

Adaptation & Mitigation Initiative in Agriculture

resilient & yet progressive

AGRICULTURE AND FISHERY
LIVELIHOODS & COMMUNITIES

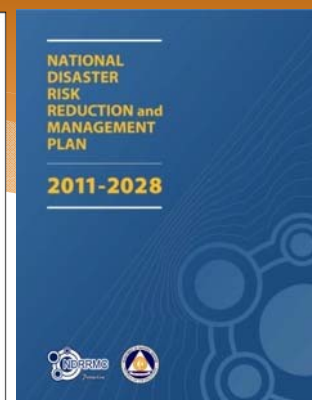
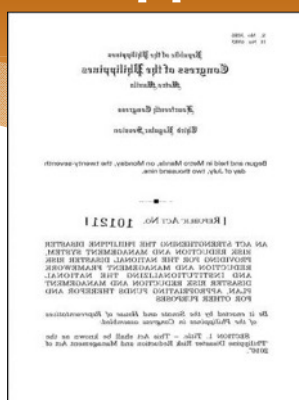
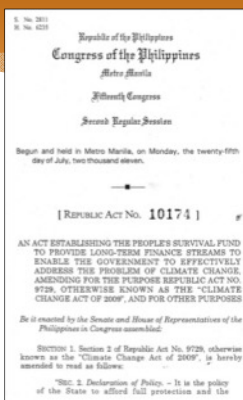
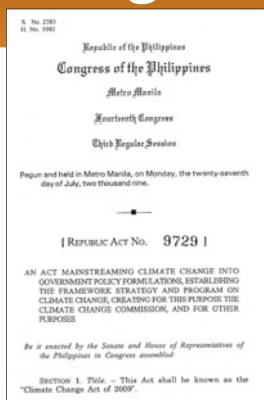


Through . . .

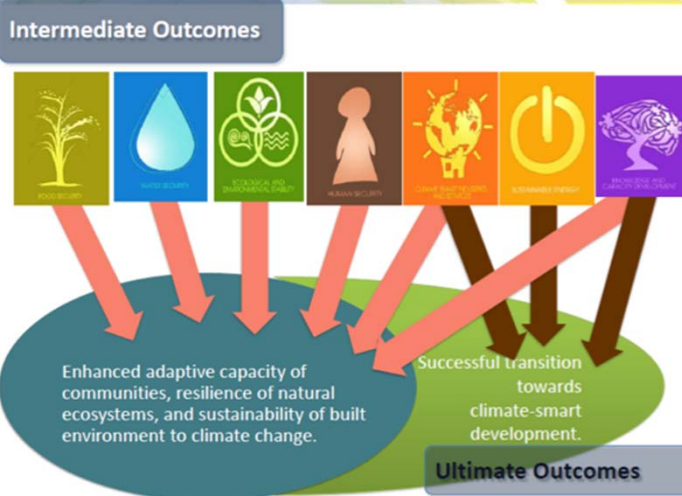
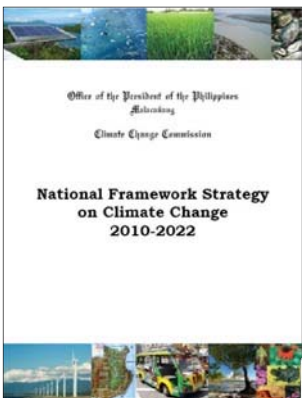


- * the provision of highly responsive (efficient & resilient) agriculture & fishery support services.

Enabling Policies in the Philippines: National Context



Climate/ Disaster Risk Management and Sustainable Development



**NATIONAL CONVERGENCE PROGRAMME
ON REDUCING CLIMATE AND DISASTER RISKS FOR A MORE RESILIENT AND SUSTAINABLE PHILIPPINES**

Brief Description

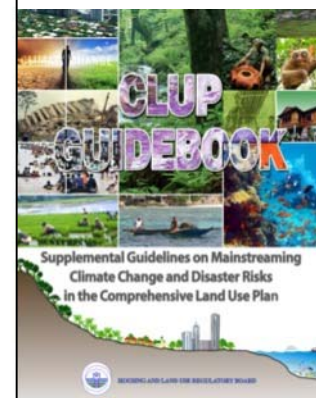
This Programme aims to develop the Philippines' national capacity to seamlessly integrate and harmonize the implementation of climate change adaptation and mitigation, disaster risk reduction and sustainable development. The initiative will focus on enabling communities on the ground, to address the impacts and causes of climate change and to mitigate the disaster risks of natural hazards. It is envisioned to concentrate all national endeavours on climate change, disaster risk reduction and sustainable development, to enable the country to most effectively move to a stable, sustainable development situation expected to achieve the over-all well-being of current and future generations of Filipinos.

