

### ABOUT THE COVER

The windfall of clustering was best synthesized by the quote: "Coming together is a beginning, keeping together is progress, working together is success." This issue of PhilRice magazine documents our farmers' journey on becoming better versions of themselves – as agripreneurs and stewards of entrusted assets. They are the champion-farmers whose stories are treasures worth retelling in this new normal when hope and inspiration are continually needed to live on.



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John C. de Leon Executive Director

### Force of collectivity

Beginning in January 2021, the Department of Agriculture (DA) rolled out the 'One DA' holistic approach to accelerate the transformation of agriculture and fisheries toward modernization, industrialization, consolidation, and professionalization.

'One DA' lays out 12 key strategies to be pursued by the DA's banner programs and concerned bureaus, attached agencies, regions, and other implementing entities. Through this collective action and inclusive agribusiness approach, DA hopes to realize its vision of a food-secure and resilient Philippines with empowered and prosperous farmers and fisherfolk, as it delivers on the twin goals of "masaganang ani at mataas na kita".

The 12 strategies to "grow" agriculture include: farm clustering (Bayanihan Agri Clusters); province-led agriculture and fisheries extension system (PAFES); agri-industrial business corridors; infrastructure investments; post-harvest, processing logistics, and market support; and digital agriculture.

The other strategies are: climate change adaptation and mitigation measures; mobilization and empowerment of partners to attain scale; global trade, export development and promotion; food safety and regulations; ease of doing business and transparent procurement; and strategic communication support.

In this issue, DA Undersecretary Rodolfo V. Vicerra expounds on the rudiments of farm clustering (p. 10), which gives integrated assistance on agricultural production, storage, processing of value-added products, marketing, and other relevant activities of community-based producer groups. DA Undersecretary Ariel T. Cayanan also explains the essentials of PAFES, which focuses on developing commodities in which a province has a comparative advantage (p. 31).

Mayor Eleanor D. Dominguez of Castillejos, Zambales and Dr. Aurora M. Corales, RiceBIS community program lead, meanwhile, impart their initiatives on developing farmer-entrepreneurs. Farmers also narrate how their mindsets, business perspectives, and habits were changed by the Rice Business Innovations System (RiceBIS) community program.

With new improved strategies from the government and farmers changing for the better, prospects in the rice sector remain optimistic.



# 2020 *palay* output hits new high

Palay production in 2020 climbed to a record high of 19.29 million (M) tons, up from 18.81M tons in 2019. It surpassed the previous record of 19.22M tons attained in 2017.

Higher yields contributed some 55% to total *palay* output growth, thanks to better seeds and fertilizers used including improved extension services. More area harvested added 45% to the growth as a result of favorable cropping conditions.

DA-PhilRice analysis showed that the timely and sustained government interventions through the Rice Competitiveness Enhancement Fund (RCEF), National Rice Program (NRP), and Rice Resiliency Project (RRP) contributed to the growth in production. The Philippine Statistics Authority has confirmed that rice production grew by 2.6% from the 2019 level.

Under RCEF, Dr. Flordeliza H. Bordey, DA-PhilRice deputy executive director, mentioned that 1.38M bags (20kg each) of certified inbred seeds were distributed during the 2020 dry season, up to 2.29M bags during the wet season. The free seeds were planted in an estimated 1.7M ha.

"The timely distribution of seeds in the 2020 WS optimized the availability of rainfall and irrigation water, which encouraged farmers to plant early. Because of this, a bigger area was harvested in the 2020 third quarter than in 2019. There could have been bigger typhoon damages if these were harvested in the fourth quarter," she said.

Machines provided through the RCEF Mechanization Program have also contributed in the timely implementation Government programs such as RCEF, NRP, and RRP contributed to the bigger 2020 *palay* output.

of farm operations and in minimizing postharvest losses including typhoon damages.

Extension services under RCEF and NRP also helped in improving farmers' skills and in optimizing the use of production inputs that they received.

On top of the RCEF additional resources were made available through NRP under DA regular fund and through RRP under the Plant-Plant or Ahon Lahat Pagkain Sapat (ALPAS COVID 19) Program. The enactment of the Bayanihan Act 1 and 2 laws, which funded the RRP, intensified government production support for rice farmers in the wet season.

NRP through its regular fund has distributed around 144,000 bags of hybrid seeds. The RRP, through the Expanded Hybrid and Inbred Projects, distributed 381,000 and 233,000 bags, respectively. The RRP widened its support for farmers through the distribution of hybrid and inbred seeds and fertilizers. - WEB TEAM

# Nueva Ecija farm school profits from trainings

A farm school in Guimba, Nueva Ecija gains additional income from establishing a farm school accredited under the Rice Competitiveness Enhancement Fund-Rice Extension Services Program (RCEF-RESP).

Myriad Farms owner Viola Fern Sebastian, together with her partner Frianina V. Resplandor, said they have been earning a net income of P100,000 per batch of training after their farm school was accredited by the Technical Education and Skills Development Authority (TESDA).

"Our farm school is an additional source of income. We receive a grant of more than P200,000 for one batch of training with 25 students. Deducting expenses, the net income would be around P100,000," Resplandor said.

Myriad Farms serves as venue for RCEFfunded Farmer Field School where rice DA-PhilRice in late 2020 signed a technology transfer agreement with the Guimba, Nueva Ecija-based Val-Agri Machineries to fabricate and commercialize our developed machines.

"[With this agreement], DA-PhilRice becomes the first agency to be issued a Fairness Opinion Report facilitated by the Department of Science and Technology (DOST) in Region 3. It's not an easy task because four technologies were evaluated," Leidi Mel B. Sicat, OIC Provincial S&T Director in Nueva Ecija, said.

Under the Technology Transfer Act of 2009, technologies funded by the Philippine government are subject to a Fairness Opinion Board (FOB) review and report to determine the fairness of the transaction to the government.

To be manufactured are the microtiller, laboy tiller, reversible flatbed dryer, and seed cleaner, which can reduce farm expenses on land preparation and post-harvest activities.

Microtiller is a lightweight equipment for tilling small-sized paddies, while laboy tiller is for land preparation particularly for puddling soil with hardened depth.

The dryer is a batch-type mechanical dryer that dries grains by introducing heated air



PhilRice-developed farm machines will be fabricated and commercialized by the Nueva Ecija-based Val-Agri Machineries.

# DA-PhilRice farm machines to be commercialized

at the bottom layer of the grains and then reversing the flow of air at the later part of the drying process. Meanwhile, the seed cleaner removes foreign materials from the seed mass.

The said technologies, which are the first to undergo an FOB evaluation, are regarded in the scientific community, including the developers - some of whom

are conferred scientists by the DOST's Scientific Career Council. The PhilRice Intellectual Property Management Office is one of the most prolific and reliable patent agents in the industry. Interested individuals may call our Business Development Division: (044) 456-0258 loc.601 or email: bdd@philrice.gov.ph. - chona maes. Narvadez

growers are trained on the production of high-quality inbred rice, seed certification, and farm mechanization. The farm school has already accommodated five batches of training since April 2020.

"Currently, we have 200 farm scholars who started learning in December 2020 and are expected to finish by end of April 2021. Batches are each limited to 25 students following health protocols of the national government," she said.

The farm, according to Resplandor, started as an accredited Learning Site by the Agricultural Training Institute (ATI), then applied as a Farm School at TESDA.

"We followed the guidelines to be an accredited farm school. We gathered the necessary documentary requirements. Then, TESDA came over to conduct site inspection and after we passed that level, TESDA validated us as an accredited farm school," Resplandor recalled.

Resplandor had received positive feedback from the first batch of trainees especially on mechanization.

"Our trainees are excited to try the machines. One student even took a step

further. He made his own drumseeder because he said it helps him lower his production cost compared with broadcasting," Resplandor said.

She further encouraged farm owners to apply for farm school accreditation.

"You're helping the community while gaining more income," she said.

Farm schools are established nationwide as part of the RCEF program to equip rice farmers and farmworkers with knowledge and skills on the latest rice farming technologies. - JULIANNE A. SUAREZ

# RICE ACKUSS THE COUNTRY

**COMPILED BY: JULIANNE A. SUAREZ** 



**DA-PHILRICE BATAC** 

**DA-PHILRICE BICOL** 

#### **Biopesticides developed**

Biological control agents (BCA) that help reduce rice pest populations without harming humans and the environment are shaping up in the station.

Being maintained are two local strains of biological control organisms (BCO) - the green (*Metarhizium anisopliae*) and white (Beauveria bassiana) muscardine fungi from naturally infected rice black bug and rice bug hosts. These BCOs infest and kill certain rice insect pests.

Studies have shown that the BCOs are ideal because of their high efficiency, safety to non-target organisms, ease of production using locally available materials, and low-cost application.

The BCA technology is under observation in uncontrolled environments and outside laboratory facilities to assess the longevity and virulence of the beneficial fungi.

