

**ABOUT THE BANNER PHOTO:** A woman farmer from the Tabon San Jose Farmers Association, Inc., part of the DA AMIA Village in San Luis, Pampanga, harvests *sitaw*. This photo was captured during a hands-on exercise as part of the 2024 AMIA Communications Training held from August 24-27, 2024. Photo by Team Joy to the World



# AMIAhanDA

THE OFFICIAL NEWSLETTER OF THE DA - ADAPTATION AND MITIGATION INITIATIVE IN AGRICULTURE (AMIA) PROGRAM • VOLUME 5 | ISSUE 3 • JUL - SEP 2024

## DA AMIA Program partners with BFAR, NFRDI to develop climate risk vulnerability assessment framework for fisheries sector

**R**ecognizing the urgent need to strengthen resilience against climate risks in the fisheries sector, the Department of Agriculture (DA) Regional Field Office 2 Adaptation and Mitigation Initiative in Agriculture (AMIA) Program, guided by the DA Climate Resilient Agriculture Office (CRAO), has partnered with the Bureau of Fisheries and Aquatic Resources and the National Fisheries Research and Development Institute (NFRDI) to integrate two critical assessment tools—AMIA’s Climate Risk Vulnerability Assessment (CRVA) for crops and NFRDI’s Fisheries Vulnerability Assessment Tool (FishVool). Together, they have developed the combined framework called the Climate Risk Vulnerability Assessment for Fisheries (CRVAF), aimed at bolstering the sector’s resilience to climate-related challenges.

The framework, developed through a project with the University of the Philippines Los Baños Foundation Inc. (UPLBFI) and the Alliance of Bioversity International and CIAT, supports investment planning and prioritization for key fishery industries across the Philippines. It covers both aquaculture and capture fisheries subsectors.

Developed through extensive consultations with NFRDI, BFAR, and fisheries experts nationwide, and following the AMIA CRVA for crops, the CRVA-Fisheries builds on the complex interaction of exposure to climate change-induced shocks, such as increased typhoons, floods, drought, and gradual warming and changes in precipitation patterns; sensitivity based on the assumption of a high emission scenario by 2050; and adaptive

capacity derived from updated available data mainly from the Cities and Municipalities Competitiveness Index. A harmonized set of indicators for exposure, sensitivity, and adaptive capacity were developed using available data from FishVool and other sources that were validated by local fisheries experts.

To demonstrate the process on how to operationalize the CRVAF, the framework was applied in selected areas within Region 2, focusing on tilapia—a key aquaculture commodity in the province of Isabela. Vulnerability maps were generated for tilapia production systems across the cities of Ilagan, Cauayan, and Santiago, as well as the municipalities of Alicia, Cordon, Gamu, Naguilian, Ramon, San Mateo, and San Guillermo. ▶ Page 4

### IN THIS ISSUE

**PAGE 1 |** DA-AMIA Program partners with BFAR, NFRDI to develop climate risk vulnerability assessment framework for fisheries sector

**PAGE 2 |** From Fields to Frames: Agriculturists Transformed into Climate Communicators through AMIA 2024 Comms Training

**PAGE 3 |** Weathering the Weather: The Calia Gawis Farmers’ Association’s Road to Climate Resilience

**PAGE 4 |** Climate change project to benefit 1.25-M farmers



Members of the Progressive Organic Farmers and Fisherfolks Towards Ecological Conservation of Talisay (PROFTECT) of Barangay Talisay, San Isidro, Davao Oriental enjoy bountiful harvests of *bangus*. PROFTECT is the first agri-aqua (marine) beneficiary of the DA RFO 11 AMIA Program. The program, together with BFAR, provided the fishing community with various production and technical support, including a Norwegian fish cage. Photo and details by DA RFO 11’s Marc Ganaban

# From Fields to Frames: Agriculturists Transformed into Climate Communicators through AMIA 2024 Communications Training



Photos taken during Communicating Climate Resilience: AMIA 2024 Communications Training for Technical Personnel and Communications Focal Points held on August 27-30, 2024 in Clark, Pampanga.

**W**e are no longer just agriculturists; we are climate communicators.” This is what Antonion Tangayan, a seasoned agriculturist from Central Visayas, realized after attending the 2024 Department of Agriculture (DA) Adaptation and Mitigation Initiative in Agriculture (AMIA) Program Communications Training held at Savannah Hotel, Angeles City/Clark, Pampanga on August 27-30, 2024.

