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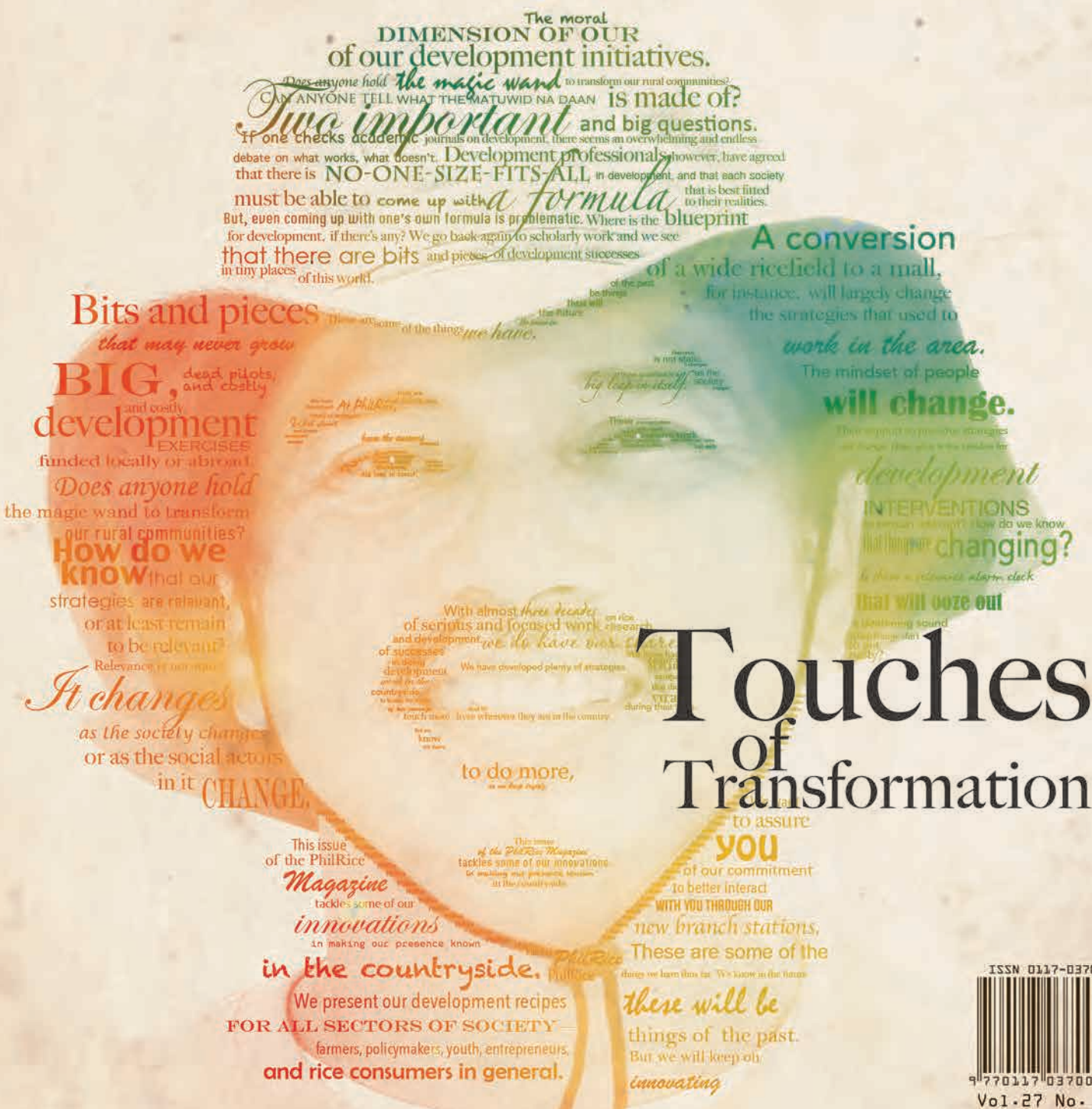

Touches of Transformation

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ABOUT THE COVER

Research outputs will just remain in writing unless passed on to the intended beneficiaries. From laboratories to communities, PhilRice ensures the efficient delivery of rice farming information and technology for farmers' use. It has concocted over the years various development strategies to extend to farmers, and their families, the feel of genuine transformation.

The editorial team encourages readers to photocopy and circulate articles in this magazine with proper acknowledgment. Everyone is also invited to contribute articles (600-800 words plus at least four photos/illustrations with credits) and suggest topics, or refer individuals and organizations engaged in rice whose stories are worth featuring. Please email prri.mail@philrice.gov.ph or philricenews@gmail.com or mail to: THE EDITOR, PhilRice Magazine, Development Communication Division, Philippine Rice Research Institute, Maligaya, Science City of Muñoz, 3119 Nueva Ecija.

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Editor's NOTE
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The moral dimension of our development initiatives

Does anyone hold the magic wand to transform our rural communities? Can anyone tell what the *matuwid na daan* is made of?

Two important and big questions. If one checks academic journals on development, there seems to be an overwhelming and endless debate on what works, what doesn't. Development professionals, however, have agreed that there is no one-size-fits-all solution in development, and that each society must be able to come up with a formula that is best fitted to its realities.

But, even coming up with one's own formula is problematic. Where is the blueprint for development, if there's any? We go back again to scholarly work and we see that there are bits and pieces of development successes in tiny places of this world. Bits and pieces that may never grow big, dead pilots, and costly development exercises funded locally or abroad.

Where's the magic wand? How do we know that our strategies are relevant, or at least remain to be relevant?

Relevance is not static. It changes as the society changes or as the social actors in it change. The conversion of a wide ricefield to a shopping mall, for instance, will largely change the strategies that used to work in the area. The mindset of people will change. Their support to previous strategies will change. Now, what is the timeline for development interventions to remain relevant? How do we know that things are changing? Is there a relevance alarm clock that will blast a deafening sound when things start to get nasty? How we wish there's one.

At PhilRice, we don't pretend to always know the answers. But we argue that knowing these questions is a big leap in itself. These are reminders on the massive work that we should do—not just from and within our ranks but with other beacons in this country.

With almost three decades of serious and focused R&D work, we do have our shares of successes. We have had several campaigns that did go viral during their time. We have developed plenty of strategies to widen the scope of our coverage and to touch more lives wherever they may be.

But we know we have to do more.

This issue of the PhilRice Magazine tackles some of our innovations in making our presence known in the countryside. We present our development recipes for all sectors of society—farmers, policymakers, youth, entrepreneurs, and rice consumers in general. We want to assure you of our commitment to better interact with you through our new branch stations.

These are some of the things we have. We know in the future these will be things of the past. But we will keep on innovating until the farmers in the remotest areas will become information activists.

