

# THE PHILIPPINE NATIONAL CLIMATE CHANGE ACTION PLAN

Monitoring and Evaluation Report, 2011-2016



# Acknowledgement

This Executive Brief was produced by the Climate Change Commission, in collaboration and contribution of partner national government agencies with the support of the Deutsche Gesellschaft fur Internationale Zusammenarbeit GmbH (GIZ).

# Citation

Climate Change Commission, 2019. Executive Brief: The Philippine National Climate Change Action Plan, Monitoring and Evaluation Report 2011-2016. Manila, Philippines

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# FOREWORD

onitoring and evaluation has gained a secure position in the global climate discourse during the last decade, a traction from which further progress could be made. This is relatively due to the increasing public demand for measurement and transparency in the use of public resources for climate action. The National Climate Change Action Plan (NCCAP) has raised the public's belief about the ability of the national and sub-national governments to put in place initiatives that heighten accountability, transparency, and public participation in the implementation of climate change programs.

For a considerable extent of its history, the Climate Change Commission has operated in the background, its work made insurmountable by its technical nature. Over the last five years, however, the Commission has veered away from the sidelines and repositioned itself as a stalwart agent of environmental and sustainable governance reforms.

The Climate Change Commission's journey in institutionalizing and mainstreaming climate actions into

the planning and budgeting process of the government began with small but certain steps. For the first time in 2011, the government has put forth substantial efforts through the NCCAP to communicate the development pathway of the country amidst climate change, and linking the relationship and roles of oversight agencies in achieving the target outcomes for 2012-2028. In light of this, the NCCAP M&E report summarizes the documentation of the systematic tracking of climate investments and progress while promoting a culture of evidence-based planning and decision-making.

This publication captures the Climate Change Commission's NCCAP narrative over the last five years. It is an encapsulation of a comprehensive documentation of the NCCAP's starting point, the achievements thus far, and the challenges that remain. Through this summary, we continue to remain steadfast in believing that it will bring about an even clearer vision on the high-level outcomes we aspire to achieve; to develop and act on strategies to achieve those outcomes, and ultimately, to elevate our contribution to the development of more climate-resilient communities.



# INTRODUCTION

limate change poses an unprecedented threat to the lives and livelihood of millions of people in the Philippines. The national government recognizes the urgent need to prepare for and adapt to the devastating impacts and long-term consequences of climate change. In fact, climate change adaptation has clearly highlighted the essential role of planning and development mindset of the government which essentially requires a shift from a business-as-usual perspective to a climate-resilient investment, planning and policy decisions.

The enactment of Republic Act 9729 or the Climate Change Act of 2009 provided a policy framework which systematically address the increasing threats of climate change through the establishment of the Climate Change Commission (CCC) that also led to the development of National Framework Strategy (NFSCC), adopted in April 2010. The CCC is under the Office of the President and is the "sole policy-making body of the government which shall be tasked to coordinate, monitor and evaluate the programs and action plans of the government relating to climate change pursuant to the provisions of this Act."

The Framework Strategy, on the other hand, emphasizes the Philippines' approach on climate change where climate change adaptation serves as an anchor strategy and climate change mitigation as function of adaptation. Within the Framework, the country developed a National Climate Change Action Plan (NCCAP) that outlines a long-term program and strategies for climate change adaptation with the national development plan for 2011 to 2028 and focused on seven thematic priority areas: food security; water sufficiency; ecosystem and environmental stability; human security; climate-smart industries and services; sustainable energy; and knowledge and capacity development.

This document assesses the current situation of the country with regards to climate change risks and outlines the NCCAP's strategic and effective investments in climate change adaptation. The country envisions the Philippine National Adaptation Plan (NAP) as a derivative plan from the NCCAP, which highlights the climate actions identified by the national government agencies (NGAs). The NCCAP serves as a baseline in designing national priority programs that addresses the needs of the most climate-vulnerable sectors. In this context, it directly addresses the country's commitment to the 2015 Paris Agreement on Climate Change through the Nationally Determined Contributions (NDCs). Through the NDCs—long-term goal for adaptation—countries commit to undertake and communicate increasingly ambitious efforts towards achieving the global climate goal.

This Report focuses on the readiness of the NGAs wherein manifested evidence of key governance factors essential for effective and successful climate adaptation were reviewed. Parameters included were political leadership; stakeholder support; institutional development; use of climate change information; appropriate use of decision-making techniques; and consideration of barriers to adaptation, funding, technology development, and adaptation research.

Finally, the Report introduces approaches for monitoring and evaluating of climate change adaptation practices within governance systems. It also discussed the functionality of climate mitigation looking into the mitigation co-benefits relating to the thematic themes of NCCAP. It outlines whether and how each targeted outcome of the NCCAP thematic theme could operate within each other's dimension or systems of interests, and also highlights the contributions to enhance adaptive capacity, reduce vulnerability and sustain development.

Taken together, may this document provides a clear, concise baseline of the NCCAP's achievements and areas of improvement; and inspire better solutions— as we work towards a climate-resilient and climate-smart nation.

# INTERMEDIATE OUTCOMES PER NCCAP THEMES

### THEME

### **INTERMEDIATE OUTCOMES**

FOOD SECURITY	• Ensure availability, stability, accessibility, and affordability of safe and healthy food.
WATER SUFFICIENCY	<ul> <li>Comprehensive review and subsequent restructuring of the entire water sector governance.</li> <li>Assess the resilience of major water resources and infrastructures; manage supply and demand; manage water quality; and promote conservation.</li> </ul>
ECOSYSTEM AND ENVIRONMENTAL STABILITY	<ul> <li>Protection and rehabilitation of critical ecosystems.</li> <li>Restoration of ecological services.</li> </ul>
HUMAN SECURITY	• Reduce risks of women and men to climate change and disasters.
CLIMATE-SMART INDUSTRIES AND SERVICES	<ul> <li>Creation of green jobs, and sustainable consumption and production.</li> <li>Development of sustainable cities and municipalities.</li> </ul>
SUSTAINABLE ENERGY	<ul> <li>Promotion and expansion of energy efficiency and conservation.</li> <li>Development of sustainable and renewable energy.</li> <li>Environmentally sustainable transport.</li> <li>Climate-proofing and rehabilitation of energy systems infrastructures.</li> </ul>
KNOWLEDGE AND CAPACITY DEVELOPMENT	<ul> <li>Enhance knowledge on the science of climate change.</li> <li>Enhance capacity for climate change adaptation, mitigation and disaster risk reduction at the local and community level.</li> </ul>

• Establish gendered-climate change knowledge management accessible to all sectors at the national and local levels.