#### **Trainers trained**

The Rice Competitiveness Enhancement Fund-Rice Extension Services Program has trained 26 agricultural extension workers, local farmer-technicians, and farm school owners and workers from Ilocos Norte, who will, in turn, train farmers.

The training on the production of highquality inbred rice and seeds and farm mechanization was done in two batches on Nov. 9-20 and Dec. 7-18, 2020.

Crop insurance and basic financial management discussions were respectively handled by the Philippine Crop Insurance Corporation and the Development Bank of the Philippines. -

DEEJAY JIMENEZ

Rice-producing areas in Caraga, Northern Mindanao, and Davao regions are seen to benefit from these biopesticides.

- MARELIE D. TANGOG

#### More demo farms

More demonstration farms will be set up to produce high-quality inbred rice seeds (HQiS) for Bicolano and Bisaya farmers. As of Dec. 2020, 11 Binhing Palay farms had been established in Albay, Camarines Sur/ Norte, Sorsogon, Masbate, Catanduanes, Samar, and Leyte. Thirteen varieties were showcased in these farms and results have it that the use of HQiS increased yield by 10%.

"Binhing Palay farms help us establish areas that can supply HQiS of new and promising varieties, which can then be recommended to the provinces," said Rona T. Dollentas, soil science expert and the station's R&D coordinator.

HQiS usage in the Bicol Region is only 30%; 31% in Eastern Visayas, according to regional DA authorities. This means that majority of farmers are using the informal seed system that does not guarantee the good quality of seeds. - MICHAEL L. SATUITO



#### Hybrid rice showcased

DA-PhilRice, together with private seed companies, established technology demonstration (techno-demo) farms on hybrid rice nationwide this 2021 dry season in support of the DA's Rice Resiliency Project under its Plant, Plant, Plant Program.

The 19 techno-demo farms comprise a total area of 13ha showcasing the public hybrids Mestizo 1 or M1 (PSB Rc 72H) and Mestiso 20 or M20 (NSIC Rc 204H), which respectively mature in 123 and 111 days, average 5.4 and 6.4t/ha, with maximum yields of 9.9 and 11.7t/ha.

The branch station is part of the 12th National Rice Technology Forum that showcases hybrid rice and other

technologies in Cauayan City, Isabela. The Institute also joined four provincial hybrid rice derbies in llocos Norte, llocos Sur, and Pangasinan. It also helped put up eight hybrid rice technodemo farms at the Tarlac Agricultural University in Camiling; Central Luzon State University in the Science City of Munoz, Nueva Ecija; Quirino State University in Diffun; Isabela State University in Echague; Nueva Vizcaya State University in Bayombong; and Cagayan State University in Piat, Sanchez Mira, and Gonzaga. Six hybrid techno-demo farms are located at the Institute's stations in Nueva Ecija, Isabela, Albay, Negros Occidental, North Cotabato, and Agusan del Norte - Hanah Hazel Mavi B. Manalo

#### **Rice seeds for BARMM**

DA-PhilRice Midsayap graced the ceremonial distribution of inbred rice seeds to farmers during the 2<sup>nd</sup> Founding Anniversary of the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), Jan. 12.

Senior development staffer Ommal H. Abdulkadil said the gesture is a testament to the steadfast partnership of the station and the BARMM Ministry of Agriculture, Fisheries, and Agrarian Reform in support of the region's rice industry.

For the 2021 wet season, qualified rice farmers in Maguindanao and Lanao del Sur will receive in March-April around 40,000 bags of high-quality inbred seeds from the Rice Competitiveness Enhancement Fund-Seed Program.--sylvia Therese C. Quiring



#### Rice appreciated

That they may be equipped with the basic technical knowledge about rice and rice production, 27 newly hired non-technical personnel participated in the "Appreciation Course in Rice Science and Technology" offered on Sept. 14-18 and Sept. 28-Oct. 2, 2020.

The new recruits were taught about the PalayCheck System, Palayamanan Plus, and rice farming and mechanization.

Complementary hands-on activities were included to contextualize the trainees' learning experience. - RUBY MOSELLE O. TUMANGUIL

#### Organic rice supported

Current research on organic rice production is after increased productivity and profitability of its producers in the Visayas.

Senior researcher Alvin D. Palanog said the study he leads will allow the Negros provinces, lloilo, and Bohol to benefit from guidelines in organic rice production that the research will standardize.

"The research will help recommend institutionalized guidelines for organic farm certifications," he said.

Palanog added the study would also identify the best practices of farmers and develop appropriate management approaches for organic rice production.

"Once we put together the best management practices, we could share them to farmers who would want to shift to organic farming," he said.

Palanog contended that producing organic rice offers higher profits to farmers and health advantages to its eaters. - VANESSA A. TINGSON

### WHAT'S NEW IN RICE RESEARCH

# ASEAN Gene Pool for the Next Generation

#### PAUL JOHN P. VILLAMOR

To help develop quality, climate-changeresilient varieties, the Philippines has been part of the ASEAN (Association of Southeast Asian Nations) collaboration on rice technologies and germplasm since 2016.

Through PhilRice's Genetic Resources Division (GRD), our country, Malaysia, and Lao PDR have been effecting material exchanges with agreed intellectual property coverage. To be completed this year, the collective pool has opened pathways to identifying promising genetic make-ups.

"Techno-transfer and knowledge-sharing that will benefit institutions and farmers had been the focus of the project," said senior researcher Xavier Greg I. Caguiat, our representative in the project.

Already, 106 rice varieties were exchanged, pooled, and documented among participating countries. Characterized were 88 local varieties and 18 modern varieties based on morpho-agronomic traits and grain quality, and through molecular markers.

"Indonesia and the Philippines have varieties with resistance to blast and bacterial leaf blight (BLB), which were shared to Lao PDR to address blast infestations," he said.

In partnership with the UN's Food and Agriculture Organization (FAO), the project has involved and trained around 15,600 smallholder ASEAN farmers and landless laborers, and benefitted 400 scientists and researchers.

### Valuing traditional rice varieties (TRVs)

Through this project, FAO also helped DA-PhilRice genebank to characterize unexplored TRVs in 17 barangays in Hungduan and Hingyon in Ifugao, and in Lake Sebu, South Cotabato. Rice



The first-ever ASEAN regional tie-up on germplasm materials exchange and rice technologies paves the way for the creation of promising genetic make-ups against biotic and abiotic stresses. Xavier Greg Caguiat (2<sup>nd</sup> from L, standing) represents PhilRice in the project.

Biodiversity Seed Fairs were conducted as avenues for trade opportunities among municipalities. These activities were carried out to safeguard the seed sources of next-generation farmers through the dynamic conservation of indigenous rice varieties.

"Rice landraces may contain important genes with tolerances to abiotic stresses such as drought, salinity, flooding; and to biotic stresses, which include blast, BLB, and brown planthopper infestation," Caguiat said.

He added that the ASEAN collaboration has included genome re-sequencing of selected local rice varieties, and genomewide genotyping of all local varieties using SNPs or single nucleotide polymorphisms.

"The activities also provided the means for capacity-building, surveying, and interacting with the indigenous people the first stewards of indigenous varieties of crops," Caguiat said. The DA-PhilRice genebank gave technical support to the structure, operation, and management of 17 Community Seed Banks (CSB) in Ifugao and South Cotabato. They are now using traditional (bamboo poles) and modern (glass jars) methods for seed storage.

As the community's TRV repository for immediate use, CSB implements the 1kg:2kg borrow-and-return scheme to sustain the preservation of their local rice varieties.

DA-PhilRice likewise made available the micro-tiller suitable for the rice terraces in Ifugao.

"Participative surveys and focus group discussions highlighting the traditional practices of the indigenous communities were also conducted," Caguiat said.

The projects are funded by the Benefit-Sharing Fund and Global Environment Facility. •



The Rice Business Innovations System Community Program promotes productivity through improved technology adoption and agripreneurship by intensifying the deployment of rice technologies to the ground level; spurring the agroenterprise potentials of farmers; and promoting diversified rice and rice-based sources of income. By 2022, the program is expected to engage 23 communities composed of about 7,000 farmers covering at least two rice and rice-based enterprises with income increase of about 25%.

### Accomplishments



#### YIELD INCREMENT

- 1.03t/ha (2020 DS)

#### REDUCTION OF PALAY PRODUCTION COST



- From P13.73/kg in 2016 WS to P11.24/kg in 2019 WS
- From P13.76/kg in 2017 DS to P10.78/kg in 2020 DS



#### **REDUCTION IN POST HARVEST LOSSES**

From 16.47% to 15.38% in 2020 DS and 14.63% in 2020 WS. (Complemented with increased adoption of the combine rice harvester.)





**Rodolfo V. Vicerra** DA Undersecretary

# Clasping the clusters





This writer spoke with DA Undersecretary Rodolfo V. Vicerra, who co-chairs the Bayanihan Agri Clustering Program, to share more information on this endeavor of the Department.

