

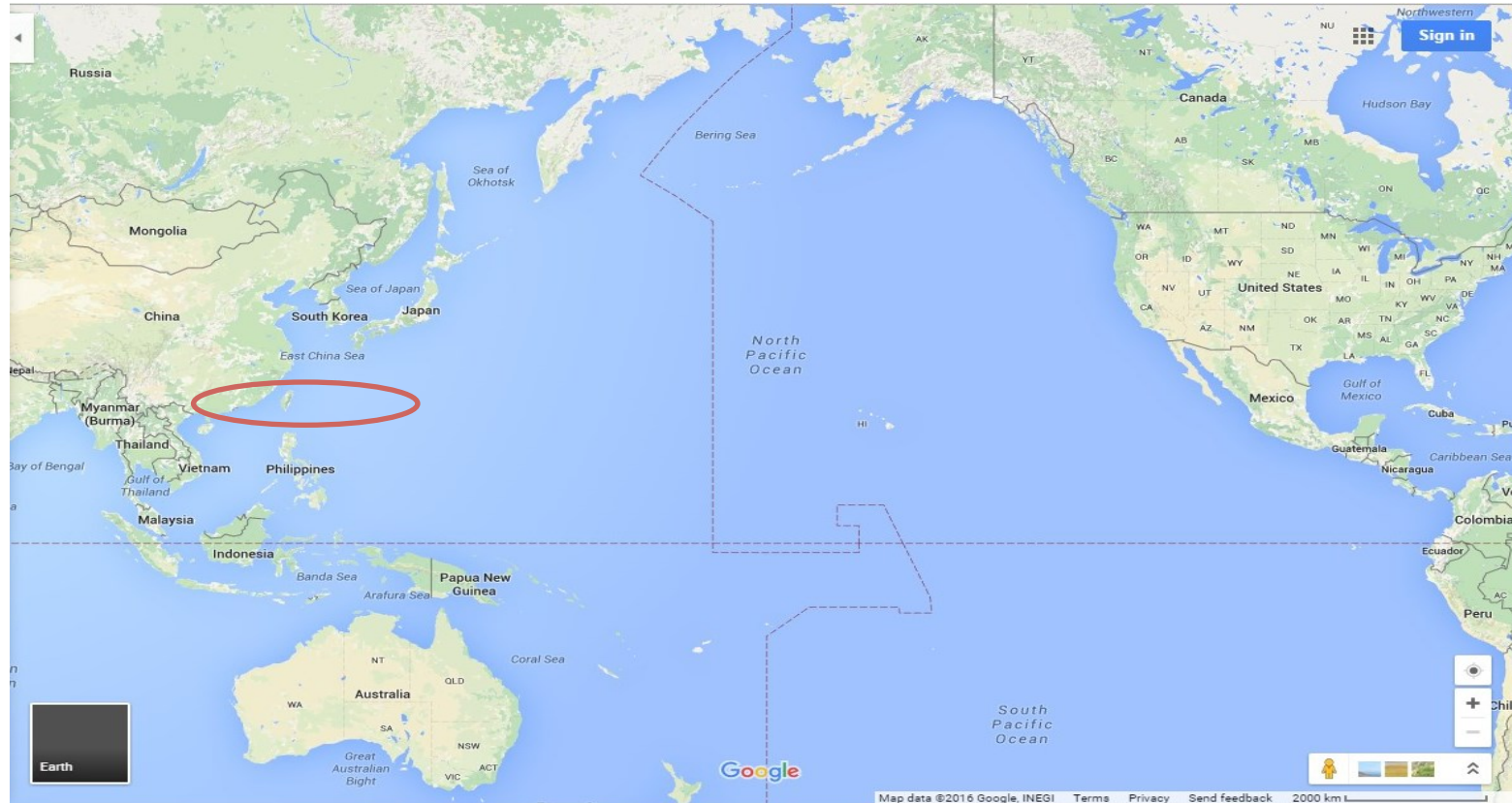
Climate Change Adaptation Initiatives for Agriculture and Fisheries

Department of Agriculture



11 September 2017
NAP EXPO Asia

Location of the Philippines



Quick Facts

Population: 100.98 million persons (2015) with a projection of 104.9 million persons in 2017.

