

BARChronicle

The fortnightly newsletter of the DA-Bureau of Agricultural Research

DA-BAR, Davao AFRREDN ink agri-fisheries R4D partnership



Signifying collective commitment, the DA-BAR and the Agriculture and Fisheries Resources, Research and Extension for Development Network (AFRREDN) in Davao Region sealed a Memorandum of Understanding (MOU) on April 8, 2025 in Matina, Davao City—formalizing the establishment, partnership, and operationalization of the Network.

"This partnership aims to create a cohesive and impactful network aligned with national agricultural and fisheries policies and specifically tailored to the unique requirements of the Davao Region," DA-BAR Regional Coordinator for Davao Region Alvin L. Fontanil said in his message.

The agreement marked a unified move to implement a three-year plan focused on knowledge management, technology incubation, participatory development, and responsive policy-making.

"The event offered insight into practical strategies for harmonizing programs, sharing innovation, and empowering communities through research-driven development in Davao Region," Fontanil added.

The partnership was formally signed by RDE agencies and institutions in the region, including the DA Davao Research Division led by Chief Melani A. Provideo; Agricultural Training Institute-RTC XI represented by Assistant Center Director Olivia Gatus; and various State

Universities and Colleges: University of Southeastern Philippines, Davao De Oro State College, Davao del Sur State College, Southern Philippines Agri-Business and Marine and Aquatic School of Technology, Davao del Norte State College-Panabo City, and Davao Oriental State University.

AFRREDN shall take the lead in providing strategic direction and guidance on the prioritization and harmonization of agri-fisheries R4DE activities, programs, and services at the regional level.

Further, the network will co-create and scale technologies and responsive interventions affecting proactive agricultural policy development across the region. **MA. ELOISA H. AQUINO**

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SLM conserves land, boosts productivity for Butanguiad, Macalidong farmers

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SLM conserves land, boosts productivity for Butanguiad, Macalidong farmers

Farmers in Barangay Butanguiad, San Francisco, Quezon Province and Macalidong Ligao City, Albay are transforming degraded uplands into thriving, climate-resilient farms through Sustainable Land Management (SLM) practices, as showcased during the respective Farmers' Field Day organized by the DA- Bureau of Soils and Water Management (DA-BSWM) on April 2 and 10, 2025.

During the Field Day, members of the Macalidong Corn and Vegetables Farmers Association, and Butanguiad Farmers Association demonstrated how contour farming, agroforestry, and multi-crop systems have revived their once-eroded fields. Jerome Ruiz, the Butanguiad Farmers Association president, shared: *"Malaki pong tulong ang ganitong programa...Sa tulong ng SLM, mas naging produktibo na ang mga magsasaka rito."*

Ruiz explained that while they are still monitoring

crop performance, early results suggest a significant increase in yields, with farmers diversifying into high-value crops like pineapple and banana alongside corn.

The SLM practices stem from the DA-BAR-funded, Outscaling of Sustainable Land Resource Management Approach (SLRMA) in Corn-based Upland and Hilly Areas in the Provinces of Quezon and Albay, managed by DA-BSWM. Initiated in response to a 2023 corn yield collapse linked to erosion and climate extremes, the project has rehabilitated over 300 hectares across Quezon Province and Albay, including 200 hectares in San Francisco alone.

Key technical strides include:

- **Contour Farming:** Using A-Frame and T-Frame tools, soil erosion plummeted from 100-200 tons/hectare/year to just 5 tons.
- **Agroforestry Integration:** Intercropping with fruit trees and vegetables boosted

income by 30-40%, according to DA-BSWM estimates.

- **Soil Health Revival:** Organic Matter content rose by 15%, restoring nutrient balance.

Apolonia Mendoza, DA-BAR corn program leader, emphasized the project's grassroots hurdles. "Half of Albay's farmers initially understood contour farming concepts but lacked technical skills," she noted. Through DA-BAR and DA-BSWM-led workshops, over 200 farmers were trained in SLM techniques. San Francisco's local government further cemented progress by passing an ordinance institutionalizing SLM in agricultural programs, paving the way for the pilot sites to become Learning Hubs for Agriculture.