# Can you tell us the rationale and objectives of the strategy?

Before I came in with Secretary Dar in DA, I did a small study for him that added up the number of beneficiaries in the DA's annual reports to find out the reach of assistance to the more than 10 million small farmers and fisherfolk nationwide. The result showed that more efforts and efficiency were needed in the way that we help them.

When Secretary Dar came into DA in 2019, he brought in the New Thinking for Agriculture, with farm consolidation and clustering as one of the strategic thrusts. During that time, it was challenging for us to imagine how this would be

implemented since "consolidation" seems to contradict the national policy of agrarian reform.

So, early in 2020, I asked all of the DA's foreign attaches to send me information on how rural development progressed in the countries they are posted. I had also invited representatives from all the banner programs and bureaus to a series of meetings to conceptualize how clustering can be done for crops, livestock, and fisheries. We realized that we had been approaching the challenge the wrong way, which only considered land consolidation.

In this process, we found that what we should really be consolidating and clustering should not be focusing on lands, but more importantly, their production value chain. If our farmers can be organized, the DA can more efficiently reach out to more farmers and fishers. With this kind of setup, it is envisioned that these organized farmers will be able to operate as sustainable and profitable agrienterprises that will eventually be able to increase farm productivity and their incomes as well.

In effect, the goal of farm clustering and consolidation is really to be a key strategy to achieve "Masaganang Ani, at Mataas na Kita."

# How do you intend to implement the program for rice farmers?

If our famers are organized into clusters, it will be easier for the Department to assist them as a group. They can reap the benefits of economies of scale and with their numbers, they have better bargaining power on the prices of their produce.

# How can farmers benefit from being part of these clusters?

Farmers could take advantage of the economies of scale, better access to programs, benefits of using technologies, and pooling their resources together in any of the processes under the value chain. This will help raise their level of productivity.

# Who/what are the enablers and disablers in the clustering strategy?

The most important enabler for farm and fishery clusters to succeed is the presence of professional farm managers. As you may know, the average level of education of our farmers is second year high school.



Our farmers are also aging. A great majority do not even have access to formal credit, and are being taken advantage of by unscrupulous traders.

With farm managers, organized farmers can be assisted to adopt good agricultural practices, coordinate their planting calendar, access formal credit, and market their products at a fair price. Ideally, there will be at least three farm managers for every cluster – one for production, one for accounting, and one for marketing.

I believe that the DA has given our RFOs the budget to pilot the Bayanihan Agri Clustering Program to conduct trainings for potential farm managers. In fact, we can now begin to encourage more of our farmers and fishers to organize themselves, for a start.

#### Since the implementation of the program in August 2020, can you share the challenges you have experienced so far?

Currently, the program is still in its piloting phase. And because it is a new program one of the main challenges is in how our stakeholders understand the term "consolidation". As I have earlier mentioned, that term seems to refer



# The goal of farm clustering and consolidation is really to be a key strategy to achieve "Masaganang Ani, at Mataas na Kita."

- USec Rodolfo V. Vicerra

to land consolidation. It must be well-communicated that this is not the case, and what we are really clustering and consolidating are the production activities and processes across the commodity value chain.

### How can farmers be part of clustering?

The farmers (and fishers) themselves are the ones who must coordinate and organize into a cooperative. They can formally register with any of the following: LGU as Barangay Micro Business Entity, Cooperative Development Authority, or Securities and Exchange Commission. It is best if at least 75% of their members are listed in the RSBSA and FISHR of the Department. It is also best if there are professionals who will join them.

From there, it will be easier for them to talk among themselves and agree on their plans and goals as one entity. In this process, they may be able to create a business plan which can help them identify their capacities, as well as any assistance they may need from the government. This may be in terms of pre-production assistance, production support, postharvest/postproduction processing, packaging and storage, transport and logistics, credit and project financing, and marketing assistance.

I hope that as we go along in the implementation of this program, we could reach more farmers and really help them raise their productivity and incomes. •

In implementing the PhilRice strategic plan 2017-2022, we help build agroenterprises following the Clustering Approach. The concept was first developed by the Catholic Relief Services (CRS), a church-anchored humanitarian aid organization based in the United States. CRS works in more than 100 countries around the world, including the Philippines, assisting people to respond to humanitarian and development challenges, building strong and resilient communities and societies.

### How to organize the agroenterprise clusters

A cluster refers to a group of 15-40 farmers with rice fields near each other. They are willing to pursue unified and organized farm management activities to establish economies of scale and perform processing, collective marketing, and other value-adding activities. Through clustering, development assistance can be better positioned and linkage to investors and markets is bridged easier.

In implementing agroenterprise development through the clustering approach, PhilRice together with its partners such as the LGU, DA-RFOs, and DAR have worked closely with existing farmers' organizations. Organized groups are easier to work with as local resources and skills, structures, and systems are already in place. All members interested to join in a particular rice or rice-based enterprise (e.g., commercial rice or seed production, brown rice enterprise) are

# Doing clustering the RiceBIS community's way

DR. AURORA M. CORALES, RICEBIS COMMUNITY PROGRAM LEADER

The approach is called "clustering" as it organizes farmers into clusters or groups where they can participate in business planning and implementation, and consolidate their products effectively for marketing.

PhilRice started adapting the clustering approach in 2017 through its Rice Business Innovations System (RiceBIS) program to reach out to more farmers and educate them about improved rice production technologies. The program then combined rice farming with marketing approaches that build the business capacity of farmers. RiceBIS acknowledged that rural communities cannot move out of poverty with increased food production alone. Hence, farmers are assisted toward agroenterprise development.

RiceBIS envisions to turbo-charge the agroentrepreneurial potential of the target community with rice and rice-based enterprise as springboard for social and economic transformation, where farmers' income is expected to sustainably increase by 25%. Within its core are clusters of farmers who commit to participate in organized production and group marketing.



grouped into clusters depending on proximity of farms and willingness to be part of an enterprise.

Once a cluster is organized, a cluster leader is identified. A cluster leader should be a farmer-producer, committed and motivated, and has a sphere of influence within the community, with good communication skills; and must be capable of steering organizational decision-making and actions.

Capacity enhancement is then conducted to sharpen their capabilities in market scanning, farm production management, product packaging, and marketing. Project implementers provide guidance to the clusters until

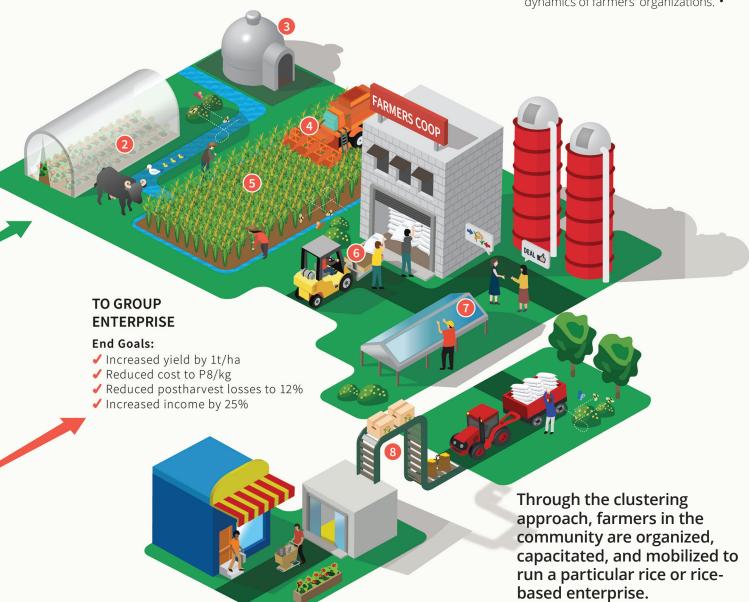
they are able to deliver products to buyers. They link farmers' organizations to various business development service providers, such as traders and custom service providers, who could provide assistance to their business.

(Read some of the farmers' inspiring stories on the clustering approach on pages 14-29.)

### Lessons learned in clustering

1. Clustering for agroenterprise development requires intensive stakeholder engagement at the community level.

- 2.The farmers' involvement in the whole process under the clustering approach is the most critical element for the success of any community-based project.
- 3. Linkaging/networking with the private sector and business development service providers is very important for the program or project to succeed as agroenterprise development is necessarily their way of life. All possible linkages including market and sources of capital should be explored for the benefit of the resource-limited cluster members.
- 4. Development facilitators should have a good understanding of the key issues that matter to rice production and marketing including the politics and dynamics of farmers' organizations. •





**RiceBIS ZARAGOZA** 

# Cooperation makes "silong ng mangga" progressive

#### PERRY IRISH H. DURAN

For people in the city area, "see you at SM" means "meeting at a shopping mall". Interestingly, to the facilitators and farmer-cooperators of the Rice Business Innovations System (RiceBIS) Community Program at Brgys. Macarse and Mayamot, Zaragoza, Nueva Ecija, "SM" stands for "Silong ng Mangga".