The training, organized by DA Climate Resilient Agriculture Office (CRAO) and DA Regional Field Office 3 AMIA Team, has empowered its participants—90 percent of whom were agriculturists like Tangayan—by honing their writing, storytelling, and digital and visual communications skills, enabling them not only to nurture the land but also to champion climate resilience through communication. “We help farmers cultivate their land, but we also have a voice that needs to be heard,” explained Tangayan, who is part of the DA RFO 7 AMIA Team. “This initiative is helping us to transform our knowledge and experiences into narratives that can drive policy changes. We are no longer just agriculturists;

we are climate communicators,” he added.

Apart from Tangayan, other agriculturists shared their firsthand experiences and thoughts on the importance of addressing the climate crisis and how they can help drive impactful change by utilizing the power of communication.

Efren Tiongson Jr., an animal science graduate at Central Luzon State University and one of the participants of the event, emphasized the importance of collaboration between scientists and agriculturists in communicating climate change during the group discussions. “Every stakeholder plays a crucial role in combating climate change. By empowering those who work directly with the land, helping them communicate better, we are fostering a grassroots movement that can lead to real change,” he stated.

Meanwhile, Juvette Kaye Narvas, administrative staff at AMIA-MIMAROPA and an agriculturist at heart, explained why agriculturists are the ideal climate change communicators. “Agriculturists possess firsthand knowledge of the consequences of climate change on crops and

livestock; they are the perfect messengers,” she said.

The AMIA communications training aimed to deepen participants’ understanding of climate change while equipping them with essential communication skills and strategies to engage diverse audiences, including policymakers, stakeholders, and the general public. The focus extended beyond adaptation and mitigation techniques in agriculture, incorporating storytelling as a powerful advocacy tool. The training included workshops on developing effective messaging, leveraging social media, and engaging local communities in climate conversations. Participants were encouraged to draft pieces for various communications platforms, aiming to amplify their voices beyond the farm.

“Our stories matter,” said Nelva Balbin, a AMIA technical staff member from DA Ilocos Region and an environmentalist. Rosary Anne M. Serrano, a licensed agriculturist from DA CARAGA, echoed this sentiment: “We’ve seen the effects of climate change on our farmers, and now we can share those stories to

make people understand—*hindi po lahat ay tungkol sa’tin; it’s about everyone’s future.*”

As the workshop concluded, many participants felt empowered to step into new roles as writers and communicators. “I never thought I would be writing articles or posts,” said Mineralito F. Simon, an aspiring climate advocate and a passionate animal science graduate. “But now I realize that sharing our experiences is a powerful way to spark change.”

The 2024 AMIA Communications Training has ignited a movement among agriculturists, redefining their professional identities. With newfound skills and a clearer mission, these advocates are ready to take to their local, national, and even global stages, ensuring their stories of resilience and adaptation resonate loudly in the ongoing conversation about climate change. 🌱

*((Written by Chrystal Jane Almendralejo, with assistance from Rosary Anne M. Serrano, Efren Tiongson Jr., Juvette Kaye Narvas, Ezra Banas, Nelva Balbin, Mineralito F. Simon, and Anton Tee. This article was produced as part of the 2024 AMIA Communications Training held from August 27-30, 2024, in Angeles City/Clark, Pampanga.)*



Members of the Calia Gawis Farmers' Association, a farmers' group engaged in the AMIA Program in Sison, Pangasinan, happily smile in front of the camera. Photos taken by DA RFO 1 RAFIS Team.

## WEATHERING THE WEATHER:

# The Calia Gawis Farmers' Association's Road to Climate Resilience

Under partly cloudy skies, over eleven kilometers from Sison Town Proper, across the Aloragat River lies the Manangan Ranch, in Sitio Liaban, Barangay Calunetan, Sison, Pangasinan—the home of the Calia Gawis Farmers' Association.

Upon the first trek into the dirt roads, the life of the ranch showcased its beauty to the team. Cattle peered curiously at the visitors as they had their breakfast of fresh, green grass sprinkled with dew from the misty morning. Twenty cattle heads, given as part of the AMIA intervention on June 20, 2023, wander the fifty-seven-hectare land of the association owned by Calia Gawis Farmers' Association President Mr. Danilo Manangan.

Despite the drought that struck the country, greens covered the lands as the seeds from previous interventions had grown into various crops such as rice, eggplants, chili peppers, tomatoes, and bitter gourds. Said crops were fertilized by previous intervention: vermi-composting, armed by composting agent African Nightcrawlers, assuring the farmers' cost-cutting for fertilizers as they learned to make some of their own for free. With the aid of machinery such as hand tractors and harvesters, the association saw more profits in their crops.