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News

PhilRice builds station for rice-based farming

Farmers in the country`s seventh-largest island and its nearby provinces may further benefit from the research studies of PhilRice as it constructs a satellite station in Sta. Cruz, Occidental Mindoro.

Dubbed as PhilRice Mindoro Intensified Rice-Based Agribiosystems (IRBAS) station, the site in Brgy. Alacaak will focus on scientific rice production systems and showcase modern rice-based farming technologies, mechanized farming, and biodiversified farming systems.

"IRBAS is a priority to help farmers make their lands more productive; nothing is wasted and every step of the way, farmers will get income. We also hope to encourage farmers to be more entrepreneurial with mushroom production, vermiculture, and vegetables planted after rice," said Dr. Eufemio T. Rasco Jr., PhilRice executive director, during the blessing and groundbreaking ceremony on Sept. 11.

Rasco said that IRBAS is implemented through PhilRice`s *Palayamanan* Plus, a rice-based farming system that strengthens the understanding of the science of diversification and cropping systems.

"Everything a farmer places in his farm serves a purpose. The main crop is rice, but vegetables and livestock are also integrated to optimize the overall farm system. Ducks and fish may be integrated for pest control and added income; or azolla may be planted as source of organic inputs," Rasco said.

Mario M. Movillon, project lead of the new satellite station, said the location was selected as Mindoro is "fast becoming the food basket and food provider of the critical growth regions in the country including the National Capital Region, CALABARZON, and MIMAROPA."

PhilRice, with its central experiment station in Nueva Ecija, has branch stations in Ilocos Norte, Isabela, Laguna, Albay, Negros Occidental, Agusan del Norte, and North Cotabato. It also has a satellite station at the Central Mindanao University in Bukidnon.

Sen. Cynthia A. Villar, chair of the Committee on Agriculture and Food; Josephine R. Sato, representative of Occidental Mindoro; and Proceso J. Alcala, secretary of DA led the ceremonies. DA Assistant Secretary Edilberto M. De Luna, Gov. Mario Gene J. Mendiola, Vice Gov. Peter J. Alfaro, Sta. Cruz Mayor Felimon M. Galsim, and *Sangguniang Panlalawigan* members also witnessed the event. | Mary Grace M. Nidoy

Boost budget for agri ext'n workers –stakeholders

Underfunding of workers in rice extension adversely affects the success of extension work. This was tackled during the *Invigorating the Philippine Rice Extension System* forum held on September 5 at PhilRice in Nueva Ecija.

"Our extension workers lose their motivation since they are underpaid. We should increase not only their capabilities but also their resources," Dr. Andrew Gasmen of the Agricultural Training Institute (ATI) said.

Municipal Agriculturist Emilio P. Camba of San Mateo, Isabela emphasized that lack of funding hinders most agri-extension workers (AEW) from attending training programs and seminars.

Dr. Greta Gabinete of the Western Visayas State University said that extension is only third priority in SCUs. "In terms of funding, instruction comes first, followed by research, then extension," she said.

Dr. Santiago Obien, chair of the Asia Rice Foundation's (ARF) Board of Trustees, said that each province should be required to submit a 5-year provincial rice extension strategic plan, including budgetary requirement that could be co-funded by the national government.

"Agricultural agencies and the civil society need to support the salary standardization of AEWs to increase their motivation," Obien said.

He also suggested that LGUs renew agriculture extension-related scholarship programs with standard rates of allowance, service contracts, and guaranteed work after graduation to encourage younger workers in this field.

National rice extension network and coordination with other government

Stakeholders from different sectors convene in a dialogue to discuss the ways to better improve the country's rice extension system. (l-r) PhilRice's Rhemilyn Ralado and Ev Angeles, University of Southern Mindanao Professor Rosafe Honrade, farmer-representative Edwin Paraluman, and League of Municipal Agricultural Offices President Jesusa Noveda.

agencies that provide basic services for rice should also be strengthened.

Obien mentioned the need for LGUs to develop a pool of local intermediaries (i.e., *barangay* council agriculture committee, input suppliers, seed growers, farmer leaders, and civil society) at the village level. These are tasked to provide immediate rice extension support to clients and serve as link between clients and technical specialists.

It was deemed necessary to create a certifying body that will provide license to AEWs, provide extension certification to technical specialists, and upgrade the rice extension curriculum, at least once every five years, to be attuned to the changing agricultural environment.

"They should be provided with specialized rice extension training, especially in municipalities where rice is a priority, with potential certification that is not as rigorous as the technical specialist certification," Obien said. It was also suggested that agencies harness the potentials of ICTs to reach more clients.

Farmer representatives reiterated during the forum that logistical support and technical knowledge are not enough, but also the heart for development and helping farmers.

Meanwhile, Dr. Gelia Castillo, a PhilRice trustee and national scientist, emphasized that extension is more than just technology transfer. "It is human development, which requires human interaction such as connecting farmers with other farmers. Many of the things that will develop agriculture require collective action, not just individual action," Castillo pointed out.

"Agriculture is forever since it is the only way we can grow food. So, I hope we follow up the recommendations of this forum," Castillo added.

Stakeholders from government and non-government agencies, private companies, SCUs, and the scientific community participated in the event. DA-ATI, DA-PhilRice, and the ARF, in partnership with the DA-National Rice Program and IRRI organized the forum. | Ma. Victoria Stephane G. Asio

2014 Senadhira awardee is Filipino

In her 40 years in government service, Thelma Padolina is an inspiration to the new generation of rice breeders in developing more high-yielding and environment-suitable rice varieties for Filipino farmers.

The first ever Filipino and the first woman to receive the Asian-wide Senadhira Rice Research Award is a PhilRice breeder.

Thelma F. Padolina, a chemist-turned-breeder, who has been breeding for more than 30 years, received the award on Oct. 30 during the International Rice Congress in Bangkok, Thailand.

"When I was informed that I am chosen to receive the award, I was overwhelmed with joy. This award is important for me because my efforts as a breeder are recognized," she said.

IRRI established this award in memory of Dr. Dharmawansa Senadhira, a Sri Lankan researcher who led IRRI's flood-prone research program from 1996 to 1998. It is given to qualified scientists who have made outstanding contributions to rice research, especially for those involved in rice breeding and genetics, increasing tolerance for abiotic stresses, and improving micronutrient density.

Among many achievements, Padolina is a recipient of seven research-related awards, and a principal breeder of over 20 varieties.

Before the establishment of PhilRice, she co-developed varieties for irrigated lowland, cool elevated, and other varieties for adverse conditions. She had major contributions in the development of BPI Ri10, BPI Ri12, PSB Rc6, and PSB Rc8 under the Maligaya Rice Research and Training Center and Bureau of Plant Industry from 1978 to 1985.