# HIGHLIGHTS OF FINDINGS: FOOD SECURITY

KEY INFORMATION	
TARGET INTERMEDIATE OUTCOME	Ensure availability, stability, accessibility, and affordability of safe and healthy food amidst climate change.
CONTEXT	Crucial to ensuring food availability, stability, access and safety amidst increasing climate change and disaster risk is enhancing the resilience of agriculture and fisheries production and distribution systems, and communities that manage them.
SUPPORTING POLICIES	1997 Agriculture and Fisheries Modernization Act (AFMA), DA Memoranda S-02-11-0257 and S-01-13-0268, HLURB Resolution No. 908 s.2013, Local Climate Change Action Plans of the Local Government Units
<b>FUNDING</b> (SOURCES, GRANTS ETC)	Philippines Climate Change Adaptation Project (PhilCCAP) - grant agreement between the World Bank and the Philippine Government
PERIOD COVERED	2011-2016
INVOLVED AGENCIES	Department of Agriculture (DA), Agriculture Credit Policy Council (ACPC), Agricultural Training Institute (ATI), Bureau of Agricultural Research (BAR), Bureau of Fisheries and Aquatic Resources (BFAR), Bureau of Soils and Water Management (BSWM), Philippine Rice Research Institute (PhilRice), Bureau of Plant Industries (BPI), DA Systems-wide Climate Change Office (DA-SWCCO)
KEY PROJECTS, FLAGSHIP ACTIONS	Adaptation and Mitigation Initiatives in Agriculture (AMIA I and II), Philippine Climate Change Adaptation Projects (PhilCCAP), Philippine Rural Development Program (PRDP), Enhanced Climate Farmer's Field School
RELEVANT STUDIES	<ul> <li>Rationalizing and Recommending the Use of a Landscape within an IEM Approach</li> <li>Modelling Impacts of Investment Strategies and Policies on Climate-Resilient Agricultural Growth, National Economy, and Food Security</li> <li>Exploring the Implications to Policy of Climate Change Impacts on Specific AF sub- sectors</li> <li>Providing state-of-the-art situationer relative to Climate Change and Agriculture</li> </ul>

# ACCOMPLISHMENTS

Policies at the national level guided formulation of sectoral and sub-sectoral roadmaps, critically selected commodity value and supply chain analysis, among others:

- Promoting and/or supporting the further mainstreaming of climate change adaptation.
- Identifying 10 regions/provinces in the 18 major river basins as priority for climate adaptation interventions.
- Studies to strengthen critical institutional weaknesses, vulnerability assessment tools for selected crops, livestock and fisheries and identifying mitigation co-benefits in adaptation projects.
- Establishing criteria and site-specific standards for rural infrastructure.

# GAPS

- **Coordination problems to cohere and synergize policies, plans and actions** across scales and sectors remain given the current framework of collaboration and the institutions involved in setting policy, oversight, regulation and providing specialized support functions.
- Despite policy directives, the DA system has not fully implemented the landscape approach to AF development focused on agroecosystems as planning units, in lieu of the traditional commodity-based approach. As such, performance targets still do not necessarily align efforts towards higher level of intra- and inter-institutional outcomes and tend to be input and activity-oriented.
- Among the barriers that several policy directives have, making the shift to the landscape or ecosystems approach to AF development management difficult are: frequent changes in DA leadership, the absence of adequate database and information and delayed institutionalization of the Planning and Monitoring Service (PMS) as full service units, inadequate equipment and facilities essential to operationalizing the new approach, lack of security of tenure of most personnel, inadequacy of competent personnel, and weak policy coherence.

# INSTITUTIONAL COOPERATION FOR CLIMATE CHANGE ADAPTATION-DISASTER RISK REDUCTION

### ACCOMPLISHMENTS

- To manage the processes/ systems for the achievement of its FS goals through climate-resilient agriculture (CRA) among others, the NCCAP has prescribed a cooperation infrastructure consisting of several institutions.
- **Cross-cutting Capacity Development and Knowledge Management** readiness actions were intended to directly address the requirements of implementing Climate-Ready Agriculture in production systems and of operationalizing the landscape approach to AF development in the institutions involved in AF governance.

### GAPS

- Absence of an overarching authority capability to mobilize leadership and resources, develop legal and regulatory frameworks for adaptation, and plan for long time horizons required by the uncertainty issues of climate change and its attendant risks.
- Fragmentation and absence of coordination of functions and plans across the DA units and across other government
  agencies persist. Thus plans are not yet harmonized, and some efforts and investments are either duplications or
  contradictions of each other or are disconnected from each other. The sharing of mandates/RRAs and goals across
  DA units and with other agencies, without the necessary cooperation framework, is counterproductive and inefficient;
  instead of synergy, it breeds conflict and competition.
- Mirrored in the sub-national level, **fragmentation of responsibilities and duplication of functions** lies in the absence of a rational cooperation arrangement among DA agencies and instrumentalities.

• The current Agriculture and Fisheries Modernization Plan (AFMP) was not prepared using a Department-wide strategic planning framework, and as such it organizes work along commodity lines, rather than more coherently in pursuit of institutional policy targets.

# ACCOMPLISHMENTS ALONG THE ADAPTATION-DEVELOPMENT CONTINUUM

# ACCOMPLISHMENTS

- **Emerging best practices** establishment of early warning systems to protect lives and livelihoods, productive assets, use of climate information for decision-support in the production, harvest and distribution of agriculture goods and services. Weather based insurance and credit to support the financial and security requirements of farmers were also availed during the period in review.
- **PRPD** Enhanced the all-weather access to market outlets of small farmer and fisher producers from underdeveloped areas. Increased by 25% the resilience of producer and fisherfolk groups to climate change
- **AMIA I** Created National Color-Coded Guide Map and Decision-support platform for CRA investment. prioritization Knowledge hub portal in place. 551 participants trained on CRA mainstreaming related topics
- Enhanced Climate Farmer's Field School Climate Smart Farmers' Field School Manual prepared, mainstreamed
- AMIA II Prioritized, promoted ongoing CRA practices in 10 Regions

### GAPS

- Much has yet to be done to popularize or replicate the prioritized tools and practices to achieve the outcome level for the FS theme
- It can be said that more food was available in the country but its accessibility, especially to the poorest of the poor or marginalized segments of the country's population, was more difficult given the increase of prices.

# **RELEVANT TARGETING OF ADAPTATION INTERVENTIONS**

### ACCOMPLISHMENTS

• PRPD, AMIA I and II, and the Enhanced Climate Farmer's Field School were climate-risk specific and considered the benefits to the vulnerable and marginalized on the Landscape scale.

### GAPS

- While relevant offices were targeted and provided Capacity Development activities, there is insufficient data to assess if the right personnel (by position and technical expertise) were trained to allow upscaling and out-scaling of vetted CRA technologies. Despite the Knowledge Management-related interventions being targeted to deficiencies and problems, responses were still inadequate.
- DA was strongly encouraged to bring its efforts beyond post-disaster aid provision to a more proactive and integrated approach to AF development and empowerment aimed at transforming the fishing and farming households and communities to become climate-resilient.