Such was the expression during the program's early years of implementation when the villages in the area still had not much – no facilities nor offices, just

nature's gifts. Fast forward to today, the "password" still rings a bell, nature still generously gives, and yet both Macarse and Mayamot communities are considerably more progressive.

#### **Meeting mentality**

In 2017, RiceBIS led by Dr. Aurora Corales of PhilRice made a nationwide search for rice-farming barangays to be its pilot sites. The program aims to establish model communities where farmers increase

their yield, lower their production cost, and are linked to market and business development service providers. Eight pilot sites were established in the first year and Zaragoza was one of them. Specifically, the Pinagbuklod na Adhika Credit Cooperative (PNACC), led by Chairperson Francisco Ignacio, was the farmer group in Macarse that embraced RiceBIS.

At the beginning, meetings were held at "SM"; eventually, through the grants secured through the program, PNACC



was able to build basic facilities for their meetings.

By 2019, RiceBIS Zaragoza had expanded and included Ugat-Uhay Farmers Association (UUFA) of Brgy. Mayamot, led by Mr. Daniel Parubrub, the sitting barangay chairperson that time.

Like PNACC, UUFA started with almost nothing, having only nature's gifts and members' willingness to meet regularly under the inviting shade of a mango tree.

### Come clarity, actionable steps, and synergy

Before joining RiceBIS, PNACC only provided crop production loans or credit to its members and their produce were unconsolidated. Within 2017-2020, the coop transitioned from being a credit coop into agricultural, and then into multipurpose, officially being registered as Pinagbuklod na Adhika Multipurpose Cooperative (PNAMPC). The Coop, with the supervision of the RiceBIS agroenterprise development team led by Alice Mataia, a PhilRice economist, managed to complete the required documents particularly business plans, feasibility studies, and other papers.

Mayamot farmers, on the other hand, credit-purchased inputs in bulk by partnering with a supplier, and distributed the inputs to their members with a

minimum mark up. RiceBIS enabled them to venture into mushroom production, a rice-based agroenterprise for additional income.

#### To carry on

"Leadership is a big factor in the effectivity and success of a RiceBIS community," Mataia observed. Farmer-leaders who can inspire action and follow through with their members are key persons in the appropriate conduct of training from rice production to its value-chain enterprises. At the same time, guidance and cooperation of the program implementers or facilitators, and support from partner agencies and organizations also contributed greatly to the change that occurred in the farming communities. •





**RiceBIS NEGROS** 

# Good product yields more money to coop members

#### **CHRISTINA A. FREDILES**

Because of RiceBIS Negros, the group of Rabboni M. Villarosa in Cansilayan, Murcia, Negros Occidental has not only learned the health benefits of brown rice but its business potential, as well. Brown or unpolished rice has more protein, dietary fiber, B and E vitamins, and minerals compared with the glistening white rice.

Established in 2019, RiceBIS Negros Agrarian Reform Cooperative (RiceBISNARCo) sells their brown rice branded as "Murciana: Ang Brown Rice Nga Tatak Negrense" in the District-Ayala Mall in Talisay City and local government of Negros Occidental, especially in their regional hospital.

According to Anileen O. Pajarillo, RiceBIS Negros project leader, they have helped local farmers link their products with local online platforms and other business development providers aside from improving their rice production through the technologies taught to them.

"When we were starting, brown rice was unpopular in our community. We initiated its promotion by serving brown rice arroz caldo for 2 consecutive years during the celebration of the National Rice Awareness Month every November. This was in partnership with the elementary schools in Cansilayan and Murcia," recalled Villarosa, 59, RiceBISNARCo manager.

Aside from brown rice, the Coop sells pigmented rice – specifically, their local red and black rice.

RiceBISNARCo has 44 active members. They sell their brown rice for P50-P70/kg

giving them an extra income of P9.00/kg. Compared with directly selling their fresh *palay* harvest at P17-P23, Coop members now enjoy a stouter income from farming.

In 2020, the Coop generated P50,000 net income. "As a young cooperative, our priority is to capacitate our members to help them increase their yield; our income will follow suit," Villarosa said.

#### Road less taken

On top of better rice-farming practices, Villarosa adopted the "gospel of RiceBIS" to go straight to buyers to maximize his earnings in the rice market value chain. Such is a smarter practice than selling through the traders' agents.



To reach more buyers, RiceBISNARCo participates in trade fairs organized by the Negros Occidental provincial government.

Colliding head-on with competition, their cooperative buys *palay* at one peso/kg higher than the traders' price offer. They usually buy red and black rice fresh *palay* at P19/kg; P23/kg when dried. Rice experts are challenging farmers to sell dry *palay* for higher income and to consider planting premium varieties that are sought-after in the market.

The one peso/kg incentive isn't all; members of the cooperative are paid patronage refund and share of stocks every end of the year. "I pocket close to P7,000 patronage refund. That's just one of what I get from joining a cooperative," Villarosa boasted.

With all the opportunities that have been unleashed for RiceBISNARco, Villarosa is hopeful that more farmers will join their cooperative to share the benefits that they are being pampered with.

"Let us welcome changes and appreciate the efforts of our only government, which help us [farmers] increase our yield and income," Villarosa preached. •

### Gains from RiceBIS



#### **Training**

- Rice production and processing
- Business plan development
- Basic accounting, bookkeeping, and enterprise process flow
- Organization-building and management
- Farming as a business

# Improved rice production practices

- Plant resistant varieties
- Practice fallow period
- Plow-under crop residues infected by rice blast
- Use correct amount and kind of fertilizers





# Assistance from PHilMech for brown rice enterprise

- Vacuum sealer with AVR
- Seed cleaner
- Rice mill for brown rice
- 5,000pcs of plastic with label
- Moisture content tester
- Bag closer

PhilMech - Philippine Center for Postharvest Development and Mechanization

INFOGRAPHICS BY: ANNA MARIE F. BAUTISTA



#### **RiceBIS BATAC**

# Dream binds young cooperative

#### CHARISMA LOVE B. GADO-GONZALES

In Rayuray, Batac City, Ilocos Norte, dreams flourish amidst the pandemic.

Having to start the year with a lockdown due to a COVID-19 case in their community, Guillermo "Guilli" Quemquem, manager of the Rayuray Farmers' Agriculture Cooperative (RFAC), holds on to a vision as he prepares for their coop's meeting after the community quarantine. Someday, he said, their cooperative will be known as world's supplier of brown rice.

From a sale of P84,000 in 2019 that dipped to P30,000 in 2020, Manong Guilli said the coop's dream is still possible, burning their hearts. Supported by the RiceBIS project, the brown rice they produce had already reached the United Kingdom and United States as *pasalubong* from vacationing relatives.

"Sales were slowed down due to restricted activities. But as a cooperative, we can rise!" the 58-year-old farmer is optimistic.

Already a farmer at only 12 years old, Manong Guilli said cooperative is a farmer's pillar. Together, he said, they can increase the quality of their produce and gain more income from farming. Through RiceBIS, 48 coop members learn modern rice farming and entrepreneurial skills. Through the coop, they enjoy good *palay* price, which is a peso higher per kg than the prevailing price. Members can also rent the coop's truck, multi-cultivator, and 4-wheeled tractor cheaper than other service providers.

"Traders get rich from our produce. So why not, we make the most out of our produce for us to have more income," the former barangay councilor said.

### Rayuray RiceBIS community is born

As former chairperson of their village, Manong Guilli frequented the PhilRice Batac office for development projects he can introduce to his fellow farmers. When their farms were selected as site to visit in a Technical Cooperation Project, he became more persistent in asking implementers for activities rice growers can be involved in.

Although eager and willing, the prospective farmer-participants of the RiceBIS project were hesitant when implementers met them in 2017.

"We used to have limited perceptions about cooperatives. We thought coop memberships are only for loans, and that coops do not last. The seminars and training we attended while we were being organized gave us a better mindset about cooperatives," he said.

The elected councilor who recently resigned to focus on his family and the cooperative admitted that maintaining a coop is not easy.

"Like any organization, there are members who have different opinions. Some members would also leave the group. Those who stay have seen and experienced the benefits of being coop members. Government support is strong in farmers' cooperatives," he said.

In April 2019, the members secured a stall to display their products at the city's public market under the local government unit's One-Barangay-One-Product initiative,

Before the Luzon-wide enhanced community quarantine was effected in 2020, RFAC sold products directly to consumers in Metro Manila through the monthly Producers to Consumers (P2C) trade fair and exhibit in Quezon City—a project of the Ilocos Norte provincial government. The coop also availed of a multi-cultivator from the provincial government.

RFAC also partnered with the Department of Science and Technology (DOST) to boost their brown rice enterprise. DOST awarded them a financial and machine grant for their brown rice's nutritional analysis and improved vacuum packaging machine.