While working in PhilRice, she had the opportunity to work in the international research scene. She has networked with IRRI scientists on various activities (phenotyping, TRRC, GRISP-MET, RDA-GUVA), other international institutes (IAEA, JIRCAS, KOICA, JICA, KOPIA), and foreign countries (Brunei, China).

"I am grateful for the support of PhilRice. I was trained to breed by international experts through the collaboration of PhilRice with them," she said.

She further said that being a female breeder is a challenge because there are people who tend to prefer men over women, but she was able to surmount these challenges with the love and passion she has for her work.

Padolina challenged other researchers to always have passion for their work, have the heart to learn continuously, and work with other experts and learn from them. Moreover, she encouraged breeders to pass their knowledge to others.

"Skills are earned through experience. Through time, you gradually learn and have an eye to decide which is better," Padolina said. | Mervalyn O. Tomas

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Infomediary campaign recognized internationally

A paper on mobilizing the youth to search agriculture information for farmers received two commendations during the recent Communication Policy Research: south 2014 (CPRsouth2014) conference in Maropeng, South Africa.

The paper, *More than just a myth or a theory: Evidence of high school students performing infomediary roles*, was among the top eight researches and was also one of the five policy briefs awarded with special commendation. It was chosen from among 22 research papers from Asia and Africa.

Jaime A. Manalo IV, research lead, said that online and offline strategies can complement each other to achieve the bigger goal of providing easy access to cost-reducing and yield-enhancing technologies.

Results were based on the Infomediary Campaign evaluation being conducted by PhilRice across the country since 2012. The campaign mobilizes high school students to serve as information providers or infomediaries in their farming communities.

Results show that disseminating rice information is effective with the combined use of text center and the internet (online) and rice gardens set-up in agricultural schools for hands-on experience (offline).

Student's involvement in setting up the rice gardens prompted them to ask questions to the Text Center, Manalo said.

Evaluating seven randomly selected schools among 81 participating schools after a year of the campaign`s national implementation, Manalo and his team found that 94% of the students performed their roles as infomediaries, either by sending text messages to PTC, searching information from the PRKB, or reading publications on rice from their school library.

Following results of the second round of reviews, the eight outstanding papers will be published in an ICT policy journal. CPRsouth and Research ICT Africa funded the paper presenters.

Jayson C. Berto, Katherine P. Balmeo, Oliver C. Domingo, and Fredierick M. Saludez co-authored the paper.

| Mervalyn O. Tomas

For a noble cause. Visual artists from main cities in Luzon gathered in the opening program of *Palay-Kamalayan* exhibit in PhilRice, Sept. 30, to help build the Rice Science Exploratorium, a proposed national landmark in Nueva Ecija, and promote education on rice through culture and arts. The exhibit features works of about 25 artists including Julian Julmir Almirol (above photo) with rice as their medium and subject. Almirol's *Binhi ng Lahing Kayumanggi*, a Friseco relief on plywood, is made from rice hull.

New mobile app for farming developed

Farming gets more high-tech with the mobile applications (app) being developed by information technologists in Nueva Ecija, the country's rice granary.

Android mobile app that can do three functions: measure farm area, calculate fertilizer needs, and assess nitrogen deficiency garnered the Most Innovative Application and the Special Jury Award during the recent AGRI-Hackathon hosted by the Philippine Rice Research Institute (PhilRice).

"With this app, estimates will be lessened. It is important for the farmers to know their exact farm area to optimize it; while fertilizer application must also be accurate for crop's health and to avoid unnecessary fertilizer expenses," developers Jermaine M. Germino and Michael L. De Guzman said.

The mobile app also incorporated the principles of Leaf Color Chart (LCC) or the four-stripped plastic "ruler" used in assessing nitrogen status of rice plant.

Germino and de Guzman, instructors of the Nueva Ecija University of Science and Technology (NEUST), said that instead of comparing the color of the leaves with the ruler, the farmer will now take photos of the leaves for the app to analyze.

"In seconds, accurate assessment will be generated," they said.

Meanwhile, the E-Survey app by team Agrisive of the Central Luzon State University was given the Best Research and Survey Management Application. This application contains an e-form that respondents fill out based on the researchers' information needs.

The *I-Tanim* of the I-Tech team from NEUST also received the Best Farmer Information Technology Application. *I-Tanim* is an e-book in a single app containing the LCC, PalayCheck, tutorials on selecting seeds, and mini-encyclopedia on plant disorders.

The mobile applications are further being developed.

AGRI-Hackathon is a competition for information technologists to create either web or mobile app. Microsoft Philippines, Eqela, Blackberry, Freelancer, and PhilRice sponsored the event.
| Mervalyn O. Tomas

Agri chief confident of farmers competing in ASEAN trade

Agriculture Secretary Proceso Alcala has expressed confidence that "Filipino" farmers can be at par with the best farmers of the world" after appreciating the results of the dry season *Palayabangan*, a nationwide farming contest.

"ASEAN integration may sound intimidating. But it`s proven that farmers can be globally competitive," Alcala said.