It will comprise five (5) components, with nine (9) outputs, dealing with various aspects such as: a.) Understanding risk in the context of sustainable development; b.) Competency development on climate change, disaster risk management and sustainable development; c.) Climate change and disaster risk mitigation; d.) Climate change and disaster risk reduction mainstreaming in planning, programming, regulatory and implementation processes; e.) Addressing residual risks; and f.) Knowledge management. It will involve a comprehensive set of actors: national government agencies, local government units, academe, civil society organizations, private sector and communities.

Programme Period	2016-2018	Total resources required	USD 11,360,000
Key Result Area (Strategic Plan)	Outcome 5	Regular Government	USD 11,360,000
Alias Award ID		for Y1:	PHP 150,000,000 or USD 3,191,490
Start date (initial phase)	1 st Jan. 2016	Unfunded budget (Y2-Y3):	USD 8,158,600
End date (initial phase)	31 st Dec 2017	In kind contributions (staff time, office space):	USD 60,000 from UNCP.
PMU Meeting Date			
Management Arrangements	DM		

Agreed by Climate Change Commission:
Sec. EMMANUEL M. DE GUZMAN, Vice-Chairperson
Date: 04 March 2016

Agreed by United Nations Development Programme:
MR. TITON MITRA, Country Director
Date: 04 March 2016