In June 2020, using its community development fund and rice stocks, RFAC even distributed 3kg of rice each to about 200 persons with disabilities and senior citizens affected by the lockdown.

# RUMAIN NG BROWN (UNPOLISHED) RICE Ang brown rice ay mayaman sa protein, ritamins B&E, minerals, fiber, at articoxidants on akatutulong kan as a bayan, mapapabuti pa ang iyong katusugan. Be Riceponsible!

As a cooperative, RFAC members are given opportunities to showcase their products in exhibits and public events.

which gave them the venue to provide a steady supply of brown rice in the area. RFAC then sold packaged brown rice for P65 a kilo and unpackaged at P60/kg. Fruits and vegetables were also offered.

In the same year, RFAC became an accredited National Food Authority (NFA) supplier and sold 5,800kg of dry *palay*. Their linkage with NFA also helped them avail of a 4-wheeled tractor grant from the DA-Regional Field Office 1 with the support of the local government unit of Batac City.

"Gradually, we're becoming entrepreneurs and better members of our community through RiceBIS. Aside from updating our knowledge in rice farming, some of us have learned the habit of recording. We used to feel that we've already earned after selling our rice. Now, some of us have started to put price on the hours we spend on farming and list down our expenses. We learned a lot from this project and we're grateful," he said.

### Economic activity triggered

Dr. Mary Ann Baradi, focal person of RiceBIS project in PhilRice Batac, asserted that coop members increased their yield by 580kg/ha in 2020. Their income from rice farming also went up by 51% in 2020 dry season.

"They also learned the importance of value-adding and consolidated marketing, which are manifested in their ventures. From farmers who merely looked at farming as production three years ago, they are now agripreneurs engaged in brown rice, palay trading, milled rice, and custom service," Mary Ann said.

Mary Ann added that the LGU's programs on high-quality seeds and fertilizers also contributed to the rice yield increase.



We used to have limited perceptions about cooperatives. We thought coop memberships are only for loans, and that coops do not last. The seminars and training we attended while we were being organized gave us a better mindset about cooperatives.

- Guillermo "Guilli" Quemquem, RFAC Manager

From an initial fund of about P44,000 from membership fees and share capital, the coop's total net assets as of November 2020 have surpassed P2M, which include grants from DA, DOST, Agricultural Training Institute, and Ilocos Norte provincial government.

"They also put up the RFAC Center using their agroenterprise income," she said.

With the RFAC marketing as one and as they continue to fuel their dream, supplying more brown rice may soon be a reality. (WITH REPORTS FROM DONNA CRIS P. CORPUZ)



RiceBIS MIDSAYAP

# Adaptive members drive associations' businesses

#### ALLAN C. BIWANG JR.

Most Filipino rice farmers are normally engaged in a single income source to support their family needs. Growing rice and selling it as fresh *palay* to traders is habitual for them in getting immediate cash returns. For Johnny C. Escote, 54, from Central Glad, Midsayap, North Cotabato, it's not yet too late to try rice business. In fact, it's the best time to initiate one knowing that buying price of *palay* is unstable.

His *kababayan* Manolito Cacanindin, 51, from San Pedro, thinks the same. He adds that rice business should be fueled with more participative and adaptive group members. Just one year after their training under the RiceBIS Program, Johnny and Manolito's livelihood lane shifts from small-time farmer to a promising agriprenuer.

#### **Business desire ignites**

In Johnny's three-decade affair with rice farming, making rice as business has not crossed his mind. His appetite for business was whetted after his involvement in RiceBIS in 2016

Aside from not having adequate knowledge, he admitted that he was not willing to take risks when it comes to farming. "We settled with what we only know and always have this hesitation to adopt changes in our farming practices," he revealed.

Johnny and his co-members of the Libre Sigad Irrigators Association Inc. were introduced to inbred rice seed production as a source of income. The RiceBIS Midsayap team aimed to strengthen the group's productivity, lower their production cost, and link them to market and business development service providers.

"The idea of making rice as a business was presented. Among all possible ventures, I opted to engage in seed production as I saw a wider and brimming market for this commodity especially in North Cotabato," said Johnny. Now, he also sees the advantages of providing better-quality seeds to other farmers who often recycle seeds from their previous harvest.

Utilizing 1.5ha of his farm, Johnny now sells good seeds to co-farmers for P1,300 per 40-kg bag in Midsayap and neighboring Kabacan and Aleosan towns. He gets as many as 150 bags at 40kg each every cropping season. Johnny readies himself

to become an accredited seed grower before 2021 ends so with a number of his co-members.

It's a different story for Manolito and his two clusters with 36 members. During their training in 2019, their group thought of ways on how to make more money from the rice they were producing to cushion the effects of low buying prices of palay.

He divulged that some members had admitted that they have been joining training sessions but they didn't apply what they learned. With RiceBIS business ideas and guidance from Manolito, who serves as their leader, the members were "Since we received the free highquality rice seeds, we set our individual commitments to pool resources for our shared capital. With expected good quality and productivity, we are ready to mill the consolidated palay from members," he said. Manolito assured that earned income will be used to procure farm inputs for their members and will be sold at acceptable prices.

After seeing the strengths of these groups on leadership and quality production, DA-PhilRice Midsayap is pushing to merge the groups of Johnny Escote and Manolito Cacanindin to become the first RiceBIS model in Central Mindanao





local rice traders

Conceptualize rice-related business together with co-farmers in the community

Negotiate harvest price with



Avail of machines such as combine harvesters and mechanical dryers



Commitment to remit 50kg or more of palay for share capital



Value group decisions and actions

INFOGRAPHICS BY: JAYSON C. BERTO





# Good leadership fortifies farmers' group

MERVALYN O. TOMAS

Farmers being portrayed and even stereotyped as poor and virtually helpless motivated Manny Orgas, 61, to do what he can for himself and his fellow rice farmers in Antipolo, Sariaya, Quezon.

When DA-PhilRice Los Baños reached out to rice farmers in this area through the RiceBIS program in 2017, Manny went out of his way to organize his fellow farmers.

Moubee Tumanguil, RiceBIS implementer, shared that the farmers in Antipolo still needed to form a group and her team is grateful for the efforts Manny has exerted for them to be organized.

#### Leading by example

After forming the group, Manny was rightfully chosen to be the president of the association, which they called Samahan ng mga Magbubukid sa Barangay Antipolo (SAMBA).

"I started adopting the technologies we learned. When they saw that my rice plants were growing better than before, they wanted to emulate me," Manny pieced the facts together.

He believes that leading entails sacrifice and selflessness. He, too, is aware that hope can at times be frustration waiting to occur.

"Leadership is serving. If they feel that I care about them, then they follow," he revealed his ideology.

Manny admitted that this very young association faces challenges since it was only organized and registered with the Department of Labor and Employment (DOLE) and the Securities and Exchange Commission (SEC) in October 2020.

Nonetheless, they are continuously looking for ways to be able to market



their produce and are exploring bigger buyers such as hospitals and supermarkets.

The 56 members of SAMBA are looking ahead to that time when the typical, almost pathetic, portrayal of farmers will be transformed as they take on the challenge of exploring new things. As a group, they took the first step to achieve better and higher rice production and now, together, they are taking the next strides to scoop a better income and attain a better life. •



SAMBA members eagerly put into action the concepts they learned from the Farmer Field School and Farm Business School. Their yields increased and they made additional income from processing and selling their rice produce.



Corazon Figuerra (left), another member of SAMBA who stood out in the training, also decided to process and sell her own farm produce. She started planting black rice after she learned that it is more nutritious than the common white rice.

# Commitment produces almost P1.0M capital

#### CHRISTINA A. FREDILES

Members of the Marasat Grande and Dagupan (MarDag) RiceBIS Association in San Mateo, Isabela were willing to be together, let alone committed to doing things as a group.

#### The rice business lane

DA-PhilRice Isabela started to promote RiceBIS in 2017 in San Mateo, inviting 33 barangay captains to serve as farmercooperators. In the end, only Jose V. Guillermo from Brgy. Marasat Grande and Diosdado S. Sagaysay from Brgy. Dagupan qualified after meeting the basic requirements.

According to Dr. Ofelia Malonzo, RiceBIS lead implementer in Isabela, volunteerism is the key - the farmers who believe that the program can better their lives will join.

#### Change in mindset

Before RiceBIS came into their lives, MarDag farmers were mere individual producers and sellers, didn't practice product consolidation, and had no entrepreneurial mentality. Aside from





It was difficult at first but, as time went by, we gained knowledge and confidence. We realized that in farming, we should also pay attention to processing and marketing our harvests so that our net income would not stagnate.

- JOSE V. GUILLERMO, San Mateo, Isabela

lack of agri-business skills, dealing with people having divergent perceptions and attitudes on money, and presence of discerning leaders were their important considerations in group marketing.