Currency: Philippine Peso (Php)

Land Area: 300,000 square kms

GDP: 6.4% (1st Sem, 2017)

GDP per capita (PPP): US\$ 7,318

HDI: 0.682 (2015) with ranking of medium (116th rank)

Administrative Divisions: 18 regions, 81 provinces, 1,489 municipalities, 42,029 barangays



Impact of Climate Change

Increase in temperature anomaly of 0.648 C or 0.0108 C increase per year in 1951-2010 (*PAGASA*)

Damage of typhoons and extreme weather events to agriculture is Php 39.4 billion in 2013, Php 40.4 billion in 2014, Php 24.8 billion in 2015, and Php 23.15 in 2016 (*DA-FOS*)

4th most affected country in the world by extreme weather events (*Global Climate Risk Index, 2016*)

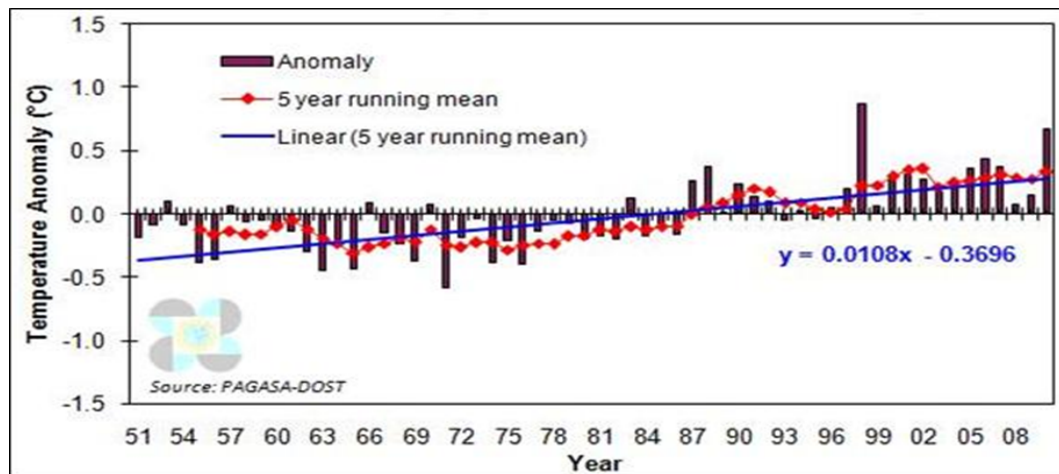


Fig.6: Observed annual mean temperature anomalies (1951-2010) in the Philippines based on 1971-2000 normal values.



