized accounting standards. Annual external audited accounts that are consistent with recognized international auditing standards. Production of detailed departmental accounts Use of accounting packages that are recognised and familiar to accounting procedure in developing countries Demonstrate capability for functionally independent internal auditing in accordance with internationally recognized standards. ¹
	Managing and disbursing funds efficiently and with safeguards to recipients on a timely basis;	A control framework that is documented with clearly defined roles for management, internal auditors, the governing body, and other personnel. Financial projections demonstrating financial solvency Demonstration of proven payment / disbursement systems
	Produce forward-looking financial plans and budgets	Evidence of preparation of corporate , project or departmental / ministry budgets Demonstration of ability to spend against budgets
	Legal status to contract with the Adaptation Fund and third parties	Demonstration of necessary legal personality in case it is not government department/institution. Demonstrated legal capacity/authority and the ability to directly receive funds
II Requisite Institutional Capacity	Procurement procedures which provide for transparent practices, including competition	Evidence of procurement policies and procedures at national levels consistent with recognized international practice (including dispute resolution procedures)
	Capacity to undertake monitoring and evaluation	Demonstration of existing capacities for monitoring and independent evaluation consistent with the requirements of the Adaptation Fund. Evidence that a process or system, such as project-at-risk system, is in place to flag when a project has developed problems that may interfere with the achievement of its objectives, and to respond accordingly to redress the problems.

REQUIRED COMPETENCY	SPECIFIC CAPABILITY REQUIRED	ILLUSTRATIVE MEANS OF VERIFICATION
	Ability to identify, develop and appraise project	Availability of/ Access to resources and track records of conducting appraisal activities Evidence of institutional system for balanced review of projects, particularly for quality-at-entry during design phase. Risk assessment procedures are in place.
	Competency to manage or oversee the execution of the project/programme including ability to manage sub-recipients and to support project / programme delivery and implementation	Understanding of and capacity to oversee the technical, financial, economic, social, environmental and legal aspects of the project and their implications Demonstrated competence to execute or oversee execution of projects / programmes of the same nature as intended project or programme
III Transparency, self - investigative powers, and anti-corruption measures	Competence to deal with financial mis-management and other forms of malpractice	Demonstration of capacity and procedures to deal with financial mismanagement and other forms of malpractice. Evidence of an objective investigation function for allegations of fraud and corruption.

On project preparation funding and technical support at the local level

For instance, planning adaptation activities at the local level requires a clear understanding of site-specific vulnerabilities. This understanding will be translated to baseline assessments, which will serve as the starting point of the proposals for the likes of PSF. For this, while having a CC-enhanced CLUP, CDP, and LCCAP is not required, it is nevertheless ideal as these documents would already reveal the gaps in guiding the LGUs on how to proceed with development planning and project preparation for CC.⁵¹

That aside, several available funds are known for their stringent demands for project development and approval. Listed below, for instance, are the requirements to secure PSF project approval⁵²:

- Sanggunian/Board Resolution affirming the interest of LGU or local community organization to apply and authorize the head executive to enter into an agreement with the PSF Board for the implementation of the proposed project

⁵¹ The PSF Board has already adjusted some of their policies in terms of the requirements for gaining PSF project approval. LGUs can be qualified to access the PSF using only their vulnerability assessments and hydro-meteorological hazard maps. Having one of the big plans (i.e., CLUP, CDP, and LCCAP) is therefore a plus but not required.

⁵² CCC Assistant Secretary Cuenca reported the common documentary requirements that are found lacking in PSF applications, namely: audited financial statements; Administrative/Executive Order for the creation of a Project Implementation Unit for PSF; project consultation documents; sex/gender-disaggregated data; and project workplan. (ICSC, 2016).

- Certified true copies of Accreditation⁵³ and SEC Registration/Incorporation papers (for local community organizations only)
- Copy of organizational Structure
- Audited financial statements for the last 3 years
- Project Proposal
- Vulnerability assessment, hazard maps, or any other relevant document that explains the local level CC-related risks
- Feasibility study (if applicable)
- Administrative/Executive Order creating the LGU or Local Community Organization Project Implementation Unit, which should include the General Information Sheet of the members
- Minutes and highlights of the consultation with stakeholders for the project development
- Database of stakeholders consulted
- Sex-aggregated data with regards to project consultation and project beneficiaries
- Program of Work
- Detailed cost estimates of the project
- Environmental Compliance Certificate (ECC) and Certificate of Non-Coverage (CNC) (if applicable);
- Results framework (i.e., milestones, targets, and indicators)
- Certificate of No Derogatory Record of the officials/board/members
- And all other necessary documents as maybe required upon evaluation of the application

It is thus a common occurrence among LGUs to have difficulties in the development of project proposals, whether this be in terms of the technicalities or the financial means to formulate such proposals. For this, it is recommended to: (i) capacitate LGUs for project development; (ii) direct them to financing windows such as the PTAC fund of the MDFO and the Project Development and Monitoring Facility (PDMF) of the PPP Center; and (iii) adjust the requirements without compromising the essential safety nets of the fund in question.

On misinformation regarding project development requirements

A clear example of this is the PSF. The secretariat of the fund noted that out of the 134 proposals that it has received, only 23 are adaptation-ready (i.e., proactive measures). The rest are either for mitigation and disaster management. This is likely due to the fact that the PSF is currently lodged under the NDRRMF. This sends the wrong impression that the funds may therefore be used for the same purposes for which the NDRRMF is created. In addition, there was previously circulated provision in the NEP for 2016 GAA, which states that *“[The PSF may] likewise be used to cover any deficiency in the implementation of the NDRRMC and Yolanda Rehabilitation and Reconstruction Program, subject to the approval of the President of the Philippines.”* Currently, this has already been addressed with the issuance of a joint letter with DOF instructing the removal of the said provision (ICSC, 2016).

⁵³ Accreditation under DSWD- COA – DBM Joint Resolution 2014 – 01, DILG Memorandum Circular 2013 – 70 and CCO Accreditation

There are also private entities who seek to exploit LGUs with offers to formulate an LCCAP at exorbitant rates under the pretense that this will secure PSF approval; however, LCCAP is not a requirement, much less a surefire way to secure approval (Manongdo, 2017).

