PHILRICE®

YEARS

PhilRice Magazine

ABOUT THE COVER

On the 30th Anniversary of PhilRice, the elements of the logo symbolize a farmer holding a *bilao* (woven tray) with rice. Taken from the top point of view, 3 characterizes his arms and 0, his hat. The grains of rice along the corners embody the 30 longs years of the Institute's journey. They come in all shapes and colors – as diverse as PhilRice's accomplishments and challenges in the service of the Filipino farmers for three decades.

CONTENTS

Managing Editors: Mary Grace M. Nidoy • **Contributors:** Andrei B. Lanuza • Ashlee P. Canilang • Christina A. Frediles • Jayson C. Berto • Jayvee P. Masilang • Jenine F Gamil • John Glen S. Sarol • Mary Grace M. Nidoy • Perry Irish H. Duran • Sonny P. Pasiona • **Design and Layout:** Carlo G. Dacumos • **Photographers:** Carlo G. Dacumos • Ashlee P. Canilang • Jayson C. Berto • John Glen S. Sarol • Sonny P. Pasiona • **Circulation:** Ashlee P. Canilang • **Admin. Support:** Mercy Grace C. Cruda • **Consulting Editor:** Constante T. Briones • **Editorial Advisers:** Calixto M. Protacio • Jaime A. Manalo IV

2009 Binhi Agri Magazine of the year
2007 Binhi Hall of Fame Awardee
2001 Gawad Florendo Awardee

www.philrice.gov.ph
www.pinoyrkb.com
@rice_matters
PhilRice Text Center
0920-911-1398
rice_matters
Rice-awareness

EDITORIAL

30 YEARS

The PhilRice Tower is one conspicuous guidepost that confirms to a traveler he has just entered the Science City of Muñoz "area of RICEponsibility." For PhilRice employees, it can mean rest after a long public commute, new research questions, fast-paced life. This tower is an eye-catcher especially during the Christmas season. The locals and its alumni have high expectations on the next tower design.

The PhilRice Tower can be likened to a lighthouse. For travelers, a lighthouse can mean so many things. For someone lost, a lighthouse can mean hope that a territory on solid ground is within reach. For explorers, a lighthouse means new discoveries are about to unfold.

30 years. We have come this far. Today, the PhilRice Tower is no longer just a mere imposing physical structure. It now evokes authority in rice science; hope for the resource poor farmers; opportunities for researchers, young and old; nostalgia for its alumni, and a smorgasbord of thoughts and feelings for anyone who cares about rice.

PhilRice has seen the birth of various leaders and leadership—unorthodox, mavericks, different visions and ways of doing things, but just one cogently written goal: to improve the lives of resource poor farmers.

PhilRice has been home to some research and development superstars in rice. We have produced thought leaders in rice agriculture, scientists par excellence. PhilRice has been home to some of the best schooled Filipinos on crop science.

PhilRice technologies have managed to create significant impacts on the ground—higher rice yields, least pesticide application among rice farmers in Southeast Asia, more efficient way to manage scarce water resource, among others.

But, we are not done yet. As we grow older, challenges on rice science become tougher to weather. We now have more difficult research questions—climate change, over 100M people to feed, rapid urbanization, diminishing non-renewable resources—all these are difficult to contain, but we will be right here to help find the answers.

Let the PhilRice Tower shine like a lighthouse. A lighthouse never loses its relevance. Its charm increases as it grows older. But it needs to be checked to ensure that it stands tall, prominent, and remains to evoke the light of hope and serves as a beacon in the increasingly trying times for rice farming.

AN **IDEA** STARTED IT ALL
MARCH **1985**

Men of great minds with unquestioned expertise in rice development came together at the University of the Philippines (UP) in Quezon City and brainstormed on an idea of putting up a national rice research institute. Then UP System President Edgardo Angara, led the group.

In the words of Angara, "I think the Philippines took for granted the need to have our own research on rice because IRRI is here. And that's a mistake. If you have no domestic research organization that will receive findings on improved varieties and also that will receive the technology, then you will not be able to profit from the presence of an international organization like IRRI (International Rice Research Institute)."

The group grew into a committee, composed of Domingo M. Lantican, Vice Chancellor for Administration of UP Los Baños; Ricardo M. Lantican, UPLB Director of Research; Domingo F. Panganiban, Deputy Minister of Agriculture and Food (MAF); Ramon V. Valmayor, Executive Director of the Philippine Council for Agriculture, Aquatic, and Natural Resources Research and Development (PCAARRD); Monkombu S. Swaminathan, IRRI Director-General; and Manuel De Leon, Agriculture Staff Director of the National Economic and Development Authority (NEDA). The PhilRice proposal was finally submitted to then Pres. Ferdinand E. Marcos through then MAF Salvador H. Escudero III.

PHILRICE

FINDING **HOME**
APRIL **1988**

Through a BOT resolution, the Maligaya Rice Research and Training Center (MRRTC) of the Bureau of Plant Industry was renamed as the Central Experiment Station (CES) of PhilRice. In December 1988, the BOT formally commended the young PhilRice for its significant accomplishments in research and technology transfer. In July 1989, almost all PhilRice Los Baños-based personnel voluntarily moved to CES.

BRANCHING OUT
1987-2014

To bring the science and art of rice production closer to more Filipinos, PhilRice established seven branch stations nationwide: Midsayap in December 1987; Agusan in August 1989; Los Baños as principal office in March 1990; Isabela in May 1991; Batac in January 1999; Negros in July 2003; and Bicol in January 2010. Its field office at the CMU campus in Bukidnon went to work in May 2001. Initial operations at its satellite stations in Sta. Cruz, Occidental Mindoro and Catarman/Catubig, Northern Samar began in late 2014.

PHILRICE

NOVEMBER 5, **1985**

Through an executive order (EO 1061) issued by Pres. Marcos, PhilRice was born. In the absence of a Director and administrative machinery, the PhilRice Executing Committee was formed in January 1986. With members representing all sectors of the rice industry, the committee drafted the medium-term PhilRice research and development (R&D) plan.

December **1986**

Pres. Corazon Aquino appointed the Institute's first executive director, Dr. Santiago R. Obien, who formally assumed office in June 1987. The President also constituted its first Board of Trustees (BOT), with then MAF Ramon V. Mitra as ex-officio chairperson. The members represented the UP System, UPLB, Department of Budget and Management (DBM), NEDA, PCAARRD, IRRI, and the science, academic, organized farmers, consumers, and business communities – the very sectors represented in the Executing Committee.

May- August **1987**

PhilRice signed with IRRI a Memorandum of Understanding that set the framework on how the two institutes would jointly support the local rice industry. In July, the PhilRice-coordinated national rice R&D network was established, composed mostly of Department of Agriculture (DA) stations and state universities and colleges. In August, PhilRice and UPLB formalized their partnership by signing a Memorandum of Agreement.

2013 National Year of RICE
SAPAT NA BIGAS, KAYA NG PINAS.

THE NATIONAL YEAR OF RICE (NYR) **2013**

The Malacañang-proclaimed advocacy campaign that enjoined producers, consumers, and policymakers to help increase rice productivity, reduce rice wastage, and promote the consumption of brown rice, was launched throughout the country.

A NEW **ERA**

From Obien's time to the stints of Dr. Leocadio S. Sebastian beginning in July 2000, Atty. Ronilo A. Beronio starting in July 2008, and Dr. Eufemio T. Rasco, Jr. since July 2011, PhilRice now has its 5th Executive Director effective July 2015, Dr. Calixto M. Protacio.

"The goal is to increase visibility in the countryside, to be easily spotted by our farmers and other stakeholders so that they can easily reach us. We have to increasingly tap our branch and other satellite stations to do this. We need to keep on reaching out to our farmers; improving the distribution and availability of seeds in the country. These are the challenges and tasks we will be facing as we step forward."