Mendoza outlined next-phase priorities: expanding SLM to other provinces, strengthening market ties for crops like pineapple, and integrating SLM into national policies. **JIMWELL KENNETH R. TANAY**



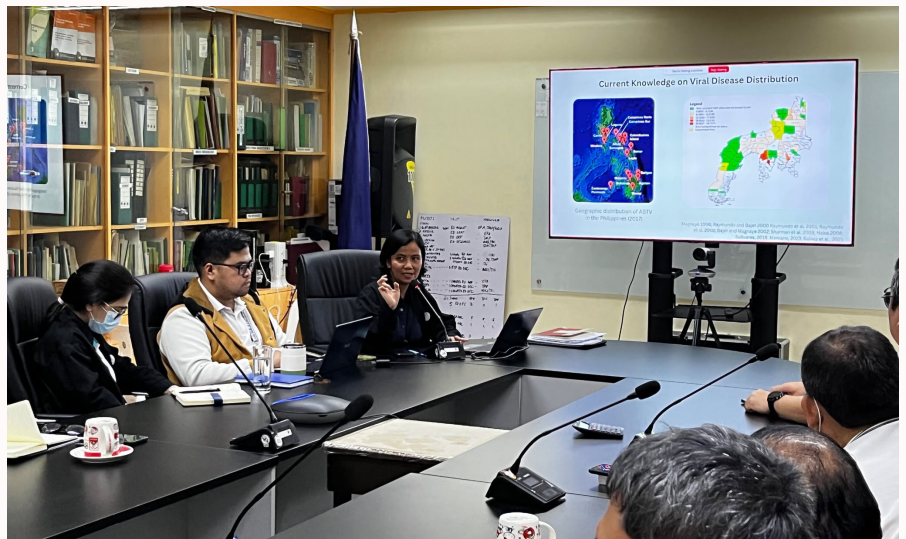
Portable virus detection kit for abaca set for scaling



The DA-BAR and DA-Philippine Fiber Development Authority (PhilFIDA) are set to deploy the LAMPParA Kit, a research for development (R4D)-generated portable rapid diagnostic tool for early virus detection in abaca.

The LAMPParA Kit, short for Loop-mediated Isothermal Amplification Portable Abaca Diagnostic Kit, enables rapid, on-site identification of abaca diseases such as bunchy top and mosaic viruses, the leading causes of yield loss in abaca farms across the country. This portable kit can detect viruses in as fast as 20 minutes, making it faster, more effective, and cost-efficient.

In a project inception meeting on March 31, 2025 at the DA-PhilFIDA headquarters in Quezon City, project lead Dr. Leny C. Galvez presented the rollout strategies of the project, "Bridging Lab to Field: Scaling of LAMPParA Kit for Sustainable



Abaca Production," including the assessment of disease occurrences in Bicol, Visayas, and Mindanao, and key discussions on the Intellectual Property Rights and Technology Transfer Protocol of the bureau.

DA-PhilFIDA Director Arnold I. Atienza underscored the urgent need to support local abaca farmers, citing the vulnerability of the industry to viral diseases.

DA-BAR and DA-PhilFIDA reaffirmed their support for advancing abaca, with focus on aligning R4D programs with the needs of fiber farmers and processors, promoting value-adding technologies, and enhancing the competitiveness, sustainability, and innovation of the country's fiber industry. **MA.**

ELOISA H. AQUINO

DA-PCC advances Wagyu breeding with MOET optimization project

The DA-BAR virtually convened the DA-Philippine Carabao Center (PCC) team and partner farms on April 8, 2025, to discuss initial steps and preliminary arrangements for the smooth implementation of the project that aims to enhance livestock breeding and local availability of quality Wagyu beef through advanced reproductive technology.