On the presence of CCAM features in CC-tagged PAPs

Various PAPs that have been classified as CC-related did not seem to have any explicit features that specifically address CCAM. For instance, the capital outlay expenditures of DPWH constitute a substantial portion of the total CC-related appropriations for 2015-2016. However, it is unclear whether all these structures should be deemed as CC-responsive. As with the case of the FMR projects of DPWH, it is likely that several of these PAPs simply address the need for a more accessible food supply and agricultural value chain (CCC 2015, 2016). It is important that DPWH consider the resilience of these structures to CC to ensure business continuity in times of natural and human-induced disasters and that they reflect the presence or absence thereof accurately in future conducts of the CCET.

Supportive of the investment appraisal process is NEDA, whose mandate is also to review proposed PAPs following the stipulations in the Investment Coordination Committee (ICC) Guidelines and the Reference Manual on Project Development and Evaluation (RMPDE). Since 2016, the agency has been looking to develop supplemental guidelines that will integrate DRRM and CCAM measures in the RMPDE. Specifically, the project will address the lack of possible concrete parameters, indicators, and measures that will clearly establish how the proposed PAPs can help build resilience of properties, ecosystems, and communities to the impacts of climate change and disaster events. The project also aims to further build the institutional capacity of implementing agencies at the national and local level to integrate DRRM and CCAM parameters in the design of proposed PAPs. This will enable a more accurate set of results from the CCET (NEDA, 2016).

On the spatial coverage and target beneficiaries of PAPs

The nature and design of a proposed PAP can be further enhanced by giving thorough consideration of the available resources as well as a careful evaluation of the project's geographical context and target recipients that would likely benefit the most from its implementation. This will ensure that the PAP delivers maximum impact in addressing CC-related issues. Questions arise for instance on the Flood Risk Management and Resiliency Program of DPWH. The program was set to design and construct flood control facilities capable of withstanding disaster events along major river basins, and yet less than a tenth of these services were found to address major and principal basins as of 2016 (CCC, 2015, 2016). Similarly, given budget constraints, the agency should revisit its progress on the nationwide installation of rainwater collection systems to better reflect a needs-based budget allocation framework in the selection of sites and communities to be prioritized. This is also reflected in the latest PDP, which states that DRR and CCA strategies are best formulated at the regional and local level where hazards can be granulated in detail, allowing for prioritization of areas based on the level of resilience.

In line with this are the ongoing efforts of the DENR-MGB in conducting rapid hazard assessment, including the generation of probabilistic hazard maps as well as the dissemination and capacity-building for the application of these results involving local government officials and academe staff, relevant for identifying areas with high exposure to various geologic and climate change-induced hazards such as floods, landslides, and storm surges. The availability and the quality of such maps vary per site, with some municipalities being noted to have geohazard maps at 1:10,000 scale while the rest are still dependent on lower resolution maps better fitted for regional or provincial use. In addition, not all sites have in their disposal both deterministic and probabilistic assessment, which are necessary for forecasting and development planning respectively.

On the institutional capacity of NGAs

One likely factor that affects the availability of NGA efforts for a particular NCCAP outcome is the institutional capacity of the agency in question. Beyond the availability of resources afforded to these NGAs is the question of whether they are originally mandated to share in the state powers and functions necessary to meet such outcomes as well as whether they have the corresponding organizational mechanisms put in place. For instance, for both 2015 and 2016, only a percent or less of CCC's total climate budget addressed the organization's mandate of overseeing the IEC on CC and local vulnerability and risks as well as capacity-building for local adaptation planning, implementation, and monitoring of CCAM initiatives (CCC 2015, 2016). Since 2012, the CCC has been implementing capacity building initiatives for LGUs to strengthen CCAM at the community level. One of its activities is the training of LGUs in gathering, managing and quantifying data and information about the level of GHG emissions within their respective jurisdictions. This could likely be attributed to CCC not having the same degree of regional presence as other government agencies. In fact, the commission relies on coordination with various departments under CC CCAM-DRR for this role (Shrivastava, n.d.). DOE also faces a similar problem. Given the deregulation of the energy industry, the agency does not have its own energy infrastructure assets for which it can manage in addressing its lead role in enhancing energy efficiency and conservation and development of climate-resilient energy systems. As a response however, it may provide economic/financial incentives for private sector investment in such infrastructure (CCC 2015, 2016).

On the institutional arrangements within government agencies

While there are already several laws that respond directly or indirectly to the demands of climate change, the enforcement is limited by weak institutional arrangements. This is most evident in the fields of water resource management and DRRM.

Despite the creation of the Water Code and National Water Resources Board (NWRB) to coordinate the activities within the sector, there remains to be a highly fragmented institutional framework arising from the multiplicity of organizations. Currently, there are more than 30 government instrumentalities that differ in terms of hierarchy of coverage (i.e., national, subnational, local), institutional mandate (i.e., prescribed by law or as a result of social arrangements), sectors represented, and functions (e.g., research, planning, policy development, sector coordination and

regulation, financing, infrastructure development and operation, data monitoring, IEC) (Malayang, 2004). The management of the water resources is thus subject to the intricacy of the dynamics between these agencies where in many occasions, the areas of operations overlap and where contention is found, the roles and delineation of responsibilities tend to remain undefined. This impedes the successful and efficient adoption of any legislative agenda and government plan as inaction and conflict of interest arise in several situations. For instance, while the LLDA is responsible for the protection and development of Laguna Lake, regulation of other sources of pollutants such as household and industrial wastes fall under the mandate of LGUs or other agencies. The same goes for the operation and maintenance of flood management and drainage structures in large flood prone areas where there is unclear delineation of responsibilities between NGAs and LGUs (NEDA, 2017). There have also been cases where the planning and implementation of PAPs gave no due consideration to the interaction between hydrological and economic systems, thus resulting in inefficient resource use, environmental degradation, and socioeconomic losses (Barba, 2004). The amendment of the Water Code is thus necessary to address such concerns.

In the case of DRRM, the current institutional structure is characterized by shared authority and scattered resources among government instrumentalities, making it difficult to operate effectively and efficiently. Specifically, the lead is NDRRMC, which is composed of members from various departments with their own respective roles and responsibilities aside from DRRM, making leadership and coordination difficult (SEPO, 2017). It is for this very reason why the latest PDP has one of its priority legislation the amendment of the NDRRM Act to enable the establishment of a department-level DRRM body that can focus on DRRM.