# PRIORITIZATION ACCORDED TO CCA PUBLIC FINANCING

### ACCOMPLISHMENTS

• Policy establishing the implementing structure for the **Climate Change Adaptation Financing Program (CCAFP)** (Policy Ref. # Special Order No. 396-2016) within the ACPC, the Program's implementing unit. The CCAFP extends loans for

climate-resilient farming and fishing practices, technologies and measures, as focal component of an integrated package of support services for farmers and fisher folk that include climate advisory, credit guarantee, insurance, and market linkage, among others.

- **Financing-related Resolutions** were passed requesting the DBM to review and rectify the list of all legitimate farmers and fisher folk in the Registry System for Basic Sector in Agriculture (RSBSA) (Policy Ref. # Resolution No. 01-2015 approved and Policy Ref. # Resolution No. 03-2015).
- **People's Survival Fund (PSF**) was established through Republic Act No. 10174 to support adaptation activities of LGUs and communities such as water resources management, land management, and adaptive agriculture and fisheries practices. It may be used to guarantee risk insurance needs of farmers, agricultural workers, and other stakeholders. It prioritizes LGUs with high incidence of poverty, elevated exposure to climate risks, and those that host important biodiversity areas.

### GAPS

- **Funding concerns in an adaptation context** include: 1) the capital costs of interventions and their maintenance over time, 2) the associated human resources necessary to successfully identify, implement, monitor, and maintain adaptation efforts, along with costs of funding research projects and programs.
- LGUs are constrained by limited resources and capacity to operationalize AF development objectives, because the decentralization of agricultural extension functions and services to LGUs through the Local Government Code did not include financial decentralization.





# HIGHLIGHTS OF FINDINGS: WATER SUFFICIENCY

# **KEY INFORMATION TARGET INTERMEDIATE** Comprehensive review and subsequent restructuring of the entire water sector OUTCOME governance. Assess the resilience of major water resources and infrastructures, manage supply and demand, manage water quality, and promote conservation. CONTEXT Climate change is expected to exacerbate water shortages from increasing and competing demand and deteriorating water supplies, both in terms of quality and quantity, and this presents significant challenges for water supply and other management concerns, drought preparedness, flood and disaster management. SUPPORTING POLICIES Executive Order 318 'Promoting Sustainable Forest Management in the Philippines', Executive Order 533 'Adopting Integrated Coastal Management (ICM) as a National Strategy to Ensure the Sustainable Development of the Country's Coastal and Marine Environment and Resources and Establishing Supporting Mechanisms for Its Implementation', DAO 2004-2009 re Community Based Forest Management (CBFM) Countryside Loan Fund (CLF) of the Land Bank of the Philippines (LBP); Philippine Water FUNDING (SOURCES, GRANTS ETC) Revolving Fund (PWRF) and the Environmental Development Program (EDP) of the Development Bank of the Philippines (DBP) **PERIOD COVERED** 2011-2016 **INVOLVED AGENCIES** River Basin Control Office (DENR-RBCO), National Economic Development Authority, Local Water Utilities Administration, National Water Resources Board **KEY PROJECTS,** Potable Water Supply Program or Sagana at Ligtas na Tubig sa Lahat (Salintubig) **FLAGSHIP ACTIONS** Framework for Integrated River Basin Management and Development (IRBMD) **RELEVANT STUDIES**

# ACCOMPLISHMENTS

- Several policies were enacted: (i) promoting and/or supporting the further mainstreaming of climate change adaptation,
   (ii) identifying 18 Major River Basins (MRBs) as priority for climate adaptation interventions, and (iii) addressing and/or promoting adaptation actions to specific climate-related risks. These guided the formulation of sectoral roadmaps with set priority development objectives to be achieved in the long-term, as well as adaptation-contributory programs to achieve the development targets set in the roadmaps.
- In 2012, the Cabinet Cluster on Climate Change Adaptation and Mitigation Resolution No. 2012-001 declared a total of 18 MRBs as priority areas for government interventions.

# GAPS

• There are conflicting boundary claims on the ground based on CBFM agreements, ancestral domain claims, LGU zoning regimes and defined watershed reserves. It resulted in responsibility, authority and accountability unclearly defined as bases for coherent, convergent action and services delivery. Coupled with policy instabilities, it left doubt affecting community perception whether the government guarantees are reliable.

# **INSTITUTIONAL COOPERATION FOR CCA-DRR**

### ACCOMPLISHMENTS

- NEDA coordinates integrated national policy formulation and planning, and NWRB is the coordinating and regulatory
  agency for the sector. DENR-RBCO provides inputs to policy having an overview of interventions implemented within
  river catchment basins including river basin infrastructure development, flood control, environmental protection and
  integrated water resources management. As LCCAPs and local development/ investment plans integrate the IRBMD
  master plans, the DILG and LGUs are integral to the policy-making structure by providing empirical bases for adapting
  policy / programming according to local experiences.
- **River basin organizations (RBOs)** are multi-sectoral organizations created through MOAs, and their specific structural configurations depend on the functional needs of the basin specified by IRBMD master plans.

### GAPS

- As early as 2013, **recommendations on restructuring the water governance landscape** were conveyed but still await enactment. Re-structuring of the water governance sector remains unfinished, but highly relevant and urgently needed. This state of partial preparedness is an important underlying factor explaining the state of adaptation implementation and its outcomes.
- While access levels were considered, the SALINTUBIG implementing agencies applied other criteria based on their mandates/procedures resulting in **overlaps among identified projects**, concerns about absorptive capacities of selected LGUs, and the exclusion of incidence of waterborne diseases in the selection criteria of LGUs. This resulted to the diversion of funds to municipalities that were not waterless.
- Absence of an overarching authority capability to mobilize leadership and resources, develop legal and regulatory frameworks for adaptation, and plan for long time horizons required by the uncertain issues of climate change and its attendant risks. Fragmentation of responsibilities and duplication of functions at the national level are mirrored in the river basin infrastructure.
- **Persistent weaknesses in institutional capacity** are crucial for sustaining the organization and management successes, lack of required technical competencies by existing personnel, weak human resource capabilities.
- Several BWSAs, and cooperatives were not registered and are not being regulated at end-of-project; their highly politicized leadership affect tariff setting, and they are largely subsidized either by the barangay or the municipal LGU through a significant 20-50% of their development funds. No mechanism could immediately correct this as LGUs have not been vested with oversight functions and the CSOs and barangays supposedly tasked to monitor and report on implementation were not actively mobilized and equipped.

# ACCOMPLISHMENTS ALONG THE ADAPTATION-DEVELOPMENT CONTINUUM

# ACCOMPLISHMENTS

- In SALINTUBIG, **LGU involvement** in project implementation was substantial. 455 poor and waterless municipalities were targeted using the 2010 National Household Targeting System data for poverty reduction implemented by the Department of Social Welfare and Development.
- Adaptation measures addressed specific climate change and general SDGs: climate-proofing of water infrastructure, disaster risk reduction/early warning systems, water supply, demand management, water quality management areas, enforcement of climate-resilient designs, and cash-for-work for CCAM. Some are responses to the specific climaterelated risks of the sector and river basins (rainfall variability, drought), some to environmental problems (water pollution), and others to disaster risk.

