

# PhilRice Magazine

A quarterly publication  
of the Department of Agriculture–  
Philippine Rice Research Institute

*Keeping  
farming communities  
to heart*

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## ABOUT THE COVER



Keeping farmers and their communities to heart.

After the pandemic brought us to a standstill, the world is gradually recovering from the negativities it marked in some sectors. Currently, the agriculture sector is blooming, growing from the pit of the pandemic, which proves that it is one of the pillars of our survival. PhilRice continues to contribute in the revitalizing of the sector through its new strategic plan and programs.



2001 Gawad Florendo  
Awardee

2007 Binhi Hall of Fame  
Awardee

2009, 2018, 2019 Binhi Agri  
Magazine of the Year

2022 Outstanding Institution  
for Science Journalism

2022 Best Free Food Publications

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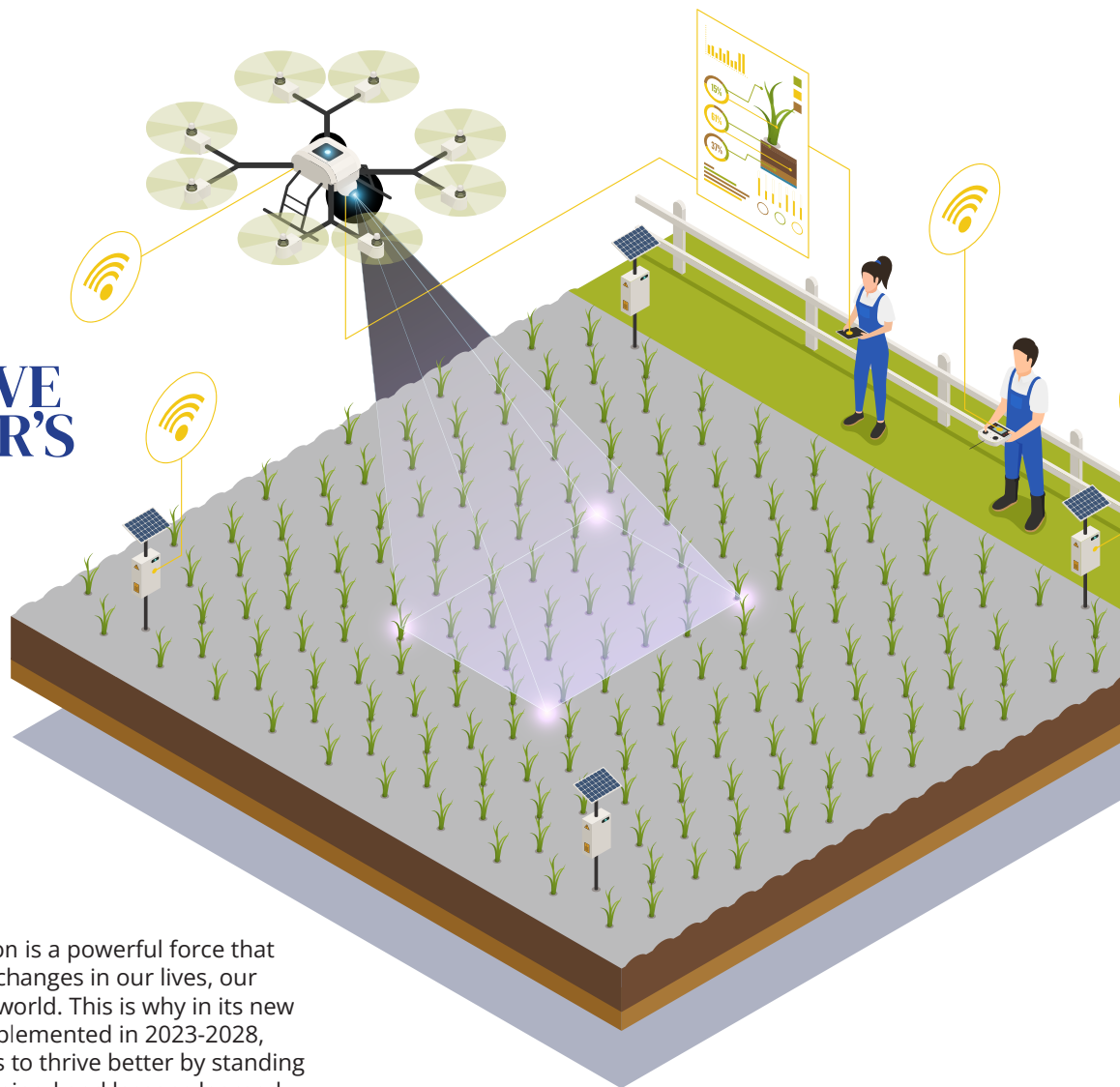
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# EXECUTIVE DIRECTOR'S NOTE

JOHN C. DE LEON



Personal transformation is a powerful force that can lead to significant changes in our lives, our relationships, and the world. This is why in its new strategic plan to be implemented in 2023-2028, the Institute endeavors to thrive better by standing on the achievements gained and lessons learned from the past.

Responding to the first among the 8-point economic agenda of Philippine President and Department of Agriculture Secretary Ferdinand R. Marcos Jr., which is “to protect the purchasing power of families through food security,” our new strategic plan marks a significant shift from a commodity-focused to a people-centric outlook, recognizing that the prosperity of farmers and their communities is key to ensuring sufficient and affordable rice for the country.

We introduce the new strategic plan in this issue. At the heart of this strategic plan is a vision for advanced science and technology that will contribute to the growth of prosperous rice-farming communities. Meanwhile, our mission is to achieve this goal through climate-smart, socially inclusive, demand-driven, and partnership-based rice research for development and extension.

We also highlight our banner programs, which include the Rice Seeds Systems (RSS), Scaling

Modern and Adaptive Rice Technologies for Prosperous Farming Communities (SMART Farm), and Rice Business Innovations System (RiceBis) 2.0. Special programs such as RCEF Seed and Extension and Malusog Rice are also featured.

As a public institution, PhilRice helps the country in delivering services contributing to the administration's other 8-point economic agenda. Other than helping ensure food security, we also address learning losses, expand digital infrastructure, and establish livable and sustainable communities. Our initiatives in these areas are included in this issue.

We believe that our strategic plan and other activities reflect the importance of taking responsibility for our own lives and making the first move toward creating a better world. By prioritizing the prosperity of farmers and their communities, we are demonstrating that true transformation can only happen when we begin with ourselves. 🌱

To help in the government's implementation of a long-term solution to raise agricultural productivity, PhilRice launched its new vision, "Advanced science and technology for prosperous rice-farming communities toward sufficient and affordable rice for all."

Detailed in the Institute's new five-year strategic plan, the vision directs its banner programs from the commodity-focused to the people-centric outlook recognizing that the prosperity of farmers and their communities is key to having sufficient and affordable rice for the country.

"We cannot let the farmers poor so we can have cheap but low-quality rice, which consumers may not actually want. We must first lift our farmers

## New vision crafted for sufficient, affordable rice

and their communities out of poverty, so they become strong contributors to our society's goals," Dr. John C. de Leon, executive director, said.

With the new vision, rice farming technologies on increasing productivity and reducing production costs will be further advanced and that easy access on these will be guaranteed.

"We envision prosperous rice-farming communities that are organized and engaged in self-sustaining agro-enterprises with profitable, demand-driven, and evolving business models," he said.

As sufficient rice must also be affordable to consumers, PhilRice will also empower consumers with sustained access to and informed choices for safe, healthy, and affordable rice.

PhilRice will work with its stakeholders to ensure that the new vision is implemented in an inclusive manner that will benefit the rice value chain.

"We understand that affordable and sustainable rice production is not just about increasing yields, but also improving the lives of farmers and providing quality rice to the Filipino people," de Leon said. - **KIARA MAE E. PANYO**

## PhilRice, IRRI strengthen partnership

The International Rice Research Institute (IRRI) expressed its commitment in collaborating with PhilRice to help address future challenges in the rice sector.

In a roundtable discussion on March 28 at Science City of Muñoz, Nueva Ecija, Dr. Jean Balie, IRRI director general, and Dr. John C. de Leon, PhilRice executive director, explored possible tie ups on direct dry-seeded rice, nutritious products and diets, climate resilient farming, and accelerated impact.



"As PhilRice is IRRI's primary partner, I would like to reiterate that it is critical for us to maintain this level of engagement and ensure our partnership stays cohesive, strong, and relevant. It is our role to provide services and nourish the farmers and networks. We can work together and make sure to make this a success," Balie said.

Among the highlights of the discussions include the PhilRice's new strategic plan, global rice R&D direction, and developing a hero rice.

Also participating in the Institute's Lakbay Palay, IRRI officials took note of the Filipino rice farmer's entrepreneurial skills as they engage in directly marketing their produce.

## Directors' Bantay Palay app project earns award

The Asian Institute of Digital Transformation confers PhilRice the Digirati Distinction Award for the development of Bantay Palay app, which aims to provide real-time market price of newly-harvested rice

for farmers to sell their produce at best price.

The award was given to Dr. John de Leon, PhilRice executive director, and Dr. Eduardo Jimmy Quilang

and Dr. Karen Eloisa Barroga, PhilRice deputy executive directors, during the graduation ceremony of the Executive Masterclass in Digital Transformation Program at the Union Bank Office in San Pedro, Laguna, March 31.