On meeting the designated roles for accomplishing NCCAP outcomes

There had been several NCCAP outcomes/activities for which there were no or barely any initiatives at the national level, even from agencies designated as lead in specific NCCAP outcomes. For instance, for both 2015 and 2016, NWRB held less than a percent (in the PhP 100 million) of DENR's climate budget despite having a lead role in all three outcome areas of WS. The institution only made contributions to the WS outcome of restructuring the governance towards a climate-responsive water sector. There is also the case of DOE and DA, which were designated as the lead NGAs in developing the country's GHG inventory and ensuring EES, respectively, but for which no appropriations had been made at all for the two-year period. An interesting case also presents itself in the KCD output area of gendered CC knowledge management for which no agencies have attributed any PAPs. NGAs could consider whether these unmet outcomes simply warrant improvements to the conduct of their CCET or not (CCC, 2015, 2016).

To serve as an initial guide in the prioritization of NCCAP activities for the GCF investment programming process for 2018-2022, it is recommended to refer to the latest version of the PDP and the eight strategic results areas of the GCF (see Figure 16). A comprehensive review of the plan reveals several explicit CCA/M strategies that NGAs may consider for the five-year period, summarized and mapped to their corresponding NCCAP outcome and output areas as well as the GCF strategic results areas. See Table 13 for the results of the mapping process. The table also presents the delineation of roles among agencies and the list of NGAs with and without budgeted PAPs for the period 2015-2016.

Figure 16. Eight strategic results areas of the GCF

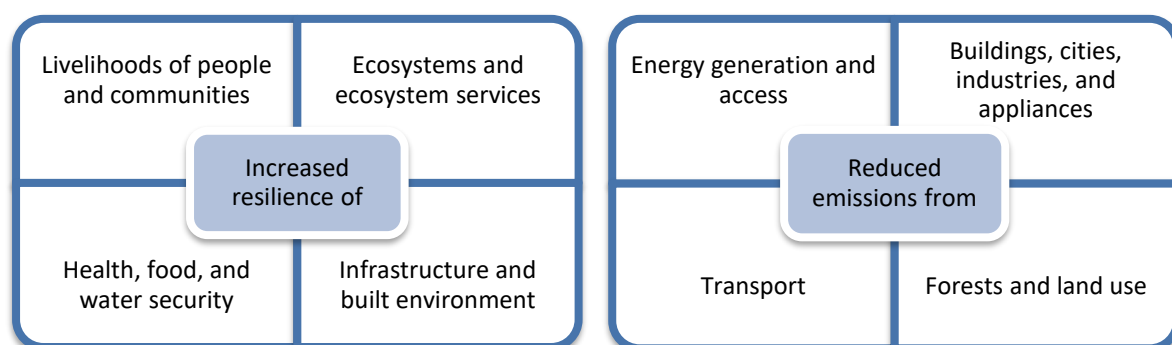


Table 13. NCCAP outcome and output areas with corresponding strategies from PDP 2017-2022 and results areas for GCF

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
On Water Sufficiency								
Water governance restructured towards a climate- and gender-responsive water sector <ul style="list-style-type: none">Enabling policy environment for integrated water resources management (IWRM) and climate change adaptation (CCA) createdCCA and vulnerability reduction measures for water resources and infrastructure implemented	DENR (NWRB), DPWH	CCC, DA, DOE, NEDA, DOST, DOH, DPWH, NCIP, DSWD	DENR (MGB, NWRB, PCSD), DOST (PAGASA), DOTr (PCG), DPWH, MMDA, PRRC	DENR (MGB, NWRB, PCSD), DOST (PAGASA), DOTr (PCG), DPWH, MMDA, PRRC	CCC, DA, DOE, NEDA, DOH, NCIP, DSWD	CCC, DA, DOE, NEDA, DOH, NCIP, DSWD	<ul style="list-style-type: none">Assessment of water supply levels from surface and groundwater resourcesImplementation of an integrated watershed management approach to sustain soil productivity and water efficiency, particularly in critical watershed areasCreation of an apex government body as well as completion, updating, and implementation of flood control and drainage masterplans for major and critical river basins to address the fragmented structure of the water resources sector⁵⁵Implementation of soil erosion control in sloping areas and water impounding technologies in flood-prone areas within major river basinsUpgrading of engineering standards for the design and O&M of flood control worksEstablishment of an independent economic regulatory body for water supply and sanitation (WSS) to ensure a more transparent and consistent regulation of the sector’s activitiesFormulation of a unified financing framework to consolidate and ensure greater accessibility of	Increased resilience of <ol style="list-style-type: none">Health, food, and water securityInfrastructure and built environmentEcosystems and ecosystem services

⁵⁴ Note that the listed GCF results areas in this column are the key targets of these identified PDP strategies and NCCAP outcome and output areas. Other GCF results areas may also apply as a by-product goal. For instance, in the case of the NCCAP outcome area of a “restructured water governance towards a climate- and gender-responsive water sector,” the GCF results area of reduced emissions from forests and land use will definitely enter the scenario, although this may not be the primary intended goal.

⁵⁵ Such apex body will institutionalize a science-based river basin approach that integrates the principles of IWRM.

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
							<p>existing financial resources to support the WSS projects of all water service providers</p> <ul style="list-style-type: none"> Strengthened coordination and linkages with partner institutions (both state and non-state actors) in achieving adequate access to water resources and sustainable management thereof 	
<p>Sustainability of water supply and access to safe and affordable water ensured</p> <ul style="list-style-type: none"> Water supply and demand management of water systems improved Water quality of surface and groundwater improved Equitable access of men and women to sustainable water supply improved 	DENR (NWRB), DOH, NAPC	DA, DPWH, NEDA, DOST, DOH, LWUA, MWSS, DILG, NAPC	DPWH	DPWH, DOST (ASTI)	DENR, DOH, NAPC, DA, NEDA, DOST, LWUA, MWSS, DILG	DENR, DOH, NAPC, DA, NEDA, LWUA, MWSS, DILG	<ul style="list-style-type: none"> Promotion of eco-efficient water infrastructure Protection of critical watersheds Increased number of sewerage and sanitation infrastructure such as detention ponds for discharge control Deputation and training of local or regional regulatory bodies to expedite the processing of water permits 	<p>Increased resilience of</p> <ol style="list-style-type: none"> Health, food, and water security Infrastructure and built environment Ecosystems and ecosystem services <p>Reduced emissions from</p> <ol style="list-style-type: none"> Forests and land use
<p>Knowledge and capacity for CCA in the water sector enhanced</p> <ul style="list-style-type: none"> Knowledge and capacity for IWRM and water sector adaptation planning enhanced 	DENR (NWRB), PIA	DILG, DA, DOH, LWUA, PWP	DND (PN), PRRC	DND (PN), PRRC, DENR (EMB)	DENR (NWRB), PIA, DILG, DA, DOH, LWUA, PWP	DENR (NWRB), PIA, DILG, DA, DOH, LWUA, PWP	<ul style="list-style-type: none"> Capacity-building of concerned entities in developing and managing water-related projects Establishment of a database on river information and updating of baseline data on delineation of flood-prone areas 	<p>Increased resilience of</p> <ol style="list-style-type: none"> Health, food, and water security Infrastructure and built environment Ecosystems and ecosystem services <p>Reduced emissions from</p>