# GAPS

• Overall, the adaptation actions were relevant and robust. **Vis-à-vis targets, they were inadequate**. Considering the unfinished businesses on the preparedness front, the incomplete restructuring of the water governance sector, the limited progress in IRBMD master plans preparation, and weaknesses in implementation, the adaptation actions taken are assessed as Partially Effective being well-targeted and well-designed.

# **RELEVANT TARGETING OF ADAPTATION INTERVENTIONS**

# ACCOMPLISHMENTS

- Flagship Actions were **climate-risk specific and considered the benefits of the vulnerable & marginalized** at the following scales: 1) SALINTUBIG- for Waterless Municipalities 2) WQMAs- for Principal River Systems.
- Other programs were still climate-risk specific such as the Use of Climate-resilient design standards was targeted at a nationwide scale, and Climate Resilient Reservoir Management targeted at the MRBs scale.
- **The SALINTUBIG program** for potable water supply provision is socially-inclusive and localized in targeting, sub-project design and budget formulation. In 2010-2015, it targeted: 50% increasing water service coverage for the waterless population; reducing incidence of water-borne and sanitation related diseases among the involved population by 20% by improving their access to sanitation services and capacitating all its supported water supply and sanitation projects such that 80% of them were operating at end of phase. Accomplishment of this contributed to attainment of the goal of providing potable water to the country, and meet targets in PDP 2011-2016, PWSSR, PSSR, and relevant MDG commitments.

### GAPS

• Aggregate of adaptation **actions undertaken were inadequate**, since the measures were and continue to be implemented in only six MRBs with IRBMD master plans, of which only four are climate-mainstreamed.

# PRIORITIZATION ACCORDED TO CCA PUBLIC FINANCING

### ACCOMPLISHMENTS

- **WS expenditures were consistently higher than the budget** for 2015 and 2016. In 2015, 34% of the budget (P47.2 billion) was allocated for WS. In the National Climate Budget, over 70% (P140 billion) was allocated for SE and WS. Financing of prioritized adaptation measures, with emphasis on those enhancing the adaptive capacity and WS of the most vulnerable communities was targeted.
- **SALINTUBIG was grant-financed**, administered by DILG, DOH and LWUA, with NAPC as the overall Program coordinator.

It was allocated funding from the 2011 DOH budget and 2012 DILG budget to the present time.

• DILG MC 2016-50, set **guidelines for bottom-up budgeting** to finance the establishment of potable water supply and evacuation centers in prioritized poor and vulnerable cities / towns.





# HIGHLIGHTS OF FINDINGS: ENVIROMENTAL AND ECOLOGICAL STABILITY

# **KEY INFORMATION**

TARGET INTERMEDIATE OUTCOME	<ul> <li>Protection and rehabilitation of critical ecosystems.</li> <li>Restoration of ecological services.</li> </ul>
CONTEXT	Healthy and stable ecosystems, from ridge to reef, provide ecosystems goods and services that serve as ultimate factors of production. EES is the foundation for all the other priority themes, especially food, human and energy security, which are in turn crucial for inclusive growth and poverty reduction.
SUPPORTING POLICIES	Forestry Code of 1975 (R.A. 7161), E.O. 23 s2011, EO26 s.2011 the National Greening Program (NGP), National Integrated Protected Areas System (NIPAS) Act of 1992, E.O. 881 s2010, DENR-EMB M.C. 2011-005, DENR M.C. 2016-55, EO 263 of 1995 and DAO 2004-2009 adopting Community Based Forest Management (CBFM)
<b>FUNDING</b> (SOURCES, GRANTS ETC)	Integrated Protected Area Fund (IPAF), People's Survival Fund (PSF)
PERIOD COVERED	2011-2016
INVOLVED AGENCIES	DENR, NEDA
KEY PROJECTS, FLAGSHIP ACTIONS	SALINTUBIG, Water Quality Management Areas (WQMA), Protected Area Management Enhancement (PAME), SREMP, National Reducing Emissions from Deforestation and Forest Degradation (REDD+) system for the Philippines 2012–2017, Enhanced CLUP Guidelines
RELEVANT STUDIES	Economic Analysis of Climate Change Adaptation Strategies in Selected Coastal Areas in the Philippines (Phase 2) Development of management strategies for peatlands Adaptation Strategies to Climate Change Impacts in the Main Island Coastlines and Small Island Foreshore Areas

# ACCOMPLISHMENTS

• The NCCAP-RBMES accomplishments relative to policy-making, planning and programming involved: (1) initiatives to mainstream CCA-DRR into existing efforts to address anthropogenic drivers of ecosystems degradation; and (2) new policies, plans and programs operationalizing ecosystems-based adaptation (EbA).

# GAPS

• Environment and natural resources (ENR) governance has **problems of overlapping, sometimes conflicting, institutional mandates** and fragmentation of, and disconnects in, management actions.

# **INSTITUTIONAL COOPERATION FOR CCA-DRR**

# ACCOMPLISHMENTS

- **CBFM is a key strategy** for the sustainable management of the country's forests wherein local communities with support from DENR, LGUs, other concerned NGAs and NGOs, were actively involved in the protection, rehabilitation, development and management of forestlands. Today, they manage at least 4 million hectares.
- **Capacity development (CapDev) interventions** addressed the institutional capacity gaps and provided the assistance to integrate climate change considerations into existing management regimes to graduate them into EbA. These were thematically relevant to efforts to manage/arrest ecosystems degradation.

### GAPS

- While Capacity Development activities continue to be implemented, the **weaknesses of ENR institutional environment**, and the ENR institutions at various levels of governance, have persisted. It is too early in the EbA adoption curve to value the CapDev initiatives undertaken to assess effectiveness in facilitating EbA mainstreaming.
- DENR and CCC have not created a central management information system as provided in the Climate Change Act.

# ACCOMPLISHMENTS ALONG THE ADAPTATION-DEVELOPMENT CONTINUUM

### ACCOMPLISHMENTS

- **SALINTUBIG** Completed 554 potable water supply projects. Water supply coverage nationwide increased from 84.8 (2010) to 86.6% (2016).
- WQMAs Implemented the Sagip Ilog Program, Adopt-an-Estero Program and Manila Bay Clean-up.
- **PAME** 1.3 million hectares of terrestrial PAs and 0.3 million hectares of marine PAs supported; 55 new PAs covering 183,226 ha created through local ordinances. Increased the management effectiveness of 64 NIPAS-declared PAs from an average of 34 to 49%. Facilitated preparation of CLUPs by 10 LGUs in key biodiversity areas (KBAs) using the 2013 HLURB Guidelines mainstreaming the IEM approach to orient the CLUPs towards inclusive growth, biodiversity.
- **REDD+** Updated the National REDD+ Strategy, developed Safeguards Frameworks and Guidelines (SFG), Safeguards information system and a national forest monitoring system. Trained 13,481 (43% women) on safeguards and safeguards information system, land use planning, forest resources assessment, information regarding COP agreements
- **Enhanced CLUP Guidelines** 56 LGUs have an approved enhanced CLUP targeting inclusive growth, climate resilience and biodiversity conservation, and corresponding zoning ordinance (post-2015)