The app was soft launched to more than 1,000 farmers during the Institute's Lakbay Palay. - **CHRISTINE MAE A. NICOLAS**



## Farmers thank RCEF

Farmers lead the expression of gratitude to the implementation of the Rice Competitiveness Enhancement Fund(RCEF) Program in a rice growers' gathering in Science City of Muñoz, Nueva Ecija, March 29-30.

With the theme, "RCEF, Ano na?!", Lakbay Palay provided a platform for farmers including Frianina Resplandor, Atty. Mamaerto Villanueva, Eulogio Federizo, and Nariza Tan to share their experiences on availing program's provision on training, seed, machines, and credit.

Under its Extension Program, around 5 million rice-related information were extended and disseminated while about 200,000 farmers and extension workers were trained since 2019.

"The Rice Specialists Training Course did not only help us but also our community. We were able to enhance our knowledge and skills on farming, which we are now sharing to our fellow farmers. The farmers we have trained in six of the 10 villages have already formed their associations while our yield increased from 5.6t/ha to 7.5t/ha," Resplandor of Guimba, Nueva Ecija said.

Records also show that more than 11 million sacks (containing 20kg each) of certified inbred rice seeds were distributed to the rice farmers who have received the provision four to six times over the past four years.

"Before RCEF, we used to harvest a little over 4t/ha. By planting the certified inbred rice seeds from the program,

we're now enjoying an abundant harvest of at least 6t/ha," Villanueva of Candaba, Pampanga, said.

Meanwhile, more than 20,000 units of farm machines such as hand tractors, precision seeders, reapers, mobile grain dryers, and mobile rice mills were also awarded to farmers and cooperatives.

"Through the machines provided by the program, our cooperative's assets grew from P116,000 to P5.9M," Federizo of Bongabon, Nueva Ecija shared.

Meanwhile, Tan of Zaragoza, Nueva Ecija shared that their harvests have increased by almost 2t/ha with enough inputs, which they were able to afford through a loan with 2% annual interest from the program. RCEF has already released more than P3B in loans to farmers and farmer-cooperatives to support their agricultural ventures with minimal interest.

A ceremonial distribution of certified inbred seed and awarding of financial assistance were also held during the program, which was participated by more than 1,000 farmers from Luzon and Mindanao.

## Intellectual property body recognizes PhilRice

The Intellectual Property Office of the Philippines (IPOPHL) confers the Gold Award to PhilRice for its achievement on intellectual property (IP) in a ceremony at Sequoia Hotel Manila, March 28.

IPOPHL recognizes the Institute's Innovation and Technology Support Office for conducting 12 IP awareness activities, two patent search seminars, and one patent drafting seminar in 2022.

PhilRice has also filed invention patents for six technologies including straight-row planted weeder for

wet and dry field, mini rice combine harvesting apparatus for small paddy fields, and process for selecting rice varieties for varietal mixture.

Patent for the process of making instant GABA rice congee and formulation used thereto, hypotonic freshening spray and a method of producing the same, method and platform for image acquisition of trichome density and orientation for characterizing stem borer resistance in rice were also filed.

In 2022, PhilRice also commercialized the seed cleaner, microtiller, laboy tiller, combine harvester, reversible dryer, and buoyant tiller through licensing agreements with machine manufacturers. These have duly undergone fairness opinion board evaluations facilitated by the Department of Science and Technology as part of the requirements for RA 10055 or the Technology Transfer Act of 2009. - **CHONA MAE S. NARVADEZ**



**"FiLay."** The paddy rice art of FiLay loveteam of Barbie Forteza and David Licaucio of GMA-7's *Maria Clara at Ibarra* is gaining public interest in farming, particularly from the netizens and youth. The rice paddy art, planted with PSB Rc10 and IR1522, used the 3D anamorphosis principle – an art technique used for distorted artwork that appears normal when viewed from a certain angle. IR1522 is a traditional variety with purple leaves. More than a thousand rice growers and extension workers have appreciated the artwork at the FutureRice Farm during a recent farmers' gathering. Over 100 transplanters including Grade 5 and 6 students from nearby Maligaya Elementary School took part in planting the paddy art.

The use of the precision seeder in direct-seeded rice did not disappoint the farmers of Sta. Cruz, Zambales for the second time as observed in a field day and forum, Jan. 26.

The potential of this farming equipment that accurately places the desired number of seeds at a precise depth and spacing, was already witnessed by the same participants who gave their positive assessment in Sept. and Oct. 2022.

Testifying to almost 100 partakers, Randy Montalla, one of the four

## Precision seeder performs well in Zambales

farmer-cooperators, said that his yield increased by almost 1t/ha from his previous yield of 1.93t last cropping season.

Montalla also said that he applied the knowledge he gained from the project's field school, which includes the use of certified seeds and proper weed management. He applied pretilachlor

2-3 days after sowing (DAS) for pre-emergence and bispyribac sodium 12-18 DAS for post-emergence weed control.

He also did not apply insecticide during the first 40 days of direct seeding to build the population of beneficial insects in the field.





"I used to apply insecticide to my field twice a week. Now, my field is insecticide-free as I've learned proper pest management from PhilRice," farmer-cooperator Edgar Movilla said.

Farmers are gradually shifting to direct seeding in establishing their crops to reduce labor costs, which now range P400-P500 a day per person, and outsmart labor scarcity.

"In Zambales, about 9,000 of its more than 35,000ha rice area are already planted through direct seeding," Provincial Agriculturist Crisostomo Rabaca reported.

"Building capacity on promoting economically and environmentally efficient rice production through direct-seeded rice (DSR)" is a project jointly implemented by DA-PhilRice, Food and Agriculture Organization (FAO), and the local government of Zambales, which aims to strengthen the use of direct-seeding technologies.

- CHRISTINE MAE A. NICOLAS



**Together #WEcanbeEquALL.** PhilRice kicks off the National Women's Month by launching the country's new recurring theme, "WE for gender equality and inclusive society." To be used from this year until 2028, the theme signifies the country's support in closing gender gaps. Anchored on the Institute's mandate, PhilRice continues to ensure that gender and development is integrated in its new strategic plan, ensuring that all stakeholders are provided with equal opportunities regardless of gender, age, or abilities.



**DOT accredited.** PhilRice Hostel in Science City of Muñoz, Nueva Ecija is now a Department of Tourism (DOT)-accredited lodging under the Mabuhay Accommodation category. With this accreditation, PhilRice Hostel is now recognized by the DOT as compliant to the standards for the operation of tourism facilities and services set by the Department. The PhilRice Hostel is under the list of primary tourism enterprises, which are periodically required to obtain accreditation from the DOT to ensure the quality of its facilities and services. - CHONA MAE S. NARVADEZ

# Bamboo-bin dryer helps Ilocos farmers reduce drying expenses

JOSHUA P. MENDOZA

As the country experiences an average of 20 tropical cyclones per year, the introduction of the low-cost bamboo-bin dryer of PhilRice Batac is expected to ease drying of *palay* especially during the rainy season.

The bamboo-bin dryer costs only P32,000 per unit, as against flatbed and recirculating dryers, that cost P670,000 and P3.5M.

It will also reduce farmers' sun-drying expenses by up to 70% (P3,000-P10,000). Drying cost is estimated at P1.73/kg at 17t/year volume, with a payback period of a little over 11 months and a return on investment of 109%.

According to nine farmer-adopters, the bamboo-bin dryer is better than sun-drying in terms of capacity, cost, convenience of operation, and quality of dried *palay*. Farmers can also do other tasks while drying their grains.

"I saved on expenses and I did not have to stir the grains on the concrete road where we used to dry. There are no pebbles mixed and can leave after loading it," said Harlie Ulep, representative of the Bingao Small Water Impounding System Association, Inc. (Bingao SWISA) in Batac City, Ilocos Norte.

## The bamboo-bin dryer

The dryer consists of three main parts: (1) the drying bin made of two concentric bamboo mats (the bigger one stores grains; the smaller one, wrapped around a steel bar frame, serves as plenum); (2) the blower, with a small electric motor and automotive fan blade that provides the drying air; and (3) the heater, 2-kW resistor coil, which slightly raises the temperature of drying air.

Outstanding features include 10-20cav capacity per batch for individual

farmers, multi-crop capability, complete drying to 13-14% moisture content fit for seed purposes.

It also has a versatile blower that could be used to clean grains, and it is portable, easy-to-transport, install, and operate.

## Origin

The University of Agriculture and Forestry in Vietnam designed a low-cost dryer in the 1990s, which Vietnamese use. The International Rice Research Institute (IRRI) developed and





With the use of bamboo bin-dryer, farmers' sun drying expenses can be reduced by up to 70% or P3,000-P10,000.



**This bamboo-bin dryer is better because the grains are uniformly dried, fast, and cheap.**



**- ROGELIO DELA CRUZ**

introduced the technology by providing technical assistance to PhilRice.

First introduced in Ilocos Norte in 1999, farmers evaluated the technology showing that *palay* with 21% moisture content *palay* could be dried up to 13.5% in 15 hours.

Dr. Mary Ann Baradi, PhilRice Batac branch director, said that the technology was approved as a one-year capstone project for the Public Management Development Program of the Development Academy of the Philippines, which is expected to

increase and sustain the adoption of the low-cost dryer.