DA –Secretary’s Response 25 Jan 2013 Memo



**“Mainstream Climate Change in the DA
Programs, Plans, and Budgets”**

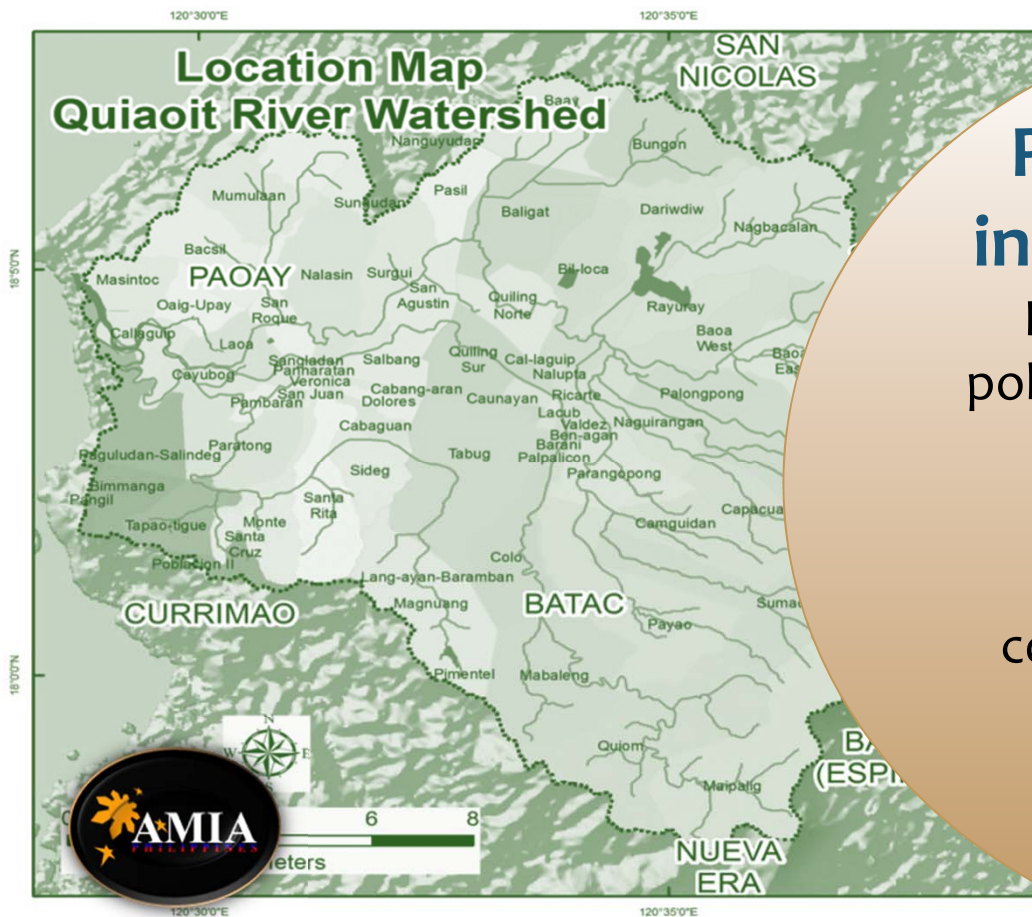


KEY COMPONENTS OF THE SECRETARY'S 25 JAN 2013 MEMO

1. **AMIA - national initiative on climate change in agriculture**
2. **Planning agriculture development be integrated, holistic based on a landscape**
3. **DA's Systems-Wide Programs (SWPs) on Climate Change**
4. **DA Systems-Wide Climate Change Office (DA SWCCO)**



SYSTEMS-WIDE PROGRAMS



Policy development initiatives that will help the DA to craft appropriate CC policies and translate them into **systems wide programs** with the corresponding **budget** for **national implementation**

SEVEN SYSTEMS-WIDE MAINSTREAMING PROGRAMS

1	Strategic Mainstreaming of Climate Change Adaptation And Mitigation Initiative In Agriculture
2	Climate Information System
3	Philippine Adaptation & Mitigation in Agriculture Knowledge Toolbox
4	Climate- Resilient Agriculture Infrastructure

5	Agriculture & Fisheries Financing & Risk Transfer Instruments
6	Climate –Resilient Agriculture & Fisheries Regulations
7	Climate- Resilient Agriculture and Fishery Extension System

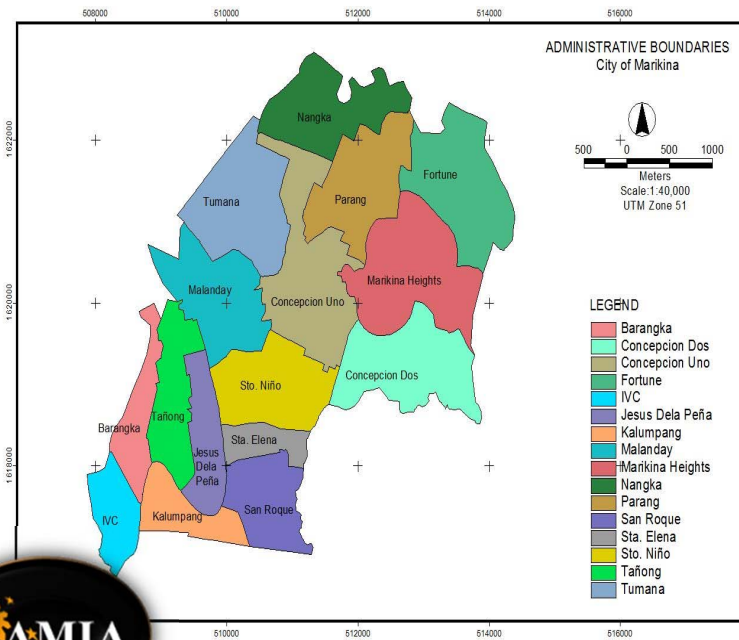




WHAT HAVE WE DONE?



Mainstreaming AMIA in Planning and Implementation/Operations



- **Planning based on landscape** approach using integrated Climate Change (CC) risks and hazard maps
- **Adjusting development** programs/projects and
- **Capacitating people** to adequately address CC risks



Integrated climate change and multi-hazard maps (2,205) and databases (41,995) for strategic planning for river basins, watersheds, regions, provinces, municipalities and cities.