-Calixto M. Protacio-
PhilRice Executive Director

With excerpts from Our Best for Our Farmers: The PhilRice Story, authored by Dr. Anselmo S. Roque and published by PhilRice in 2008 & Re-telling the PhilRice Story, authored by Hanah Hazel Mavi B. Manalo Published in 2010. **INFOGRAPHICS BY JOHN GLEN S. SAROL.**

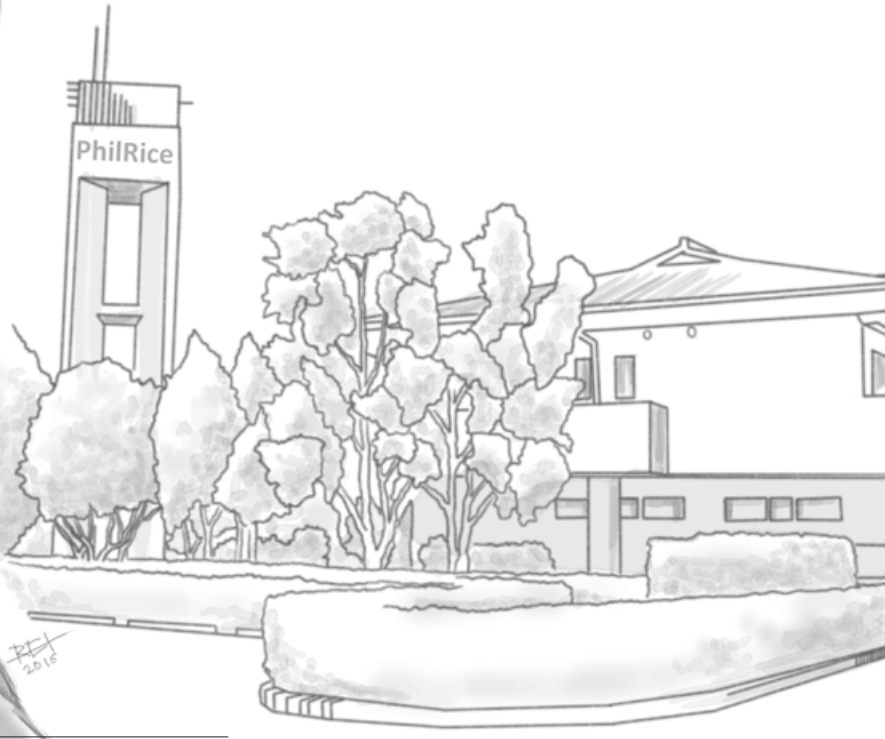
NEW ED TAKES THE REINS

ANDREI B. LANUZA

Since July 2015, Executive Director Dr. Calixto M. Protacio has been frequently travelling to PhilRice's branch stations. Here, we candidly talk about his experiences so far, his insights, and his plans for the Institute.

ED PROTACIO: One of the things I had to get used to here at PhilRice is the amount of administrative matters I had to attend to. In my previous employment (UPLB) we were "spared" from much of that stuff. A separate department handled them. Although I was also part of the administration, I didn't have to go through everything from things like accounting and auditing. Maybe this was also because of my job level during that time and that the administrative office was in another building. I didn't even see the people there very often. Here [at PhilRice], they're literally next door to me (laughs).

I tend to handle management by objective. I prefer not to micro-manage every little detail and have everything under my control. I view my work as one that steers the Institute's direction and to uphold policies.



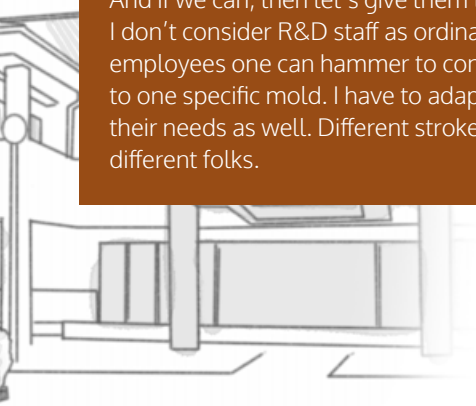
Every leader has a certain way of doing things. How would you describe your own leadership style?

ED: I tend to handle management by objective. I prefer not to micro-manage every little detail and have everything under my control. I view my work as one that steers the Institute's direction and to uphold policies. I believe that there are a lot of well-trained and experienced people here at PhilRice who can manage the staff directly under them without me interfering.

Having had much experience handling people, what can we expect from you as a leader? How do you motivate us to be productive?

ED: I prefer to be someone who sets a good example for other people. If there are certain rules to be followed, I follow them, too. Just because [I'm the director], doesn't mean I'm above even the simplest rules. I don't want people to just "do what I say, but not what I do". I try to walk the talk so to speak and not second-guess everything.

To motivate the staff, I like to give them what they want and need: recognition or independence to do their work, within boundaries of course. I can make concessions as long as they are reasonable. And if we can, then let's give them that. I don't consider R&D staff as ordinary employees one can hammer to conform to one specific mold. I have to adapt to their needs as well. Different strokes for different folks.



PhilRice's branch stations. Any feedback on your experiences and observations there?

ED: Our branch stations are really important, especially since our stakeholders and clients are able to reach us more easily through them. But our stations need a lot of things right now. We need to beef them up. I'd like to give them what we have and enjoy here at CES (Central Experiment Station): getting new equipment and vehicles they need to work comfortably and efficiently, for example. We need to empower them so that they are able to take on their assignments. We also need to properly define their R&D responsibilities and tasks so that these are more focused.

What do you think will be your biggest challenge at PhilRice so far, R&D-wise?

ED: Probably, I'd consider one of the more important things we have to do for our R&D is to inculcate the culture of writing and publishing, particularly among the research staff. Although I don't want this [not being able to publish] to seem like punishment. The challenge is how to find the right balance for our researchers to juggle their regular technical and field work with writing and publishing scientific papers. Just because they don't frequently publish scientific papers doesn't mean they have to get ratings of "unsatisfactory." Doing so seems unfair. But we should still encourage them to publish as often as they can. As an R&D institute, what else can we show, other than patents, if we don't have published scientific papers? We need this to be able to gain recognition and good standing in the science community. It also helps prevent the repetition of scientific research as well as protect the hard work of our R&D staff.

What can our stakeholders and clients expect from you as the new PhilRice leader?

ED: Perhaps the one thing right now is that our stakeholders and clients, particularly the seed growers, must expect me to run a tighter ship; especially when it comes to payments of rice seeds. In the future, I'd like our dealings with them to be much more transparent and efficient. We need to get our acts together and work together to be able to cater to them better. One thing we can do is look at how the private sector handles clients.
We can also probably look into how we can get exemptions from the strict government procurement procedures and auditing rules so we can have some leeway. There's too much red-tape, too much paper work to go through for things like payments, for example, so we can fast-track things when dealing with our clients.

Any words of wisdom or advice for the PhilRice staff, particularly the younger generation?

ED: There's no substitute for hard work. When I was taking my PhD, my adviser once told me that our work [in R&D] isn't a 9-to-5 job. You really have to love your work to be able to do a job that goes beyond 8 hours a day. Also develop a work ethic if you don't have it yet. We must all be willing to sacrifice some time and energy to fulfill what is expected from us. We can't get something from nothing, right? But one shouldn't just work hard, work smarter as well.

OUR KNOW CONTRIBUTIONS

JENINE F. GAMIL

PhilRice does not stop advancing knowledge through its strong workforce that produces quality publications and patents every year.

OUR PUBLICATIONS

In 2010-2015, PhilRice published 157 refereed scientific papers. In 2014 alone, 24 out of the 40 published papers came out in Thomson Reuters/ Institute for Scientific Information (ISI) Web of Science-listed journals. These journals include significant scientific studies and analyses on rice pest management, rice-based products, newly bred varieties, and sustainable rice production with high impact factor and citation indices.

The Institute has published in some well-cited journals such as the *Journal of Food Agriculture and Environment, International Journal of Ecology and Conservation, Philippine Journal of Crop Science,* and the *Philippine Agricultural Scientist*.