These crops also gave way to more products and source of income for the Calia Gawis Farmers' Association through the use of food processing interventions from the AMIA program to make products such as vinegar and chili oil.

By the time noon started to peek, chickens roamed and clucked under the blue skies, making sure to have their fill of worms and insects from the healthy ground, taking their time munching and interrupting the team's interviews with happy trills. Mr. Virgilio Manangan, business manager of the Calia Gawis Farmers' Association, mentioned that they

The Calia Gawis Farmers' Association found profit in their livestock, making use of meat grinders and steel tables to sell animal products. With this, they plan to take care of more livestock, ensuring that the drought and the problems that came along with it can be mitigated through the use of solar-powered water systems and finding other forages in their

interventions to thrive in the world's unpredictable climate changes.

For all the interventions and trainings provided, he also gratefully stated, "Sa DA-AMIA, nagpapasalamat po kami sa assistance na binibigay po nila sa amin lalo na sa mga interventions, sa pagprocess ng mga requirements, at lalong lalo na sa mga machineries. Napakalaking tulong ng DA at AMIA at ang kanilang mga trainings. Dahil sa kanila, nag-upgrade po talaga ang pagsasaka." When asked how they are doing in terms of adapting to climate change, Mr. Virgilio Manangan honestly confessed, "Nasa starting point pa lang kami, pero ang masasabi ko po ay nag-improve na kami pagdating sa adaptation at mitigation (through AMIA interventions and trainings)."



Members of the Calia Gawis Farmers' Association with DA RFO 1 AMIA Team. Photo by RFO 1 RAFIS.

Against the changing weathers, sun, clouds, rains, and storms looming over the 57-hectare Manangan Ranch of the 62 members of the Calia Gawis Farmers' Association, Mr. Manangan assured that through trainings and further interventions, they were able to understand climate change and use more climate-resilient agriculture approaches.

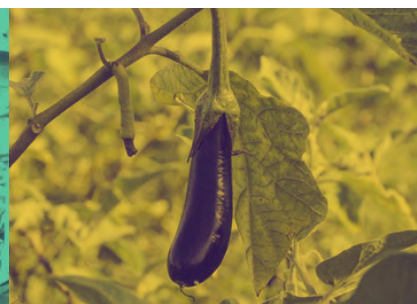
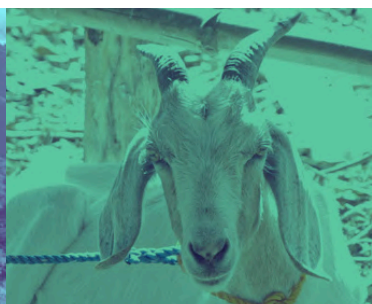
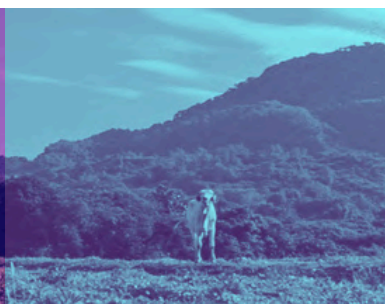
are now descendants of Rhode Island Red Chickens mixed with native chickens, exponentially populated further by egg incubators provided to the association.

rich lands, making sure that their farm animals are taken care of despite the unpredictable skies.

Goats, carabaos and pigs were held in their own pens, gazing at the cameras with their wary stares, or perhaps some familiarity as they were once documented as interventions, the sun reflected in their eyes the same way it did the day they came.

All of these are solidified by various trainings for the Calia Gawis members, allowing them to adapt to the ever-changing weather with the help of interventions given by the AMIA. As one of the AMIA sites in Region One, the Calia Gawis Farmers' Association serves as an inspiration for other sites in managing and taking care of

As they say, life is 'weather weather lang' but with the help of interventions, trainings, and, of course, the association's hard work, they aim to thrive and for their members to not only be climate-resilient farmers but also successful and innovative entrepreneurs, truly making them a model for other sites to look up to. (Mereah Shanley Baduria, DA RFO 1)



Photos of the interventions provided to the Calia Gawis Farmers' Association, which aim to diversify their income sources. Photos by DA RFO 1 RAFIS Team.



**DA-AMIA Program partners with BFAR, NFRDI...** (From Page 1)

Based on the CRVAF, climate resilient adaptation options were identified and prioritized. A Cost-Benefit Analysis was carried out for the identified interventions, assisting in prioritizing investments and providing substantial evidence on the impact of applying the interventions.

The CRVAF offers valuable guidance for identifying areas with high potential for fishery investments. It also assists in determining specific interventions and strategies that can be applied to enhance the adaptive capacity of areas vulnerable to climate change.