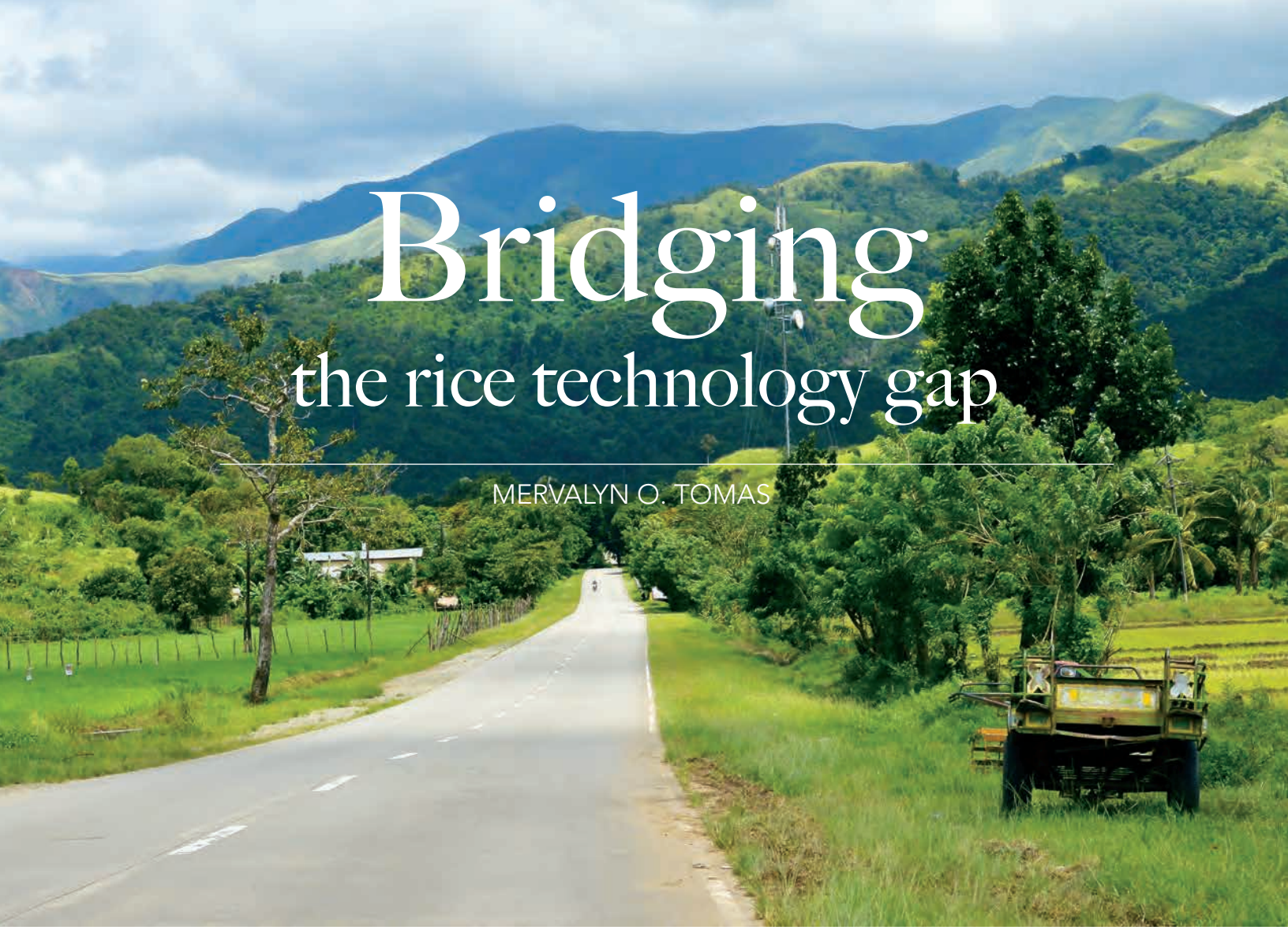
In a simple ceremony held at PhilRice in Nueva Ecija, Alcala awarded the Palayabangan winners, a production challenge that aims to produce 10 tons of rice in a hectare at a cost of P5 a kilo. Current production cost is estimated at P11 a kilo.

Syngenta Philippines was declared regional winner in Isabela with its 10.54-t/ha harvest produced at P4.94 a kilo. Records show that the multi-national company gained P127,214.19 based on the National Food Authority`s prevailing market price of P17/kg.

"The Agriculture Department supports PhilRice in promoting technologies for our farmers to fare well when goods from our neighboring countries pour in our market. In this PhilRice-organized competition, we saw that farmers can get higher yield at minimal cost," he said in Filipino.

Participants who almost met the challenge include the local government unit of San Mateo, Isabela, which registered 9.72 t/ha at P4.67 a kilo; and Ramon, Isabela farmer Ricardo Terte, 9.69 t/ha at P5.67 a kilo. In Nueva Ecija, Pioneer Philippines recorded a yield of 10.23 t/ha at P5.92 a kilo, while SL-Agritech produced 9.63 t/ha at P6.99 cost.

Alcala said that training, technical guidance, and government assistance will also help farmers increase their harvest and income. | Charisma Love B. Gado



Bridging the rice technology gap

MERVALYN O. TOMAS

Technology has a special niche in the hearts of advocates and workers for development. It has been an important and effective partner for them to bring positive changes in communities in need.

With the many agricultural researchers and research institutions in the country, numerous technologies have been developed with the hope of bringing a better life to Filipino farmers.

PhilRice has redefined the roles of its branch stations and their partners in the community. They have strengthened their development focus, and now leave the bulk of research work to the Central Experiment Station.

Until 2013, PhilRice stations had carried out specialized research activities. The station in Batac City, Ilocos Norte was center for dry land agriculture R&D; San Mateo, Isabela, hybrid rice; Los Baños, Laguna, grain quality; Murcia, Negros Occidental, organic agriculture; RTRomualdez, Agusan del Norte, nutrient management; Midsayap, North Cotabato, integrated pest management; and Ligao City, Albay, R&D for climate change adaptation.

Strategies

Stations as primary demonstration sites

"From their specialized focus, the stations are now transformed into technology development centers for easy and immediate technology deployment to surrounding communities," Dr. Eufemio Rasco Jr., PhilRice Executive Director, said.

He explained that the stations will serve as the centers (nuclei) for technology testing and demonstration. From them, the outcome will be easily and immediately deployed to the surrounding communities. This creates a ripple effect as these communities will then become additional technology disseminators to farther communities. Schools and state universities near the stations are also potential catalysts in the formation of other nuclei.

"We have to demonstrate these technologies first in the station and show to the farmers that they really work. This is a strategy to help gradually change the mindset of farmers in adopting new technologies," Abner Montecalvo, branch manager of PhilRice Agusan, said.

Organized groups

He further explained the need to participate in meetings of farmers to have a face-to-face encounter with them. In Agusan, aside from attending farmers' meetings, they also engage themselves in regional management meetings to present available technologies.

"Organized groups are perfect partners in

technology dissemination. They can easily adopt and disseminate technologies to their members. In effect, the members can share these technologies in their circles. This is one of the ways for us to achieve the ripple effect that we want," Montecalvo said.

Media and knowledge products
"The publications PhilRice produces are also helpful. We distribute these knowledge products to farmers, agricultural technologists, and other concerned individuals for them to have ready references. We also use other campaign materials such as billboards and posters," Montecalvo said.

To easily reach out to a wider population of farmers, he said that they also link with the mainstream media.

Local government units (LGUs)
"We are partnering with LGUs in technology dissemination. We have been doing this before but we are strengthening it further now that our thrust is more on development," Fidela Bongat, PhilRice Batac station manager said. She said that LGUs, with their link to individual farmers, are important arms in technology and information dissemination.

Schools
The stations must be open to serve as information sources to students and schools, according to Montecalvo.

In Agusan, they offer training programs on the use of technologies to university students and fresh graduates.

Montecalvo says this is a bunch of work that is not easy to do with limited resources such as few staff members, but they practice volunteerism. "We have to multi-task, and do whatever we can do with the available resources," he said.

"We give more time and effort to development with the new thrusts of branch stations. The partnerships we have built through the years are still continuing," Bongat said.