Led by Dr. Danilda Hufana-Duran, the project will verify and optimize the Multiple Ovulation and Embryo Transfer (MOET) techniques in the production of purebred Wagyu. MOET

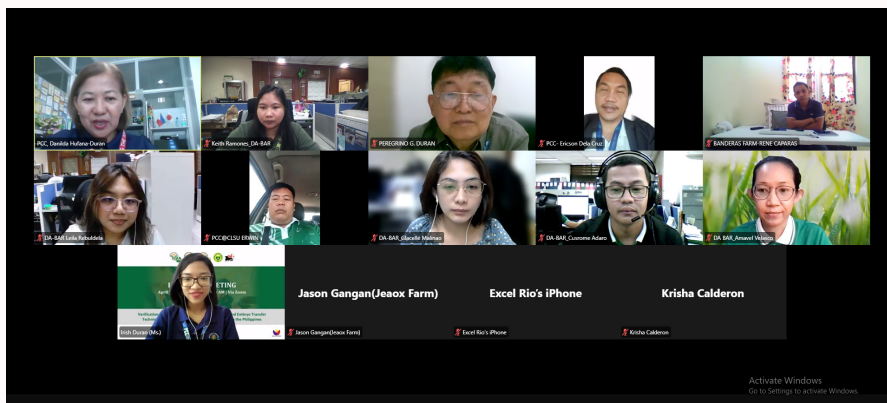
involves hormonal stimulation of select donor animals to induce the production of multiple ova, followed by artificial insemination. Approximately seven days post-insemination, embryos are recovered via flushing. These embryos are then transferred to synchronized recipient animals for gestation of purebred offspring. Surplus embryos will be cryopreserved for future transfer to meet demand for high-value genetics in meat production.

Initial trials conducted prior to this project yielded promising, albeit, preliminary results.

Procedures on Japanese Black and Red Wagyu showed some success in embryo recovery and transfer resulting in pregnancy, while trials on water buffalo highlighted a need to refine protocols, specifically regarding the optimal timing for embryo collection.

To formalize this initiative, representatives from partner farms, Jason Gangan of Jeaox Farm, Rene Carapas of Banderas Farm, and Jose Maria Hizon of JMH Wagyu Farm, attended the virtual session alongside the DA-PCC team.

Looking towards the sustainability and potential expansion of this technology, a detailed cost and return analysis will also be conducted as part of the project. This analysis aims to provide clear financial benchmarks for each procedure, supporting the eventual goal of commercializing MOET services in the country. **RENA S. HERMOSO**



EXPERT SAYS

How can cacao tree cultivation contribute to both climate change mitigation and farmer livelihoods in tropical regions like the Philippines?

Cacao trees (*Theobroma cacao*) can be a good fit for carbon credit projects, especially in tropical regions like the Philippines. Cacao trees live and produce fruits for 30–50 years, meaning they store carbon over a long time. A single mature cacao tree can sequester between 0.005 to 0.02 tons (5 to 20 kg) of carbon dioxide per year. Planting cacao allows for co-benefits—farmers earn from selling beans and potentially from carbon credits. This dual-income stream can make reforestation or sustainable land use more appealing.

DR. MYLEEN R. CORPUZ

Director, Cagayan Valley Cacao Development Center
Isabela State University



DA-BSWM's R4D facility to model advanced, sustainable water mgmt tech

To intensify the promotion of impactful research for development (R4D) on water management for lowland areas, the National Soil and Water Resources Research and Development Center for Lowland Upland Pedo-Ecological Zone (NSWRRDC-LUPEZ) of DA-Bureau of Soils and Water Management (BSWM) upgrades its water management infrastructure through a project partnership with DA-BAR.

Funded through the Research Facility Development Grant program, BSWM's center will establish two additional small farm reservoirs (SFR) and a solar-powered irrigation system (SPIS)—alongside rehabilitating its existing SPIS and SFR, to

ensure water adequacy and reliability in carrying out researches in soil and water management.

Another key improvement underway is the installation of a climate-smart irrigation system—a pressured drip and sprinkler irrigation systems, to ensure precise water application based on crop water requirements derived from real-time climate and soil data.

During the inception meeting of the project held on April 8, 2025, BSWM project leader and NSWRRDC-LUPEZ Center Chief Oscar Carpio said that improvement of their R4D infrastructure is crucial to further benefit farmers through

impactful water management technologies and innovative practices.

Carpio also shared that the facility shall facilitate more and diverse R4D activities and initiatives on water management technologies by serving as a demonstration site for farmers, researchers, and other clientele.