Policy Framework

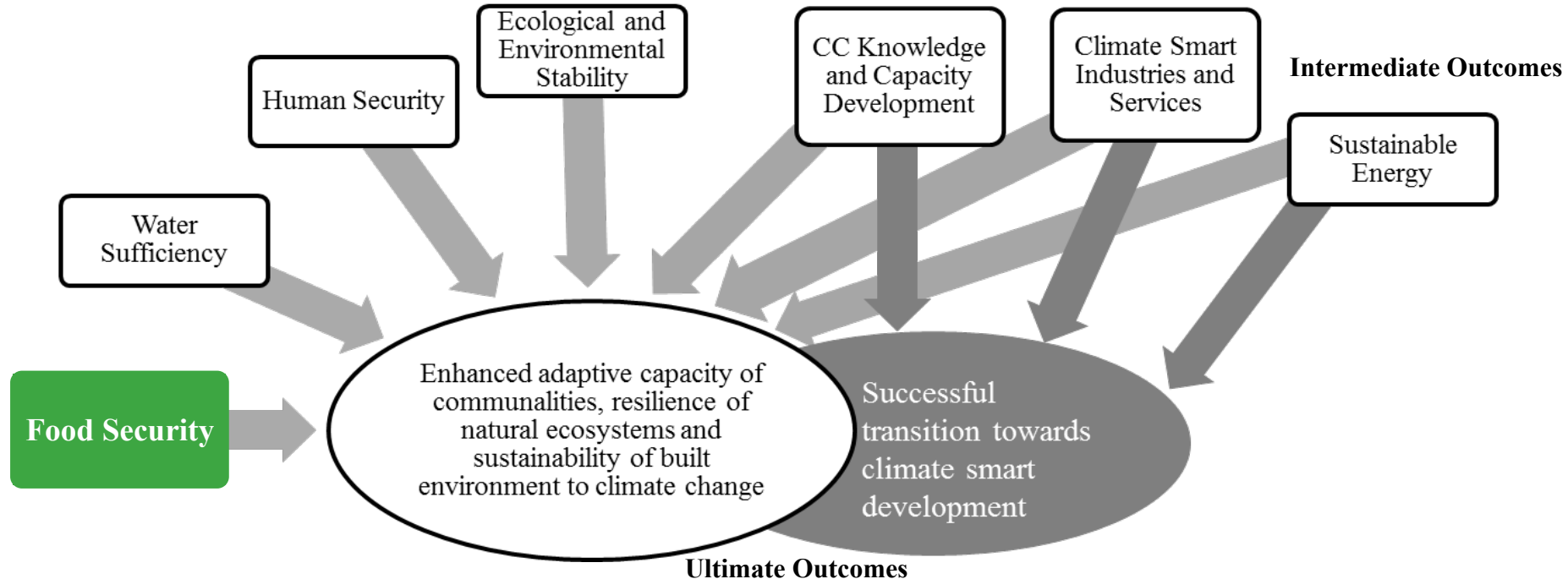


- ◆ *Climate Change Act of 2009 (RA 9729)*: provides the *National Framework Strategy on Climate Change (NFSCC)* to address the growing threats of climate change to community and environment
- ◆ *National Climate Change Action Plan (NCCAP) 2011-2028*: translation of the NFSCC into strategic priorities
- ◆ *Philippine Development Plan 2017-2022*



Policy Framework

NCCAP 2011-2028



Adaptation and Mitigation Initiative in Agriculture (AMIA)



- ◆ Enables local communities to manage climate risks while pursuing sustainable livelihoods
- ◆ Through the Systems-Wide Climate Change Office (DA SWCCO):
 - oversees the mainstreaming of climate change consideration in all functions and offices of DA
 - undertakes catalytic projects to facilitate mainstreaming



Implementation of the Philippine Rural Development Project (PRDP)



PRDP as Platform for Reform

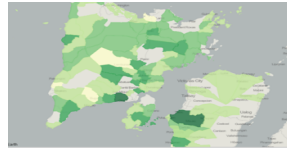
Philippine Rural Development Project (PRDP) is a six-year project designed to establish the government platform for a modern, climate-smart and market-oriented agri-fishery sector.

Project Components

- I-PLAN (Investments in AFMP Planning at the Local and National Levels): aims to enhance sector planning through science-based tools
- I-BUILD (Intensified Building up of Infrastructure and Logistics for Development): aims to put in place strategic and climate-resilient rural infrastructure facilities along the value chain
- I-REAP (Investments in Rural Enterprises and Agriculture and Fisheries Productivity): aims to create marketable surplus of commodities and elevate agricultural production into the next levels of the value chain by installing production and market support facilities; establish enterprises and up-scaling product at the appropriate commodity value-chain segment
- I-SUPPORT (Implementation Support to PRDP): aims to maintain effective and efficient program management and institutionalize DA engagement with stakeholders.

Innovations Introduced by PRDP

Expanded Vulnerability and Suitability Assessment (e-VSA)



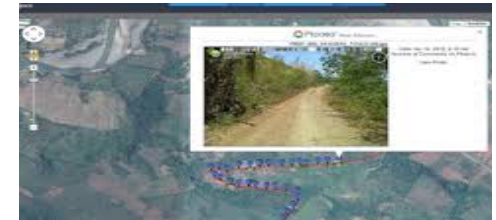
A tool that takes account of both agro-climatic data and socio-economic indicators (such as poverty magnitude, poverty incidence, number of farmers and fishers, size of production, area, etc.) as basis in targeting interventions and formulating strategies for investments

Geomapping

A spatial mapping technique used to represent geographical data (i.e. agricultural patterns, crop production, land suitability) into an online interactive visual map that aids in targeting and prioritizing development interventions. In PRDP, the tool is essential for Value Chain Analysis (VCA) to determine whether priority agricultural commodities are within the value chain that is viable for investment.