"It was difficult at first but, as time went by, we gained knowledge and confidence. We realized that in farming, we should also pay attention to processing and marketing our harvests so that our net income would not stagnate," Guillermo summarized the group's experience.

Now, MarDag has developed enterprises in milled rice trade, brown rice milling, and custom farm services. It generated about P750,000 from capital mobilization strategies, which they used to start their agroenterprises.

With support from the government and benefits from being in a group, MarDag is not just willing to be together but commits to stay together. By any reckoning, MarDag and the other RiceBIS-anchored organizations elsewhere are representing a category of farmers who now want to draw strength from one another.

# Before-and-after earnings

Guillermo used to harvest 40 sacks of inbred rice or 60 sacks hybrid at 55-57kg/sack from his irrigated 4,000m<sup>2</sup> field, and sold most of it.

The same can be said of Milagros S. Reyes of Dagupan and currently MarDag's chairperson who immediately sold her produce to traders and took home a measly P45,000-P60,000 every cropping season from her 1.5-ha farm.

Thanks to RiceBIS, Guillermo and Reyes learned more efficient ways of rice farming. They now consolidate and process their produce, actively scan the market for better deals, and promote their group's business.

From an average of P30,000/ha, Guillermo now earns P60,000/ha every planting season. Reyes, on the other hand, makes P50,000/ha.



AFTER

PER HA

PHILRICE MAGAZINE JAN-MAR 2021 25

Jose V. Guillermo and Milagros S. Reyes learned more ways of rice farming through RiceBIS. They now consolidate and process their



RiceBIS BICOL

# Togetherness earns P8M income

#### **MERVALYN O. TOMAS**

There is strength in togetherness. This line proves true in the journey toward success of Balangibang Palayamanan Farmers Incorporated (BPFI).

#### **Opportunities**

BPFI saw opportunities to help other farmers when the pandemic and destructive typhoons hit Bicol Region.

"As local government units (LGUs), foundations, and different groups looked for rice supply to be distributed during their relief operations, we saw an opportunity to market our products and help respond to the needs of our countrymen," Bayani Abarquez, BPFI treasurer, recalled.

He added that the association, with the rice produce of its 41 members and 149 associate members, was able to supply rice to LGUs in Bicol, several foundations, including the nearby office of Vice President Leni Robredo. This brought them sales amounting to P3M.

Grabbing these opportunities elevated their association's income from P2.3M in 2019 to P7.5M in 2020.

#### Helping others

Bayani remembered that when *palay* price dropped to P10, they bought the produce of farmers who are not members of the association at P13 up. This still brings profit to the other farmers, he said, because the cost of production per kg in Bicol is projected at P11 to P12.

"Sometimes our own produce is not enough to supply the demand of our buyers. The good thing is we partner with other associations so we can help each other. If we have supply shortage,



When an opportunity to learn more through the RiceBIS Program of DA-PhilRice was offered to them in 2018, they did not hesitate to grab it.

other associations fill in the gap. If our rice miller cannot process all our rice produce, then we run to other rice processing centers," he said.

"Choosing BPFI to be part of the RiceBIS Program was a good decision because it became a helping hand to the smaller clusters," Shiela Sabaria, RiceBIS implementer, said.

With its assets worth P13.3M, BPFI lends its farm equipment and helps in the marketing of the products of smaller and younger associations in the area.

Sabaria also observed that the group does not anymore depend too much on government assistance, and they make full use of the help that they get. They live within their means, in other words.

Indeed, there is no better sight during challenging times than to see people help and uplift each other toward success. Fortunately for farmers in Balangibang, they have a progressive association to count on. •





Before RiceBIS, BPFI was making about P250,000 a year. After RiceBIS, they started to make millions as they learned to communicate and negotiate with institutional buyers.



Sometimes our own produce is not enough to supply the demand of our buyers. The good thing is we partner with other associations so we can help each other.

- BAYANI ABARQUEZ, BPFI treasurer



**RiceBIS AGUSAN** 

# Joining associations makes farming lucrative

#### REUEL M. MARAMARA & PERRY IRISH H. DURAN

Owing to production challenges, such as unstable prices and climate-related stresses, many farmers might have been contemplating on leaving rice farming. But for Leo Franco L. Ebardo of Bayugan City and Terencio R. Oquendo Jr. of Esperanza, both in Agusan del Sur, their choice is to join this bumpy ride of producing more rice.

Truth to tell, they have joined the Esperanza Seed Growers-Farmers' Association (ESEGFA), which was born in 2018 through DA-PhilRice's RiceBIS Program that aims to transform farmers into agripreneurs.

#### Ready, set, plant!

RiceBIS Agusan started to take root in 2017 with the Dacutan Farmers' Multipurpose Cooperative (DAFAMCO). Project lead Sharen T. Rivas explained DAFAMCO was chosen as beneficiary because its business capabilities could still be improved despite its existence for many years.

"The Coop had unutilized assets like the rice milling machine provided by the government. Capitalizing on this, we introduced the milled rice business to the Coop. While we are not yet able to fully realize this owing to various circumstances, some clusters are already engaged in it," Sharen narrated.

Looking at this business still from a distance, RiceBIS Agusan introduced another agroenterprise - rice seed production and marketing. They trained capable farmers and invited even non-Coop members who were interested. In 2018, Leo and Terencio were separately invited to the training on seed production. That was the first time Terencio came to know about RiceBIS.

"I remember that because if not for RiceBIS, I would have continued sailing overseas. I wouldn't be a seed grower now," Terencio opened up.

Terencio, 34, was a seafarer for 8 years. Providentially, his first venture in seed production paid off and though he did not entirely plan to abandon the seas, rice seeds became his means to be with his family for good. His manning agency kept on calling him to go back overseas but he chose to continue his new-found job.

"As a seafarer, homesickness is inevitable. You just can't help wishing you were with your family. That's why I decided to stay with them for good and be a full-time rice farmer instead," Terencio shared.

Leo, 29, is a graduate of BS in Computer Engineering and learned rice farming at an early age from his farmer-father. When his father had a heart attack in 2013, Leo and his younger brother took over their farm. While he did not get to practice his degree, what he learned from school came

in handy in his farm management and record-keeping chores.

Leo admitted that he and his family had been wanting to become seed growers and RiceBIS helped make it happen.

"We asked the local agriculture office and we were instructed to join an association and wait for the next update. Eventually, we were informed about the training on seed production by RiceBIS," Leo recalled.

After the training, Leo and Terencio, together with the participants who decided to become seed producers, deemed it necessary to create their own group solely for seed production and marketing, thus ESEGFA was established with Terencio as the chairperson. Now, the association has 27 members and is set to be registered as a cooperative this year.

Aside from market linkage, ESEGFA members enjoy easier access to government programs and services. The Philippine Center for Postharvest Development and Mechanization (PHilMech), through RiceBIS, is set to grant the association with machines, such as the combine harvester, rotovator, and mudboat. With this, ESEGFA plans on



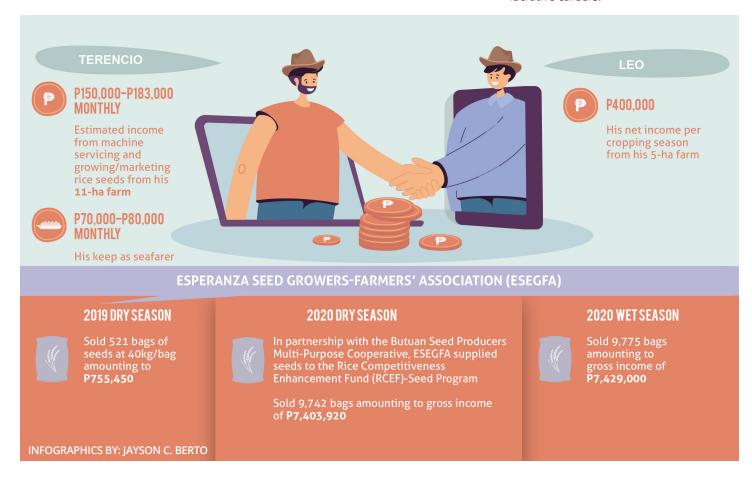
Terencio R. Oquendo became more competitive as he engaged in various agroenterprises, such as seed growing and machine servicing.

engaging in other enterprises to include use of machines for custom hiring, financing, and provision of farm inputs subsidy to its members.

To enhance business efficiency, RiceBIS also established a Farm Business School for its farmer-cooperators in the first quarter of 2019.

Though the process required more work, Leo said the modern farming practices taught in the association, such as the use of high-quality seeds, right timing of fertilizer application, and proper diagnosis of diseases, gave him a 20% yield increase and 40% income increment.

Despite the many challenges, Leo and Terencio were grateful they had ever started their new journey with RiceBIS as seed producers. Though initially uncertain, for them, they never regret abandoning their would-have-been lucrative careers.