# GAPS

- A 2016 evaluation study of SALINTUBIG revealed that despite the repertoire of CapDev support given to LGUs and WSPs, weaknesses in institutional capacity crucial for sustaining the organization and management of the local water supply systems persisted. A study found that at the basin level, there remained much to be done to improve the organizational capacity of the RBCOs, because of the (1) inadequate number of staff vis-à-vis the vast area of river basins, and (2) existing personnel lacked the required technical competencies.
- Cumulative progress along forest cover, water quality of priority river systems, trends in the concentration of threatened species, and damages from climate-related disasters, have been **effective but only to a limited extent**. It is imperative to strengthen implementation of integrated ecosystems management and the transition towards EbA, towards a climate-resilient environment and natural resources sector.
- In the CLUP Guidelines, the HLURB has **no formal mechanism** to check whether approved CLUPs post-roll out of the enhanced guidelines are indeed CCA-DRR-mainstreamed. It is unclear if the Provincial Land Use Committees, the approving bodies of CLUPs, have mainstreamed climate resilience into their review criteria.

# RELEVANT TARGETING OF ADAPTATION INTERVENTIONS

## ACCOMPLISHMENTS

- All Flagship Actions were climate-risk specific and considered the benefits of the vulnerable and marginalized: Selected Pilot CBFM Sites, LGU, MRBs & PRS.
- **Projects and programs provided advisory and CapDev support** to the DENR and the Ecotown Framework Demonstration of the CCC which contributed to CCA-DRR mainstreaming at the national and local levels.

# GAPS

• ENR adaptation actions implemented showed that, while some are considered distinctly EbA and actions intended to manage and address the anthropogenic sources of environmental degradation are recognized as contributing to EES and ecosystems resilience in the face of climate change, **these are not robust enough** in anticipating and preparing for future uncertain climate change impacts.

# PRIORITIZATION ACCORDED TO CCA PUBLIC FINANCING

### ACCOMPLISHMENTS

- For EES, the expenditures were consistently higher than the budget (2015 and 2016).
- **IPAF finances** the implementation of the plans of PAs created through the NIPAS Act.
- **PSF supports adaptation activities** of LGUs and communities such as water resources management, land management, and adaptive agriculture and fisheries practices. It prioritizes LGUs with high incidence of poverty, elevated exposure to climate risks, and those that host important biodiversity areas.

# GAPS

- Information on only two financing mechanisms for ENR and EbA programs were made available in the reporting period (i.e. IPAF and PSF) which makes the assessment of available financing as an attribute of preparedness **impracticable for the reporting period**.
- The bureaucratic process entailed in accessing IPAF funds has made it difficult for many PA managers to use these funds. Consequently, most of the operating expenses of PAs are currently financed by the national government, specifically by the DENR which reportedly finances up to 94.5% of these PAs' operations. Without this funding, many PAs rely only on the very minimal funds from user fees and/or ad hoc in-cash or in-kind support by LGUs; very few PAs have created IPAFs and banking accounts.
- Inadequate information prevented assessment of adequacy, efficient use of resources and effectiveness.





# HIGHLIGHTS OF FINDINGS: HUMAN SECURITY

# **KEY INFORMATION**

TARGET INTERMEDIATE OUTCOME	• Reduce the risks of women and men to climate change and disasters.
CONTEXT	HS is the state where the rights of the Filipino family and individuals, especially the poor and vulnerable, are protected and promoted through access to education, health, housing and social protection, while ensuring environmental sustainability.
SUPPORTING POLICIES	DILG (MC) 2014-135 guidelines for the formulation of Local Climate Change Action Plans (LCCAP); NDRRMC-DBM-DILG JMC 2013—01 on the Use of the LDRRM Funds; IRR on the use of the PSF; and Supplemental Guideline on the Mainstreaming of Climate and Disaster Risks into the CLUP; DBM-DILG-CCC JMC 2014-01 on the Climate Change Expenditure Tagging in the Budget Preparation
<b>FUNDING</b> (SOURCES, GRANTS ETC)	National Disaster Risk Reduction and Management Fund (NDRRMF); Local Disaster Risk Reduction and Management Fund (LDRRMF); People's Survival Fund (PSF); Disaster Risk Financing and Insurance (DRFI); Philippine Health Insurance Corporation (PHIC); PhilHealth Disaster and Emergency Preparedness Management Plan (PDEMP)
PERIOD COVERED	2011-2016
INVOLVED AGENCIES	DILG, DSWD, DOH, NEDA, DOST-PAGASA, NDRRMC, HUDCC, DepEd, DPWH
KEY PROJECTS, FLAGSHIP ACTIONS	Potable Water Supply Program or Sagana at Ligtas na Tubig sa Lahat (Salintubig)
	Framework for Integrated River Basin Management and Development (IRBMD)

### **RELEVANT STUDIES**

# ACCOMPLISHMENTS

- **HS accomplishments relative to policy-making**, planning and programming were: (1) initiatives to converge and legitimize the CCA-DRR agenda; and (2) policies to mainstream CCA-DRR into sectoral (health, education, housing, social protection) institutional structures, plans, and programs showed in four fronts: enabling policies and its plans and programs, institutional capacity, CapDev, and knowledge management.
- The **2015 Philippine Green Building Code** set minimum standards to reduce greenhouse gas emissions and introduce energy efficiency, sustainable resource use and management.

# **INSTITUTIONAL COOPERATION FOR CCA-DRR**

## ACCOMPLISHMENTS

- **Guidelines to mainstream climate change were developed** in different sectors, such as health, education and resettlements, and in subnational planning at the regional down to city/municipal-levels (CLUP, CDP). A joint work-plan to implement and synergize the NCCAP and NDRRMP was part of the NDRRMC Circular 02-2010. Relevant CapDev and knowledge management support for involved public health (DOH), education (DepED) and housing institutions and personnel (HUDCC, HLURB), and climate and disaster risk information (DOST-PAGASA) at the relevant scales and levels.
- LGUs are frontline agencies in addressing climate change and disasters. In 2011, NDRRMC and CCC agreed to collaborate
  in pursuit of their mutual ultimate goal of safer communities and a more resilient country. They entered into a MoA to
  strengthen the support provided to LGUs in building their capacities to make informed decisions and implement plans
  and policies to address climate change. Both the NCCAP (2011-2028) and National Disaster Risk Reduction Plan (20112028) concretely targeted the mainstreaming of CCA-DRR into all concerned sectors and levels of governance.