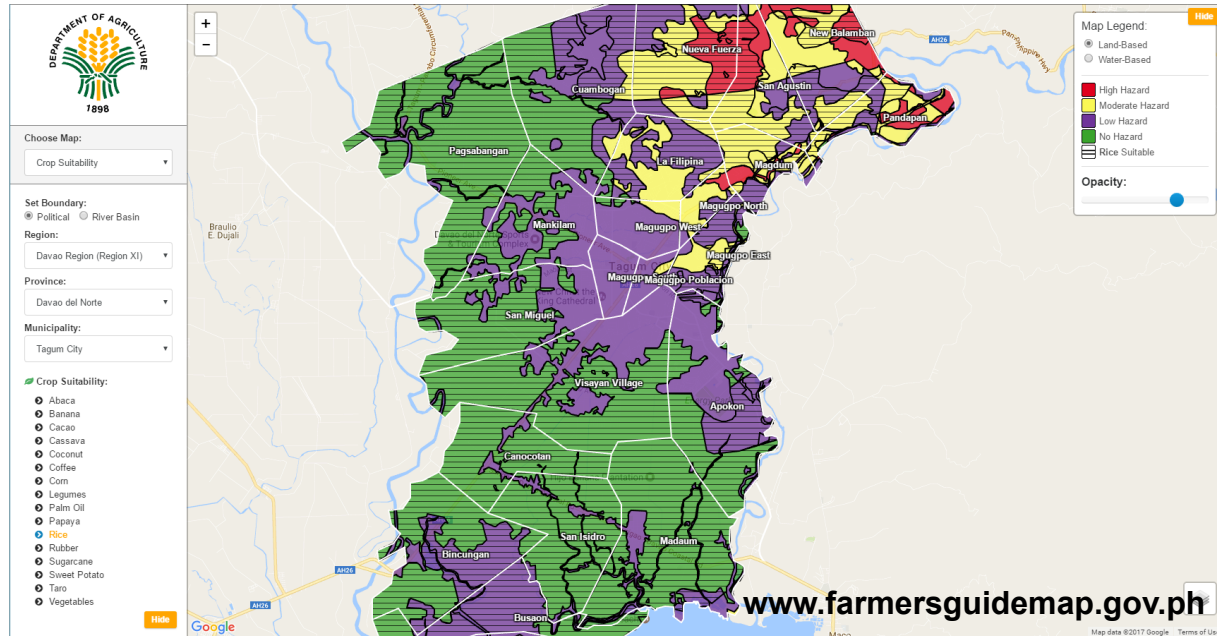
Geotagging

Geotagging, which was initiated under the DA-Mindanao Rural Development Program (MRDP), is recognized as the first in the Philippines and one of the pioneers in the region. At present, DA is implementing compulsory geotagging of its major programs and projects.



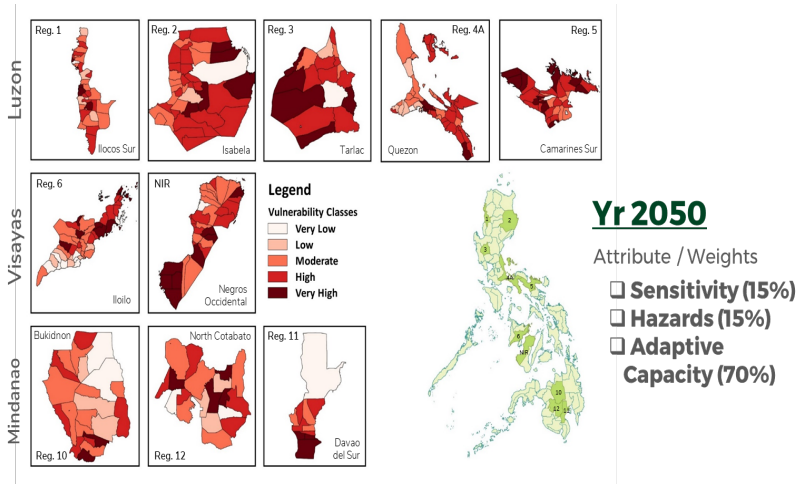
Notable DA Initiatives on Climate Change

- ◆ Developed the National Color-Coded Agriculture Guide Map



Notable DA Initiatives on Climate Change

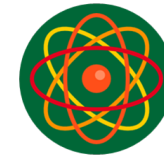
- ◆ Conducted Climate Risk Vulnerability Assessment (CRVA) in ten regions



- ◆ Launched AMIA Villages in Negros Occidental and Quezon Province



Climate Information Services (CIS)



CCA/DRR technologies and tools



Training on CCA/DRR productivity-enhancing practices/technologies



Easy access credit and affordable insurance



Market linkages



Computer-aided decision-making technology



Notable DA Initiatives on Climate Change

- ◆ Conducted Climate Change Expenditure Tagging (CCET)

PROGRAMS/ACTIVITIES/PROJECTS	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)
Total CC Expenditure	14,431,396	23,452,249
-DA-OSEC	13,624,548	21,973,042
-Attached Agencies	806,848	1,479,207

- In line with JMC No. 2015 - 01 of DBM and CCC which mandates government agencies to track their climate change expenditures in their respective budget submission
- Typologies anchored to NCCAP strategic priorities are used in tagging
- Updated BP 201-F (Climate Change Expenditures)



Notable DA Initiatives on Climate Change

- ◆ Conducted Climate Change Expenditure Tagging (CCET)

PAP	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)	MAJOR INTERVENTIONS
Production Support Services (PSS)	2,339,513	2,580,920	Seed Buffer stocking of Rice, Corn and High Value Crops; Assistance to Adverse Ecosystems : Distribution of High Quality Seed; Cloud Seeding Operations; Distribution of drought tolerant High Value Crops
Extension Support, Education and Training Services (ESETS)	787,108	1,305,292	Establishment of Rice Model Farm; Enhanced Farmer Field School; Irrigated and Rainfed Lowland Community Demo Farms; Corn and Cassava Technology Demonstration