“Ultimately, these research projects will lead to technology transfer initiatives, helping farmers adopt and implement suitable and sustainable practices that will keep the primacy of resources and help improve economic growth,” he said. **ANGELO N. PADURA**



Usec. Navarro calls on DA, farmers, private sector to unite for sectoral goals



"Dapat tayong lahat magsama-sama. Hindi lang tayo sa DA, dapat sila rin. Magtulong-tulong tayong lahat," urged DA Undersecretary for Operations and Agri-Fisheries Mechanization, and Rural Credit Roger V. Navarro during the special flag-raising ceremony of DA-BAR on April 7, 2025.

Highlighting the critical role of shared responsibility, Usec. Navarro addressed the DA-BAR staff as the third resource

speaker of their monthly activity. This initiative, which began in January 2025 and takes place every first Monday of the month, invites key figures in agriculture and fisheries to share their perspectives and knowledge.

In his message, Usec. Navarro underscored the necessity of continuous effort and innovation, cautioning against complacency. Speaking in a mix of Filipino and English, he stated: "We seem to be losing our passion to help. Someone spoke earlier about reliability and trust — the values for the week. I hope everyone truly embraces that. We often get so caught up in our routines and tasks that we sometimes forget about the people we're supposed to be helping."

He further emphasized the fundamental question that should guide their work: "We need to ask ourselves, 'What do our farmers really need?' Right now, our farmers face enormous challenges. The challenge for the Secretary and

the President is to eliminate poverty and malnutrition within the agriculture sector."

Addressing these significant hurdles, Usec. Navarro reiterated the crucial role of research and innovation in enhancing the productivity and yields of Filipino farmers and fisherfolk. He stressed the urgent need for collaboration among the DA, other national government agencies, farmers themselves, and the private sector to effectively tackle the issues confronting the agricultural sector.

Furthermore, he asserted that true empowerment of farmers lies in our actions, not in periodic dole outs. We achieve this by providing them with viable and innovative technologies, streamlining their operations and boosting productivity through our implementation of mechanization with advanced tools and equipment, alongside accessible credit systems. **RENA S. HERMOSO**



DA-BAR, DA-PCAF prime for the launching of the PHSAI

To prepare for the planned launching of the Philippine Sustainable Agriculture Initiative (PHSAI), the DA-BAR and the DA-Philippine Council for Agriculture and Fisheries (PCAF), led by Assistant Director Joell H. Lales and Policy Development and Coordination Division OIC-Chief Sarah L. Bales respectively, held a meeting on April 15, 2025 in Quezon City.

As the lead agency for the ASEAN Technical Working Group on Agricultural Research and Development, DA-BAR briefed DA-PCAF of the documents and initiatives slated for enhancement via consultations with private stakeholders. Key areas included strengthening

public-private partnerships, integrative policy frameworks, and regional efforts under the proposed PHSAI.

Lales underscored the importance of partnering with DA-PCAF, emphasizing the role of research and policy in creating industry-driven, responsive development initiatives.

"We are collaborating with DA-PCAF to reshape the PHSAI framework into a representation that encompasses all agencies involved in the Philippine Sustainable Agriculture, aiming to elevate R4D to impactful policy changes at the national level," Lales highlighted.

The PHSAI, a framework set to be adapted to support the ASEAN Action Plan on Sustainable Agriculture, aims to support the ASEAN Economic Community Agenda by addressing key challenges and opportunities in sustainable agriculture. **KRISTINA S. ESTRADA**

TECH HIGHLIGHT

Tablea Tops



Tablea is made with rare, single estate cacao beans grown in Isabela. Tablea or 100% chocolate is usually heated and combined with water to make a traditional Filipino chocolate drink called Sikulati.

TECHNOLOGY DEVELOPER
**Cagayan Valley Cacao Development Center,
Isabela State University**

TECHNOLOGY TAKERS

- Nicolas Integrated Farm
- HJ Guieb Food Products
- Beacon Cacao Agricultural Development Corporation
- Nueva Vizcaya Cacao Growers Association

For more details, please contact
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chats on the farm

Sa paparating na tulong ng DA-BAR sa aming kooperatiba, mas maraming pineapple farmers dito sa Camarines Norte na ang matutulungan namin. Sa ngayon, yung presyo ng pineapple ng aming mga farmers binabarat lang ng mga mamimili. Kinukuha ang malalaki lang at iniwan yung maliliit. Isa ito sa mga losses ng aming magsasaka rito. Pero dahil magkakaroon na kami ng suporta galing sa DA-BAR, hindi na malulugi ang aming farmers. Kumbaga, ito na po ang aming magandang simula.