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
								4. Forests and land use
On Sustainable Energy								
Nationwide energy efficiency and conservation program promoted and implemented <ul style="list-style-type: none"> Government Energy Management Program (GEMP) implemented Private sector and community participation in energy efficiency and conservation increased 	DOE, DOST, DENR, CCC	All	DOST (PCIEERD)	DOST (PCIEERD), DOLE (POEA)	DOE, DENR, CCC, etc.	DOE, DENR, CCC, etc.	<ul style="list-style-type: none"> Enactment of the energy efficiency and conservation (EEC) bill, EEC Action Plan, and Alternative Fuels Roadmap promote demand-side management and incentivize energy efficiency projects Imposition of minimum energy performance standards for energy-intensive industries and energy-consuming products 	Reduced emissions from <ol style="list-style-type: none"> Energy generation and access Buildings, cities, industries, and appliances
Sustainable and renewable energy (RE) development enhanced <ul style="list-style-type: none"> National renewable energy program and technology roadmap based on RA 9513 (Renewable Energy Act of 2008) and its IRR developed and implemented Off-grid, decentralized, and community-based RE system to generate affordable electricity adopted 	DOE	DTI, DOST, DOTC, DOF, DILG, DOF	DOE	DOE	DTI, DOST, DOTr, DOF, DILG, DOF	DTI, DOST, DOTr, DOF, DILG, DOF	<ul style="list-style-type: none"> Increased share of RE in the energy mix Expedited implementation of remaining policy mechanisms under the Renewable Energy Act of 2008 (e.g., renewable portfolio standards) to further advance RE development Strict monitoring of the compliance with DOE Department Circular DC 2015-07-014, "Guidelines for Maintaining the Share of Renewable Energy in the Country" and Department Circular DC2015-03-0001, "Promulgating the Framework for the Implementation of Must Dispatch and Priority Dispatch of Renewable Energy Resources in the Wholesale Electricity Spot Market (WESM)" to address the intermittence of renewable energy Development of the natural gas industry, which includes creation of enabling legal and regulatory frameworks, exploration of new source sites, 	Reduced emissions from <ol style="list-style-type: none"> Energy generation and access

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
							development of power plants, and establishment of liquefied natural gas terminals <ul style="list-style-type: none"> Accelerated privatization of the power plant assets of the Power Sector Assets and Liabilities Management Corporation (PSALM) Accelerated evaluation of retail electricity supplier license applications Establishment of the commercial operations of WESM in Mindanao 	
Environmentally-sustainable transport promoted and adopted <ul style="list-style-type: none"> Environmentally-sustainable transport strategies and fuel conservation measures integrated in development plans Innovative financing mechanisms developed and promoted 	DOTr, HADC, DILG, DOF	All	DOE, DOTr, MMDA	DOE, DOTr, MMDA	HADC, DILG, DOF, etc.	HADC, DILG, DOF, etc.	<ul style="list-style-type: none"> Establishment of independent regulatory bodies for the transport sector Increased availability, adequacy, accessibility, affordability, reliability, and convenience of mass transport systems (e.g., LRT) Pursuit of transit-oriented development (TOD) as well as establishment of intermodal transport infrastructure networks and non-motorized transport infrastructure (e.g., pedestrian lanes) Promotion of cleaner fuel use and conversion to fuel-efficient engines Implementation of the Motor Vehicle Type Approval System and Motor Vehicle Inspection System to assess environmental impact Increased number of air quality monitoring stations Strengthened enforcement of the antismoke belching campaign and vehicle emission testing 	Reduced emissions from 1. Transport

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
Energy systems and infrastructures climate-proofed, rehabilitated, and improved <ul style="list-style-type: none"> Energy systems and infrastructures climate-proofed 	DOE, DENR, DOST	All	DPWH	DPWH	DOE, DENR, DOST, etc.	DOE, DENR, DOST, etc.	<ul style="list-style-type: none"> Increased provision of R&D efforts in producing CC and disaster-resilient designs for infrastructure projects Incorporation of CC and disaster resilience measures in infrastructure projects and environmental management 	Increased resilience of 1. Infrastructure and built environment Reduced emissions from 2. Energy generation and access
GHG inventory developed <ul style="list-style-type: none"> GHG inventory developed based on EO No. 174 and the GEMP 	DOE	-	-	-	DOE	DOE	<ul style="list-style-type: none"> Development of a GHG inventory per sector 	Reduced emissions from 1. Energy generation and access 2. Buildings, cities, industries, and appliances 3. Transport 4. Forests and land use
On Ecological and Environmental Stability								
Ecosystem protected, rehabilitated, and ecological services restored <ul style="list-style-type: none"> CC mitigation and adaptation strategies for key ecosystems developed and implemented Management and conservation of protected areas and key biodiversity areas improved Environmental laws strictly implemented 	DA, DENR, CCC	DENR, DOST, CCC, DAR, DILG, DOH, DTI, PAMB, all other agencies	DENR (NAMRIA, PCSD), DND (PN), DOST (PCAARRD), NEDA (PSA), PRRC	DENR (NAMRIA, PCSD), DND (PN, Air Force), DOST (PCAARRD), NEDA (PSA), PRRC, DOLE (ILS)	DA, CCC, DAR, DILG, DOH, DTI, PAMB, etc.	DA, CCC, DAR, DILG, DOH, DTI, PAMB, etc.	<ul style="list-style-type: none"> Strengthen R&D on terrestrial and aquatic resources to monitor habitat status and productivity Conduct of resource valuation studies to determine the most beneficial and sustainable land use option Resolution of ENR- and CC-related policy gaps in terms of institutional and technical capacities Complete delineation of final forest limits, including production and high value conservation areas Establishment of protected areas (PAs), fish sanctuaries, and managed access areas Sustained rehabilitation/restoration of degraded habitats, including abandoned mine sites 	Increased resilience of 1. Health, food, and water security 2. Livelihoods of people and communities 3. Ecosystem and ecosystem services Reduced emissions from 4. Forests and land use