### Adoption

Through an integrated approach, four units of the dryer are now being used by the Bingao SWISA and United Sagpat Zanjera in San Nicolas and Dingras, Ilocos Norte.

A unit was fabricated by a farmer-electrician in San Nicolas and another was acquired by a farmer in Candon City, Ilocos Sur.

"I saw the potential of this technology when they conducted the training on its use so I made my own dryer," said fabricator William Caraang Sr.

"This bamboo-bin dryer is better because the grains are uniformly dried, fast, and cheap," Rogelio dela Cruz, Bingao SWISA president, said.

Farmer Catalina dela Cruz added that the dryer is more convenient to use than sun-drying as she could do other household chores while waiting for the machine to complete its operation. 🍌

# RICE ACROSS THE COUNTRY

COMPILED BY VANNEZA B. ISIDRO

## More Ilocano rice farmers use the mechanical transplanter

With the Strategically Modernized and Robust Technologies for Competitive and Secure Rice Industry (SMARTer Rice) project kicking off in Batac City, Ilocos Norte, farmers have already adopted the use of the mechanical transplanter.

The 15 farmers who participated in the SMARTer Rice training have encouraged other 18 fellow farmers to establish their crop with the machine and have been following the recommended practices they learned from the training.

According to farmer-partner Frederick Salmasan, using the transplanter has made farming much easier and cost-saving. By shifting from manual to mechanical, he was able to save P7,000 in an 8,200-sqm area.

"We have been using the mechanical transplanter for two seasons now and it saved us from hiring 8-12 people at P12,000 per hectare," he said.



MELVIN S. ANDRES

Farmer Rodel Gaoat remembered the first time the transplanter was introduced to him.

"It was difficult unlearning my own farming practices. I was hesitant to adopt this technology at first because I thought that 40kg seeds per hectare would not be enough. Good thing, I tried it," Gaoat recalled.

Recently, the local government of Batac City also procured a unit of the walk-

behind mechanical transplanter for a farmer association in Brgy. San Pedro. - **FRANZEL MONIQUE D. BONILLA**

## Rice-duck techno scales out in Tiaong

PhilRice Los Baños is scaling out the rice-duck technology in Tiaong, Quezon covering 50ha, in partnership with the DA-Regional Field Office 4-A and UP Los Baños.

Under the project, participating farmers will be trained on the integrated rice-duck farming system for better pest control and richer income. More than a hundred ducks will also be distributed to rice growers in Barangays Bulakin, Lalig, Palagaran, and Tagbakin.

The Rice Business Innovations System program will guide the cooperators in their agri-enterprise, link them to the market, and train them on inbred rice production.

Meanwhile, the Agricultural Training Institute will also introduce financial literacy and marketing.

The local government units and DA-Regional Crop Protection Center are also involved in the project.

- **RHEA GRACE Y. MALAPASCUA**



RHEA GRACE Y. MALAPASCUA



DENISE BIANCA Y. SADULLO

## Farmer-leaders upgrade knowledge

Members of the Municipal Agriculture and Fisheries Council (MAFC) of Libmanan, Camarines Sur were refreshed about community seed banking and post-harvest handling techniques during their visit to the PhilRice Bicol station.

"Community seed banking is important in ensuring local seed supply while post-harvest techniques are a must in reducing farming costs," said Hansel Arcilla, MAFC coordinator.

The farmer-leaders also witnessed the actual operation of the farm machines turtle tiller, seed cleaner, and flatbed dryer. Recommendations on variety and seed selection and nutrient management were also introduced to the group. - **MICHAEL L. SATUITO**

## Getting ready for 2023 area expansion

In preparation for the expansion of rice area coverage beginning this wet season, the Isabela station is conducting a series of partnership meetings to harmonize the implementation of seed programs in Region 2 and Cordillera.

The move is in response to the rationalizing of DA programs, which integrates the Rice Competitiveness Enhancement Fund (RCEF) to the National Rice Program (NRP) through the Masagana 150. The merged program aims to increase rice production to 150cav/ha through high-yielding rice varieties.

## Languyan farmers ready to plant

Farmers in Brgy. Darussalam, Languyan, Tawi-Tawi have prepared their planting materials after completing a week-course on the PalayCheck System facilitated by PhilRice Midsayap.

The training equipped more than 30 farmer-members of the Siratang Food Basket Association.

Researcher Datu Ali Sumlay trained them on proper fertilizer management, agroecosystem analysis, pest damage assessment, among other rice production components.

A techno-demo farm was also established in the area to showcase the performance of high-yielding rice varieties.

The project involves the local government unit of Languyan headed by Mayor Abduhasan Ismail Sali and the Ministry of Agriculture, Fisheries, and Agrarian Reform (MAFAR) Tawi-Tawi.

- DATU ALI N. SUMLAY



DATU ALI N. SUMLAY



VIRGINIA P. LUCIANO

Dr. Andres dela Cruz Jr., lead of RCEF Isabela, recently convened 21 city/municipal agriculturists of Cagayan to present the seed allocations and varieties to be distributed in the province, implementing guidelines, and use of the RCEF seed monitoring system.

"I thank PhilRice because Cagayan will have enough supply of inbred seeds," Dr. Pearlita Mabasa, provincial agriculturist, said.

This 2023 dry season, the station had distributed 131,100 bags of inbred rice seeds in Nueva Vizcaya, Quirino, Ifugao, and Kalinga. With the Masagana Inbred Program, additional 252,226 bags are expected to be distributed this coming wet season in the new coverage areas including Abra, Apayao, Benguet, Cagayan, Isabela, and Mountain Province.

- DIANA P. LIM



ANGEL JOVIT C. NOJA

## Trainers to share new knowledge

Agricultural extension workers and farmer field school (FFS) trainers from Northern Mindanao have pledged to share the new knowledge they acquired

from an RCEF training recently conducted in Lala, Lanao del Norte.

"Farmers already have a solid foundation for their decision-making, especially those who've been growing rice for decades. However, farming practices have to be updated based on new research results for increased productivity. It's our role to encourage farmers to try these new practices," Vaniza Cambonga, FFS trainer from Lanao Norte National Agro Industrial School, said.

Cambonga intends to teach farmers in their area on proper rat management as it is a common problem in their locality.

"I will educate them on field sanitation and community trapping to address this concern," she said. - KRISTIANNE MARIE C. DAVID



**₱256,779**

Average yearly income  
of a rice farming household

# One with the farmers' aspirations

INFOGRAPHICS:

ANDREI B. LANUZA, CARLO G. DACUMOS

Twenty-eight years of farming experience may not be enough for our rice growers to achieve the 41% increase to reach their yield aspiration.

While the rice industry recorded high production in 2020 and 2021, perennial challenges continue to hound the industry players. A great number of rice farmers are still poor and afflicted with low productivity and high cost production cost. War-caused disruptions in the global food supply chain exacerbate the situation by making agricultural inputs such as fertilizer and fuel more expensive.

Oftentimes, farmers have no other options but sell their fresh *palay* at low prices. Small farm sizes also impede many of the farmers' scaling opportunities. Frequent natural calamities associated with changing climate increase their production risk and minimize their livelihood options. Weak institutions, such as fragmented agricultural extension systems and unclear roles among the national agencies and local government units, make it more difficult for farmers to access agriculture services.

As the country transitioned to a more liberal international trade, rice market players face stiff competition with better quality and cheaper imports, and sometimes smuggled rice.

On the demand side, rising food prices bring down consumers' purchasing power, eventually leading to lower food intake and higher malnutrition. If not addressed decisively, all these difficulties will derail the attainment of the eight-point economic agenda that the government has set to attain by 2028.

In this new strategic plan, we will implement client-centric strategies in our research for development