NIDA Q. DE LUNA
General Manager
Camarines Norte Primary Multi-Purpose Cooperative

Pinoy Gourmix feeds students in FFM 2025



“DA-BAR is fully supporting platforms like this that reconnect the younger generation to agriculture as a vital part of our culture and ultimately, our future. The Pinoy Gourmix is only among the many R4D-generated products we have, and as we expose these to our children, then we spark awareness and appreciation for agricultural products,” said DA-BAR Director Junel B. Soriano. **LARA ABEGAIL S. ESPIRITU**

To celebrate this year's Filipino Food Month, the DA-BAR, in partnership with the DA-Agribusiness and Marketing Assistance Service (AMAS) conducted a feeding program at Mines Elementary School in Quezon City on April 7, 2025.

Showcasing the value of research for development (R4D), the bureau introduced Pinoy Gourmix, a BAR-funded product developed by the DA-Cagayan Valley. Made from locally sourced

high value crops including white corn, adlay, mungbean, and vegetables, Pinoy Gourmix is a healthy and easy to prepare meal for school children.

Aligned with this year's FFM theme, “Sarap ng Pagkaing Pilipino: Yaman ng Kasaysayan, Kultura, at Pagkatao,” the bureau promotes R4D technologies that improve health and nutrition and celebrate Filipino culinary, while supporting local farmers and their communities.

STAFF SPOTLIGHT

Welcome to DA-BAR,
Camille!



Camille M. Castillo
Human Resource Management Officer III
AFD-HRMU

OFFICIAL ENGAGEMENTS



The briefing with DA Undersecretary for Operations and Agri-Fisheries Mechanization Roger V. Navarro, the National Agriculture and Fisheries Resources, Research and Extension for Development Network (AFRREDN) chair, held on April 7, 2025 in Quezon City sought to align national priorities and strategies for the effective implementation of the network, ultimately working towards better livelihoods for Filipino farmers and fisherfolk.

AFRREDN Co-chairpersons, DA-BAR Director Junel B. Soriano and DA-ATI Director Remelyn R. Recoter, discussed plans and activities for 2025, and presented the network's ways forward. **KRISTINA S. ESTRADA**



On April 10, 2025, DA-BAR met with relevant DA agencies to prepare for the first-ever Consultative Group on International Agricultural Research (CGIAR) Symposium in the Philippines, which will take place in May 2025.

This meeting aimed to ensure everyone was aligned for the event, which seeks to build local and global connections to tackle issues in Philippine agriculture and promote progress in technology, research, and knowledge exchange for the benefit of both local and international agricultural communities. **KRISTINA S. ESTRADA**



DA-BAR Director Junel B. Soriano and DA-PhilFIDA Director Arnold I. Atienza met on April 10, 2025 in Quezon City to strengthen efforts in abaca research for development (R4D). Their discussion focused on expanding the use of technologies like the LAMPPar Kit, improving fiber innovation, and ensuring research aligns with the requirements of local abaca farmers and processors.

Both agencies emphasized the significance of protecting intellectual property, with DA-BAR offering support to enhance DA-PhilFIDA's initiatives in this area for agricultural and fisheries research outputs. **MA ELOISA H. AQUINO**



BAR Chronicle highlights the bureau's activities as the country's national coordinating agency for agriculture and fisheries R4D, and provides updates on NaRDSAF-member institutions.

We welcome and appreciate your comments and suggestions. Reach us via email ikm@bar.gov.ph.

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Key activities at a glance

APRIL 2025

- 7 Exploratory meeting with the Public-Private Partnership Center
- 8 DA-BAR, DOST-PCAARRD harmonization meeting
- 11 2025 Gawad Saka OAS and OAR deliberation
- 14 Inception meeting of DA-CALABARZON-led organic agriculture project
- 14 DA-BAR, DA-BAFS meeting on standards policy coordination