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
<ul style="list-style-type: none"> Capacity for integrated ecosystem-based management approach in protected areas and key biodiversity areas enhanced Natural resource accounting (NRA) institutionalized 							<ul style="list-style-type: none"> Issuance of tenurial instruments to provide rights and economic incentives to manage and develop forestlands and PAs Promotion of sustainable forest-based industries through the development of commercial forest plantations within integrated forest management agreement (IFMA), community-based forest management agreements (CBFMA) Promotion of sustainable marine-based industries such as ecotourism and ocean energy and offshore gas exploration Formulation of local SWM plans Closure and rehabilitation of remaining dumpsites Establishment of MRFs and proper waste treatment facilities (both solid and wastewater) Strengthened environmental and social safeguards for mineral resources development Continued monitoring and auditing of operating surface metallic mines to ensure environmental compliance Assessment of appropriate management interventions for present pollutants in priority water bodies Establishment of functional airshed governing boards Strengthened mechanisms and stricter enforcement of laws meant to decrease/inhibit illegal, unreported, and unregulated extractive activities as well as prohibited land/water use changes 	

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
							<ul style="list-style-type: none"> Institutionalization of economic valuation (EV) and natural resource accounting (NRA) in M&E systems 	
On Food Sufficiency								
Resilience of agriculture and fisheries production and distribution systems from climate change enhanced <ul style="list-style-type: none"> Knowledge on the vulnerability of agriculture and fisheries to the impacts of climate change enhanced Climate-sensitive agriculture and fisheries policies and PAPs formulated 	DA	DENR, DOST, CCC, DAR, DILG, DOH, DTI, NEDA	DA (ACPC, BFAR, PCC, PhilMech)	DA (BFAR, PCC, PhilMech, NMIS, PCAF), DOST (FNRI)	DENR, DOST, CCC, DAR, DILG, DOH, DTI, NEDA	DENR, CCC, DAR, DILG, DOH, DTI, NEDA	<ul style="list-style-type: none"> Development of an integrated color-coded agricultural map to identify the comparative advantage of specific areas in terms of soil characteristics, water availability, climatic types, topography, and socioeconomic conditions Implementation, promotion, and upscaling of climate-responsive agriculture and fisheries management strategies such as intercropping, agroforestry, organic agriculture, urban agriculture, and community-based coastal resources management (CBCRM) Strengthened extension activities that encourage farmers and fishers to adopt climate-resilient practices such as using high-yielding and stress-tolerant rice varieties Provision of alternative livelihood options to seasonal farm and fishery workers whose incomes are irregular and whose yields are vulnerable to shocks (via capacity-building) Accelerated construction/repair of water-saving and climate-resilient small-scale irrigation systems, including retrofitting for existing structures Formulation of an irrigation master plan to set the direction for irrigation development and a framework for capital and operations and maintenance (O&M) financing of irrigation projects 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Livelihoods of people and communities Ecosystem and ecosystem services

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
							<ul style="list-style-type: none"> Incorporation of CC and DRR in the design of transport networks used by small-time farmers and fisher such as FMR, bridges, tramlines, railways, and port facilities Strengthened mechanisms and stricter enforcement of laws meant to decrease/inhibit illegal, unreported, and unregulated fishing as well as prohibited land/water use changes 	
Resilience of agriculture and fishing communities from climate change enhanced <ul style="list-style-type: none"> Capacity for CCA and DRR of government, farming and fishing communities, and industry enhanced Social protection for farming and fishing communities enhanced 	DA	DENR, DOST, CCC, DILG, DepEd, CHED, DSWD, DOF	DA (ACPC), DFA (TCCP)	DA (ACPC), DFA (TCCP)	DENR, DOST, CCC, DILG, DepEd, CHED, DSWD, DOF	DENR, DOST, CCC, DILG, DepEd, CHED, DSWD, DOF	More or less the same as those under: <ul style="list-style-type: none"> FS outcome of “resilience of agriculture and fisheries production and distribution systems from climate change enhanced” KCD outcome of “capacity for CCAM and DRR at the local and community level enhanced” Finance-related initiatives under “Crosscutting” 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Livelihoods of people and communities Ecosystem and ecosystem services
On Human Security								
CCA-DRRM implemented in all sectors at the national and local levels <ul style="list-style-type: none"> CCA-DRRM integrated in local plans Knowledge and capacity for CCA-DRRM developed and enhanced 	CCC, DND, PIA	All	DENR (NAMRIA), DND (OCD)	DND (OCD)	CCC, PIA, etc.	CCC, PIA, etc.	<ul style="list-style-type: none"> Amendment of the current DRR Act to establish an independent DRR body Strengthened linkages and coordination of NDRRMC with other agencies to improve decision-making, avoid duplication of initiatives, and maximize complementation of resources Integration of the National DRRM Act into the peace process 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Infrastructure and built environment

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
							<ul style="list-style-type: none"> Implementation of a national master plan for flood and drainage to outline concrete projects for the different flood-prone areas Formulation of a policy promoting the establishment of green spaces in urban areas 	
Health and social protection delivery systems are made responsive to climate change risks <ul style="list-style-type: none"> Capacity of health personnel and communities in CC health adaptation and reduction developed Public health surveillance system developed and implemented in all provinces Health emergency response, preparedness, and post-disaster management implemented at the national and local levels 	CHED, DOH, DepEd, NDRRM C	DSWD, DOLE (TESDA), DILG, all other agencies	DSWD (CWC, NYC), NAPC	DSWD (NYC), NAPC, DAR	CHED, DOH, DepEd, NDRRM, DOLE (TESDA), DILG, etc.	CHED, DOH, DepEd, NDRRM, DOLE (TESDA), DILG, etc.	<ul style="list-style-type: none"> Expansion and improvement of service delivery networks of health care providers to increase accessibility to people affected by the impacts of CC and disaster risk Ensured preparedness, timely manner of service, and business continuity of government units as well as the well-being of their employees in the face of disasters Strengthened operations of the PNP and improve the capacity of other security forces for disaster response Establishment of mandatory Reserve Officers' Training Corps (ROTC) to generate the needed human capital for disaster response Acquisition of volunteer support from the academe, corporate, non-government, and international organizations when it comes to disaster relief and response Inclusion of adequate mental health and psychosocial support services (MHPSS) in disaster response efforts Increased public awareness of the MHPSS and capacity building of local implementers, including the rendering of facilities and relocation sites into MHPSS-friendly structures 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Infrastructure and built environment