**80%**

Rely on rice farming as  
a major source of income



**79%**

Have a household member  
owning a smartphone



## RICE ACROSS THE COUNTRY

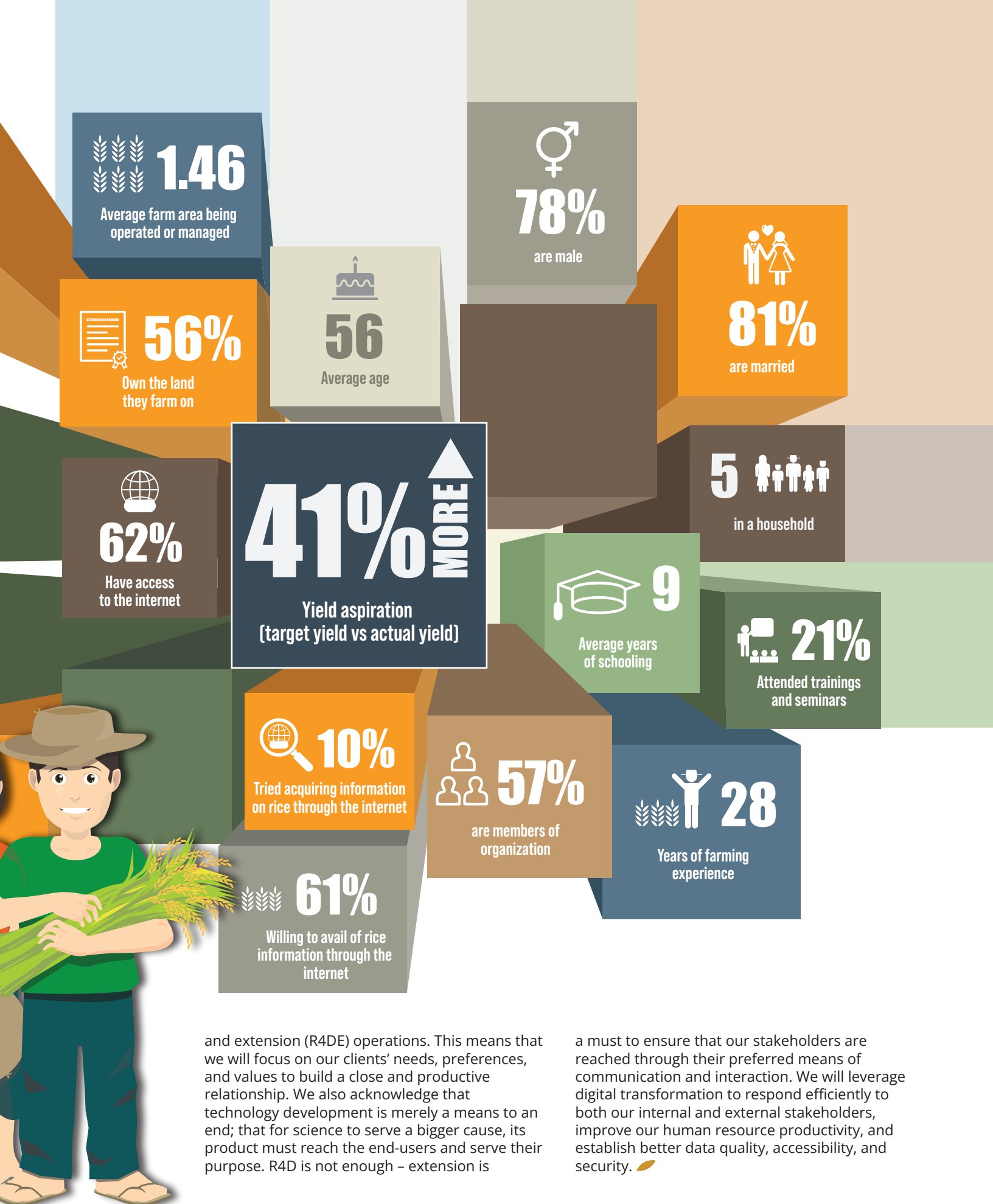
### Malusog Rice Program launched in Antique

The local government unit of Antique launched the Malusog Rice Program in a technical briefing participated by 100 households, April 1.

In the activity, residents in Patnongon and Sibalom received 5kg of milled Malusog Rice each household while the program team of PhilRice Negros encouraged them to adopt a healthy family lifestyle.

Malusog Rice is a special rice variety developed by PhilRice that contains high levels of beta-carotene, a nutrient that helps address vitamin A deficiency (VAD), a major public health concern in the country

In support of the Malusog Rice Program, the provincial government of Antique passed a resolution on Feb 23 to help address the high prevalence of VAD and malnutrition in the province. • CHRISTINE MAE A. NICOLAS





FLORDELIZA H. BORDEY

# Better PhilRice, Better Rice Communities

At PhilRice, we firmly believe that Filipinos deserve a comfortable and secure life. Hence, we have crafted our Strategic Plan 2023-2028 to take part in protecting the purchasing power of families through food security - the first among the eight-point economic agenda of President and DA Secretary Ferdinand R. Marcos Jr. under the Philippine Development Plan. With the vision "Advanced science and technology for prosperous rice communities toward sufficient and affordable rice for all," the Institute shall pursue climate-smart, socially inclusive, demand-driven, and partnership-based research for development and extension (R4DE).

Our Strategic Plan is emboldened by three main features: client-centricity; expanded R4D paradigm to include extension; and embracing digital transformation as a key operational strategy.

For us to recover fully from the pandemic and seize the opportunity to build back better, we lay down our plan by standing on the achievements gained and lessons learned from the past. These learnings point to a pathway where we achieve our desired impact by focusing R4DE operations on our ultimate clientele - the farmers

and consumers. As we shift from commodity-oriented toward a client-centric R4DE, we will look closer on their needs, preferences, and values to serve them better.

We realize that technology development is merely a means to an end. For science to serve a bigger cause, its products must reach the end-users and serve their purpose. Research for development is not enough - extension is a must to ensure that clients and stakeholders are reached through their preferred means of communication and interaction. We will bring R4DE services further down to the grassroots and along the margins of the society. With this expanded paradigm, PhilRice is now poised to level-up in providing better services to our clients.

Our vision recognizes that prosperity of farmers and their communities is key to having sufficient and affordable rice for the nation. Impoverished farming neighborhoods will never be able to produce sufficient rice for the country as a whole if they themselves are food-insecure. They should be able to feed themselves before they can feed the nation.

We also understand that having sufficient rice is useless if consumers

cannot afford it. Hence, we want to empower consumers by providing them sustained access to and informed choices for safe, healthy, and affordable rice. The key word is affordability or being reasonably priced, which gives a positive sense of bringing good value for money.

As we enter the era of the 5th industrial revolution, we will leverage digital transformation to respond efficiently to both our internal and external stakeholders, improve our human resource productivity, and enhance data quality, accessibility and security. We will integrate all our smart technologies into one system to widen the reach of our platforms and be more responsive to the needs of our clients. By fostering a more balanced working relationship between human creativity and increasingly smart technologies, we will be more strategic in our contribution to the development of the rice industry.

### Advancing S&T

We will use our core competence in R4DE to advance science and technology for a greater cause. By so doing, we want to increase farmers' access to technologies that are scalable, adaptive, resilience-enhancing,



## **Our vision recognizes that prosperity of farmers and their communities is key to having sufficient and affordable rice for the nation.**

sustainable, and progressively addressing location-specific challenges in rice production.

More specifically, we aim to contribute to having: (1) prosperous and empowered rice-farming communities, (2) nutrition-secured Filipinos, and (3) a resilient and sustainable rice industry by the end of 2028.

To meet our goals and targets, PhilRice will implement three new flagship R4DE programs: (1) Rice Seeds Systems (RSS); (2) Scaling Modern and Adaptive Rice Technologies for Prosperous Farming Communities (SMART Farm); and (3) Rice Business Innovations System (RiceBIS) 2.0.

RSS involves improving and sustaining a vigorous seed supply chain by developing innovative approaches toward seed security. On the

other hand, SMART Farm focuses on innovating rice farming systems to help farmers boost their yield and income through the development of cutting-edge climate-resilient technologies in the whole value chain. Finally, RiceBIS 2.0 encompasses improving the production to marketing of farmers' groups with the goal of transforming rice-based farming communities into inclusive, competitive, and sustainable agro-entrepreneurs.

Along with the Institute's special programs on Rice Competitiveness Enhancement Fund Seed and Extension, and Malusog (Golden) Rice, as well as the discipline and area-based projects, these flagship programs will deliver R4DE outputs that will inch us closer to our desired outcomes such as improved farmers' productivity and income, increased consumers' access to affordable, safe and nutritious rice, and stable rice supply.

### **Scaling and partnership**

The new Strategic Plan is also anchored on scaling and partnership. Scaling is crucial because we want to ensure that our programs and technologies will result in adoption and significantly impact more communities nationwide. The Institute understands that it cannot deliver its desired impacts by itself, hence, we establish partnership to create a whole-of-nation approach, enabling farmers and other stakeholders within the agriculture value chain, including the SUCs, civil society, and private sector to strongly work together to intensify food production.

We recognize that we can only successfully execute this Strategic Plan if we continuously develop our Institute internally by investing in our human resources, organizational culture, and physical and digital infrastructures; improving our financial, administrative, and procurement systems; and generating revenue streams on top of relying on the national government and external fund sources.

Through this fresh Strategic Plan 2023-2028, we look ahead to a better PhilRice for better rice communities. 🌾



# Enough rice supply from improved access and quality of seed

CHARISMA LOVE B. GADO-GONZALES

INFOGRAPHICS: ANDREI B. LANUZA, CARLO G. DACUMOS

Farmers in Brgy. Maggok, Hungduan, Ifugao used to walk 2-3 hours to reach the marker to buy rice. This is ironic in a farming community, in which rice is expected to be in abundance.

But with improved access on high-quality seeds of recommended, high-yielding varieties, farmers' rice supply is already enough for their household until the next harvest.

The Rice Seeds Systems (RSS) Program aims to duplicate the success of Maggok farmers in providing enough rice supply through good access on seeds. RSS targets to improve and ensure a sustainable and vigorous seed supply chain in the country, and ensures that high-quality seeds of the preferred rice varieties will be produced in sufficient quantities in a timely manner.

The seed production components expected to deliver rice seed sufficiency are the inbred seed production and hybrid parentals/F1 seed multiplication; the resulting high-quality rice seeds are for distribution and utilization by Rice Competitiveness Enhancement Fund, National Rice Program, and other rice stakeholders in the seed value chain. These two components shall be secured by robust and strengthened seed quality control, modernized seed purity analysis using high-throughput DNA fingerprinting, improved seed processing and storage conditions, and stricter crop health monitoring of all seed production areas in our stations. 🌱

## MAJOR COMPONENTS



GERMPLASM



PURE SEED



STORAGE &  
PROCESSING  
FACILITIES



FARMERS &  
SEED GROWERS

## PROJECTS



Seed production  
for food security



Seed production for special  
market and informal  
seed systems

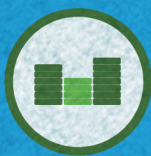


Innovative approaches  
to seed quality  
and production



Seed digital convergence,  
policy and monitoring  
and evaluation

## OUTPUTS



Increased supply of  
quality inbred, hybrid,  
and special varieties.