Multi-hazard Risk Management

Thematic Maps

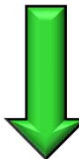


Geospatial Technology

Integrated Map

One Map
One Data

One Map
Many Data



**S
A
F
E
Z**



WHERE WE ARE

WHAT WE WANT TO ACHIEVE

Slow Onset

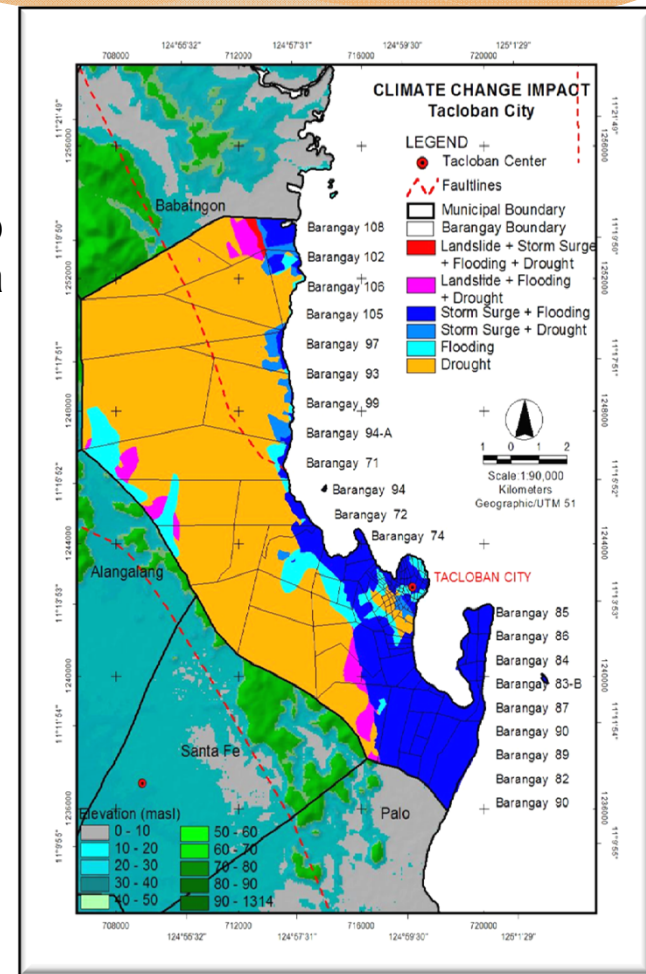
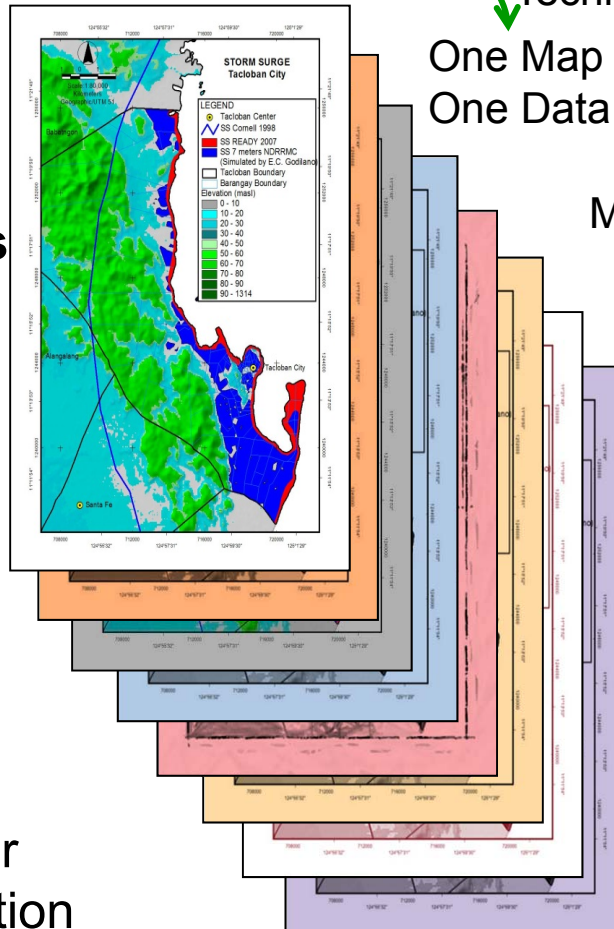
- Rainfall
- Temperature