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
CC-adaptive human settlements and services developed, promoted, and adopted <ul style="list-style-type: none"> Adaptive and secured settlement areas for vulnerable communities and climate refugees defined Population congestion and exposure to CC risks reduced 	HUDCC, DOH, PopCom	-	DENR (PCSD), HUDCC, HLURB	HUDCC, HLURB	DOH, PopCom	DOH, PopCom	<ul style="list-style-type: none"> Revisiting existing policies on post-disaster housing and resettlement programs, including those related to land development, to ensure adherence to land use zones and environmental management Improved land administration and management through strengthened partnership between land-related agencies and LGUs in the formulation of CLUPs and zoning of residential areas Ensured compliance of human settlements with building requirements related to DRRM and CCA Provision of adequate transition houses and livelihood opportunities to disaster victims during the early rehabilitation and recovery period Migration of people to safer areas through fast-tracking the inventory management of lands for socialized housing development and adoption of viable land acquisition approaches as an incentive to move 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Infrastructure and built environment
On Knowledge and Capacity Development								
Knowledge on the science of climate change enhanced <ul style="list-style-type: none"> Capacity for CC scenario modeling and forecasting improved Government capacity for CCAM improved 	DOST, CHED, CCC	CCC, all other agencies	DENR (EMB, PCSD), DOST (PAGASA, PHIVOLCS), PCOO (BBS)	DENR (EMB, PCSD), DOST (PAGASA, PHIVOLCS), PCOO (BBS)	CHED, CCC, etc.	CHED, CCC, etc.	<ul style="list-style-type: none"> Improved local capacities and skills for planning and management of land resources Deputation and training of local or regional regulatory bodies to expedite the processing of water permits Capacity-building of concerned entities in developing and managing water-related projects 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Livelihoods of people and communities Ecosystem and ecosystem services Infrastructure and built environment Reduced emissions from

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
								5. Energy generation and access 6. Buildings, cities, industries, and appliances 7. Transport 8. Forests and land use
Capacity for CCAM and DRR at the local and community level enhanced <ul style="list-style-type: none"> CC resource centers identified and established Formal and non-formal capacity development program for climate change science, adaptation, and mitigation, developed 	CICT, DILG, CCC, DepEd, CHED, DOLE (TESDA), DILG (LGA)	All	DENR (PCSD), DND (NDCP), DOST (PHIVOLCS), DILG (LGA), PCOO (PIA), NAPC	DENR (PCSD), DND (NDCP), DOST (PHIVOLCS), DILG (LGA), PCOO (PIA), PLLO	CICT, CCC, DepEd, CHED, DOLE (TESDA), etc.	CICT, CCC, DepEd, CHED, DOLE (TESDA), etc.	<ul style="list-style-type: none"> Conduct of IEC activities to increase awareness and appreciation of natural resource conservation measures Improvement of the school curricula to give due attention to DRR and CC Expansion of existing human resource base through increased scholarship opportunities in courses related to agriculture, fisheries, and forestry (AFF) 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Livelihoods of people and communities Ecosystem and ecosystem services Infrastructure and built environment Reduced emissions from <ol style="list-style-type: none"> Energy generation and access Buildings, cities, industries, and appliances Transport Forests and land use
Gendered CC knowledge management established and rendered accessible to all sectors at all levels <ul style="list-style-type: none"> Gendered CC knowledge 	CICT, DILG, CCC	All	-	-	CICT, DILG, CCC, etc.	CICT, DILG, CCC, etc.		Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Livelihoods of people and communities

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
management established								3. Ecosystem and ecosystem services 4. Infrastructure and built environment Reduced emissions from 5. Energy generation and access 6. Buildings, cities, industries, and appliances 7. Transport 8. Forests and land use
On Climate-Smart Industries and Services								
Climate-smart industries and services promoted, developed, and sustained <ul style="list-style-type: none"> Enabling environment for the development of climate-smart industries and services created Eco-efficient production adopted by industries Information, education, and communication campaign (IEC) and capacity-building program for climate- 	CCC, DTI, DENR, DOLE	DENR, Cabinet Cluster on Economic Development, DOF, NEDA, DOST	DENR (EMB, PCSD), DOLE (POEA), DTI (DCP), DFA (TCCP), DOT	DENR (EMB), DOLE (POEA), DTI (DCP), DFA (TCCP), DOT			<ul style="list-style-type: none"> Strengthened certification and established information systems for green products and services Strengthened enforcement and monitoring of air and water quality standards Improved management and disposal of electronic, hospital, and toxic wastes Development of a policy for institutionalizing polluter's pay and payments for ecosystem services (PES) Establishment of a sustainable market for recyclables and recycled products Also refer to other I&S-related strategies as specified below: <ul style="list-style-type: none"> Infrastructure-related strategies under "Crosscutting" 	Increased resilience of 1. Health, food, and water security 2. Livelihoods of people and communities 3. Ecosystem and ecosystem services 4. Infrastructure and built environment Reduced emissions from 5. Energy generation and access 6. Buildings, cities, industries, and appliances 7. Transport

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
smart industries and services developed							<ul style="list-style-type: none"> Strategies focusing on efficient use of natural resources as found under WS, SE, and EES 	8. Forests and land use
Sustainable livelihood and jobs created from climate-smart industries and services <ul style="list-style-type: none"> Productive employment and livelihood opportunities in climate-smart industries and services increased 	DOLE, CCC	DOLE (TESDA), all other agencies	DOLE (TESDA, ILS)	DOLE (ILS)	CCC, etc.	CCC, etc.	<ul style="list-style-type: none"> Strengthened implementation of the Philippine Green Jobs Act 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Livelihoods of people and communities Ecosystem and ecosystem services Infrastructure and built environment Reduced emissions from <ol style="list-style-type: none"> Energy generation and access Buildings, cities, industries, and appliances Transport Forests and land use
Green cities and municipalities developed, promoted, and sustained <ul style="list-style-type: none"> Infrastructure in cities and municipalities developed, promoted, and sustained CC adaptive housing and land use development implemented 	DILG, DPWH, HUDCC, DENR	NEDA, DILG, DA, DepEd, MMDA, all other agencies	DENR (EMB), DPWH, DTI (DCP), MMDA	DENR (EMB), DPWH, DTI (DCP), MMDA, DOLE (POEA)	DILG, HUDCC, NEDA, DA, DepEd, MMDA, etc.	DILG, HUDCC, NEDA, DA, DepEd, MMDA, etc.	More or less the same with those found in: <ul style="list-style-type: none"> CSIS outcome of “climate-smart industries and services promoted, developed, and sustained” ES outcome of “Environmentally-sustainable transport promoted and adopted” Infrastructure-related strategies under “Crosscutting” 	Increased resilience of <ol style="list-style-type: none"> Health, food, and water security Livelihoods of people and communities Ecosystem and ecosystem services Infrastructure and built environment Reduced emissions from