On the other hand, Dr. Vic Casimero, former manager of PhilRice Midsayap, has seen the need for more workers in the field of development. "I see the need for more personnel trained to bring these technologies to the farmers," he said. "Leaning to the development side will be advantageous to the farmers and the community. I hope this thrust will continue so as to continuously effect change in the community," he further said.

Community's response
"With the help of our partners like the LGUs and schools, more and more farmers had been adopting technologies the institute developed," Bongat said.

She further explained that there had been changes in farmers' yields, their old practices that are not really helpful, and more.

These were achieved when the stations focused on their specialized research activities. This time, the institute is aiming for more productivity, profitability, sustainability, resource-use efficiency, value-adding, and mechanization in the rice environment, compared to what was achieved in the past.

There is no tailored set of strategies to promote technologies. The varying conditions and needs in communities bring challenge to R&D institutions like PhilRice.

However, with the heart that beats for faster development in the country, workers will have to resolve the issues, designing different strategies appropriate for each condition.

Moreover, with the help of partners in the field, the work will become a lot easier and effective.

> From their specialized focus, the stations are now transformed into technology development centers for easy and immediate technology deployment to surrounding communities.
>
> – Dr. Eufemio T. Rasco Jr.

Farmers

embrace PhilRice Agusan development strategies for greater farm productivity

DIADEM G. ESMERO

At 24 years old and for the past 2 years, PhilRice Agusan Branch not only surmounted daunting barriers not because of its minuscule staff, but also due to its adaptive capacity to adjust and take advantage of opportunities given the presence of adequate programs, strategies, and human capital assets so characteristic of the country's premier center for rice research.

Sustaining food security requires a regional focus. Established in 1990, PhilRice Agusan operates at the heart of the Caraga Region where farmers lead in achieving 10 t/ha yield at P5/kg input cost, as seen by a rice-based 2011-2012 farming household PhilRice survey.

In fact, "the Caraga Region has a slightly higher per capita rice availability (129 kg) than the national average (119 kg)," notes PhilRice trustee and national scientist Gelia T. Castillo.

Staffed only by 11 regulars and 88 service contractors, PhilRice Agusan's regional role and its responsibilities have become successful alternatives over time in providing the most essential element of Filipino life – rice – outside of clean water, electrical power, farm-to-market roads, and irrigation facilities, among other such public goods.

PhilRice Agusan's numerous awards, including the much-coveted Best Station Award in 2012 and 2013 and those presented by its partner institutions and organizations, ought to be viewed in another perspective.

Beyond stresses and threats

The station's secret lies in its people's capacity for social mobilization. Their deep dedication, amplified or moderated, is a difficult job for outsiders to assume despite the unwanted generic stresses and threats inherent in their scientific world.

Branch Manager Abner T. Montecalvo thus speaks: "One of the strengths that PhilRice Agusan has is strong social relationship with those around it. Through the years, it has maintained harmonious relationship with local government units and other agencies within the region."

"Being a credible partner for regional development, PhilRice Agusan has maintained its identity as one of the leading movers for meaningful undertakings within the area. The station's sense of initiative is one which the partners usually depend on."

"With high spirit of volunteerism inculcated among the staff, the station is a leader in social mobilization in the area. These activities are even beyond the normal and official call of duty."

Beyond supporting or gap-filling roles, "some staff members work with communities beyond office hours. Being good neighbors to people around are ways by which the potential for building and maintaining the credibility of the station is enhanced," Montecalvo adds.

Partnership and collaboration

Harmonizing PhilRice Agusan's agenda for development, research, and monitoring rests upon some explicitly articulated elements for effective management. As Montecalvo explains: "Internally, the station prioritizes its programs according to the perceived impacts that such programs will bring. Classification is based on what is more urgent, which can be done given limited resources especially those that require more longitudinal interventions. If resources are limited, the station is active in searching for other sources. This starts with more meaningful partnership and collaboration…the prescribed way to impact social change. Only those with keen eyes on social change can work on this, which the station has."

Shared experiences

Through this, PhilRice Agusan draws important shared experiences that are likely to sustain and strengthen its relationship with its new and long-time partners and collaborators in the long term.

It is no wonder then that farming communities around PhilRice in RTR, Agusan del Norte consider the Institute as their "shelter from the challenges in rice production and during calamities."

In determining PhilRice Agusan's social impact, farmers during a recent focused group discussion underscored their benefits from the Institute's technologies such as seeds, varieties, and pest management recommendations.
The farmers highly respect PhilRice workers for their active participation in local events and linking them to other agencies like the International Labor Organization, Department of Science and Technology, and the Department of Agriculture and its attached agencies.

Researchers are far more generous in the way they facilitate and provide information assistance as the farmers observed that they can be easily approached on rice farming matters. The branch thus becomes a successful reinforcement for schools offering agriculture courses.

Technological credibility and CSR

Agricultural research supports farm productivity growth, and PhilRice draws its credibility from the kind of technologies it develops, sought after, and highly adopted by farmers.

Dr. Gerardo F. Estoy, Jr., R&D coordinator, names the top three technologies that are highly adopted and sought by farmers in the station and in Caraga Region in general as follows:

- Quality seeds of a recommended variety with preference for PSB Rc18, Rc82, NSIC Rc122, Rc128, Rc158, Rc160, Rc194, Rc222, Rc240, and Rc286.

- PhilRice Agusan-promoted farm machines specifically for land preparation, harvesting and threshing using combine harvester, drying and seed cleaning, and for non-mechanized operations such as transplanting, weeding, and fertilizer application and spraying. "More farmer groups want to avail of the PhilRice Agusan farm machines since they believe that this is the solution to their farm mechanization problems," the DA RFO-XIII reveals.

- Cultural control practices by farmers brought about by pest management lectures rid Caraga Region of major pests such as white stemborers, rats, and rice black bugs.

Agriculture Secretary Proceso J. Alcala commended the Institute for producing and promoting *Metarhizium* powder, a pesticide safe for humans and the environment capable of reducing RBB (rice black bug) by 30-68% within seven days. RBB is one of the most damaging insect pests that cause severe damage by sucking the rice plant's sap during the reproductive stage. The attack can severely reduce yield by up to 80%.

Secretary Alcala awarded Dr. Estoy for his intensive research on *Metarhizium*.

- In addition, recycling of farm wastes made farmers realize that rice straw is a source of nutrients for rice. Thus, the no-burning of rice straw policy enabled farmers to save on cost due to expensive synthetic fertilizers. Also, applying the correct planting density (2-3 seedlings/hill) enabled farmers to save more money and grow a healthy rice crop.

- Corporate social responsibility (CSR) is also within the realm of any research institution like PhilRice. Early this year, the station served as its neighbor farmers' and their families' temporary home when floods hit them.