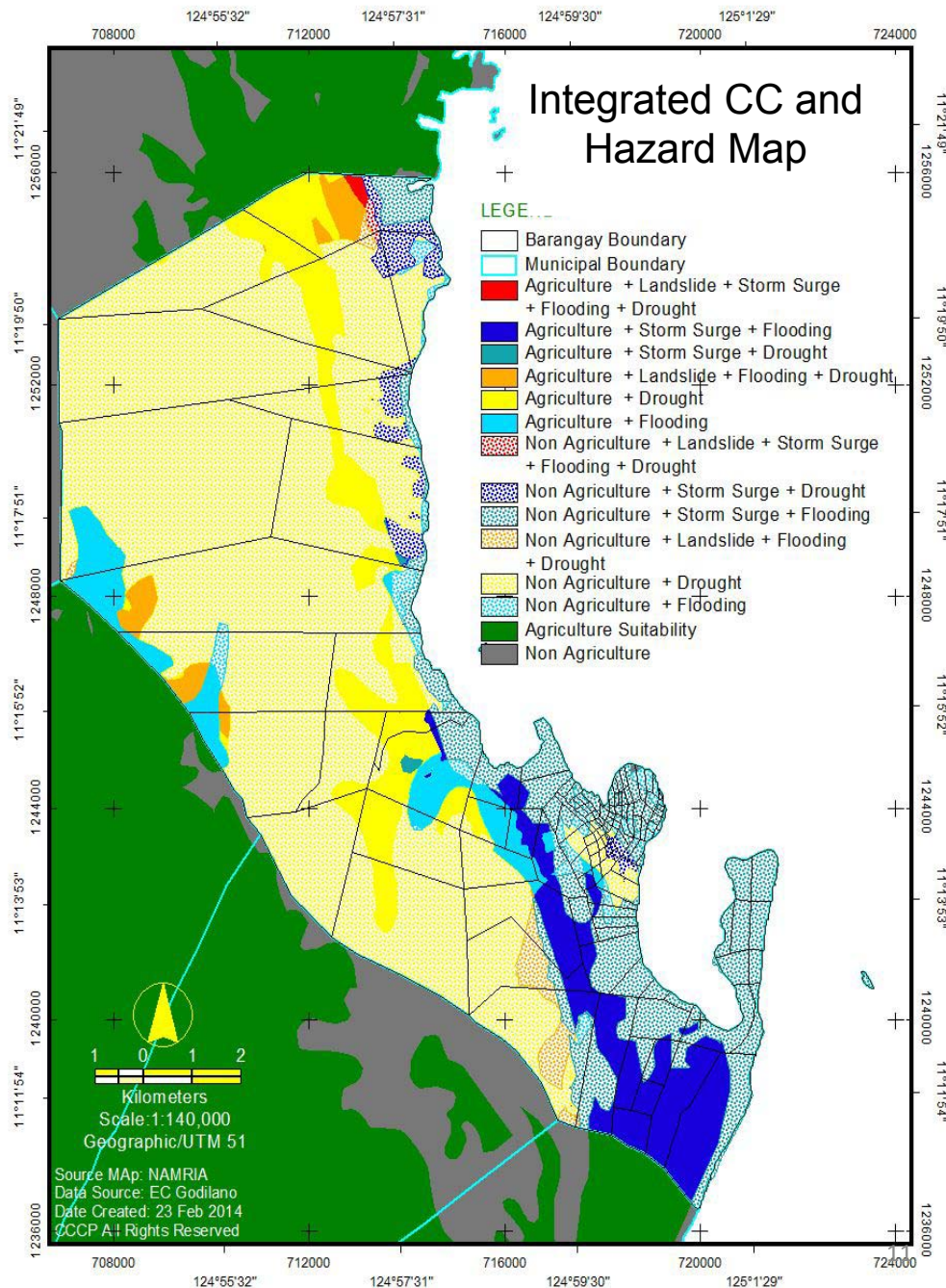
Extreme Events

- Landslides
- Erosion
- Flooding
- Drought
- Storm Surge
- Wind Speed

Disaster

- Geohazard
- Liquefaction
- Ground tremor
- Volcanic eruption
- Tsunami





Integrated Map: Tacloban City

No	CC Impacts to Agri and Non Agri	Hectares	Percent
1	Agriculture + Landslide + Storm Surge + Flooding + Drought	15.15	0.31
2	Agriculture + Landslide + Flooding + Drought	185.05	3.73
3	Agriculture + Storm Surge + Drought	902.35	18.19
4	Agriculture + Storm Surge + Flooding	880.70	17.75
5	Agriculture + Drought	1,596.82	32.19
6	Agriculture + Flooding	1,380.45	27.83
Total Agriculture		4,960.51	100.00
1	Non Agriculture + Landslide + Storm Surge + Flooding + Drought	70.50	0.59
2	Non Agriculture + Storm Surge + Flooding	1,625.63	13.58
3	Non Agriculture + Storm Surge + Drought	1,539.73	12.86
4	Non Agriculture + Landslide + Flooding + Drought	151.79	1.27
5	Non Agriculture + Drought	7,190.07	60.05
6	Non Agriculture + Flooding	1,396.61	11.66
Total Non Agriculture		11,974.33	100.00
Tacloban Total		16,934.84	

Climate Information System

For better and timely advisories - FARMER'S bases on **what** to plant, **when** to plant and **what** cultural management practices to adopt

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Automatic Weather Stations (AWS) Operational in **2014**



- Installed in key **agriculture areas** which complements DOST-installed AWS in airports, schools and municipal halls



Philippine Adaptation & Mitigation Knowledge Toolbox in Agriculture & Fisheries

Rice varieties

Variety Name	Commodity Group
Ma-ayon	Drought-Prone Rainfed Lowland
Hagonoy	Saline-Prone Irrigated Lowland
Submarino 1	Flood-Prone Areas
Matatag 2	Tungro Hot Spot
Gohang	Elevated

Source: Philippine Rice Research Institute