Better seed quality  
and purity assessment.



Improved seed  
processing and  
storage.

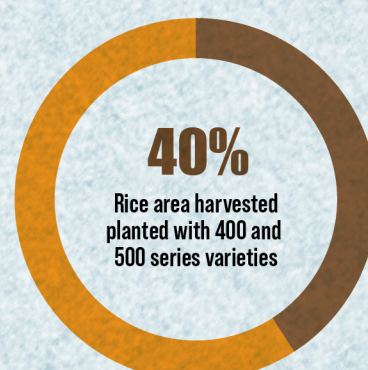
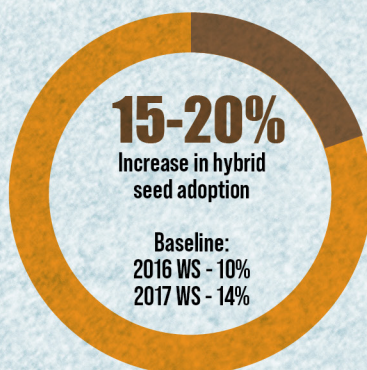
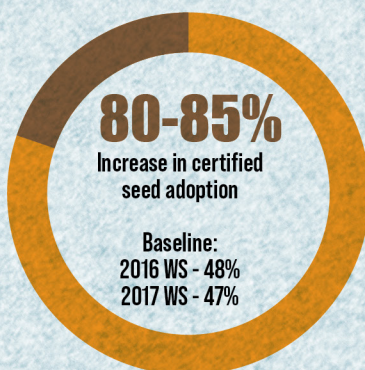


RSS digital  
convergence system.



Rice seed value chain  
analysis.

## OUTCOMES



# Smarter farming for competitive and resilient rice communities

**CHARISMA LOVE B. GADO-GONZALES**  
**INFOGRAPHICS: ANDREI B. LANUZA**

Bermy Miano, chairperson of Guisguis Farmers Association in Zambales, never thought that by improving just one of his practices, he can already save more than P10,000 in a hectare.

"I used to broadcast 80kg of seeds per hectare. But through the precision seeder, 20-40kg of seeds is already enough for a hectare. I also spend P12,000 for 20 farm hands in seeding. With the machine, we only need one operator," he said.

Bermy's experience is a continued inspiration in integrating R&D innovations for greater impact, which is embedded in the Scaling Modern and Adaptive Rice Technologies for Prosperous Farming Communities (SMART Farm).

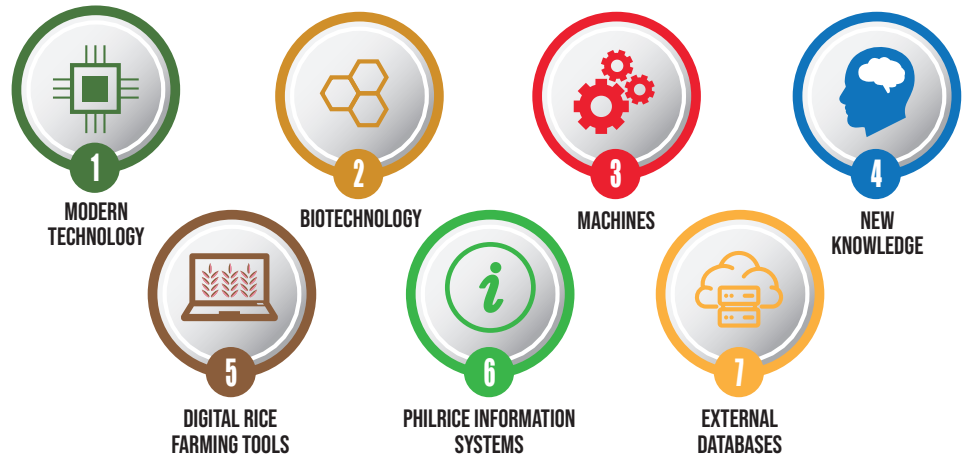
This new program concentrates on innovating rice farming systems through the development of cutting-edge climate-resilient technologies in the whole value chain. These will address yield gaps, location-specific constraints, and data-use efficiency to maximize the quantity and quality of

rice and, thus, ensure the availability and accessibility of nutritious, balanced, and safe rice and rice-based diets to all Filipinos at all times.

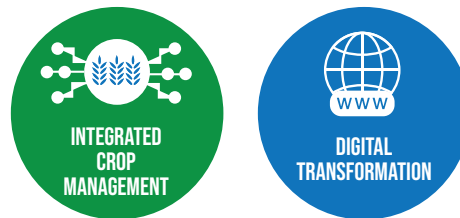
It has two main components - the Integrated Crop Management (ICM) Project, which aims to create a package of technologies (POT) for transplanted and direct-seeded rice; the Digital Transformation (Dx) Project aims to develop an integrated rice crop management platform and scaled up RiceLytics platform.

The program will scale out modern, mechanized, precise, and best-fit mature production technologies for transplanted and direct-seeded rice through a leveled-up ICM such as the PalayCheck System that is also digitized. These ICMs will be deployed using the farm cluster approach, starting in all PhilRice stations and then to RiceBIS communities in collaboration with local government units and relevant agencies to improve farmers' productivity, make farming operations more efficient, and enable data-driven decision-making and governance. 🌱

## INPUTS



## PROJECTS



## SITE-SPECIFIC AND ADAPTIVE DEPLOYMENT AND SCALING



## OUTPUTS



## OUTCOMES



# From rice growers to entrepreneurs

CHARISMA LOVE B. GADO-GONZALES  
INFOGRAPHICS: ANDREI B. LANUZA

The Lupao Pag-ahon Agriculture Cooperative members are not worried about the uncertainties in *palay* prices as their entrepreneurial skill keep them afloat, increasing their income by marketing their produce.

As continuing program, Rice Business Innovations System (RiceBIS 2.0) is geared at developing rice and rice-based enterprises to address farmers' needs in a resilient and sustainable manner, ensuring available and affordable rice. The program aims to revitalize rice-based farming communities through agro-enterprise model development with improved value chain efficiency.

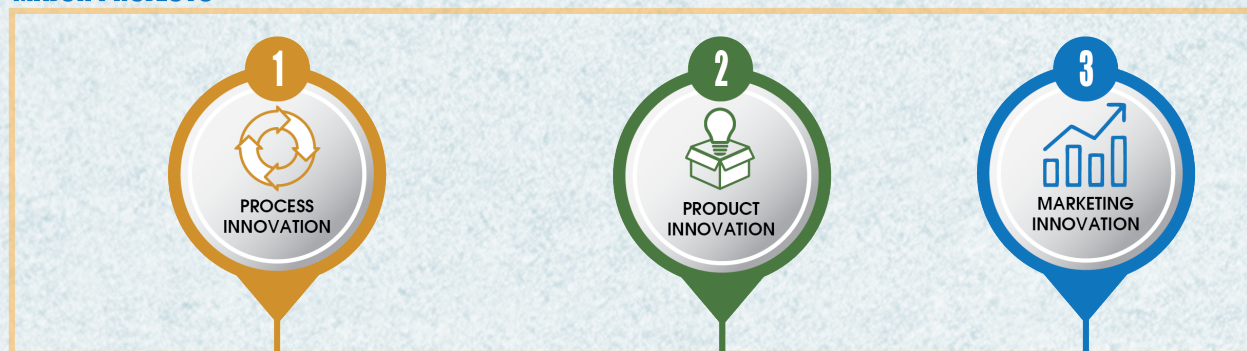
The initial RiceBIS program has introduced business innovations through three components: product, process, and market innovations. Product innovation improves the quality of rice and rice-based products

and enhances service provision of farmer cooperatives and clusters by helping them get necessary farm and product certifications. Process innovation focuses on capability enhancements and technologies to help them market their products and deliver services easier while reaching more customers. Marketing innovation creates, improves, and widens our farmers' target buyers by linking them to institutional markets and introducing new marketing and distribution processes.

All these efforts are expected to develop rice and rice-based products/services investment portfolios for potential investors and small-medium-large business innovation models for diverse groups of farmers; strengthen partnerships both in the public and private spheres to increase competitiveness of farmers, and relevant policies to provide enabling mechanisms for our farmer-entrepreneurs. 🍌



## MAJOR PROJECTS



## COMPONENTS



## OUTPUTS



## OUTCOMES





# Technos, upgraded skill needed for farmers' competitiveness

YOBHEL LOUISSE P. BELTRAN

Where will your P20 take you?

While the P20/kg price tag for rice may seem a far-fetched idea, the SanGlad RiceBIS Farmers Association is turning this wish into a reality for the Midsayap residents. The association's product was first purchased by the locals during the Lakbay Palay event of DA-PhilRice Midsayap last year.

According to Merily Ortega, association president, the Rice Business Innovations System (RiceBIS) Community Program taught them the technologies and necessary skills to produce and market their rice, which enabled them to sell at a lower price.