Notable DA Initiatives on Climate Change

- ◆ Conducted Climate Change Expenditure Tagging (CCET)

PAP	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)	MAJOR INTERVENTIONS
Research and Development (R&D)	1,383,636	1,206,602	Implementation of Philippine Rice Information System (PRISM) Phase II and NextGen Project
Agricultural Equipment and Facilities Support Services	1,024,887	1,531,937	Construction of Rice Processing Center (RPCs), Drying Facilities, and Seed Storage Facilities; Establishment of Community Based Processing Facility
Farm-to-Market Roads (FMR)	2,563,700	2,515,800	Construction of FMRs



Notable DA Initiatives on Climate Change

- ◆ Conducted Climate Change Expenditure Tagging (CCET)

Operating Unit	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)
Total CC Expenditure of Attached Agencies	806,848	1,479,207
Agricultural Credit Policy Council	-	-
Bureau of Fisheries and Aquatic Resources (BFAR)*	334,243	1,108,658
National Meat Inspection Services (NMIS)	-	-
Philippine Council for Agriculture and Fisheries (PCAF)	370	190
Philippine Carabao Center (PCC)	294,600	285,271
Philippine Fiber Industry Development Authority (PhilFIDA)	-	-
Philippine Center for Postharvest Development and Mechanization (PhilMech)	177,635	85,088



Notable DA Initiatives on Climate Change

- ◆ Participated in Risk Resiliency and Sustainability Program (RRSP)
 - A Program Convergence Budgeting initiative led by DENR
 - Aims to strengthen resiliency of natural ecosystems and adaptive capacity of vulnerable groups and communities to climate and disaster risks
 - Has four components:
 1. Reducing exposure to hazards thru ecosystem stability and resilience;
 2. Reducing assets vulnerability through protective and resilient infrastructure;
 3. Increasing coping capacity thru sustainable and resilient livelihoods; and
 4. Increasing knowledge, information and institutional capacities to respond to risk.



Notable DA Initiatives on Climate Change

◆ Participated in Risk Resiliency and Sustainability Program (RRSP)

- Prioritization Criteria:

1. Areas with high poverty incidence;
2. Areas highly vulnerable to shocks and disasters;
3. Areas situated within major and principal river basins; and
4. Areas covered by DA's Special Area for Agricultural Development (SAAD) and DENR's Sustainable Integrated Area Development (SIAD) sites

- DA Budget committed under RRSP:

PAP	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)
TOTAL	13,700,554	14,119,37



Notable DA Initiatives on Climate Change

- ◆ Participated in Risk Resiliency and Sustainability Program (RRSP)

PAP	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)	MAJOR INTERVENTIONS
Production Support Services	419,062	1,637,569	Provision of high quality seed assistance for adverse ecosystems; seed buffer stocking for quick rehabilitation response; cloud seeding operations
Extension Support, Education & Training Services	856,351	919,884	Conduct of trainings; establishment of techno demo farms
Agricultural Machinery Equipment & Facilities Support Services	3,147,023	3,304,778	Provision of production, postharvest and processing machineries, equipment and facilities



Notable DA Initiatives on Climate Change

- ◆ Participated in Risk Resiliency and Sustainability Program (RRSP)

PAP	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)	MAJOR INTERVENTIONS
Irrigation Network Services	4,888,611	3,804,135	Installation of small scale irrigation projects
Research & Development Services	1,097,973	1,124,625	Conduct of studies related to climate change and disaster risks
Farm-to-Market Road Development Program	2,595,800	2,595,800	Construction, repair and rehabilitation of farm-to-market roads in key production areas



Notable DA Initiatives on Climate Change

- ◆ Participated in Risk Resiliency and Sustainability Program (RRSP)

PAP	FY 2017 GAA (P'000)	FY 2018 NEP (P'000)	MAJOR INTERVENTIONS
Special Areas for Agricultural Development	692,627	721,268	Food production and livelihood programs in priority provinces with high poverty incidence
Philippine Rural Development Project	3,107	11,315	Enterprise development
TOTAL	13,700,554	14,119,37	



Way Forward

- ◆ Scale up adaptation and mitigation in agriculture and fisheries
- ◆ Establish AMIA Villages in more provinces
- ◆ Increase access to other sources of financing, including bilateral and multilateral sources (e.g. GCF, GEF, AF)
- ◆ Ensure integration of climate change adaptation and disaster risk management in the updating of Agriculture and Fisheries Modernization Plan (AFMP) 2018-2023



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