> With high spirit of volunteerism inculcated among the staff, the station is a leader in social mobilization in the area. These activities are even beyond the normal and official call of duty.

The most treasured

Clearly, while PhilRice Agusan's fascination and passion in rice research does not detract it from its mandated mission and vision, it continues to bear on its accountability and responsibility to the communities it serves.

On hindsight, it is conceivable that because of its unaltered commitment to its science, which is its untenable jurisdiction, the branch will continue to evolve, make research and invest in rural development, and articulate thematic focuses on its programs.

Along the way, the branch will always receive constructive comments – albeit criticisms from anonymous denizens – but it is generally felt, we believe, that helpful and substantive reactions and appreciations on its activities and accomplishments from partners, collaborators, and farmer-beneficiaries are the awards and trophies that PhilRice Agusan will treasure the most.

PhilRice satellite stations on the rise

MARY GRACE M. NIDOY

With the birth of the 100 millionth Filipino on the very day of the President's penultimate SONA in late July, food security persists as an issue no one can ignore.

PhilRice especially cannot.

As the country's lead agency in rice R&D, PhilRice has produced cost-reducing and yield-enhancing technologies in rice farming. In the 2008 PhilRice impact assessment, external reviewers noted that its stakeholders are happy, particularly the farmers who have benefitted.

Yet the need to be more responsive to their needs persists.

To fast-track the delivery of PhilRice's services and optimize its potential for rice production, satellite stations will be established in strategic locations.

PhilRice Mindoro

The satellite is dubbed as PhilRice Mindoro Intensified Rice-Based Agribiosystems (IRBAS) Station. Dr. Eufemio Rasco Jr., PhilRice executive director, explained

The ceremonial ground-breaking in Mindoro sparks the beginning of another journey of PhilRice to reach more Filipino farmers in remote areas.

As the country's lead agency in rice R&D, PhilRice has produced cost-reducing and yield-enhancing technologies in rice farming. In the 2008 PhilRice impact assessment, external reviewers noted that its stakeholders are happy, particularly the farmers who have benefitted.

during its blessing and groundbreaking ceremony on Sept. 11 that IRBAS is a priority to help farmers make their lands more productive.

PhilRice sees Mindoro as a production basket of nearby regions with high demand for food, especially the National Capital Region.

PhilRice Samar

A mainstay in the top 12 poorest provinces of the Philippines as attested by the National Statistical and Coordination Board, helping curb poverty is a good justification for a PhilRice station in Catubig, Northern Samar.

On Sept. 2, PhilRice and DA Region 8 entered into a Memorandum of Agreement (MOA) stating that the latter shall transfer possession, custody, and use of its Technologically Advanced Agribusiness Demonstration Station (TAADS) to PhilRice with a 20-year rental agreement.

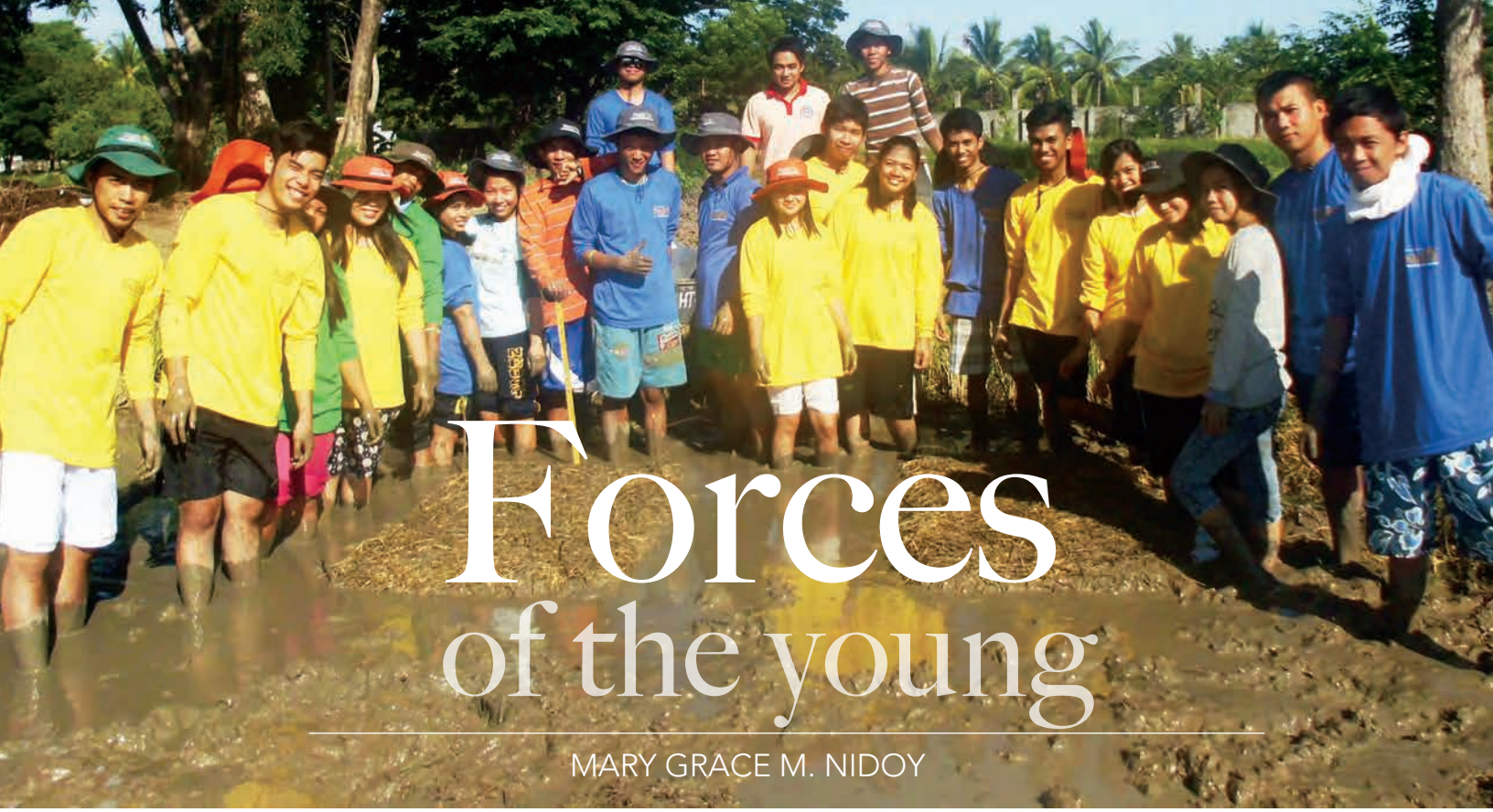
PhilRice will now take charge of the overall repair and renovation, maintenance, and security of TAADS. It will also utilize facilities for rice-based R&D activities and training of rice researchers and development workers.