**With the traditional way of rice planting, we used to hire planters that cost more than P10,000. But when we tried the drum seeder introduced in one of our trainings, we only spent P2,500 for crop establishment.**





With good farming practices and entrepreneurial skills learned from RiceBIS, the SanGlad RiceBIS Farmers Association was able to sell their produce at P20 per kilo.

Through training provided by the program, farmers learn about cost-saving technologies such as farm machines and nutrient management recommendations, which reduced their production cost from P12/kg to P9.50/kg. Their yield also increased from 4t/ha to almost 6t/ha.

"With the traditional way of rice planting, we used to hire planters that cost more than P10,000. But when we tried the drum seeder introduced in one of our trainings, we only spent P2,500 for crop establishment," she said.

By using the Minus-One-Element Technique, farmer-friendly and quick soil analysis kit, their fertilizer expenses also went down from P13,000 to P8,000.

Established in 2019 with only 35 members, the association ventured into rice milling as their first attempt in

agri-enterprise. Although P5 was added to their production cost in milling, they were able to sell their rice higher than the farmgate price.

"Our selling of P20/kg of rice made us quite famous. More than making money from the event, we were able to show that farmers can produce rice at reduced cost, sell it at lower price, and break away from traders' dependence," she said.

As an association, which now grew into 55 official members, members are also provided with easy access on seeds and farm resources.

"We want to help our fellow farmers so they don't have to travel far to the market just to buy seeds and other inputs. It's our goal to make resources easily accessible to our fellows," Ortega added.

Meanwhile, local RiceBIS coordinator and OIC Branch Director Ommal Abdulkadil said for farmers to sustain the enterprise, they must have a sense of ownership, which the program cultivated to the members.

"We encourage them to transact with offices, process the needed papers or documents, and market their products so they will truly feel that they own the business. We are just there to monitor, guide, and provide support if needed," he said.

Currently, SanGlad association members focus on improving their practices and the strategies they learned from the program. They continue selling their own-produced milled rice and added black rice, which they sell at P60/kg.

- With reports from SYLVIA THERESE C. QUIRING



# HIGH-QUALITY, HEALTHY RICE FOR ALL

**INFOGRAPHICS: ANNA MARIE B. BERTO**  
**SUBJECT MATTER SPECIALISTS:**  
**FLORDELIZA H. BORDEY, KAREN ELOISA T. BARROGA,**  
**RONAN G. ZAGADO**

## PhilRice RCEF Seed and Extension Programs

Created to help improve the competitiveness of the Filipino rice farmers, PhilRice leads and co-leads the RCEF Seed and Extension Programs, respectively. The Institute receives an annual budget of P3B to develop, propagate, and promote the use of high-quality inbred rice seeds, strengthen farmers' organizations who are into seed production, and P100M to teach farmers and intermediaries skills in rice production, modern rice farming techniques, seed production, farm mechanization, and knowledge/ technology transfer.



## 4 KEY GOALS

In collaboration with the Mechanization and Credit Programs, RCEF pursues four key goals.



- increase yield up to 5t/ha
- increase rice-value adding income by 30%
- reduce production cost by P3/kg
- reduce postharvest losses by 3-5%

## 77 PROVINCES COVERED

Through its convergence with the DA's National Rice Program, RCEF is set to reach out to almost all provinces in the country, except Batanes, Basilan, Tawi-tawi, and Sulu starting the 2023 wet cropping season.



### 2019-2022 ACCOMPLISHMENTS

**11.59M**

seed bags (20kg/bag) distributed to LGUs

**409**

graduates of season-long Rice Specialists Training Course

**1M**

unique farmer recipients

**1,974**

graduates of Training of Trainers (assigned to PhilRice)

**333**

techno demo sites established

**more than 3M**

copies of IEC materials distributed

**1.5M**

hectares estimated area planted

**18M (not unique)**

estimated recipients of IEC materials

The programs' physical accomplishments contributed to farmers' increased yield, reduced seeding rate, increased knowledge, expanded information access and widened technology adoption.



While PhilRice embarks on a new strategic plan, some of its development initiatives remain relevant and therefore will be carried on. From 2023 and beyond, the Rice Competitiveness Enhancement (RCEF) Fund Seed and Extension Programs, and the Malusog Rice Program are set to further its efforts to ensure that farmers continue to adopt high-quality seeds and its associated crop management technologies and practices, and consumers have access to healthier rice at all times.

## Malusog Rice<sup>1</sup> Program

The Malusog Rice Program, formerly the Golden Rice Program, aims to bring nutritionally - enhanced (Malusog) rice varieties to Filipinos through an interplay of supply, demand, and advocacy as the central product deployment framework. Golden Rice (GR) will be the initial Malusog Rice variety to be deployed followed closely by the release of stacked Golden Rice (beta-carotene enriched rice) and high iron and zinc rice (GR-HIZR) varieties.

<sup>1</sup> A local brand for biofortified healthy rice varieties including Golden Rice following its first NSIC registered variety as Malusog 1 or NSIC 2022 Rc 682GR2E.

WITHIN

**5-7**  
YEARS

The goal is to have Malusog Rice comprise 10% of the total rice production in the Philippines, enough to meet the rice requirement of vitamin A deficient households in the country.

The long-term aspiration is for Malusog Rice seeds and grain to become an economically sustainable production system fully integrated in the Philippine rice market, with local farmers generating profitable income while moving Filipino consumers, especially the more vulnerable women and children, to nutrition adequacy.

## INITIAL MALUSOG RICE CULTIVATION<sup>2</sup>

**38** | **17**  
HECTARES | PROVINCES

**Initial areas:** Quirino, Catanduanes, Samar, Antique, Lanao del Norte, Agusan del Sur, Maguindanao  
**Expansion areas:** Ilocos Norte, Cagayan, Isabela, Pangasinan, Nueva Ecija, Iloilo, North Cotabato, Bicol, Northern Samar, Agusan del Norte

<sup>2</sup> Areas were identified based on a range of criteria including rice production status and current nutrition data. Deployment areas and household recipients will be increased as soon as supply becomes available.





# Easy-peasy decision-making with ICT, digital tech

HANAH HAZEL MAVI B. MANALO

Decision-making is made easy as rice-related information is right at our fingertips. Thanks to ICT and digital technologies!

Information and communications technology (ICT) and digital technologies pave the way for anticipatory decision-making and action for our policymakers, researchers, development workers, and rice farmers. The Philippine Rice Information System (PRISM), Rice Crop Manager Advisory Service (RCMAS), and

Oryza Germplasm Management System (GEMS) are just among the decision-making tools available.

With the continuous advancement in ICT, PhilRice will also upgrade and update its digital infrastructure following the Medium-Term ICT Harmonization Initiative, which “harmonizes and ensures interoperability among ICT-related resources, programs, and projects across the government.”

The Institute will set up its Data Analytics Center, which will serve as the core rice data lake, modern data analytics, and allow a collaborative data science environment. The center hopes to reduce overall storage, maintenance, and operation costs on data, provide better backup, minimize the risk of data loss, increase security, and enhance compliance with regulatory and data privacy policies. 🌱



## GEMS

GEMS Online is our Genetic Resources Division's in-house database that supports the Institute's commitment of continuously improving and innovating the management, centralization, and storage of genetic resource data to maintain accurate, reliable, and up-to-date germplasm information. Being online, there's a timely delivery of requested germplasm for research, and a significant increase in the genetic resource-use in breeding and genetic improvement.

### DR. NONAWIN AGUSTIN

Balik Scientist Fellow

"I started using GEMS when I needed to request seed materials for experiments. GEMS provided the list of all Sahod-Ulan varieties available at GRD that I needed to characterize for root formation.

I still use GEMS whenever we request additional seed materials. It is more convenient to use whenever we want to scan the internally available germplasm."

## RCMAS

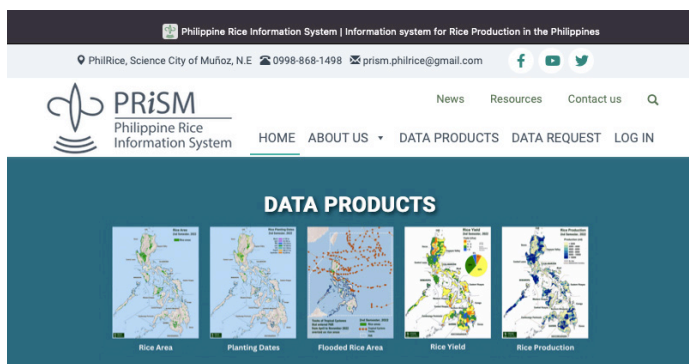
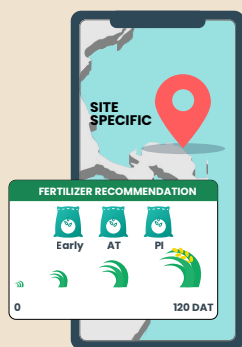
This is an application used in identifying nutrient requirements and could be accessed via a smartphone or a computer with Internet connection.

RCMAS provides site-specific nutrient recommendations from extension workers to farmers. It also supplies useful advisories depending on variety, yield from the previous season, and the specific conditions of their fields. RCMAS helps farmers decide how to manage their rice crops better.