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
								5. Energy generation and access 6. Buildings, cities, industries, and appliances 7. Transport 8. Forests and land use
On Crosscutting PDP 2017-2022 Strategies								
							<ul style="list-style-type: none"> Horizontal and vertical integration of climate-resilient planning, programming and budgeting on ENR, CC, and DRRM Strengthened M&E system on the effectiveness of CC and DRRM actions vis-à-vis relevant country and international frameworks and agenda Review, codification, and streamlining of existing CC-related policies, rules, and regulations to improve responsiveness in addressing CCAM issues, address conflicting provisions, and promote transparency and accountability Stricter enforcement of ENR and CC-related laws Identification of technological and research priorities and capacity needs on CCAM and DRRM Enabled policies and provision of assistance to local communities in the conduct of vulnerability and risk assessment (VRA) Strengthened mechanisms to conduct a post or rapid disaster needs assessment (P/RDNA), including provision of capacity-building programs for concerned agencies 	Increased resilience of 1. Health, food, and water security 2. Livelihoods of people and communities 3. Ecosystem and ecosystem services 4. Infrastructure and built environment Reduced emissions from 5. Energy generation and access 6. Buildings, cities, industries, and appliances 7. Transport 8. Forests and land use

NCCAP outcome and output areas	Lead agencies	Support agencies	NGAs with budgeted PAPs		NGAs without budgeted PAPs		Corresponding PDP 2017-2022 strategies	Corresponding GCF strategic results areas ⁵⁴
			2015	2016	2015	2016		
							<ul style="list-style-type: none"> • Development, maintenance, and ensured accessibility of climate and geospatial information, scientific research, and other services • Creation and promotion of innovation hubs that will serve as platforms for sharing technologies, lessons, and best practices in responding and recovering from natural disasters • Increased provision of R&D efforts in producing CC and disaster-resilient designs for infrastructure projects • Incorporation of CC and disaster resilience measures in infrastructure projects and environmental management • Conduct of IEC campaigns to increase adaptive capacity of communities, especially vulnerable groups (i.e., women, children, older persons, indigenous peoples, and persons with disabilities) • Maximized access to CC and DRRM financing and risk transfer mechanisms, involving the conduct of IECs, provision of technical assistance to prospective stakeholders/recipients especially LGUs, and incorporation of CC in the design of risk transfer mechanisms, and establishment of protocols for emergency cash transfers and calamity loans • Development of a GHG inventory per sector 	

On the accuracy of the CCET results

While the CCET guidelines were already revised and a Quality Assurance and Review (QAR) form was established to document the basis for the NGAs' climate tagging decisions, government instrumentalities are recommended to further review the CCET guidelines and the institutional linkages of their CC-related PAPs to determine and address other constraints that can hinder the reporting of accurate information. In the case of DENR, a considerable portion of its total climate budget for 2015-2016 was tagged as mitigation given the number of financial resources allocated for the NGP and that only a single typology code can be attributed to these PAPs that hold crosscutting (CCAM) elements (CCC, 2015, 2016). It is also likely the case that the limitations in the CCET classification system are behind the presence of agencies with unmet NCCAP outcomes given the usual crosscutting nature of PAPs.

On the presence of MRV for CCAM initiatives

The findings from the CCET can provide better inputs on the CC investment programming process if complemented with the finalization and implementation of NCCAP's RBMES. Currently, the presence of a working system for tracking quantifiable progress is where the NCCAP falls short, making it difficult to gauge the relative importance and urgency of meeting each NCCAP priority and the specific level of resources required to meet these outputs. The framework, set of guidelines, implementation plan, and review of best practices have already been formulated for the proposed Results-Based Monitoring and Evaluation System (RBMES) to track the progress and provide rationale for attributing the results to NCCAP interventions. These guidelines take into consideration the PDP as well as existing national and local systems for monitoring and evaluation (M&E) such as community-based monitoring systems of LGUs and the Philippine Integrated Diseases Surveillance and Response of the National Epidemiology Center (CCC, n.d.). As of date, the RBMES already has available the list of performance indicators; however, this has yet to be finalized given the need to consider the feasibility of such indicators and their concomitant institutional arrangements. These include the baseline assessment, target figures, and operational guidelines such as the agencies in charge, frequency of monitoring, and the measures, units, and computation of indicators. Further discussions on the RBMES are in order to better explore and deliberate on the other critical elements for ensuring the effectiveness and efficiency of the NCCAP in meeting its strategic priorities, such as: (i) identification of vulnerable groups in need of protection or assistance, including the expected benefits and spatial distribution of these target groups to guide prioritization of PAPs and selection of target sites for pilot programs; (ii) portfolio of current and proposed activities including the detailed phases of implementation, estimated budgetary resources; and revised delineation of roles; and (v) M&E system. Without a final RBMES, attempts to update the NCCAP will have to be postponed (CCC, n.d.).

In addition, it should be noted that while the PDP takes into consideration the provisions of the NCCAP, the two are at best only partially aligned (Shrivastava, n.d.). Stakeholders might find more merit in referring to the PDP over NCCAP given the presence of a rigorous monitoring, reporting, and verification (MRV) system alone. Its wider and more in-depth coverage of development themes and sectors is also beneficial as it allows for a better assessment of the crosscutting nature of CCAM

initiatives and the co-benefits that their recipients may enjoy. This is highly important as actions toward climate change require a multi-sectoral and ecosystems-based approach. Unless the NCCAP is updated, the climate change strategies espoused in the PDP will be found more responsive to the changing needs of the times and the availability of resources and institutional capacity of the sitting administration.

Ideally, the M&E system should be comprehensive and be capable of informing not only the country's progress in meeting the CC target but also the respective marginal contributions of each existing PAP. When such MRV system is available, the findings from CCET can then serve as a more reliable indicator on the adequacy of the government budget. This will also pave the way for revising the current NCCAP. The operationalization of NCCAP and its complementary M&E systems should likewise be supported by strong institutional arrangements and legislative agenda lest that these systems exist by name only and that monitoring remain weak.