Green Super Rice (GSR) lines are adaptable in areas with multiple stresses. Tested in 10 research stations in 2013.

Philippine Native Animal Development (PNAD) Program



Banaba

Joloano

Paraoakan

- Three (3) breeds of native chicken undergoing the phenotypic and molecular characterization and purification procedure: *paraoakan* (Palawan), *banaba* (Batangas) and *joloano* (Jolo/Basilan)
- On-going researches on breeding of native animals which include swine, horse, and goat



- PCC to develop buffalo breeds applicable to Philippine Condition (10,000 heads of Dairy Buffalo)
- To implement Animal Genetic Resource Cryopreservation & Characterization



Climate-Resilient Agriculture Infrastructure

Farm-to-market roads



Source : Farm-to-market roads Focal Unit



Permanently surfaced farm-to-market roads with proper drainage

“More durable and all-weather”

Financing and Risk Transfer Instruments on Climate Change Crop, Livestock, Fisheries, and Non Crop



➤ **Climate Change Adaptation
Credit Facility**

➤ Quick Response Financing for
Agriculture and Fishery

- Insurance = 1.1 M beneficiaries
(marginal farmers & fisher folk)
- P1.78B full premium subsidy
- P38.15 B insurance cover

Climate –Resilient Agriculture and Fisheries Regulations

Improved Regulatory System to foster adaptation and climate change resiliency among stakeholders

2015 standards and monitoring systems for climate *resilient agriculture infrastructure*



2016 standards and monitoring systems for climate *resilient fishery infrastructure*



Climate – Resilient Agriculture Extension System



Enhanced Climate Farmer Field Schools
(ECFFS)

Farmers' Information and Technology
Services (FITS)

Training of Trainers on Climate Change

Climate Change Preparedness and
Adaptation Trainings

*Improving the timeliness, content and manner of delivery for
better messaging*





WHAT WE NEED TO DO?