The CRVAF adds to the list of Decision-Support Tools (DSTs) developed under the DA AMIA Program, which has been working on establishing the science of climate adaptation in the agriculture sector. These DSTs are science-based tools that support evidence-informed, climate risk-based planning and serve as essential guides for identifying, prioritizing, and customizing resilience-building initiatives. (Joy Calvar-Adarayan, DA CRAO)



DA, DOST-PAGASA, BTr, and FAO officials show the signed Operational Partners Agreement for the APA Project on September 17, 2024.

**Climate change project to benefit 1.25-M farmers**

The signing of the tripartite Operational Partners Agreement for the USD 39.2-million (M) project between the Department of Agriculture (DA), the Philippine Atmospheric, Geophysical, and Astronomical Services Administration of the Department of Science and Technology (DOST-PAGASA), the Food and Agriculture Organization of the United Nations (FAO), and the Bureau of Treasury (BTr) signals the official implementation of the Adapting Philippine Agriculture to Climate Change (APA) project, benefiting 1.25-M farmers in the climate-vulnerable regions in the country.

Signed by DA Secretary Francisco P. Tiu Laurel, Jr., DOST-PAGASA Administrator Dr. Nathaniel T. Servando, FAO Representative in the Philippines Dr. Lionel V. Dabbadie, and BTr Deputy Treasurer Mr. Eduardo Anthony Mariño III on September 17, 2024, this seven-year initiative aims to boost the resilience of rural communities reliant on agriculture. The project spans five regions, nine provinces, and 100 municipalities across the country.

A key outcome of the project is the adoption of climate-resilient farming practices by farmers, empowering them to establish sustainable enterprises. The project also aims to strengthen regulatory frameworks, enhance market systems, and improve knowledge management to mainstream and scale up climate-resilient agriculture across the country.

“Our combined efforts in implementing the APA Project will strengthen the foundation of progressive and resilient communities that we have begun through our various climate-resiliency-building initiatives under AMIA and other DA programs,” DA Secretary Francisco P. Tiu Laurel, Jr. said. With a foundation built over a decade, the Department’s flagship climate change program, the Adaptation and Mitigation Initiative in Agriculture (AMIA), developed a community-based resiliency model.

This program, alongside the Disaster Risk Reduction and Management (DRRM) section, has contributed to various important

developments, such as digitization and knowledge management, thorough field validation of damages and losses, the application of Unmanned Aerial Systems (UAS) for DRRM, and improvements in information management and public awareness initiatives. These efforts are coordinated by the Field Operations Service (FOS), which acts as the National Program Management Office (NPMO) for the APA project.

With the initiatives undertaken by the department, Secretary Laurel described the APA Project as an expansion and intensification of these efforts to better assist the Filipino farmers.

As one of the most climate-risk countries in the world, the Philippines continues to face frequent and catastrophic extreme weather events, such as tropical cyclones, droughts, floods, and irregular precipitation that threaten both the livelihoods of Filipino farmers and the food security of millions of people. (Ira Y. Cruz, DA-AFID)



Ka-AMIA, get the latest news and updates about the DA’s climate resilience initiatives through **AMIAhanDA** issued as a quarterly publication by DA-CRAO!

**AMIAhanDA**  
The official newsletter of the DA Adaptation & Mitigation Initiative in Agriculture (AMIA) Program

**Editor-in-chief and Writer:** JOY CALVAR-ADARAYAN  
**Photographer & Writer:** QUENNIE MAY CAMU  
**Technical Editors:** MARIA JANNELL FELIZ TALAVERA, RAE MICHAEL BARBOSA, & WENDY DUNASCO  
**Layout & Design:** JOY CALVAR-ADARAYAN

**Contributor/s for this issue:**  
CHRYSAL JANE ALMENDRALEJO | IRA Y. CRUZ | MEREAH SHANLEY BADURIA | MARC GUMABAN | DA AMIA REGIONAL COMMUNICATION FOCAL POINTS

**Consulting Editor:** PERLA G. BALTAZAR  
**Editorial Adviser:** DIR. ALICIA G. ILAGA

**DA CLIMATE RESILIENT AGRICULTURE OFFICE**  
4/F PCAF Bldg., DA Compound, Elliptical Rd., Quezon City, Philippines  
Telephone: +63 (2) 273-2489; +63 (2) 928-8741 to 64 loc. 2489  
Email: amiacreate.da@gmail.com | Website: amia.da.gov.ph  
Facebook: @AMIA.PH | Youtube: @da-amiaprogram