Lately, the province witnessed the greatest horror in years when many of its residents were victims of super-typhoon Yolanda. The catastrophe left seemingly indelible damage to the province's agricultural lands. A PhilRice station will help ensure that the food security aspect is sufficiently covered.

PhilRice Zamboanga

To broaden the market of PhilRice products and services and bring the R&D projects closer to the rice stakeholders in Zamboanga Peninsula, PhilRice will also establish a satellite station in Zamboanga del Norte in partnership with Sindangan National Agricultural School (SNAS). Thru this partnership, PhilRice and SNAS will collaborate as partners on rice research, seed production, training, communication, extension, and human resource development projects.

SNAS will provide 1 hectare for upland rice and 10 hectares for irrigated rice located in Barangay Labakid, Sindangan, Zamboanga del Norte. The Memorandum of Understanding between SNAS and PhilRice is still being reviewed.



Forces of the young

MARY GRACE M. NIDOY

Rather than taking one giant leap to change the world, there are those who choose to make the small, yet certain, baby steps.

Graduates fresh out of college, students seeking for internships, or high school students looking for a job in summer – they are all "force multipliers," as PhilRice Executive Director Eufemio T. Rasco Jr. describes them.

To amplify its efforts, PhilRice raises its capacity in development work by optimizing the following platforms designed to enhance its human resource and forge new partnerships:

Special Program for Employment of Students (SPES)

The nationwide program is a joint project of the Department of Labor and Employment (DOLE) and the local government units (LGU). According to PhilRice Human Resource Head Glenda D. Ravelo, since the program's implementation in 1992, PhilRice has been accepting high school students to work at the institute during summer.

The human resource management office of PhilRice works with LGU-Muñoz in accepting students who are assigned to different divisions and assist in their day-to-day operations. Since 2009, PhilRice has accommodated 92 students for SPES.

On-the-job training or internships

Christopher C. Cabusora, now science research specialist II of the Plant Breeding and Biotechnology Division, was an intern in 2004 under the supervision of Dr. Antonio A. Alfonso and researchers of the biotechnology laboratory.

"It's a month of working experience, and in that short span of time I learned a lot in terms of biotechnology, especially gene cloning, genetic engineering, and tissue culture, and not just their theories but also their applications in rice breeding – which I think earned me a 1.0 grade in my internship," Cabusora shares. He is from San Jose City, Nueva Ecija.

His appreciation for rice breeding and development made him want to work at PhilRice. He then applied in 2005 and was hired two months after his graduation. "I believe having my internship at PhilRice was one of the criteria Dr. Nenita V. Desamero considered when she said yes to my application. I've been working here for nine years and I'm still learning a lot," he says.

Since 2009, according to Ravelo, seven former interns were hired and now work in different divisions and branch stations of the institute. In the past five years, 407 students have been accepted as interns, most of them from Central Luzon State University, Tarlac College of Agriculture, Mindoro State University, and Bicol University.

While PhilRice has been accepting interns, the Development Communication Division has created an internship program designed for senior students taking communication-related courses.

"What we did was just to formalize things and tried to have some clear-cut guidelines for interns," says Jaime A. Manalo IV, current head of the DevCom Division.

The program is focused on devcom that the interns will have to undergo. There are high-caliber people who mentor and assign tasks to interns to ensure that core internship areas of their respective universities are met, and the interns are regularly monitored by a coordinator.

Last summer, the division selected two incoming senior devcom students from UP Los Baños.

"It was received well when we put up the ad online. There were students who

commented that this is the first internship program targeted to devcom students," says Manalo.

Aside from internships, PhilRice is also a host to senior college students who want to conduct their thesis at the institute. In the past 5 years, it has accepted 52 students from different universities and state colleges.

Rice Boot Camp

Young people who look forward to possible careers in the rice industry and want to learn about the basic science in rice production now have the chance to be trained by PhilRice experts.

The Rice Boot Camp for New Graduates of Agriculture and Rice-Related Sciences in February 2014 aimed to orient and encourage promising young minds to invest their skills and talents in boosting our rice industry.

> Through this partnership, we are able to help the students situate themselves in a bigger world, and so enable them to reflect on how they can be relevant in the massive movement going on to help the marginalized sectors of our society.
>
> – Mr. Jaime Manalo IV

According to Training Management and Services Division's Val C. Garcia, training coordinator, the program intends to increase awareness of promising young professionals on the current issues and prospects related to the rice industry: *PalayCheck* System and *Palayamanan* Plus and other technology interventions being promoted by PhilRice. It also builds a roster of potential researchers and development workers who can be recommended for hiring in agricultural organizations or private companies.

"The 10-day training was attended by 23 fresh graduates from universities in Central Luzon. Majority of them (52%) are 20 years old; the youngest is 19, while the oldest is 32. Many (47.6%) of them finished BS Agriculture," says Garcia.

One of the participants, Mark Manalastas, recalls, "aside from learning the technical aspect of rice production, I have also learned to appreciate our farmers; their job is not an easy one that's why I salute them."

The training, according to Manalastas, helped him land a job in a government agency. "I think my experience in the boot camp helped me a lot to be hired as a research staff of the Central Luzon Integrated Agricultural Research Center at DA-RFO III," he says.

Symbiosis

Ravelo shares that the programs fulfill a part of the institute's corporate social responsibility and "OJTs, SPES, and interns are added manpower. Though assignments are limited to basics and routine, they also contribute to our accomplishments."

The programs have also helped the institute establish partnerships with universities and government agencies. For instance, the Devcom Division was able to execute a MOA with UPLB because of the internship program.

Manalo explains that the forged partnership with universities is extremely beneficial to both parties.

"It is in universities where the future professionals of this country are being trained. And this training will only be complete if we are able to give the students a taste of what is happening outside the confines of their respective universities," he says.

For Manalo, it's all about striking a balance between idealism and hard realities, between theories and practice-- hence, praxis. "Through this partnership, we are able to help the students situate themselves in a bigger world, and so enable them to reflect on how they can be relevant in the massive movement going on to help the marginalized sectors of our society."

For the young, the real world may be scary. But the small baby steps they collectively take, can make a massive leap to make a difference.

Allies in the academic sector

CHRISTINA A. FREDILES

Real partners share a common goal. For PhilRice and its partner state colleges and universities (SCUs), it is generally to improve farmers' lives.

PhilRice Executive Director Eufemio T. Rasco, Jr. says partnership makes the goal easier to achieve as you have additional helping hands to work with. Also, the knowledge generated is greater with lesser investment.