### GENEROSO RUIZ

Santiago City, Isabela

"For 33 years, I had been satisfied harvesting 130 cav/ha. I applied fertilizer with no basis. I applied twice only-7 days after transplanting, and 20 days later. I only used 14-14-14



## PRISM

This is the first rice monitoring system in Southeast Asia that uses satellite imagery and ICT. It generates updated (seasonal) data on rice area planted, time of planting, and yield and production estimates, assessment of damage by typhoons, floods, or drought by producing area maps. PRISM integrates remote sensing, crop modeling, and smartphone-based surveys to provide information on where, when, and how much rice is grown in the country. It helps monitor rice production and prepare for and mitigate the effects of natural disasters.

### ADRIEL ABANDO

Department of Agriculture

"Since 2018, I have been using the planting and production data outputs of PRISM. Recently, I needed data on the growth stages of rice.

Planting and production data have been useful in terms of assessing the synchronization of the National Rice Program's production-related activities with the actual planting situation. It also provides us data trends that enable us to project monthly supply outlooks. Data on rice growth stages are used in making a proposal to request for additional funds to mitigate projected declines in palay production.

We continue to use data from PRISM for program planning since they give us in advance insights on the sector's performance."

and urea. I didn't know that I needed to apply 16-20-0 as an alternative fertilizer for root growth and development.

Good thing, PhilRice Isabela introduced RCMAS and PalayCheck System to us in December 2021. Thanks to RCMAS recommendations, I harvested 180cav/ha with Mestiso 20, a public hybrid rice. In 2022, I harvested 190cav/ha with a private hybrid rice. As president of the Lateral C-3C Santa Fe Irrigators' Association, Inc., I also encouraged members to try RCMAS and they gained an average yield increase of 30cav/ha. I believe that the PalayCheck System, an integrated rice crop management system plus RCMAS recommendations, gave us good yields."

# Discovering. **passion** at the **right time**

CHRISTINE MAE A. NICOLAS

Forty and above is the new twenty.

While most people have their careers planned out by the age of 20, Kharen Pascual and Telma Santiago are just getting started.

## Starting anew

Forty-year-old Kharen of Brgy. Estrella, San Mateo, Isabela used to be an overseas Filipino worker (OFW) in Hong Kong like her husband who is still working in Taiwan; this was her way of helping provide for the needs of her family until the pandemic came about. For her children's sake, she chose to go home to take care of them.

Events were not smooth-sailing. Prices of necessities started to rise, and they were barely able to budget their day-to-day expenses.

"I don't want to live up to the saying, '*naghihintay na lang ng babagsak*', so I tried to look for a way to help with our family's financial needs," she said. That's when Kharen became interested in growing rice-based vegetables.

According to her, even though her parents owned a farm, she never thought about growing vegetables until she realized how beneficial it could be.

Unlike Kharen, Telma, 62, also a resident of Brgy. Estrella, is used to growing vegetables.

"We just pick the veggies and save more on food," Telma said.

Telma, who grew up in another province, went to Isabela with her family to work as a caretaker before deciding to settle there for a good more than two decades now.

"In our place before, there were almost no job opportunities, earning money was difficult and so was life. Here, there are lots of things to do to earn. We could farm, sell, and even fish," she compared.



**In our place before,  
there were almost  
no job opportunities,  
earning money was  
difficult and so was  
life. Here, there are  
lots of things to do to  
earn. We could farm,  
sell, and even fish**

- TELMA SANTIAGO



## Taking steps forward

Persistent to learn and manage their vegetable farm, Kharen and Telma participated in a Farmer Field School (FFS) on Vegetable Production Under Good Agricultural Practices after they were approached by a *barangay* councilor.

This FFS is a training component of the "Gulayan sa Palayan at Pagnenegosyo sa RiceBIS Communities" project of PhilRice Isabela, which aims to pull up the net income of rice farmers by training them on how to grow vegetables sustainably and profitably. This is jointly implemented by the East-West Seed Knowledge Transfer Foundation (EWS-KT) and PhilRice since 2020. The project was introduced in 12 *barangays* and was coordinated with them through the San Mateo municipal agriculture office.

For six months, the FFS enrollees underwent a once-a-month session, in which they were taught on crop diversification. EWS-KT allocated 500sqm to each of the participants and regularly monitored their progress on vegetable production. The farmers also learned how to establish a market system for their produce.

While they held sessions at Estrella, demonstrations were done in not-sofar Brgy. Marasat Grande.



TELMA SANTIAGO



KHAREN PASCUAL

**Vegetable farming was challenging at first. But now that I am able to count profit by doing this, I can feel life becoming somewhat easier now that I am able to help my OFW-husband.**

- KHAREN PASCUAL

"Aside from the sessions and demo, we were also sometimes called for urgent and important meetings so we (classmates) saw each other often," Kharen said.

To further optimize the opportunity, Kharen and Telma did not mind spending on farming tools. Kharen invested in the basic useful tools such as shovels, net fencing, pole pruners, and rechargeable sprayers. Telma, invested in a hand tractor.

## Reaping the fruits

After graduating from the FFS on Nov. 6, 2022, the two women and fellow 48 field schoolers are now on their way to reaping the fruits of their diligence and efforts.

Kharen continually works on her farm that now includes a 1.2sqm area, which her uncle allows her to use in exchange for voluntary help and support for his

living expenses. She grows vegetables for the famous dish 'pinakbet'.

Now that she can earn money through contact buyers and by retailing in the public market, Kharen has gained more confidence as she can help make ends meet for her.

"Vegetable farming was challenging at first. But now that I am able to count profit by doing this, I can feel life becoming somewhat easier now that I am able to help my OFW-husband," she exuded pride in herself.

For Telma, now dubbed as the 'Upo Queen' for harvesting 7,414 pieces of bottle gourd that were sold for P130,238, anyone can tell that she has found success in pursuing vegetable farming as a career.

"My husband, Rodrigo, used to be against me growing vegetables as there is too much physical exertion and it

requires a lot of time and attention. He somehow got convinced and is now very enthusiastic on helping me," Telma said.

Besides bottlegourd, Telma also grows ampalaya, tomatoes, peppers, eggplants, Chinese cabbage, and more, which she also sells in the market through contact buyers.

According to her, the change that she achieved through vegetable farming is very visible in her family's life, and she thanks PhilRice, EWS-KT, and the local government of San Mateo for this success.

Kharen Pascual and Telma Santiago are just two of the proofs that there is no age cutoff in passionately pursuing a career, and that gender does not limit the capacity of an individual when it comes to agricultural works. 🍌



# Online help in rice production

AURA SHAZNAY P. TUMULAK  
INFOGRAPHICS: SARAH JOY N. RUIZ

If there's a will, there's a way.

Mark Francis Lata of Bulacan sees rice farming as an opportunity for problem-solving. When pests attacked his rice farm, he did not feel discouraged. Instead, he took it as a challenge to find a solution.

It came from his background as an Information Technology degree holder, where he was taught to assess the situation, diagnose the issue, and identify a fix.

"I don't dwell on the what ifs, I just immediately go straight to the root of my problems and see what I can do," explained the 26-year-old.

Mark was a student at a Farmer Field School (FFS) in early 2020 when the COVID-19 pandemic hit and their training was halted.

Unlike his classmates who waited out on the travel restrictions, he turned to the internet to feed his eagerness to learn about farming.

It was on Facebook that he came across a live-streamed lecture on post-harvest management and he watched the show for an hour.

"I prefer face-to-face training because nothing beats doing actual activities and experiencing the real thing, but online lectures were good enough for me because I still learned," Mark said.

Over the course of eight months, he became a regular viewer of PalayAralan, an online learning platform catering to rice farmers who want to improve their rice production knowledge and keep up-to-date with the latest rice machinery and technology.

This helped Mark to transition when the lockdown was lifted and training courses were held in-person again.

"The face-to-face training was easier because I sort of had a background knowledge of the topics from tuning in to PalayAralan," the farmer-turned-rice specialist said.

He now religiously follows the recommended practice of identifying beneficial pests in his farm to reduce chemical sprays, applying the right element, amount, and timing of fertilizers, and employing the alternate wetting and drying irrigation technology.

Currently, he is the admin officer of Dennmerc Agritech Farm (Angat, Bulacan), as he ensures that the farm practices that made his farm successful, are also being applied in their farm school.

The farm school owned by his family offers rice production training and courses on farm mechanization.

**We wouldn't have gotten here if I stopped trying to learn when the face-to-face training stopped. I love what I do and I'm determined to be good at it, that's why I really make an effort to go beyond what's been given to me.**

- Mark Francis Lata

"We wouldn't have gotten here if I stopped trying to learn when the face-to-face training stopped," Mark recalled. But I love what I do and I'm determined to be good at it, that's why I really make an effort to go beyond what's been given to me."

For Mark, surmounting the challenges of the pandemic was only the beginning, and there will be more to come.

But Mark is at ease, because he knows he has the will to go through anything.

He always finds a way. 🌱



# PHILRICE ONLINE LEARNING PLATFORM

Learning losses is one of the ill effects of the pandemic. Many farmers were unable to continue their training on rice production when health protocols were enforced.

President and DA Secretary Ferdinand R. Marcos Jr. is keen on providing a solution for this predicament via his 8-point socioeconomic agenda.