Dr. Rolando T. Cruz, a conferred scientist and retired crop physiologist, is the most cited author with 1,221 citations both in local and international refereed journals.

LEDGE

"In his 19 years of government service, his citations attest to the value and relevance of his research. As a research institute, we need more citations for us to elevate our standing in the scientific community," said Dr. Calixto M. Protacio, executive director.

OUR PATENTS

Among 80 offices, research institutions, state universities and colleges, the institute received in February 2015 the *Anak ni Juan* award for filing the highest number of patents and Patent Cooperation Treaty (PCT) applications from the Intellectual Property Office of the Philippines (IPOPhl).

"It is a great privilege to have been awarded as the top institute, which explored its creativity and innovativeness. We have to be aggressive in protecting our creations as we express intense desire to contribute to the economic and technological development of the country," said Jerry Serapion, PhilRice's Intellectual Property Management-ITSO manager.

Since 2010, PhilRice has filed for 23 patents, four of which were granted. These patents include the seed treating machine and portable floating pump both in April 2010, seed cleaner (January 2011), and the Multiplex RT-PCR for Simultaneous Detection of the Rice Tungro Virus (February 2015).

Additionally, the Institute has applied for seven utility models. Among these, the 3-disc plow attachment for hand tractor and its use (January 2015) has been granted. From 2008-2012, 11 varieties were granted plant variety protection as plant patents. These are the AR32 (Tubigan 7) in 2008; PRUP TG101, PRUP TG102, PRUP 7, PRUP 9, and TG101-M in 2011; and PR32220-16-B-1-2, PR37273-5-16-5-2-1-2-1, PR35766-B-24-1, PR39728, and PR37598-9-3-2-3-2-B in 2012.

FROM THIS DAY FORWARD

With a pool of 57 PhD degree holders, 266 master's degree holders, and 5 DOST-conferred Scientists, PhilRice envisions to continually uplift the lives of Filipino farmers by expanding the country's knowledge base in rice R&D.

These publications and patents are the legacies our experts contribute to the institute. We hope that these legacies would be relevant and directly useful to our farmers. However, we will not shun but will also encourage basic research that move forward the frontiers of rice science.

- Protacio

THANKS FOR THE AWARDS

PERRY IRISH H. DURAN

PhilRice continues to churn out quality and relevant R&D outputs for the Filipino farmers. Behind every scientific and technological breakthrough are almost 1,500 rice workers recognized in their chosen fields.

Attesting to the credibility of the Institute are the various recognitions and awards it receives here and abroad. According to the July 2015 report of the External Program and Management Review, PhilRice averaged 22 awards every year in 2008-2014. Since its birth in 1985, the Institute has received over 600 awards.

MAJOR INSTITUTIONAL AWARDS

The first-ever institutional award that the Institute received was through its Accounting Division as Outstanding Accounting Office, GOCC-Agri Sector category, way back in 1990. The award was given by the Association of Government Accountants of the Philippines (AGAP), Inc. In 1996, the Division was bestowed the same award again.

In 1993, PhilRice and its executive director Santiago R. Obien received the prestigious *Tanglaw* (Most Outstanding Research Institution) and Pantas (Most Outstanding Research Administrator) awards, respectively, from the DOST-PCARRD. An institution and its leader winning the awards at the same time was a first in the history of PCAARRD. In 2004, PhilRice and Dr. Leocadio S. Sebastian repeated the remarkable feat.

In January 1994, Senator Blas Ople publicly cited PhilRice as one of the country's 33 Centers of Excellence. Senator Ernesto Maceda also publicly named ED Obien as one of the 24 outstanding public servants.

In August 1994 and 1996, the DA-Bureau of Agricultural Research recognized PhilRice as the outstanding DA institution for basic and applied research.

The Open Academy for Philippine Agriculture (OpAPA) in 2010 received the International Prize for Third World Category given by the Arab Gulf Fund for Development (AGFD). OpAPA is a research-*cum*-development program that made modern agricultural technologies more accessible to farmers and extension workers through the use of information and communications technology (ICT). The Pinoy Farmers' Text Center (0920-9111398) and Pinoy Farmers' Internet (www.openacademy.ph) are two of the several ICT models generated by OpAPA.

PhilRice continued to exert efforts through its development arm. In 2014, the Philippine Agricultural Journalists, Inc. (PAJ) and San Miguel Corporation

recognized PhilRice-led "National Year of Rice (NYR) 2013" as Best Agricultural Information and Media Campaign, and the segments PhilRice aired on "Bagong Sigla sa Agrikultura" of the DA-RFO3 as Best Agricultural Radio Program.

Earlier in 2010, PAJ awarded PhilRice's Palay-Aralan sa Radyo and the PhilRice Newsletter with the Agricultural Radio Program and the Agricultural Magazine of the Year awards; in 2007, the Newsletter garnered the Binhi Hall of Fame Award after winning as 'Agricultural Newsletter of the Year' in 2002, 2004, and 2005.

PHILRICE'S PRIDE

We also received other prestigious awards such as the Outstanding Young Scientist, Gawad Saka, Gawad Oscar M. Florendo, Gawad ng Pagkilala, DOST-NAST Gregorio Y. Zara Medal, Marcos R. Vega Memorial Award, Alberto Rous Medal, Ugnay Award, and the Senadhira Rice Research Award.

Rice breeder Thelma F. Padolina received the Senadhira Award during the 4th International Rice Congress in Thailand in October 2014, the first woman and the first Filipino to receive it.

Adding to the Institute's recognitions are the esteemed PAGASA and Presidential Lingkod Bayan Awards given by the Civil Service Commission. The PAGASA is conferred on a group that demonstrates outstanding teamwork and cooperation for the benefit of the government. The Lingkod Bayan is conferred on an individual for exemplifying the best in any profession, affecting national interest, security, and patrimony.

PhilRice has produced six recipients of the Ten Outstanding Young Men and The Outstanding Women in the Nation's Service awards. These are given to Filipinos who show striking dedication, exceptional talent, and service that contribute positively in strengthening and shaping the country.

The Institute has three ISO certifications: ISO 9001:2008 (Quality Management), ISO 14001:2004 (Environmental Management) and OHSAS 18001:2007 (Occupational Health and Safety Assessment Series).