On advancing the potential of mitigation initiatives

In order to develop concrete pathways for sectoral emissions reductions and thus enable enhanced planning, convergence of efforts, and increased transparency and accountability among stakeholders, it is imperative that the Philippine GHG Inventory be implemented across sectors. To guide in its effectivity as a baseline assessment and planning tool is a roadmap specific for the attainment of the NDC, which is currently being developed. The formulation process would require the completion of the following: (i) review of the parameters, assumptions, and mitigation options identified in the INDC; (ii) conduct of studies on the mitigation options and potential emissions reduction in key sectors; (iii) identification of the necessary institutional arrangements, programs, projects and means of implementation to ensure that NDC commitments are realistic⁵⁶; (iv) identification of policy interventions to integrate the NDC into national and local development planning; (v) development of an MRV system; and (vi) engagement with different stakeholders in the formulation of the roadmap (CCC, 2017).

On the presence of enabling policies and legislation

The following list⁵⁷ shows the relevant policies that need to be passed, amended, and/or enacted to support the identified CCAM strategies (NEDA, 2017):

Legislation	Objective/Rationale
Passage of the National Land Use Act (NaLUA)	To address the urgency to provide rationalized land use planning in the country, consolidate national laws on land uses, and address long-standing land use conflict.
Adoption of land administration reform	To streamline standards, processes and regulations for property rights, valuation, and taxation

⁵⁶ This includes the technical and financial requirements of the identified priority adaptation measures.

⁵⁷ Note that the list may not be exhaustive.

Legislation	Objective/Rationale
Amendment of the National Disaster Risk Reduction and Management Act	To enable the establishment of a department-level DRRM body to ensure concerted efforts in DRR and expand the focus beyond rescue and response to underscore the need for disaster prevention, mitigation, and preparedness as well as enable the integration of new policies on DRR
Amendment of the Water Code	To address the overlap and fragmentation in the roles and capabilities of multiple agencies working for the water sector
Amendment of the Revised Charter of the Philippine Crop Insurance Corporation Act	To enhance the current insurance system by mandating PCIC and private insurance companies to offer index-based insurance ⁵⁸ and reinsurance policies
Complete delineation of forest limits and municipal waters, including zoning	To guide the effective implementation of ENR laws and ensure sustainable consumption and use of natural resources
Creation of a comprehensive forestry law	To establish a comprehensive, encompassing forestry law that also enhances private sector participation and develops systems on forest use certification and forest monitoring, assessment, and reporting
Promotion of the Integrated Coastal Management Strategy	To institutionalize the strategy to advance sustainable development of mangroves
Expansion of the National Integrated Protected Areas (NIPAS) Act	To finalize and hasten the establishment of a hundred more national protected areas
Amendment of the Toxic Substances and Hazardous and Nuclear Wastes Control Act	To provide guidelines in the management, disposal, recycling, and transboundary movement of e-waste units and all components which are part of the product at the time of recycling, including those hazardous to the environment or human health
Enactment of the National Transport Policy ⁵⁹	To put forth into effect the conditions guiding all entities involved in the transportation sector in the exercise of their functions as well as the parameters for planning at the agency level (e.g., the formulation of the Philippine Transport System Master Plan)

On the post-disaster focus of disaster-related funds

The Commission on Audit (COA) reported that public spending on disaster management is characterized as largely reactive as shown by the huge balances of calamity funds before the occurrence of a disaster and the corresponding increase in expenditures during disaster response. It

⁵⁸ Unlike traditional crop insurance in which indemnity payments are linked to individual farmer yields and losses, index insurance links payments to independently established data, such as local rainfall, wind speed, temperature, typhoons, cyclones and historical yield data as trigger events to release payments and compensation to affected farmers and fishermen. This will enable the early release of funds at different stages of an unfolding calamity without having to wait for a total wipeout, which would otherwise incur more losses for farmers (PCIC, 2018).

⁵⁹ The policy aims to synchronize decisions and investments of all transport-related agencies and ensure better coordinate of such efforts between the national and local levels (NEDA, 2017).

noted that the national government tends to allocate more funds on disaster response, not on preparedness (SEPO, 2017).

The NDRRM Act and all DRRM related policies are supposed to be founded on proactivity and facilitated action. The low absorption rate of QRF in some of the implementing departments reflects poorly on both the accessibility of the fund and the agency's capacity to capitalize on the resources made available for disaster risk reduction and management. QRF limitation to MOOE and non-food items (NFIs), and the pre-disaster expense restriction effectively relegates QRF for post-disaster relief and rehabilitation. While this enforces QRF's role as a standby fund, it also removes any semblance of proactivity from its use. As DRRM necessitates proactivity among all stakeholders, all barriers holding back this impetus must be addressed with resolve (Domingo, 2014).

On the slow disbursement of disaster funds

Another problem in the financing system for disaster risks is the slow disbursement of disaster funds. The PDP 2011-2016 reported that disbursement of disaster funds to disaster victims sometimes takes up 9 to 12 months from the moment of application of LGUs. Delays in disbursement of funds are usually caused by the failure of LGUs to comply with the criteria and requirements set by funding institutions.

On mainstreaming CCA in development plans

The Local Government Code (LGC) mandates each LGU to formulate its own Comprehensive Land Use Plan (CLUP) and Comprehensive Development Plan (CDP). With a minimum timeframe of ten years, the CLUP shall guide the physical development of the LGU's territorial jurisdiction, both land and water, specifically the spatial requirements and sustainability of management of the activities by various development sectors. Pursuant to this, the CDP as medium-term instrument shall lay out the development agenda and consolidate the different PAPs necessary to pursue the goals of the sectors on social, economic, environment, physical/infrastructure, and institutional, with a minimum duration of three years to fit the timeframe of each electoral cycle in cities and municipalities (DILG, 2009). The year 2014 also saw the release of the supplemental guidelines for mainstreaming DRR and CCA in the CLUP. However, several LGUs have yet to integrate CCA measures in their respective development plans necessary for solidifying efforts. As of June 2017 however, the HLURB has only reviewed 587 CLUPs that have mainstreamed DRR and CCA. Reasons commonly cited include the lack of appropriate geospatial data (i.e., appropriately-scaled probabilistic multi-hazard maps and coarse spatial resolutions of existing maps) and institutional capacity to translate these data to policies and plans (NEDA, 2017).

In response to this, the CCC has initiated in 2016 the development of the Communities for Resilience (CORE) Modular Training Manuals, a set of standard training modules on methods and tools for risk science-based local development planning. Together with the DILG-LGA and other development partners, CCC has training faculty members from higher education institutions (HEIs) on the use of these modules to assist LGUs in developing their LCCAPs, CLUPs, and CDPs (CCC, 2018).

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