### GAPS

- In DILG's 2013 preparedness assessment report, it was evident that coordination between and among LGUs, NGAs, CSOs, volunteers and the private sector left much to be desired. The Council approach, where the **focal disaster agency has only coordinative functions was seen as ineffective** and, in its stead, a unified disaster management agency which will be responsible for all phases, not only in terms of coordination but also in ensuring that all plans are grounded and implemented was seen as more appropriate.
- An assessment of the NDRRMP implementation revealed that the division of work or responsibilities, and the weak
  coordination among institutional stakeholders made it difficult for the NDRRMC and its institutional partners to
  deliver as one. Institutional initiatives under the four thematic pillars proceeded with independence from the NDRRMP.
  The vertical and horizontal fragmentation of actions was further aggravated by the limited engagement of private
  institutions and even academia.
- A COA report conducted in 2014 showed that **LGUs are challenged with limited staff and capacities** to institutionalize and implement a comprehensive risk management in their communities, including compliance to financial reporting and spending of the LDRRF.
- **A mismatch was found** between institutional responsibilities and capacities at the local level, and this was pointed as a major impediment to effective DRRM implementation.

# ACCOMPLISHMENTS ALONG THE ADAPTATION-DEVELOPMENT CONTINUUM

### ACCOMPLISHMENTS

• **NOAH Program** - Mapped 18 major river systems and four additional critical sites, 52 out of the targeted 67 provinces/ areas that are vulnerable to storm surges and identified 36 priority landslide prone areas. Produced 144 flood hazard maps, 185 resource maps of 257 river systems, 66 out of 67 provinces vulnerable to storm surge were mapped. Installed 600 automated rain gauges and 400 water level monitoring stations (WLMS) nationwide. Deployed 1,600 hydromet devices (388 with early warning), 52 flood monitoring devices in Metro Manila, 26 landslide sensors. Established 3 Flood Forecasting and Warning Centers.

• **Cash for Work (CFW) Program** - As of December 2016, 221,640 beneficiaries accessed CFW support amounting to P532.2 Million

## GAPS

- Lessons learned from the disaster management community and the experience with Typhoon Yolanda in 2013 and beyond, reflect that **more can be done to enhance the overall adaptive capacity** of the country.
- The outputs of implemented education-housing- and livelihood- related CCA-DRR are **fragmented and do not aggregate into an overall picture of outcomes**, such as whether or not vulnerable individuals and communities are better-off after disasters and in general.

# RELEVANT TARGETING OF ADAPTATION INTERVENTIONS

## ACCOMPLISHMENTS

- Flagship Actions were **climate-risk specific and considered the benefits of the vulnerable & marginalized** at scale of MRBs and LGUs: NOAH Program, SPEED, Risk Resiliency Program; Cash-for-Work, Yolanda Recovery.
- **Mainstreaming efforts** through the development of guidelines and framework at various sectors and levels, provision of finance, and capacity building are among the measures highlighted in the reporting period. Advancing early warning systems, risk modelling (Project NOAH), and health surveillance platforms (PIDSR, ESR, and SPEED), were among the note-worthy preparatory measures implemented that builds on existing DRR tools.

### GAPS

- The HS theme prioritized the most vulnerable LGUs including those within the 18 Major River Basins in the country. **Limited information was available** to assess the progress of interventions in these priority areas.
- The challenge is for existing systems and products **to reach even wider coverage, and to be localized**, upscaled and outscaled to the extent necessary and possible in the incoming period, keeping in mind the issues on institutionalization and capacities that are yet to be fully addressed.

# PRIORITIZATION ACCORDED TO CCA PUBLIC FINANCING

# ACCOMPLISHMENTS

- In 2014, DBM, CCC, and DILG entered into a Joint Memorandum Circular on Climate Change Expenditure Tagging in the Budget preparation.
- DOF adopted a **Disaster Risk and Financing Insurance (DRFI) strategy** that made insurance and other financing solutions mandatory for all NGAs, provinces, cities and 1st-3rd class municipalities.
- Funding was also made available to implement adaptation measures through the use of **local DRRM fund and the** creation of PSF in 2011.

### GAPS

• **Linking relief with development** under a Building Back Better framework towards a more adaptive community remains a big challenge.





# HIGHLIGHTS OF FINDINGS: CLIMATE SMART INDUSTRIES AND SERVICES

# **KEY INFORMATION**

TARGET INTERMEDIATE OUTCOME	<ul> <li>Creation of green and eco-jobs and sustainable consumption and production.</li> <li>Development of sustainable cities and municipalities.</li> </ul>
CONTEXT	The NCCAP envisions climate-resilient, eco-efficient and environmentally-friendly industries and services.
SUPPORTING POLICIES	Philippines Green Jobs Act of 2016 (RA 10771); Climate Change Act of 2009 (RA 9729); Ecological Solid Waste Management Program Act (RA 9003)
<b>FUNDING</b> (SOURCES, GRANTS ETC)	PhP 153.9-million Advanced Sustainable Consumption and Production Project (ADVANCED SCP), co-assisted by the GIZ and the United Nations
PERIOD COVERED	2011-2016
INVOLVED AGENCIES	DPWH, DOLE, DTI, NDRRMC, CCC, DENR, National Solid Waste Management Commission (NSWMC)
KEY PROJECTS, FLAGSHIP ACTIONS	MSME Resiliency, Pro GED, Green Public Procurement, Pilot Application of Policy Guidelines on Just Transition towards Environmentally Sustainable Economics and Societies for All
RELEVANT STUDIES	Green Growth Cooperation Situational Analysis MSME Disaster Resiliency Assessment Green Potential and Readiness Studies Philippine Green Jobs Mapping

## ACCOMPLISHMENTS

• **Enacted frameworks, roadmaps, plans to**: (i) enhance environmental performance of existing sectors/ industries, (ii) enhance green sectors/industries, (iii) mainstream, operationalize or pilot Just Transition and green economy principles. These operationalize the policy direction on mainstreaming CC-DRR.

# GAPS

- Stronger convergence among agencies, policy coherence, and institutional capacity building are needed to support the Just Transition. This entails creation of an institutional structure that covers environment, labor, employment, decent work, trade and industry, and cross-cutting concerns.
- The Green Jobs Act, while a Republic Act, **merely promotes and incentivizes, rather than coercively mandates** the creation of green jobs in an attempt to transition the country into a greener economy.

# **INSTITUTIONAL COOPERATION FOR CCA-DRR**

### ACCOMPLISHMENTS

• **Two capacity building intervention tracks were implemented:** (i) awareness-raising, technical facilitation, and handson mentoring, and (ii) vocational courses and trainings. The first targeted public and private agencies crucial to the transition and aimed to build trust among these agencies in the formulation and execution of policies, thereby contributing to adaptation and adaptive-mitigation preparedness. This was effective in use of outputs, relevant in stakeholder coverage, and logical and efficient in timing and modes of delivery. The second involved TESDA programs ensuring that a demand for a skilled green workforce is met, and resulted in enrollees trained on green skills. If these actually met demand forecasts is yet to be seen.

### GAPS

• **No strong collaboration yet** among agencies as most of inter-agency engagements were limited to project-based contexts. This is expected as the partnerships were in early stages of institutional development.