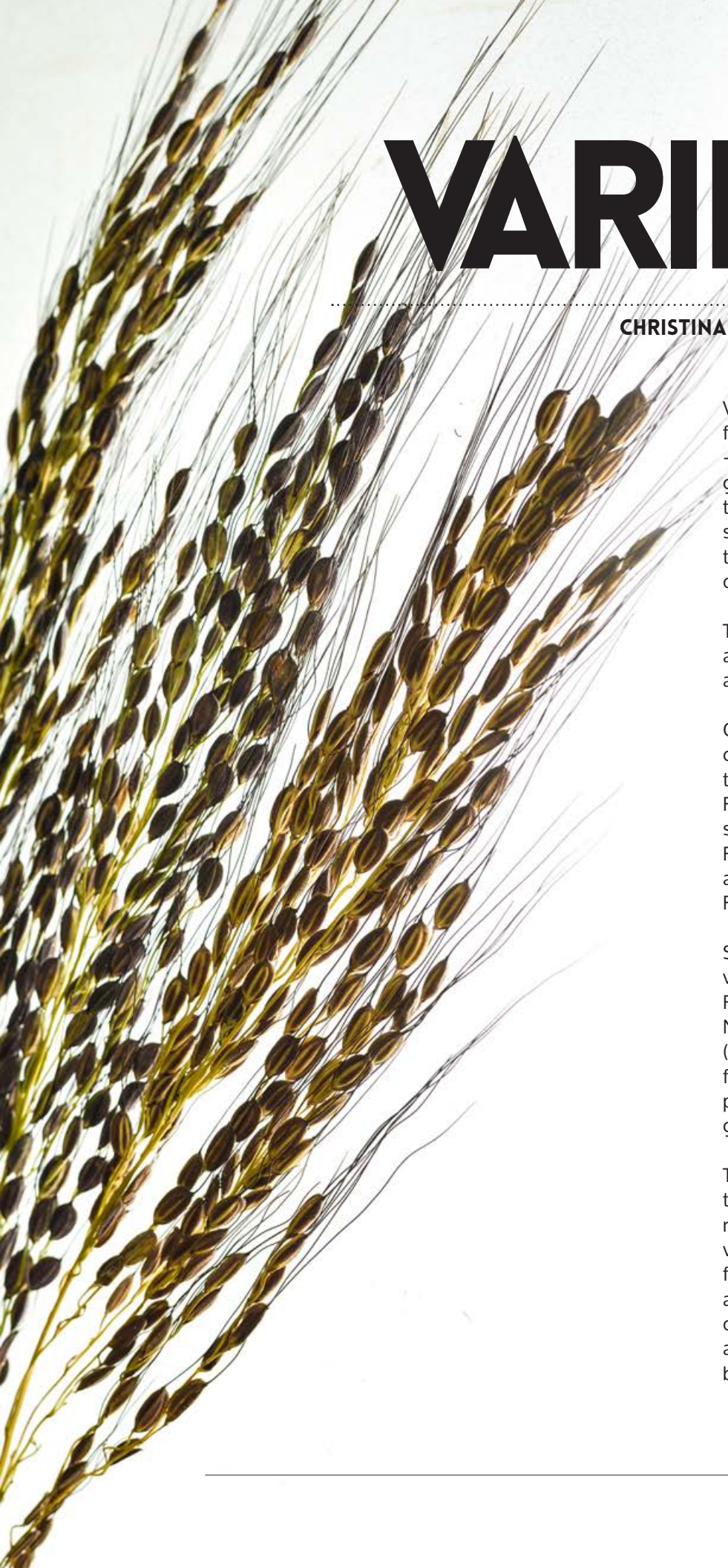
In 2015, PhilRice received the Anak ni Juan award given by the Intellectual Property Office of the Philippines (IPOPhl) for filing the biggest number of patents and PCT (Patent Cooperation Treaty) applications. "Such honor signifies the PhilRice community's creativity and innovativeness, the aggressiveness to protect their creations, and intense desire to contribute to the economic and technological development of the country," the award citation reads.

All told, PhilRice continues to draw inspiration form its recognitions. It doesn't rest on its laurels, though. Other awards are waiting to be won.•

R&D INNOVATIONS

Above all, PhilRice has unified what used to be sporadic, even ambulant, R&D initiatives in the rice industry. Through partnerships and collaborations, mostly with the national rice R&D network, efforts toward a stronger rice sector have yielded scientific breakthroughs and R&D innovations.

The following list is not exhaustive. At most, it provides the bigger picture of the products developed by the Institute and its partners since 1985.



VARIETIES

CHRISTINA A. FREDILES

Varieties for specific or all seasons, for bountiful or lamentable conditions – PhilRice has them all, let alone the glistening white rices or the colorful; from the pest-resistant to flood-, drought-, and saline-tolerant varieties, not to mention their early-, medium-, or late-maturing characteristics.

Thirty years allowed the Institute to breed and develop 70 rice varieties, 61 of which are inbred and 9 are hybrid.

Our struggle to cushion the ill effects of climate change led to the development of the drought-tolerant NSIC Rc272, Rc274, Rc278, Rc284, Rc286, Rc288, and Rc346; submergence-tolerant Rc18, Rc68, and Rc194; saline-tolerant Rc184, Rc186, Rc188, and Rc294; and upland varieties Rc7 and Rc11.

Some of the popular high-yielding inbred varieties for favorable areas are NSIC Rc128, Rc146, Rc152, Rc160, Rc216, and Rc218. NSIC Rc202H (Mestiso 19) and Rc204H (Mestiso 20) are hybrids. PhilRice vouches for the use of certified seeds since they are pure, clean, full, and uniform in size. Their germination rate is 85%, on average.

The Institute's genebank has orchestrated the conservation and management of rice genetic resources including improved varieties and elite breeding lines, materials from other breeding and research institutes, as well as indigenous traditional Philippine cultivars. It now houses more than 7,000 accessions which best traits are waiting to be tapped in breeding work.

INTEGRATED CROP MANAGEMENT (ICM)

CHRISTINA A. FREDILES

Many farmers have adopted the PalayCheck System, an ICM approach for rice. A 2008 study employing the eight key checks of the system yielded 8.3 t/ha with the highest number of tillers and filled spikelets. PalayCheck covers seed quality, land preparation, crop establishment, and nutrient, water, pest, and harvest management.

PhilRice also improved on the reduced tillage technology (RTT) and taught farmers on the modified dry direct seeding option in rainfed areas.

To ensure that the rice plant gets enough nutrients on time, we developed the Minus-One Element Technique (MOET) and Leaf Color Chart (LCC). MOET is a reliable, low-cost, and easy alternative for diagnosing soil nutrient status; LCC assesses nitrogen levels.

About 5,000 liters of water are needed to produce a kilo of palay but through the use of controlled irrigation, a practical technique on saving irrigation water without decreasing yield, considerate farmers can now share water with rice tillers who need it most. The integrated pest management approach has also become a way of life for many farmers.

Through Palayamanan Plus, farmers have increased their income and profitability. The rice-based production system integrates farming components for higher crop productivity, value-adding, and marketing. It also creates employment and income-generating opportunities for farmers who make full use of their common sense and versatility.

The Institute also dares farmers, civil society organizations, and private companies to join the Palayabangan: the 10-5 Challenge, a competition that aims to produce 10 t/ha at a total cost of only P50,000 or P5 per kilo of palay. A multinational rice seed company has once beaten the challenge. Many competitors have nearly made it.

MACHINES

JAYSON C. BERTO

Government surveys insist that labor incurs 40% of rice production expenditures. As planting rice is fun only for agri-tourists and environmentalists, the riding-type hand tractor offers a comfortable and easier operation with an attachment for plowing, harrowing, and leveling. Engineers at the Institute believe that the machine helps reduce risks of developing heart disease. The machine hopes to attract younger farmers.

The drumseeder is an alternative broadcast seeding equipment. It is not heavy, portable, and can seed grains in straight rows for better weed management. IRRI initiated the design of the drumseeder.

The reaper continues to help our farmers during harvest. Fabricated in 2001, partner manufacturers (C&B Crops, Morallo Industries, and PI Farm Products) contributed design modifications.

The 2011 study Rice farming technology awareness and adoption saw that at least 40% of farmers were aware of the reaper and has 7% adoption rate.

Another machine developed by PhilRice and Briggs & Stratton in 2005 is the mini-combine harvester. Suitable for small paddy fields, it can harvest, thresh, clean, and bag grains in one passing. A 2011 study showed that 47% of respondents were aware of the machine with an 8% adoption rate.

"Adoptions of these technologies is not high but we are taking steps to address it; at least we are getting there," said Eden Gagelonia of our Rice Engineering and Mechanization Division.

Since 1994, the Maligaya flatbed dryer has helped farmers in postharvest operations. The batch-type mechanical dryer reduces moisture content of fresh grains into levels desirable for processing or storage.

Machines for renewable energy are: the rice husk gasifier stove (in partnership with Center for Rice-Husk Energy Technology) and rice husk gasifier for water pumping, wind mill, and the CtRH carbonizer. It carbonizes rice hull useful in seedbed preparation as organic fertilizer or soil conditioner in paddy fields.

The following machines are also notable: microtiller (farmers in the Cordilleras adopted it), seed cleaner, laboy tiller, brown rice mill, rototiller-riding attachment to handtractor, and reversible airflow dryer.

RICE-BASED PRODUCTS

JAYSON C. BERTO

PhilRice has developed other uses of rice and its by-products and promoted these high-quality and value-added outputs to benefit consumers/farmers and food manufacturers.