# Castle of competitive farmers, healthier consumers

#### CHARISMA LOVE B. GADO-GONZALES

A sturdy stronghold in troubled times, Castillejos in Zambales is fortifying its territory by prioritizing good supply of healthy and safe food with assistance from PhilRice's RiceBIS program.

Eleanor D. Dominguez, mayor of Castillejos, said that the restricted movements due to the pandemic, destructive typhoons, and crooked traders have severely affected not only the farmers, but also the consumers as these factors threaten food production and the supply chain. Like a reinforced castle (from the Spanish castillo), the third-class municipality is being braced with knowledge and assistance required by the farmers and consumers amidst the pandemic and the new normal.

"I'm a nutritionist by profession and advocate of organic agriculture," the lady mayor attested. "I am very concerned with what [we] eat. I wish [for my townmates] to be healthy and to eat nutritious food, which can be derived from organic farming... To sustain organic farming, I prioritize the farmers' needs."

Introduced to the local government unit (LGU) in February 2020, the RiceBIS project took off in October through a series of trainings on rice production and processing, and organization-building and management.

Four batches of Farmer Field School with 105 participants were conducted under strict health protocols. Apart from PalayCheck, farmers were capacitated through learnings on values formation, leadership, and practice of good management and governance. Field activities were also incorporated in the course

"The RiceBIS Program is a blessing in disguise. The project [triggers] our farmers' creativity and productivity. As almost all are members of 16 farmerorganizations, our LGU formed them as a federation so that project benefits will be

shared by everyone," Mayor Dominguez said.

With good agriculture practices, their town received the Best Demo on Organic Farming Award from the DA. With this feat, RiceBIS farmers intend to venture into brown rice production and consolidated vegetable marketing.

"Camaraderie and willingness to help each other for everybody's welfare are values rarely observed; but are very much expressed among our farmers. Their willingness to learn and develop new products as a group shows their 'kayang-kaya basta't sama-sama' spirit. This serves as my motivation in pursuing the project amidst the pandemic," said the local chief official.

For the LGU's project counterpart, municipal agriculturist Janice S. Sardo said Castillejos has already procured two portable dehullers for brown rice production, a moisture meter, and fertilizers based on PhilRice recommendations.

The LGU also has a *Bigasan ng Bayan* where it buys a kilo of organic *palay* with 14% moisture content at P21/kg, against the prevailing price of P17/kg.

"Though our town's average yield is already at 3.5-4t/ha, higher than other

towns', we still intend to increase our production by 20cav/ha. We want to become more competitive in the rice market," Sardo said.

The Rice Competitiveness Enhancement Fund-Seed Program facilitated the timely distribution of 46 bags of certified inbred seeds to the early planters of RiceBIS-Castillejos. It also helped establish two technology demonstration farms showcasing newly released inbred rice varieties including NSIC Rc 506, Rc 508, Rc 510, Rc 512, and Rc 514.

Participatory techno-demo trials on nutrient management and methods of crop establishment were also set up. Twelve farmers also agreed to try the Minus-One Element Technique – a diagnostic tool, which determines the nutrient levels of rice soils.

"The partnership between LGU Castillejos and PhilRice has been amazing. The RiceBIS people have been very energetic in capacitating our farmers and sharing to them the latest technologies. [I hope they] will not leave us, not yet. Our farmers are benefitting from [PhilRice]," Mayor Dominguez said.

To complement the RiceBIS project, the LGU is developing a 4-ha organic agriculture demo farm where organic rice is integrated with vegetable and fruit trees, and with swine, cows, poultry, milk, and honey. Her priority projects also include farm-to-market roads, irrigation canals, modern farm machines, and organic fertilizers. Undoubtedly, the local leader not only has the power but also the courage to make agriculture work.

"Let's keep the farmers inspired and motivated so they'll be more productive [and competitive]," the mayor reminded her fellow local officials.•



The LGU in Castillejos ensures that their farmers are productive and competitive so that food security in their town would not be compromised amidst the pandemic.

## EXPERT'S CORNER

Starting in 2021, the Department of Agriculture is embarking on "ONE DA"-a holistic approach to agriculture and fisheries transformation (read Director's Note). The approach hopes to help DA achieve its expanded vision of a "food-secure and resilient Philippines with empowered and prosperous farmers and fisherfolk."

ONE DA employs 12 key strategies to "grow" agriculture, one of which is the Province-led Agriculture and Fisheries Extension System (PAFES). The system focuses on developing commodities in which the province has a comparative advantage.

DA's Undersecretary and PAFES Chairperson Ariel T. Cayanan tells us more about the system.

# You have started rolling out PAFES in Ilocos Norte. How is the reception so far?

The Provincial Government of Ilocos Norte responded positively to the rolling out of PAFES. The groundbreaking ceremony for the construction of the Ilocos Norte Agriculture and Fisheries Extension System (INAFES) was held on Sept. 10, 2020. According to the PLGU, they are positive that this will be instrumental in the growth and development of the sector and in providing extension services to the farmers and fisherfolk in the province. As a next step of the project, the PLGU is aiming to establish agri-business and manufacturing in the province to link the local farmers and fisherfolk to larger markets.

## Can you share us some of the concerns of key stakeholders about PAFES?

Human and physical resources were identified as the major issues and concerns in the province. The issue on the abolition of the Agricultural Extension Worker (AEW) position adds up to the concern on insufficient manpower of the Agriculture and Fishery Office. This resulted in multi-tasking of AEWs that lessens the efficiency and quality of the delivery of their services. There is also a wide gap in terms of salary between the supervisory and AEW positions leading to some discriminatory remarks for the AEW positions. Aside from the salary, travel allowances, hazard pay, and insurance are some of the concerns raised

## Provinces to lead their agri-fisheries extension systems

#### **MARY GRACE M. NIDOY**



**ARIEL T. CAYANAN**DA-Undersecretary for Operations and Agri-fisheries Mechanization

during the consultation. The absence of ladderized positions hinders career growth for the AEWs as well, making the position uncompetitive against other plantilla positions in the LGU. Aside from human resources, physical resources such as unavailability of service vehicles for monitoring activities and unconducive working environment due to dilapidated buildings add up to the burden of our AEWs. There is also a need to capacitate the LGU in terms of agricultural development planning and project implementation.

# What are the challenges you have encountered implementing PAFES to synergize provincial and municipal extension systems?

Partnership engagements and building linkages are among the key strategies of the project. It was recommended during the PAFES implementation in llocos Norte to maximize the project's existing networks in the region to further strengthen the partnership built among the project implementors and partners. Included are the Regional Agriculture and Fisheries Network (RAFEN), League of Municipal Agricultural Officers, Municipal/ City Agriculturists of the Philippines (LeMMCAP), Philippine Association of State

Universities and Colleges (PASUC), and others. Also recognized was the need to conduct an evaluative study through rapid appraisal approach to assess the PLGU's resources and capabilities in providing AFES.

### How many PLGUs do you target this year?

DA will be implementing PAFES in 17 provinces this year.

# Aside from the strengthened PLGUs and the establishment of the Philippine Council for AFES, what other milestones do you want to achieve in the coming years?

The PAFES aims to prepare our partner LGUs for the upcoming devolution by 2022 of the national government roles and responsibilities as one of the premises of the Supreme Court ruling on the Mandanas-Garcia petition. (The ruling remarkably increases the existing Internal Revenue Allotments (IRA) of LGUs.) Aside from this, we are aiming for the modernization and industrialization of the agriculture and fishery sector through mainstreaming and integration of the PAFES processes to the DA and local government operations. We intend also to promote reforms on institutional arrangements of the national and local governments through the harmonization of the agriculture and fishery development plans. We are expecting that the investments in the agri-fishery sector will increase through the forging of coinvestment arrangements, and thus will establish sustained dynamic linkages among the national and local governments, SUCs, private sector and RBOs through the operationalization of the Collaborative Agriculture and Fisheries Extension Programs (CAFEPs). •

### STAFF EXTRAORDINAIRE

Secretary Fortunato T. Dela Peña of the Department of Science and Technology (DOST) has commended DA-PhilRice for being the agency with the highest number of active scientists in the Scientific Career System (SCS).

The Institute now has nine Scientist I and three Scientist II.

Dr. Aurora M. Corales and Dr. Elmer G. Bautista were the freshly conferred career scientists, while Dr. Norvie L. Manigbas was upgraded by the Scientific Career Council.

Corales, chief science research specialist (SRS) of the Technology Management and Services Division, is a community development worker, trainer, and a mentor to young professionals.

She is a published author in SCS and non-SCS journals, and a contributor to the book "Science and Art of Palayamanan Plus", which received the 2020 Outstanding Monograph Award by the National Academy of Science and Technology.

She is a recipient of the 2006 Pagasa award by the Civil Service Commission and 2020 Siever Award for Professional Achievement by the Central Luzon State University, her alma mater.