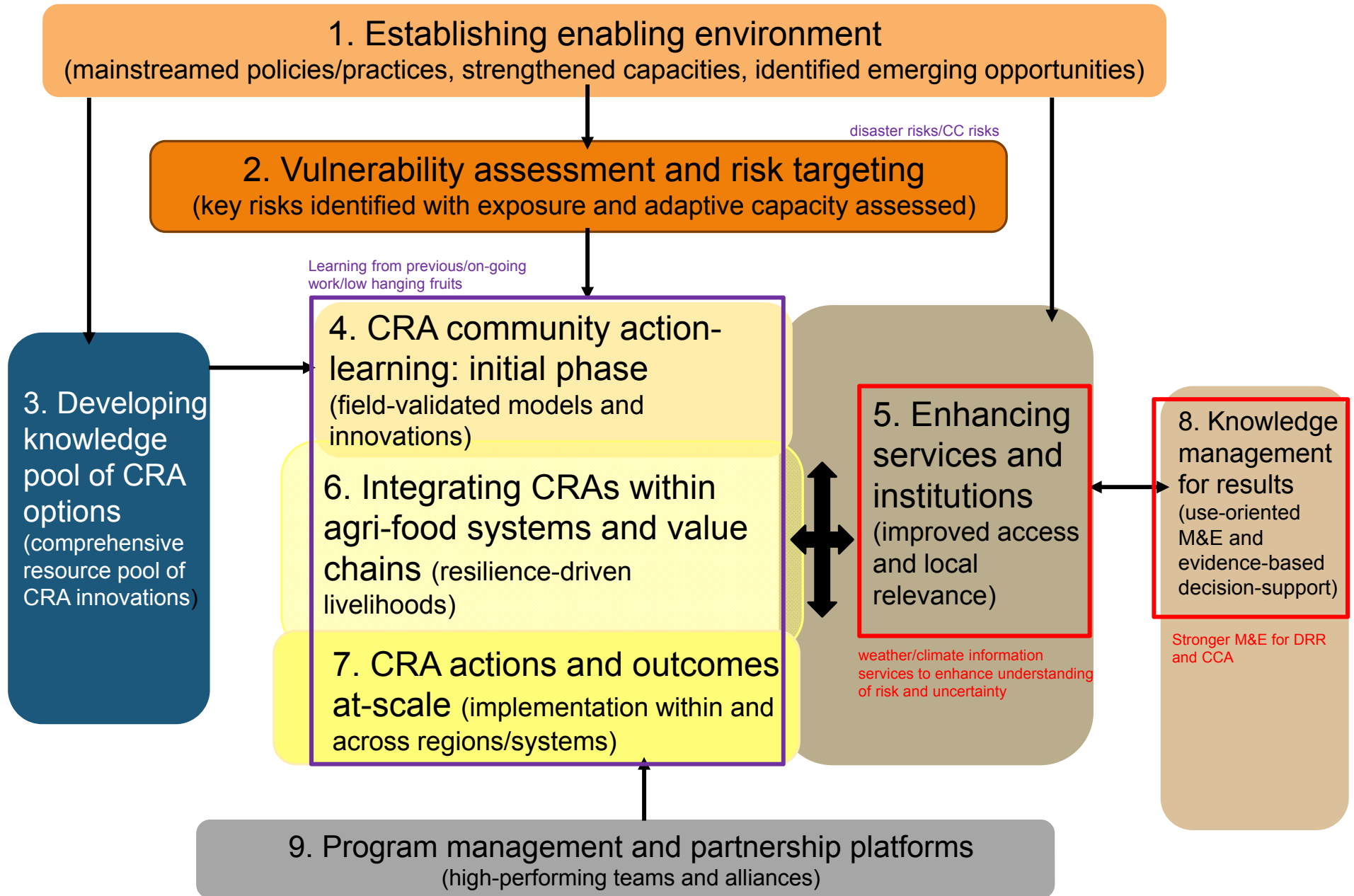


AMIA IN ACTION

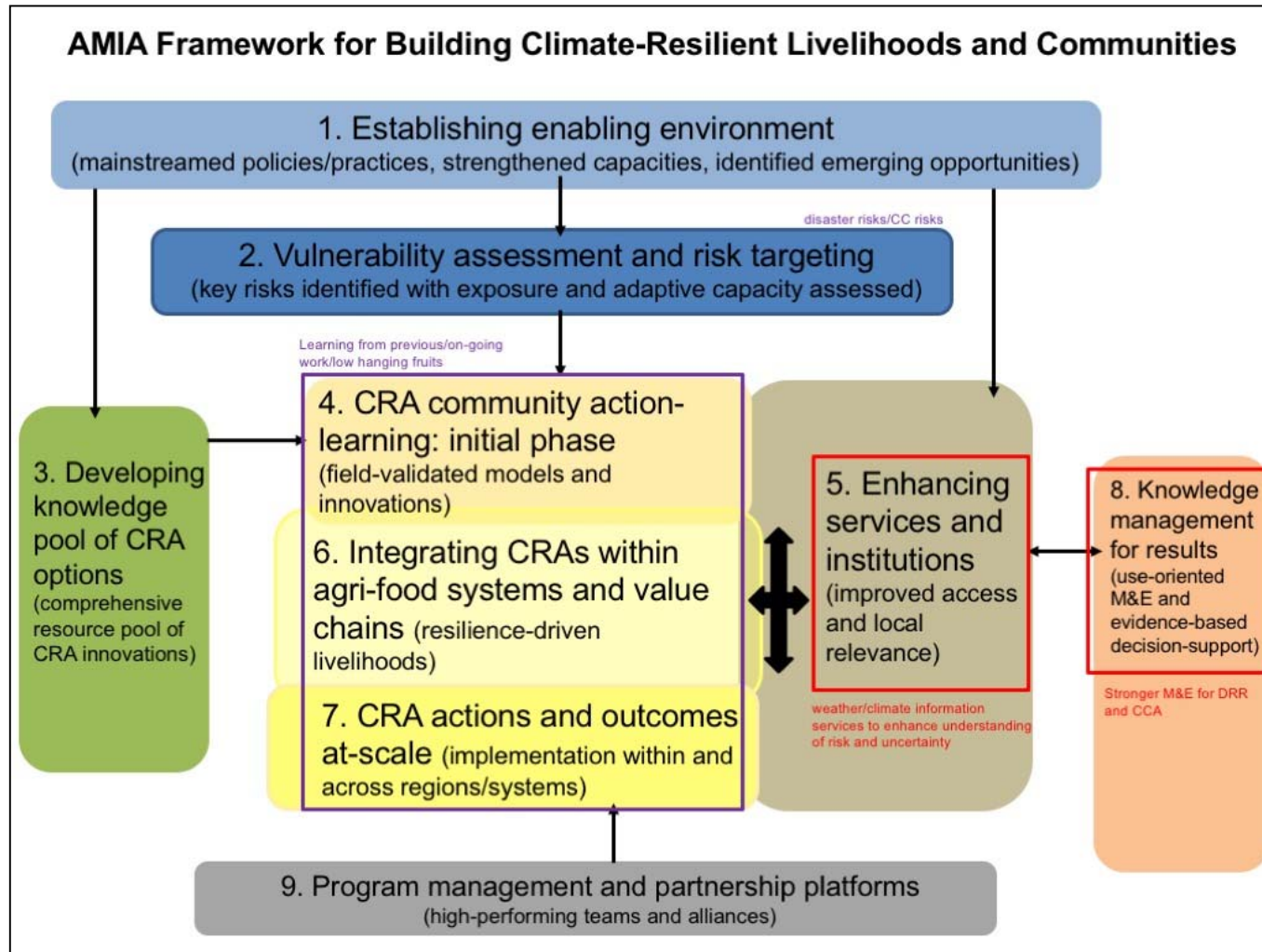
Building Climate Resilient
Agriculture and Fisheries
Livelihoods and Communities



AMIA Framework for Building Climate-Resilient Livelihoods and Communities



Evidence for NAPS



Agriculture and Fisheries Modernization Plan for 2017-2023

Philippine Development Plan 2016 - 2022

Let us remember . . .

- 1. Philippine agriculture is mainly small-hold agriculture.**
- 2. The effects of climate change is worst among AF small-producers.**
- 3. 70% of the poor are in the rural areas, they are mostly AF households.**





DA SYSTEMS-WIDE CLIMATE CHANGE OFFICE (DASWCCO)

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