The "Tapuy" is a full-bodied rice wine with luxurious alcoholic flavor and moderate sweetness. The PhilRice scents are environment-friendly and non-allergenic, inspired by modern expensive scents in the market. The rice perfumes are produced using semi-organic materials that include glutinous rice, which also produces rice wine, from which the perfumes' alcohol is extracted.

PhilRice and its neighbor Philippine Carabao Center (PCC) jointly produced the Nutri-Rice Milk. It contains germinated brown rice that has Gamma amino butyric acid (GABA), which improves brain and cardiovascular functions and lowers blood pressure. It also has buffalo milk which is a good source of protein, calcium, and can temper the effects of aging. It can last up to 10 days in a refrigerator.

DEVELOPMENT

JAYVEE P. MASILANG

PhilRice has spread good news about our new technologies among farmers through various promotion activities such as carrying out training and briefing programs, and producing IEC materials.

Our Field Days or Lakbay Palay educate and empower farmers, extension workers, and other rice enthusiasts on the new innovations and options in rice farming. They generally elevate the rice IQ (intelligence quotient) levels of their participants.

We have conducted the: Season-long farming training program for African extension workers; trainings for Rice Specialists, Rice Sufficiency Officers (RSO), Seed Growers, and Agricultural Development Officers of the Community (AgriDOC); Infomediary module training; Training of Trainers (TOT) on the PalayCheck System; and the Rice Boot Camp.

PhilRice takes pride in its over 500,000 training alumni.

We packaged and laymanized rice production technologies through various forms of media to educate and increase awareness, access, and understanding of extension workers and farmers, and other citizens on rice R&D. We produced more than a million copies of knowledge products in the form of publications, videos, and broadcast releases.

PhilRice also participated in or led the following campaigns to fuel various advocacies: Rice Productivity Enhancement Program (1987), Gintong Ani (1996), Agrikulturang MakaMASA (1998), Ginintuang Masaganang Ani (2001 onwards), Boo Boo Rat! (2006), AGRI Pinoy (2010 onwards), Infomediary Campaign (2012), National Year of Rice (2013), Rural Transformation Movement (2014), and Be Riceponsible Campaign (2014).

POLICY RESEARCH

JAYVEE P. MASILANG

PhilRice has made available policy recommendations to help decision-makers push for advocacies that would benefit our farmers.

The Institute has called out on Congress to support the multiplication and dissemination of high-quality seeds, market-driven farming and crop diversification, brown rice consumption, inclusion of more food staples, and safety net mechanisms in relation to trade liberalization.

Policy memos have been produced on the following: Save rice, save lives campaign, marginal areas, three classes of seeds, extent of rice land conversion, and intensification of agricultural farm mechanization.

Our policy researchers are well-cited in national reports, both in broadcast and print media. PhilRice has done its best. We hope to do even better as we keep going.

PHILRICE AND THE FARMING COMMUNITIES

Three decades of service to the Filipino farmers; 30 years of leading innovations in rice R&D.

These are the success stories of farming communities, from northern Luzon to southern Mindanao. These are the farmers who will constantly reassure us that even with hits and misses, there are right things that we did right.

When a farmer shares his/her story, the academe calls it an anecdote. When a community of farmers tells their story, it is best to listen with our hearts. Something big must have happened, transformation is about to unfold.

We feature communities, not individuals as communities.

SOLID NORTH

JAYSON C. BERTO

In 2004, Cecilio Cases, 54, together with some young farmers, decided to revamp an existing association to reorganize farmers in Quiling Sur, Batac City, Ilocos Norte. The new organization was then registered to the Securities and Exchange Commission (SEC) in the same year.

Quiling Tengnga-Laud-Libtong Zanjera Association Inc. was already doing well when PhilRice partnered with it for the Open Academy for Philippine Agriculture (OpAPA), an information and communications technology (ICT)-based cum extension program.

Through the Cyber Village initiative, the cooperative was given a computer, training programs, price-monitoring services, and linkages to the market. Cyber villages were "test beds" of OpAPA services.

"We benefited much from the price monitoring. It helped us tremendously in marketing our products – from Ilocos to Pangasinan, even up to Divisoria in Metro Manila," Cases said.

"It gave us the power to set competitive prices for our produce," he explained. The farmers disclosed that they also received a cash prize of P25,000 as 2nd best OpAPA site nationwide and used it as seed fund for their association.

Cases will never forget the time when PhilRice sponsored a trip for the officers of the cooperative to travel to its Central Experiment Station in Nueva Ecija. "So this is how they do it! We learned how new varieties and technologies are developed," Cases exclaimed.

Even when OpAPA ended, PhilRice Batac continued to provide assistance to them. Surely, PhilRice interventions made their irrigators' association even stronger.

"*Natibker* (solid)," as Cases described.

Another farmer, Joseph Ramos, 40, said, "Even after OpAPA, PhilRice never stopped guiding us. Due to our good record as an association, we were chosen by the local government of Batac as a recipient of a farm tractor."

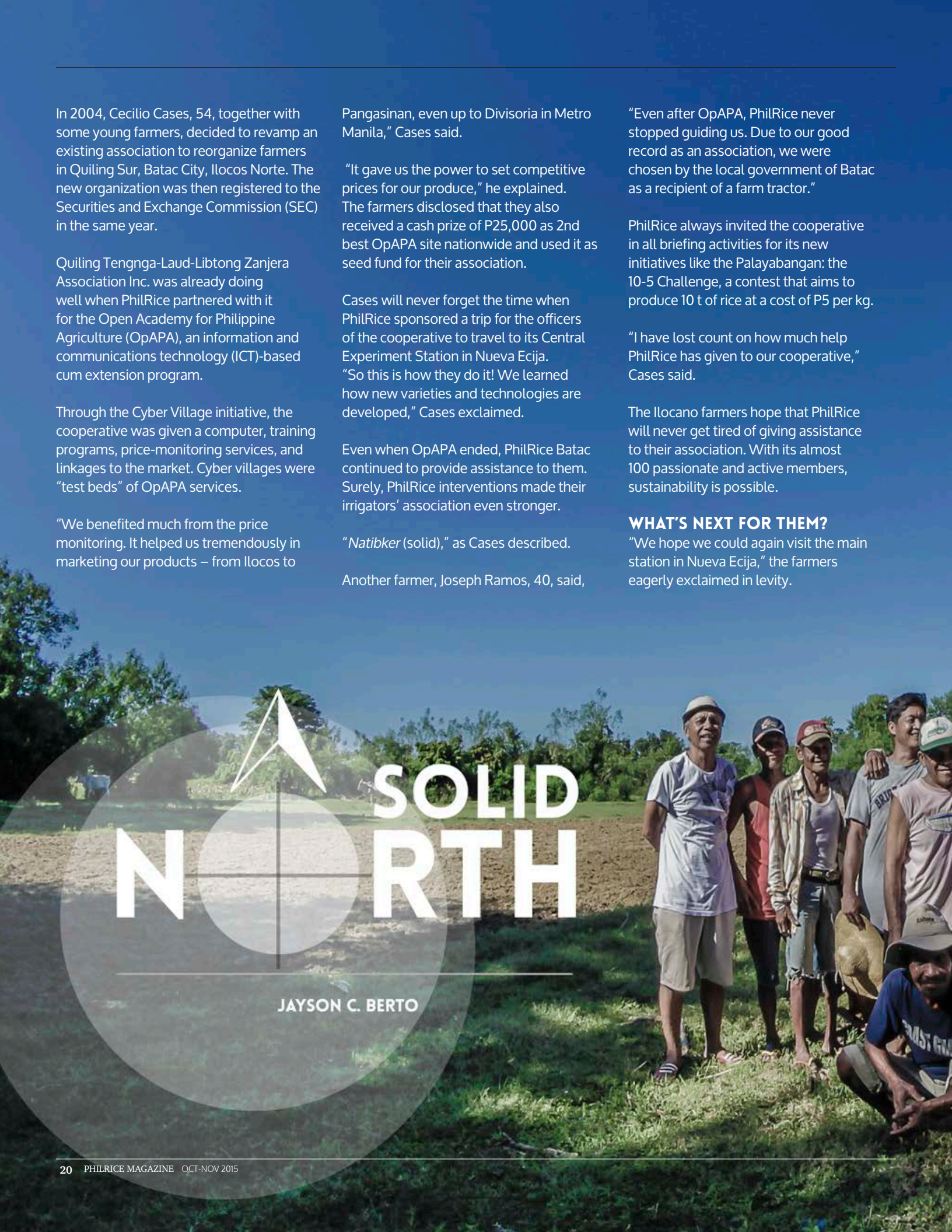
PhilRice always invited the cooperative in all briefing activities for its new initiatives like the Palayabangan: the 10-5 Challenge, a contest that aims to produce 10 t of rice at a cost of P5 per kg.