## 01 Pinoy Rice Knowledge Bank (pinoyrice.com)

This is a one-stop information source on Philippine rice production anchored on the PalayCheck System.

It is a website that offers practical strategies and scientific principles that extension workers can download and share with farmers. Some of its contents are rice handouts, broadcast releases, rice facts and figures, maps, and frequently asked questions.

## 02 RCEF PalayAralan TV (DA-PhilRice Facebook Page)

This is a livestream program shown on Facebook to answer rice production questions from farmer-viewers.

The show is an interactive platform that is spiced up with an interview with a rice production expert who can answer the live questions of the viewers from the comments section. Each episode also contains other segments that feature rice news across the country, clever rice trivia, and farmers' testimonies in following the recommended PalayCheck practices.

It's easily accessed with its convenient position on the most popular social media platform in the country, Facebook, and it has a steady following of interactive viewers that are eager to ask questions to learn.

## 03 PhilRice TV (@philricetv)

This is a YouTube channel for content on-demand about rice production practices, rice machinery, and technology videos. It provides free access to how-to videos, testimonial and success story videos, and campaign videos.

While the RCEF PalayAralan is magazine-type, filled with direct-to-the-point information, PhilRice TV also provides long-format lecture videos.

## 04 PhilRice Text Center (PTC) (0917-111-7423)

SMS-based helpdesk and customer support, it aims to link experts, extensionists, and farmers by answering rice-related queries through text messaging and calling. Among our several platforms, it provides the most immediate real-time assistance to inquiring farmers. Currently, the Center handles close to 300,000 registrants to whom text blasts are launched every month depending on the area's rice growth stage.



# Thank you for your **legacy**

MINARD F. PAGADUAN



## **Abner Tamayo Montecalvo, 63**

**PIO V. CORPUZ, MASBATE**

Deputy Executive Director IV  
Length of service: 28 years

One of the legacies of Montecalvo, also known as Action Man, is his remarkable ability to transform idle land into abundant fields. In Butuan City, he developed a 19-ha trial farm that had been uncultivated for four years and encouraged 15 households in the community to till the land, with a portion reserved for the station's researches.

Montecalvo began his career at PhilRice as a Science Research Specialist II in

1995. He was designated as officer-in-charge of PhilRice Agusan in 1998 and concurrently served as the rice program coordinator for Mindanao Island under the Department of Agriculture from 2005 to 2010. He progressively advanced his responsibilities and was appointed as the deputy executive director in 2018.

Montecalvo prioritizes creating a positive work environment for his colleagues, which he credits as a key factor in his accomplishments. He has received numerous accolades from PhilRice, including awards for outstanding official in 2002, 2003, 2013, and 2016, as well as a director's award in 2014.

He also worked as community organizer at the National Irrigation Administration (NIA)

in Region IV in 1981. He later engaged in research activities at the International Rice Research Institute (IRRI) in 1993 and served as a substitute lecturer at Misamis Oriental State College in 1995.

Montecalvo has an impressive academic background, having graduated with honors from primary and secondary school. He earned his bachelor's and master's degrees as a scholar. In 1981, he obtained a diploma in Agricultural Administration from De La Salle Araneta University, and in 2005, he acquired a diploma in Business Economics, majoring in Food Systems Management, from the University of Asia and the Pacific. 🍌

## Caesar Joventino Marquez Tado, 61

TUBOD, SURIGAO DEL NORTE

Director 1

Length of service: 26 years

Tado has dedicated 26 years of his career to supporting Filipino farmers through his various leadership positions at PhilRice. He served as director for PhilRice Midsayap, Agusan, Los Baños, and Negros, as well as director for administration. He also served as director of Open Academy for Philippine Agriculture, head of the Rice Engineering and Mechanization Division (REMD), research and development coordinator of PhilRice Isabela, and officer-in-charge of the Planning and Collaborative Programs Office. He holds a patent for a seed cleaner, an industrial design for a combine harvester, and has authored numerous international/national publications. He also co-developed the PhilRice seed cleaner, stripper harvester, reversible airflow flatbed dryer, and combine harvester.

Tado's efforts in the establishment of the National Rice Engineering and Mechanization Center (NREMC) have been instrumental in furthering research on cost-saving technologies. As REMD division head, he played a key role in securing funding from Japan International Cooperation Agency to improve the mechanization of rice farming in the Philippines.

Tado has received awards including the title of ASEAN Engineer by the ASEAN Federation of Engineering Organizations, Most Outstanding Official by PhilRice in 2005, and Outstanding Agricultural Engineer in the Field of Farm Power and Machinery by Philippine Society of Agricultural Engineers (PSAE) in 2006.



He was also recognized with service awards, a Distinguished Service Award by the PSAE, and PhilRice scientific productivity awards.

Tado graduated with honors from Visayas State University with a bachelor degree in Agricultural Engineering and Master of Engineering in Agricultural Machinery and Management from the Asian Institute of Technology in Thailand. He obtained his doctorate in Agricultural Sciences from the University of Hohenheim in Germany. 🍌



## Constante Torres Briones, 65

TAYUM, ABRA

Board Secretary IV

Length of service: 34 years

Briones is fondly called *Manong Tante* and jokingly attributes the nickname to his seniority or his established credibility among well-known figures like *Manong Johnny* and *Manong Nene*. In fulfilling his tasks, he is recognized for his exceptional work ethic, idealism, and sense of humor.

Under his mentorship, our Development Communication Division won national and international awards, recently the Outstanding Institution for Science Journalism in the Paragala Awards by the Holy Angel University (HAU) Communicators League and the

2022 Best Free Food Publications by the Hallbars Sustainability Research Institute.

Development catalyst and former colleague, Dr. Rex Navarro, once remarked of Briones, "Nobody would know the PhilRice history much like Tante did."

As a Mass Communication student, Briones worked a night shift radio job during martial law and went on to become a radio news announcer for five years. He later took a job as a public relations staff member at a logging company in Banguet, Abra. Briones then worked at the Cotton Research and Development Institute in Batac, Ilocos Norte.

He was offered a higher position at a radio station, but ultimately chose to

accept the position at PhilRice in Los Baños station, marking the beginning of his journey at the institute in 1989. He was responsible for technology management and served as a resource speaker on values reorientation. Over the years, he transferred from the Training Division to become the Division Head of Development Communication from 1991 to 1993.

Briones later moved to the Executive Director's Office as an executive assistant. He also hosted a weekly radio show on DWNE and Radio Veritas, expanding PhilRice's reach to farmers. Briones was later appointed as PhilRice's Board of Trustees Secretary and became the consulting editor for PhilRice publications. 🍌

# VoxPop

## What do you expect from the DA rice programs in the next five years?

► CHRISTINA A. FREDILES

### **Marciano Tampadong**

Davao Oriental [Rice consumer]

Assuming that the rice program is implemented religiously with a sincere heart and mind, I hope that there will be enough food for everybody. In addition, I think we [rice consumers] also have a role in attaining food sufficiency.

Let us support our local varieties for our own economic growth and survival.

### **Romeo Vasquez**

San Mateo, Isabela [Farmer]

I expect that input cost particularly fertilizer will be lowered. I hope that smuggling of agricultural products be put to an end as this affects the prices of our local goods. In addition, DA must continue to support high-yielding inbred and hybrid seeds.



## Edward Santiago Candelario

Castillejos, Zambales [Extension worker]

With the right and smooth implementation of the existing programs, farmers will be prosperous. Lowering the cost and increasing the yield and income of our farmers is the ultimate goal of DA. This is possible if it will continually improve the technical efficiency of farmers and our extension workers.

Let us inspire our kababayan and instill in them the value and importance of rice farming. We should also cultivate the minds of our younger generation to engage them to rice farming.

With all these interventions, DA can sustain and secure our rice.

## Dr. Manuel Jose Regalado

PhilRice [Scientist]

The twin specter of spiraling prices and dwindling supply of farm inputs such as fossil fuel, fertilizers, irrigation water, and even human labor, continue to daunt the Filipino rice farmer. Coupled with higher risks and greater uncertainty owing to climate change in a highly vulnerable country like ours, the future of Philippine rice agriculture looks grim alas. The incessantly rising population and continuing conversion of prime rice farms for other purposes further pose an enormous challenge of producing more food from smaller and less fertile, even marginal lands.

Come 2028, I expect that DA shall have addressed this concern. I hope that local rice farming be transformed into an energy-efficient and climate-resilient system.

Combining advancements in knowledge of plant genetics and advanced agronomic management could spur up resiliency and sustainability of our rice production system, coupled with maintenance of soil health and productivity, and minimal fossil energy use, and greenhouse gas emissions.

Tapping rice hull and other crop biomass for drying, milling, and other postproduction operations will be easier with the development of third-generation gasifiers. Other on-farm energy conversion systems will likely include solar, wind, and hydro sources.

These will also require efficient farm machines and mechanization systems such as the combination of minimum tillage or mechanized no-till planting and combine-harvesting with effective farm-scale nutrient capture and return systems. Precise placement, targeting, and timing of inputs using improved machines and advanced technologies such as encapsulation will have to be the norm.

# Core Values

# R

Relevance  
Responsiveness  
Resilience

# I

Integrity  
Innovativeness  
Inclusivity

# C

Collective Spirit  
Convergence  
Client-centric

# E

Excellence  
Equity  
Empathy



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