# ACCOMPLISHMENTS ALONG THE ADAPTATION-DEVELOPMENT CONTINUUM

### ACCOMPLISHMENTS

- **MSME Resiliency** training of trainers on the Philippine Survey on SME resiliency, MSME Resiliency Roadmap.
- **Pro GED** Facilitated adoption of greening practices in 495 MSMEs in Bohol and Cebu, the replication of these practices in 37 other provinces, including 63 green projects and/or the passage of 34 resolutions supporting local greening initiatives, and integration of greening approaches into 66 industry roadmaps and 30 DTI plans, programs and projects at the provincial level.
- **Green Public Procurement** Roadmap 2017-2022 developed through EU-SWITCH Policy Support Component. EO No. 301, s. 2004, ordering the Establishment of a Green Procurement Program in all Government Agencies
- **Piloting the Guidelines for Just Transition** IRR for Green Jobs Act of 2016, Orientation Training Workshops. Identification, implementation of projects. Measures were implemented towards enhancing resiliency and transitioning to low carbon development: (i) piloting/demonstration of green cities and municipalities, (ii) capacity building and (iii) policy development on mainstreaming climate change and environmental sustainability in land use plans, transport systems, buildings, and local industries. The Just Transition is at the subnational level, with the green initiatives/practices implemented by LGUs and local industries.

## GAPS

• Some **aspects of greening cities and municipalities** need to be strengthened, such as the solid waste management and public transport systems.

# **RELEVANT TARGETING OF ADAPTATION INTERVENTIONS**

### ACCOMPLISHMENTS

- Many flagship actions were **climate-risk specific and considered the benefits of the vulnerable & marginalized** at the following scales: Ecotown for LGUs, ProGED and MSME Resiliency for MSMEs, Green Public Procurement for the Government, Piloting the Guidelines of ILO Just Transition for MSMEs and Companies
- Adaptation and adaptive-mitigation measures **contributed to sustainable development outcomes** in three key areas: (i) climate-smart industries and services (CSIS) promoted, developed and sustained; (ii) sustainable livelihood and jobs created from CSIS, (iii) green cities/municipalities developed, promoted and sustained.
- On the third outcome, the number of Seal of Good Housekeeping (SGH) recipients indicates that the LGUs are underway towards the Just Transition. This indicator is a sound proxy since the SGH is rendered if an LGU passes 3 core assessment areas, 1 of which is Disaster Preparedness, and at least 1 from the essential assessment areas: Business-Friendliness and Competitiveness, Peace & Order or Environmental Management.

# GAPS

- A monitoring system for green jobs is needed in order to measure progress and inform decision-making.
- Accomplishments of the country's National Energy Efficiency and Conservation Program are noted as significant contributions, but in need of further improvements in order to benefit from energy savings this program can generate. On the second outcome, given only but baseline data, it can be considered that the just transition into green and decent jobs is underway.

# PRIORITIZATION ACCORDED TO CCA PUBLIC FINANCING

# ACCOMPLISHMENTS

- Three types of private and public financing schemes are available: (i) support for green businesses and green production of goods and services, (ii) climate-proofing of MSMEs, and (iii) risk financing mechanisms.
- Green Financing Program of the Development Bank of the Philippines (DBP) offers long-term loans at slightly below market interest rates for environment-friendly processes and technologies.
- Carbon Finance Support Facility (CFSF) of the Land Bank of the Philippines (LBP)- whereas LBP's clients are provided the opportunity to join the Clean Development Mechanism (CDM) Program of Activities (PoA) and generate additional income from the sale of the carbon credits.
- Philippine Disaster Resilience Foundation (PDRF) has a fund focused on business post-disaster recovery. The Foundation created the fund initially to normalize the post-earthquakes supply chain. Today, it has broadened its focus beyond earthquake risk, and to enhance the adaptive capacity of its stakeholders has begun, offering an introductory training course on Business Continuity Management.

# GAPS

• LGUs suffer from several management deficits including: poor understanding of the provisions of the Act and inadequate capacity for formulating SWM Plans; inability to access facilities offered by government financing institutions (GFIs) and engage the private sector in order to generate funds for SWM activities. To inculcate the right attitude among the people to actively participate in SWM activities and practices, the integration of Ecological Solid Waste Management (ESWM) in school curricula at all levels, which is a practice in other countries like Japan and Singapore, is highly recommended.

- As provided under the law, there is a **mandatory 10% lending allocation for MSMEs**. However, in general, banks still tend to prioritize larger corporate borrowers because of higher gains, perception of lower credit risk, higher repayment rates, and the availability of collateral. Specific to green financing availment, there is also generally low availment by MSMEs.
- What needs to be done is to ensure better access to these schemes by MSMEs through further capacity building, improved targeting, and analyses of barriers.



# HIGHLIGHTS OF FINDINGS: SUSTAINABLE ENERGY

# **KEY INFORMATION**

TARGET INTERMEDIATE OUTCOME	<ul> <li>Promotion and expansion of energy efficiency and conservation</li> <li>Development of sustainable and renewable energy</li> <li>Environmentally sustainable transport.</li> <li>Climate-proofing and rehabilitation of energy systems infrastructures.</li> </ul>
CONTEXT	Transitioning to a green economy depends on energy efficient production and consumption, the adoption of renewable energy (RE) systems, and the pursuit of low-carbon growth.
SUPPORTING POLICIES	2008 Renewable Energy Act; 2006 Biofuels Act; Philippine Clean Air Act of 1999; DOE DC 2013-12-0028 "Adopting further amendments to the WESM rules (Market Operator's Business Continuity Plan and Disaster Recovery Procedures)"; DOE DO 2016-03-0003 "Reconstitution of the DOE Disaster Risk Reduction and Control Management Group (DRRGCMG)"; NEA Memorandums 2015-023, 2016-007 "Policy on Resiliency".
<b>FUNDING</b> (SOURCES, GRANTS ETC)	Renewable Energy Trust Fund (RETF)
PERIOD COVERED	2011-2016
INVOLVED AGENCIES	National Renewable Energy Board, Department of Energy, DOST, DA, Energy Regulatory Commission (ERC), DTI, NEDA
KEY PROJECTS, FLAGSHIP ACTIONS	Biofuels Program, National Renewable Energy Program (NREP), Alternative Fuels for Transportation and Other Purposes, Household Electrification Program (HEP) in Off-grid Areas using Renewable Energy, Market Transformation through Introduction of Energy Efficient Electric Vehicle Project (E-Trike), National Energy Efficiency and Conservation Program (NEECP)
RELEVANT STUDIES	Filipino 2040 Energy: Power Security and Competitiveness Filipino 2040: Environmental Resources, Shocks, and Natural Well-being *with CC/Clean Energy lens

# ACCOMPLISHMENTS

- Policies and programs mainstreaming sustainable energy and CCA-DRR in the energy sector were enacted.
- The policy mainstreaming disaster resilience planning in the energy sector has just been recently issued (in 2018). This is DOE DO 2018-01-0001 directing the adoption of energy resiliency in the planning and programming of the energy sector to mitigate the potential impacts of disasters, including climate-related disasters. The policy issuance orders the preparation of resiliency compliance plans (RCPs).
- One measure related to enhancing resiliency is the NEA Memorandum 2018-033 requiring ECs to procure and use electric poles compliant with the specifications and minimum acceptable standard of NEA Engineering Bulletin DX 2211, 2212, and DX 2213 in their electric distribution network.