"I have lost count on how much help PhilRice has given to our cooperative," Cases said.

The Ilocano farmers hope that PhilRice will never get tired of giving assistance to their association. With its almost 100 passionate and active members, sustainability is possible.

WHAT'S NEXT FOR THEM?

"We hope we could again visit the main station in Nueva Ecija," the farmers eagerly exclaimed in levity.



Even after OpAPA, PhilRice never stopped guiding us. Due to our good record as an association, we were chosen by the local government of Batac as a recipient of a farm tractor.

- Joseph Ramos

HILLS OF HOPE

ASHLEE P. CANILANG

Surrounded by golden hills draped with rice and corn, the fields of Heinrich Apostol, 50, in San Isidro, Jones, Isabela give a glimmer of hope to the local farmers.

The 5-ha land of Apostol became the Upland Palayamanan model site in 2013. Located approximately 50 km from PhilRice Isabela, the farm progressed in integrated farming through the combined efforts of PhilRice and the municipal agriculture office of Jones.

The hilly community of San Isidro used to be devoted solely for corn. Things changed when Apostol became PhilRice's farmer-cooperator.

"Most farmers here only planted corn. Rice, vegetables, and other commodities were all purchased from the market," Apostol said.

Through the Farmers Field School (FFS), Apostol learned integrated farming and the PalayCheck System. As a corn farmer for decades, shifting from corn to rice and other rice-based crops was quite difficult for him. However, after few cropping seasons, he started to see gems out of the stubbles.

"After two seasons, I started to reap my investments. I no longer buy rice from the market. I now have vegetables ready for consumption and selling. In addition, I also have livestock that generates income during the idle months of rice production," he shared.

With said changes, he started sharing his learnings from the FFS to his fellow farmers. He established a mini-shed in the middle of his Palayamanan farm. The shed is being used during FFS and meetings with his fellow farmers.

"The farmers here only believe what they see. I teach them what I learned from PhilRice; they then validate everything in my farm," he said.

Apostol also lent starter seeds of rice and vegetable seedlings to farmers.

"I lent them seedlings of vegetables so they, too, can try it out to start. I also provided them a few kilograms of rice seeds. They repay me after harvest. To optimize impact, the seeds are given to other farmers in the barangay," Apostol said.

Around 60% of the farmers in San Isidro are now practicing the Palayamanan rice-based farming system.

The learnings from Palayamanan did not end there. According to Apostol, he and his fellow farmers have been inspired to

integrate free-range native chickens in their farms. Presently, they are into producing their own fertilizers and natural pesticides from their own farm residues.

"With our free-range chickens readily available, our barangay became the main supplier of native chickens to the famous chicken restaurant in Jones. Our expenses on fertilizers and pesticides also shrank from P10,000 to P5,000, thanks to the lessons that PhilRice shared," Apostol said.

Their success got noticed by the neighboring communities. Heinrich Apostol now has students from other barangays who frequent his farm during FFS and meetings.

I lent them seedlings of vegetables so they, too, can try it out to start. I also provided them a few kilograms of rice seeds. They repay me after harvest. To optimize impact, the seeds are given to other farmers in the barangay

- Heinrich Apostol

UNMASKING THE MORIONES

ASHLEE P. CANILANG

The Moriones Festival is an annual religious event in Marinduque with local farmers dressed up in intimidating masks and costumes marching around town, reenacting the angry search for Longinus, a Roman soldier who pierced the side of the crucified Christ. But, aside from engaging in street theater during the Holy Week, these farmers are also busy with something profitable within the rest of the year.

In 2013, the Upland Rice Development Program (URDP) was introduced in Bukal, Gasan. PhilRice Los Baños, together with the municipal agriculture office of Gasan and the Marinduque provincial agriculture office conducted the first FFS among a group of farmers led by Emilio Historillo, 47.

Being farmers since their teens, adjustment to the newly gained farming knowledge was easy for Historillo and his group.

"Our group started with 30 farmers. We were happy because we thought the government had forgotten resource-poor farmers like us," Historillo narrated. After a series of FFS, Historillo and his fellows learned diversification. Aside from proper rice crop management, they also learned how to properly handle their vegetable crops. Their interest in livestock was also stirred-up.

"Proper crop management, seed storage, and vegetable production were among our learnings from PhilRice," he said.

The idea of having their own community seed bank (CSB) emerged after a few cropping seasons. Learning proper harvesting and seed storage practices, the group, now an association of farmers, constructed a small shed where they can store their seeds.

Before the CSB, we were on our own during the planting season. The knowledge that we gained and the CSB are a big help for us

- Vicky Langa

"We store a portion of our harvest in the CSB, so they'll be ready for planting next cropping season. Supply of seeds from the market is limited. Hence, a CSB is extremely useful," Historillo said.

Aside from the association members, other farmers from the community also benefited from the CSB. Through a consensus, the association sells or loans seeds to other farmers. The repayment is also in the form of seeds. Aside from that, their members have also grown in number at more than 80.

"Before the CSB, we were on our own during the planting season. The knowledge that we gained and the CSB are a big help for us," said Vicky Langa, 52, association member.

Sixty-year-old farmer Tito Domingo shared, "We were unmasked from our old farming practices. Aside from that, we now also have extra earnings (additional P3,000 every vegetable harvest), thanks to the diversified farming that PhilRice has taught us."

When Jesus' blood gushed out and touched Longinus, his blurred eyesight was cured. Just like Longinus, these farmers of Bukal were also relieved from their time-worn-out farming practices. Thanks to the concerted government efforts. These unmasked Moriones now have farming stories worth recapturing.

BEHIND RC240

MARY GRACE M. NIDOY

Members of the Barlin Irrigators Association, Inc. in Baao, Camarines Sur had been searching for a high-yielding variety appropriate for their conditions until they became part of a PhilRice Bicol research project in 2012. They then learned about NSIC Rc240 (Tubigan 22), a PhilRice-bred variety.

Barlin IA President Pany Braboneria admitted that they used to harvest only 80-90 cav/ha. With Rc240, he has, thus far, reached 136 cav/ha.

"It's different from all the varieties we've planted here – high-yielding, longer grains, and premium milling quality. It's easy to sell," Braboneria said.

Farmer William Bisenio shared that the unexpected success of planting Rc240 spread throughout the community. They harvested what they expected, but they did not expect what they harvested.

"Many farmers who were not part of the study became interested in what we were planting. Soon, they were buying seeds from me, until our story spread to more farmers in our nearby communities," Bisenio said.

It is easy for Braboneria to describe NSIC Rc240 as a "farmers' favorite." While the project ended in 2013, he said that farmers are still loyal to the variety. He estimated that every dry season, 80% of the rice area in the community is planted to Rc240. Since then, he has noticed that pest incidents in their area have decreased.

"Farmers here have preferential ties with Rc240," he disclosed.

This is not the first time that members of Barlin IA participated in a PhilRice project. A few years ago, a rice sufficiency officer (RSO) was deployed in Baao and taught them integrated crop management practices under the Palaycheck System.

RSOs were deployed in different areas in the country through the Location-Specific Technology Development (LSTD) Program implemented in 2008-2011.