**Dr. Elmer G. Bautista**Career Scientist I



**Dr. Aurora M. Corales**Career Scientist I



**Dr. Norvie L. Manigbas** Career Scientist II

# Two more rice scientists conferred

She leads the Rice Business Innovations System Community Program that aims to spur the agro-entrepreneurial potentials of communities as a springboard for social and economic transformation.

Bautista, supervising SRS of the Rice Engineering and Mechanization Division, is an agricultural engineer for 27 years.

He leads the Mechanization of Rice and Rice-Based Farming and DA-Bureau of Agricultural Research projects including WateRice, Multipurpose Seeder, and RiceStrawPH.

Bautista has significant works related to Life Cycle Assessment of Philippine rice production published in several papers and SCS-accredited journals, one of which merited the Gold Poster Award of 2014 in Tsukuba, Japan.

Manigbas, chief SRS of the Plant Breeding and Biotechnology Division, was conferred the Scientist I rank in 2013. He received the Presidential Lingkod Bayan Award in 2018. - WEB TEAM

# Branch director retires at 65

PhilRice Batac station Director Dr. Reynaldo C. Castro, an agricultural engineer, exits government service, Feb. 19, after also serving as acting director of PhilRice Bicol.

Contributing to the improvement of farmers' lives in Bicol and Ilocos regions, he instituted a legacy in rice research for development including the Palayamanan project of PhilRice Batac. The 2019 book, *The Science and Art of Palayamanan Plus*, documented a P158,861 yearly gross margin by integrating five enterprises in a 1-ha model farm. With limited water, the model farm also produced more than 6t/ ha of *palay* per season.



Castro also implemented the REAL Learning for Real Farming (Relational, Experiential, Applicable, and Learner-Based) approach in technology promotion. The Bureau of Agricultural Research adopted this approach to enhance its Community-Based Participatory Action Research program.

He initiated the Farmers' Congress, which showcased the activities and researches led by farmers and extension workers, thus building their confidence. He also engaged the local government units to allocate budget from the Internal Revenue Allotment Fund to PhilRice Batac projects.

Castro is also credited for the development of technologies now being used by farmers, which include the two-in-one panicle thresher-corn sheller, improved PhilRice rotary reaper, and water-harvesting systems.

He was also a team member on testing the agronomic performance, resistance to insect pests and diseases, and eating quality of some rice lines.

His leadership also made PhilRice Batac one of the most competitive among the

#### Hats off to our December 2020 retirees!



#### Mario Rosete Ramos, 62

San Mateo, Isabela Chief Science Research Specialist DA-PhilRice CES/ BDD

#### **Length of Service: 40 years**

Ramos earned his BS Agriculture major in post-harvest in 1980 and MS in crop science in 1994 from the Isabela State University.

He started working as production assistant at the DA-llagan Experiment

Station in 1980, then as agricultural technician at Cagayan Valley Experiment Station in San Mateo, where he managed the production of inbred rice seeds and studied drought-resistant rice varieties.

Ramos was awarded as the Most Outstanding Employee, adaptive research category, in Region 2 during the Gawad Saka Awarding Ceremony in 2000 for his invaluable contributions in starting and promoting hybrid rice that helped farmers increase their yield. In the same year, he received the PhilRice Outstanding Junior R&D Worker Award.

In 2006-2017, he served as seed coordinator/manager of the PhilRice-Central Mindanao University Field Office in Bukidnon. Under his stewardship, the inbred and hybrid rice seed production areas of the station doubled from 50ha thereby sharply increasing its income.

He then led the Samar Satellite Station in 2017-2018. In 2019 onwards, he supervised the seed production operations of the Business Development Division at DA-PhilRice CES.

Now is the time to produce seeds on his own farm.- ALDRIN G. CASTRO

Institute's branches in just three years after it was established in 1999.

Throughout his years as a leader, staff described the director as discerning and

Philippine Society of Agricultural Engineers (PSAE), DA's Gawad Saka Outstanding Agricultural Scientist (1995), and Outstanding Agricultural Worker (1996).

Throughout his years as a leader, staff described the director as discerning and trusting of their abilities and capabilities, mild-mannered, and has quirky sense of humor, high degree of professionalism, and a beautiful mind.

Castro earned his education from the Clemson University in the USA for his PhD in Engineering; and MS in Agricultural Engineering, Master of Public Administration, and BS Agricultural Engineering from UPLB. He gained scholarships from the Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development and Fulbright Program.

He was awarded Most Outstanding Agricultural Engineer (1994) by the He served as National President of PSAE and Philippine Association of Research Managers, Board Examiner for Agricultural Engineering of the Professional Regulation Commission, member of the Technical Panel for Agricultural Education of the Commission on Higher Education, and a long-time editor of the Philippine Agricultural Engineering Journal. - WEB TEAM



#### Helen Reyes Pasicolan, 62

San Mateo, Isabela Senior Science Research Specialist DA-PhilRice Isabela

#### Length of service: 31 years

She hails from Batac City, Ilocos Norte where she finished primary and secondary schooling; BS Agriculture major in agronomy from the Isabela State University.

In 1989, she started working as plant pest control technologist in the DA-Cagayan Valley Experiment Station in San Mateo that became PhilRice Isabela in 1991.

She actively participated in the activities of the National Cooperative Tests and extensively promoted the direct seeding technology. As field test supervisor, she managed the field trials of Golden Rice in Isabela.

She also served as her station's officerin-charge, and R&D and Business Development Division coordinator.

In 2000, Pasicolan was cited as 'Most Outstanding Employee for Applied Research' during the Gawad Saka Awarding Ceremony in Region 2.

Serving DA-PhilRice and farmers has brought her happiness but her retirement gives her a different kind of joy as she can now spend more time with her family and grandchildren.- ALDRIN G. CASTRO

## NEW KNOWLEDGE PRODUCTS

HANAH HAZEL MAVI B. MANALO

#### **MAGAZINES**

**Crisis-resilient rice farming** highlights stories of resilience through many challenges in rice production in support of our vision "Rice-Secure Philippines."

**35 Taon: Kaalaman, kakayahan, kaunlaran** chronicles the 35-year journey of our rice science from its pragmatic implementations to the ushering in of the New Thinking including Agriculture 4.0 – all for our rice farmers.

**May asenso sa kooperatiba** lauds the benefits of being members of a cooperative.

**Tuloy ang pagsasaka, ingat lang** presents farmers' strategies and support from the Department of Agriculture as the COVID-19 pandemic rages.





















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#### **JOURNALS**

#### **Rice-Based Biosystems Journal**

**February 2020 issue** publishes research on drought, high temperature, and lodging resistance; land leveling; organic nutrient sources; weed interference, organic molluscicides; and alternative staples to rice.

**August 2020 issue** carries studies that detail the performance of crops under different soil moisture fluctuations, root development, yields, and insect pests and diseases reaction.











- \*These knowledge products (KPs) are available at www. pinoyrice,com, www.philrice.gov.ph, and PhilRice Development Communication Division
- \* Scan this OR to see KPs.



#### **CALENDAR**

**2021 tekno-kalendaryo** lines up the programs under the Rice Competitiveness Enhancement Fund and some technologies that can help farmers compete in the global market.

#### **POSTERS**

**On myths and facts** debunk common misconceptions on rice farming and shed light on these unfounded beliefs.

#### **HANDOUTS**

**On direct seeding** details how rice farmers can maximize the benefits of direct seeding. It encourages the use of the drum seeder.

**On rice ratooning** presents the importance and key points in the conduct of ratooning.

### TECHNOLOGY VIDEOS

They feature the how to's of the following technologies and farming practices: PalayCheck System, seed purification, direct seeding, land preparation, synchronous planting, seeding rate, use of drum seeder, nutrient management, seed production, and myths and facts in rice farming.

# WOX POP

# HOW ARE YOU CHAMPIONING THE RICE FARMERS SINCE THE RICE TARIFFICATION LAW TOOK EFFECT ON FEB. 14, 2019?

The youth, just like me, can use their talents to help raise awareness on the important role of our rice farmers and how we can support them. But other than that, simply patronizing the produce of our farmers is already a huge support for them.

- LALIE TROPA, 20, student, Aklan

I grew up where rice fields are nearby. My neighbors are rice farmers. Since the pandemic, our family buys rice directly from them. Aside from having an assurance that it is safe and clean, it is fulfilling to know that we help them survive as well during strict lockdowns in our place

- GERRY BATANES, 28, educator, Marawi City

We were not ready for the decline of palay prices in 2019. As Coop manager, I intensified group marketing and engaged in business with milled rice as main product. It may not be that strong yet but we see more opportunities are coming for our farmer-members.

- FELICIANO TABINO, 55, coop manager, Mindoro Occidental

#### Buy local. Eat local. #SupportOurRiceFarmers

Local government units are challenged to enforce proper and truthful labelling in rice for consumers' protection through ordinance or resolution to help them exercise their power of choice. Truthful labelling of rice boxes and price tags indicating rice's milling classification and source is instrumental in promoting and marketing rice to support local farmers.





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Masaganang