## GAPS

- There is still no national law promoting energy efficiency and conservation (EE&C). In 2016, a draft EE&C Bill was introduced by Senators Loren Legarda and Nancy Binay in the Senate.
- In the absence of a clear electricity mix policy, the generation companies (GENCOS) are responsible for identifying preferred resources and technologies for investment.
- There are provisions in EPIRA that have not been fully implemented, like the Retail Competition and Open Access (RCOA). One reason for the delay is the lawsuits filed by different groups to deter its implementation.

# **INSTITUTIONAL COOPERATION FOR CCA-DRR**

# ACCOMPLISHMENTS

- While DOE and its bureaus are the key agencies with responsibility, accountability and authority (RAA) over these laws and their corresponding programs, **there are about 15 other actors from both government and the private sector that are involved in sub-sector governance** including in the generation, transmission, distribution, and retail of electricity supply as well as in the certification/accreditation of renewables.
- All the CapDev interventions appear to meet relevant and urgent needs of both public and private sector players, but especially of the former. Attention was given to orienting both policy and practice towards sustainable energy production and consumption and importantly, policy and technical advice appears to be based on grounded research. Strategy-wise for both immediate usefulness and sustainability, it was right to provide educational and training assistance through informal, non-formal and formal modalities.

### GAPS

- The institutional environment outlined by the laws **does not include the prescribed cooperation infrastructure for CCA-DRR**. And while the DOE DRR and Control Management Group of the DOE was reconstituted in this period, it is unclear how this group is embedded in a multi-stakeholder structure for coherent and integrated CCA-DRR action in the energy sector.
- A factor to weak sector governance is the **incapacity of energy agencies to efficiently and timely conduct their review processes** and the lack of qualified professionals in these agencies due to unattractive salary. The ERC has been overwhelmed with many functions and responsibilities which is unmatched by its current capacity.
- The **regulatory structure is also riddled by red tape**, slowing the process of renewable energy development. The complexity of the processes increased transaction costs and made it difficult for new firms to grasp the process. Red tape is estimated to have made the price of electricity three times more expensive than VAT.

# ACCOMPLISHMENTS ALONG THE ADAPTATION-DEVELOPMENT CONTINUUM

### ACCOMPLISHMENTS

- **Biofuels Program** 26 Biofuel Production Facilities/ Projects. 68 Biomass Facilities/projects. Biodiesel production at 181.56 million litres. Bioethanol production at 181.56 million litres
- **NREP** Institutionalized comprehensive approach to address the challenges and gaps in the promotion of RE technologies. Outlined action plans promoting private sector investments in RE development. Increased RE-based Capacity from 5,438 MW in 2010 to 6,958MW in 2016
- Alternative Fuels 8,415 taxis converted to Auto-LPG. It reported reduced emissions of about 4,400 MtCO2
- **HEP** Completed the energization of 12,312 HH in various areas nationwide by 2015. Conducted technical inspection and physical inventory for 5,395 households under HEP 2013-2014
- E-Trike 3,000 E-trike units issued in 2015-2016
- **NEECP** 12million kWh saved by 179 agencies, 17 commercial/industrial establishments. Energy savings in 2,942 MW deferred capacity. Distributed 4.9 million compact fluorescent lamps, retrofitted 35 government bldgs.
- There were gains in improving consumers' access to energy, mainstreaming energy efficiency and conservation into the practices of various sectors, and promoting RE sources.

### GAPS

- Actions were generally effective despite progress in achievement of project targets during the reporting period, **but national targets were not yet fully achieved**. The energy sector just started to officially mainstream preparedness measures, which were to pave the way for adaptation actions on the ground.
- It is difficult to assess for effectiveness and adequacy of interventions of the sector's transition to more sustainable energy systems because of the **complex mediating effects of underlying considerations** such as the wide range of needs quantity and quality-wise, differential absorptive capacities of those capacitated, and other framework conditions obtaining in the sector, such as financial constraints, political economy of competing public and private interests, deep embeddedness of bureau pathologies such as red tape and corruption, etc.

# **RELEVANT TARGETING OF ADAPTATION INTERVENTIONS**

### ACCOMPLISHMENTS

- **Most Flagship Actions were climate-risk specific** and considered the benefits of the vulnerable & marginalized at the nationwide scale: NREP, NEECP, Biofuels Program, Alternative Fuels, SEP, HEP.
- **The national target was met** for all the relevant years: a minimum 30% share of RE in the generation capacity to total installed capacity. This was likely the effect of the enforcement of RE policies and regulatory mechanisms such as the FIT System, Net Metering System and RE market development and management.

### GAPS

- From 2012 to 2015, biofuels production increased at an average rate of 14% biodiesel and 70% bioethanol. But it still fails to meet supply requirements of biofuel blend as espoused in the PEP 2012-2030.
- Local bioethanol production is underwhelming. With a 10% blending target, bioethanol supply met only 0.9% of the 3,730 million litres of gasoline demand in 2012 and 4.4% of 3,794 million liters demanded in 2015. For the coming years, the shortfalls will likely widen.
- The Philippines has the 2nd highest electricity price in South East Asia, because Philippine on-grid consumers pay for the true cost of power, while ASEAN government neighbors subsidized rates paid by the consumers.
- DOE forecasts that the country will depend on conventional fuel sources for years to come. Studies find that the picture presented by committed power projects as of 2015 shows the fuel mix will be dominated by fossil fuels at 75% and RE at only about 24%. It is likely that soon, the country will not be able to comply with the 30% RE minimum even with increase of solar power installation target from 50MW to 500MW.

# PRIORITIZATION ACCORDED TO CCA PUBLIC FINANCING

# ACCOMPLISHMENTS

 In the 2015 National Climate Budget, over 70% (P140 billion), was allocated for SE and WS. Of the total SE expenditures, 84% was spent by DPWH to improve resiliency of infrastructure to climate change impacts (rehab, reconstruction and upgrading of roads, and conducting feasibility studies). Sustainable transport projects of the DOE, DOTC, and DOST, were priorities in 2015 (E-Trike Project). This trend continued in 2016.

# GAPS

• The Renewable Energy Trust Fund (RETF) is from collected emissions fees prescribed by the Clean Air Act; 1.5% of the annual incomes of the PCSO and National Treasury of the Philippine National Oil Company and its subsidiaries; and 1.5% of the Government proceeds earned from development and utilization of indigenous non-renewable energy resources. To date, the RETF is not fully operationalized and implemented.









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