"Many agencies have attempted to help us, but only PhilRice has succeeded in changing our practices for the better," Braboneria said.

Farmers in Baao also lauded the PhilRice Text Center as it became easier for them to communicate with the agency.

"No unnecessary intermediaries, we only deal with PhilRice," the IA President said.

Many agencies have attempted to help us, but only PhilRice has succeeded in changing our practices for the better

- Pany Braboneria

CULTIVATING A CULTURE OF GENEROSITY

SONNY P. PASIONA

Frugality has long been enshrined in their culture. But in a farming community, they are plowing in another culture that may soon be attached to the identity of Ilonggo farmers.

This is the brand of generosity — in rippling knowledge and sharing resources.

It started when PhilRice Negros crossed into its neighboring island of Panay to reach the farmers along the Sta. Barbara Irrigation System in Iloilo.

Covering four Irrigators' Associations (IAs), PhilRice in 2013 was tapped by the National Irrigation Administration (NIA) to provide agricultural support for the National Irrigation Sector Rehabilitation and Improvement Project (NISRIP).

Through this project, IAs showed a strong sense of hunger for technical knowledge in rice farming.

Lectures on integrated pest management using the PalayCheck System became instrumental in changing their traditional know-hows.

Elsa Susteguer, 60, chairperson of Lacagbun IA, even thought that all insects harm her farm. "I killed spiders and dragonflies, suspecting they were enemies," she recalled. True enough, attending the FFS proved her wrong.

Patricia Arceta, 75, a retired teacher-turned farmer, lamented that they used to harvest only 80 cav/ha. In the demonstration farm of the project, they gathered 138 cav/ha despite mild infestation and unfavorable environment.

Before NISRIP, farmers only used traditional seeds and were left behind in terms of modern rice farming practices. These disadvantages have changed. They're now recipients of the blessings of what may be disguising as "inclusive growth."

Increasing rice productivity is the ultimate goal. But the strong collaboration of PhilRice, NIA, LGUs, and the farmer-cooperators even made this initiative more meaningful. They collectively value hard work and inclusive growth.

"I learned about seed banking so we no longer buy seeds from seed growers. We produce our own seeds, and sell them to our fellow farmers at a cheaper price," said Elizabeth Sol of Cabuglasan IA.

Additionally, her IA generously shared those seeds to farmers who lack resources. They also shared their learnings to their neighborhood and encouraged them to adopt good farming practices.

And by doing so, they became efficient and successful as the farmer-to-farmer approach has fostered cooperation among them. Many have learned about proper land preparation, direct seeding, and fertilizer application.

"It is only these days that we fully understand technologies in rice farming," said Eduardo Alcasaren, leader of IAs.

Armed with knowledge from PhilRice experts and the enthusiasm to mobilize a community of farmers, Alcasaren and his colleagues generously echoed their learnings to non-members of their respective associations.

Even as these farmers came from different IAs, they work collaboratively. No wonder, they reap the fruits of their diligent labor and collective action – productive farmlands, resilient crops, and empowered communities.

"We all envisioned one thing and that is to have a better life, a better community," said Julita Velete, 59, whose generous acts were blessed by being a two-time awardee in her hometown as the highest rice yielder averaging 8.2 t/ha.

In 2014 wet season, the IAs earned the following estimated net incomes: P16,740 (Lacasan), P19,800 (Cabuglasan), P15,480 (Lacagbun), and P28,800 (Palacati-an).

For now, they could only wish for one thing: that these developments may benefit more communities, and that more IAs and LGUs will be empowered so they, too, can help radiate the impacts of integrated crop management practices in rice.

Increasing rice productivity is the ultimate goal. But the strong collaboration of PhilRice, NIA, LGUs, and the farmer-cooperators even made this initiative more meaningful. They collectively value hard work and inclusive growth.

THE ANSWERED PRAYERS

SONNY P. PASIONA

Carlos Coma, 48, recalled that he and his fellow farmers in their community constantly used synthetic chemicals in exterminating pests in the rice fields. He almost died a painful death as this practice inflicted severe effects on his health.

Just approximately 3 km from their locality, he and other farmers from the Sto. Niño Multipurpose Cooperative were invited to visit PhilRice Agusan on its Field Day. From there, he learned of proper pest management practices and the use of organic fertilizers.

"I looked old when I was using synthetic fertilizers. But when I chose to use organic, I started to look younger," he jokingly said.

For Jemimah Arapoc, 27, the PhilRice Text Center armed her with significant information as she starts her farming life. "I can ask anything about rice. So it gave me hope and relieved me after I thought that farming is hard."

Jemimah also acknowledges that she's able to read comprehensive reading materials from the station. For one thing, she learned about recommended seeds to adapt to the onslaught of El Niño.

New technologies and information on efficient rice farming enlightened the farmers from their traditional practices. Something better is always available, even at times free.

From the FFS, the Palayamanan model farm caught the interest of 56-year-old Servillano Dumaboc. He realized that integration of vegetable and poultry would effect essential changes in their yields.

Servillano's sister-in-law, Aida, handles vermiculture for the cooperative. When she saw its feasibility for their farms, they adopted it and opted for vermi-tea over synthetic chemicals.

This cooperative also initiated a savings program so they can invest on farm inputs that benefit their members in return. As they advocate organic farming, they require their members to use carbonized rice hull (CRH) and vermicast in exchange for monetary loans for their farms.

"Every farmer needs to get 5 sacks of organic fertilizer for his farm before we approve his loan. That's part of our deal," Aida said.

CRH also augmented their livelihood. One member of the Board of Directors, Narj Culao, testifies on how it made their ornamental plants flourish at their best and become marketable enough to flower enthusiasts.

Now, the cooperative's worth is P8 Million (approximately P2 M from share capital and

P6 M from savings).

They did not keep their learnings among themselves. Informal conversations allowed them to let go of their knowledge.

Additionally, the DA-Caraga regional field office provided them a rice mill and flatbed dryers.

The Automatic Weather Station (AWS) established through the help of PAG-ASA also benefited these farmers. Their proximity to the station and access to weather information helped save their crops and belongings.

From synthetic fertilizers to traditional seeds, information transformed their mindsets into adopting new technologies and good farming practices. It saved lives, and secured the future of their cultivated lands.

"The Agusan station answered our prayers to ease our struggles. For that, I am really grateful," Culao expressed.

With the practical knowledge from PhilRice, funding support from other government agencies, and their own innovations, they promise to do farming with informed decisions. Growth among the farmers is what they envision. And they take pride in cultivating the farmlands of Caraga region.

They did not keep their learnings among themselves. Informal conversations allowed them to let go of their knowledge.

AUTONOMOUS PEACE

MARY GRACE M. NIDOY

Much has been said and written about the success stories on vegetable and rice farming in the Autonomous Region in Muslim Mindano (ARMM). But we keep on telling stories, hoping to make sense of all the impact brought about by the partnership of PhilRice, DAF-ARMM, and Japan International Cooperation Agency (JICA) to our Muslim brothers and sisters.

Approximately 3 km from PhilRice Midsayap in North Cotabato, farmers in Northern Kabuntalan, Maguindanao thrive in vegetable production and integrated farming.

The community, led by Mantingan L. Pasandalan, 51, became the home of a Palayamanan model site and FFS established through the Technical Cooperation Project 5 (TCP 5) or Rice-based farming systems and training support program for ARMM.

Pasandalan joined the FFS and later on became the farmer-cooperator of their community.

Living near war-torn areas, farming can be difficult for farmers. But Pasandalan's learnings from the training rippled as he taught his 10 fellow farmers on vegetable and rice production right after his study tour in Luzon.

I saw changes in the way the farmers live. They have learned how to save their earnings for future purposes. They have given so much importance to planting vegetables – crops that they used to ignore before.

- Mantingan Pasandalan

In choosing his students, he was strategic.

"I chose the farmers representing all areas of our community to make sure that no place will be left behind. I taught them everything: from selecting seedlings to harvesting," Pasandalan said.

In a community not used to vegetable production, the farmer-to-farmer approach of TCP 5 brought noticeable changes in Northern Kabuntalan.
"I saw changes in the way the farmers live. They have learned how to save their earnings for future purposes. They have given so much importance to planting vegetables – crops that they used to ignore before," he shared.

Most of the idle lands are now cultivated. Farmers are now mindful of fertilizer and pesticide application; most of them even advocate organic farming.
"Before the training, we only knew how to plant rice. When we learned how to do vegetable production, we increased our income by almost P8,000 every harvest," said Dadang Guimad, 40, one of the farmers trained by Pasandalan.

Fatima Cantero, 23, shared, "Our earnings are used in our daily expenses such as food, and medicine; we also buy seeds of palay and vegetables."

For Pasandalan, these opportunities were made possible by the agricultural development officers from PhilRice Midsayap, the local government unit of Northern Kabuntalan, JICA, and above all, Allah.

When asked how he feels about the ongoing changes in his community, Pasandalan answered with humility, "Sukran (Thank you)."

You're welcome, Mr. Pasandalan.


JICA TCP5
JICA TCP5

The rice industry remains imprinted in the very depths and silence of the hearts of our former executive directors. Here are what they have to say on the Institute's direction in the next 30 years:

THE NEXT 30 YEARS

Within the next 10 years, PhilRice must focus on two tasks: rebuild and re-energize immediately its workforce to have graduate degrees and specialized skills training in various fields. They shall be highly capable and passionately committed to preparing and implementing excellent programs that shall generate enough funds to sustain its modern infrastracture and support operations. Plantilla shall stabilize at 450 regulars plus project-based researchers and technicians. Two, its research thrusts and services shall focus on the poorest rice-farming population who have not benefited from modern, high-yielding inbred and hybrid rice varieties. PhilRice must intensely promote modern rice production and mechanization technologies to improve the productivity and household income of the poor farmers.

PhilRice must further strengthen its partnerships with Japan, Korea, China, Vietnam, Thailand, Malaysia, Indonesia, and India-Pakistan-Bangladesh. Selected PhilRice scientists will specialize on their rice and agriculture programs, and be conversant with their languages, cultures, and traditions.

Some 25 years from now, only farmers following modern rice production systems, mechanizing operations, having the knowledge and skills, competing in the open market, will be able to continue to grow rice. All others will be displaced from the rice farms. They will have to earn their living from other livelihoods that suit their skills and energies. Of course, PhilRice and the government shall assist slow-adopter farmers but only to a certain extent. Thus, younger and highly skilled farmers will "continue" the task of growing rice.

PhilRice will be attending to less than 50% of the slightly over 3 million farmers who will be growing rice.

PhilRice will play a big role in land reformation -- rice farms will be consolidated and re-shaped so that even if a farm would only be 1,000 sqm, a small tractor and other farm equipment can be moved around to plow, harrow, cultivate it, transplant seedlings, and harvest the grains. Irrigation will be more precise: many farms will have lined irrigation canals, pipes, or sprinkler irrigation systems installed. Farmers will be growing better-quality rice varieties: about 50% of these will be hybrid, the rest will be certified inbred, and average yields will be 7 t/ha. Farmers will have a much better life with modern household and transport facilities.

DR. SANTIAGO R. OBIEN
DEC 1986–JUL 2000

PhilRice should muster its scientific and technical capacity to tackle the issue of making the Filipino farmers competitive in their agricultural endeavor (not just focused on rice production but also other farm livelihoods) within the country (competitive with other livelihoods), and with other countries in Asia (cost of production and product quality). This will be in the face of more attractive alternative livelihood options, declining natural resource base for agriculture, and worsening impact of climate change. More than ever, PhilRice should focus its programs, harness its networks and partners, and think outside the box in developing, together with our farmers and concerned stakeholders, options for a competitive, sustainable, and climate-smart agriculture.

DR. LEOCADIO S. SEBASTIAN
AUG 2000-JUN 2008

Two points: Rice will remain as the staple food of Filipinos, and rice production will continue to be the main source of livelihood for Filipino farmers.

These two points will not change. Hence, PhilRice needs to invest and continue research on rice biofortification so we can have a more complete basic food in rice. It should vigorously address micronutrient deficiency through rice, so Filipinos can achieve their optimum genetic potential. PhilRice must also continue to work on location- and climate-specific but profitable rice-based production technologies. It should generate rice-based technologies that would enable rice farmers to send their children to school so they can become professionals someday, and hopefully reverse the cycle of poverty in rice areas. PhilRice must set and advocate right-sized rice-based farms and help redesign agrarian reform to ensure that rice-based production is not only sustainable but also highly profitable.

ATTY. RONILO A. BERONIO
JUL 2008-JUN 2011

Thirty years of PhilRice has failed to lift the rice farmer out of poverty and failed to achieve national rice sufficiency, even as PhilRice continued to harvest awards and other forms of recognition. One fundamental change needed is a shift in program focus from the rice plant to the rice farmer, with corresponding change in unit of analysis from the rice crop to the rice-farming environment. Diversification, intensification, and integration will increase farmer income, create employment within and outside the farm, improve food diversity and human nutrition, and make the rice environment more sustainable. PhilRice should specialize on systems research: interactions between rice and other components, biophysical and human, in the rice agri-biosystem. On the development side, it should utilize component technologies generated by "commodity-oriented" organizations such as IRRI, PHilMech, PCC, and the SUCs, mixing and matching them to develop site-specific rice-based production systems. PhilRice must simply stop being a commodity center itself so it can position itself as the leader in rice-based agri-biosystems. If it fails to do this, another institution will, and PhilRice will find itself increasingly irrelevant.

DR. EUFEMIO T. RASCO, JR.
JUL 2011-FEB 2015

TATLONG DEKADANG PAGBUBUKLOD TUGON SA HAMON: SERBISYO SA MAGSASAKA SA LAHAT NG PANAHON

PhilRice Central Experiment Station, Maligaya, Science City of Muñoz, 3119 Nueva Ecija
Tel: (44) 456-0277 • Direct line/Telefax: (44) 456-0112
Email: prri.mail@philrice.gov.ph • PhilRice Text Center: 0920-911-1398
Websites: www.philrice.gov.ph; www.pinoyrkb.com

PhilRice Agusan, Basilisa, RTRomualdez, 8611 Agusan del Norte
Tel: (85) 343-0778•Tel/Fax: 343-0768 • Email: agusan.station@philrice.gov.ph

PhilRice Batac, MMSU Campus, Batac City, 2906 Ilocos Norte
Tel/Fax: (77) 677-1508; 670-1867 • Email: batac.station@philrice.gov.ph

PhilRice Bicol, Batang, Ligao City, 4504 Albay
Cell:0905-7352078, 0918-9467439 • bicol.station@philrice.gov.ph

PhilRice Isabela, Malasin, San Mateo, 3318 Isabela
Cell: 0917-594-9285 or 0908-895-7796 • Email: isabela.station@philrice.gov.ph

PhilRice Los Baños, UPLB Campus, Los Baños, 4030 Laguna
Tel: (49) 536-8620•501-1917 • Email: losbanos@philrice.gov.ph

PhilRice Midsayap, Bual Norte, Midsayap, 9410 North Cotabato
Tel: (64) 229-8178 • Tel/Fax: 229-7242 • Email: midsayap.station@philrice.gov.ph

PhilRice Negros, Cansilayan, Murcia, 6129 Negros Occidental
Cell: 0928-520-4585 • Email: negros.station@philrice.gov.ph

PhilRice Field Office, CMU Campus, Maramag, 8714 Bukidnon
Tel/Fax: (88)222-5744 • Cell: 0917-615-8710

Liaison Office, 3rd Floor, ATI Bldg, Elliptical Road, Diliman, Quezon City
Tel/Fax:(02)920-5129, Cell:0920-9069052