SCUs have high-caliber manpower and students who serve as one of PhilRice's force multipliers, Rasco adds.

PhilRice has been collaborating with SCUs on rice research, training, communication, extension, and human resource development projects.

Some partners

The Central Mindanao University (CMU) in Bukidnon has been working with PhilRice since 1988. "We have been developing and promoting rice and rice-based technologies, and producing high-quality rice seeds with CMU," Rasco said.

CMU has now provided 100 hectares to PhilRice for field demonstration, seed production, administration building, and structures. CMU President Maria Luisa R. Soliven, who has served as PhilRice trustee since January 2012, helped double the original area first used in 1997. The seed production project is solely managed and funded by PhilRice, even as it provides technical assistance to CMU's own seed production.

According to Rasco, seed production at CMU ensures the availability of inbred and hybrid seeds to seed growers and farmers in Central Mindanao and elsewhere.

Good-quality seeds are pure, clean, full, and uniform in size, and germinate at a rate of at least 85%. PhilRice studies prove that use of good-quality seeds can result in 5-10% increase in yield.

Another partner, the UP Los Baños (UPLB), had actually helped create PhilRice in 1985. UPLB cradles PhilRice Los Baños, where the institute first operated in 1987. The PhilRice principal office now works in a 17-ha UPLB property where location-specific technologies for rainfed and upland areas are being jointly developed and packaged.

The Minus–One Element Technique (MOET) is the most popular innovation of PhilRice and UPLB still widely used. MOET is a diagnostic tool to determine soil nutrient deficiency. Studies show that nitrogen-deficient plants are stunted and yellowish while too much nitrogen makes the rice plant prone to lodging, pests, and diseases.

The Visayas State University (formerly Visayas State College of Agriculture) in Baybay City, Leyte has also been working with PhilRice since 1988. The Agusan del Sur State College of Agriculture and Technology (ASSCAT) has forged a 5-year partnership with PhilRice since June 2014.

Mutual perks

Under agreements between PhilRice and the universities, exchange of staff depending on their field of expertise is facilitated. Both parties benefit from each other resulting in improvement of rice technologies and wider exchange of knowledge. Also, staff can conduct R&D activities depending on the availability of funds and facilities. To enhance the capacity of staff, they are encouraged to participate in national conferences, symposia, workshops, and rice-related activities.

Theses of students of the university partners may be funded by PhilRice provided that the topic falls under the institute's priorities.

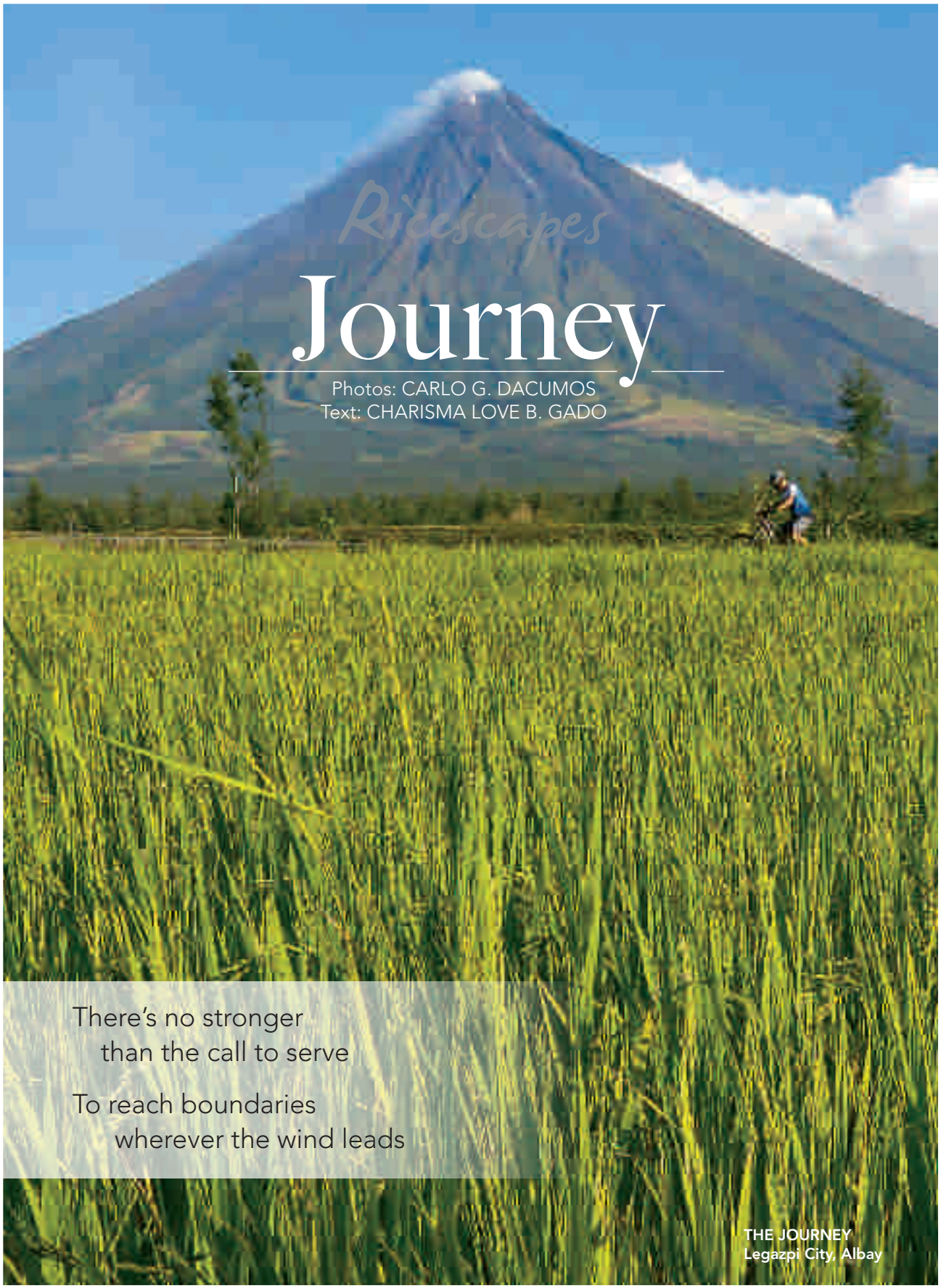
On-the-job training for students is also offered. PhilRice and partners share laboratories, research fields, libraries, and computer networks.

One of PhilRice's strengths is its partnership also with international organizations, religious, women, youth, entrepreneurs, and other institutions. Partnering with SCUs is most worth it as the return on investment in knowledge is multiplied by more than a hundredfold.

Ricescapes

Journey

Photos: CARLO G. DACUMOS
Text: CHARISMA LOVE B. GADO



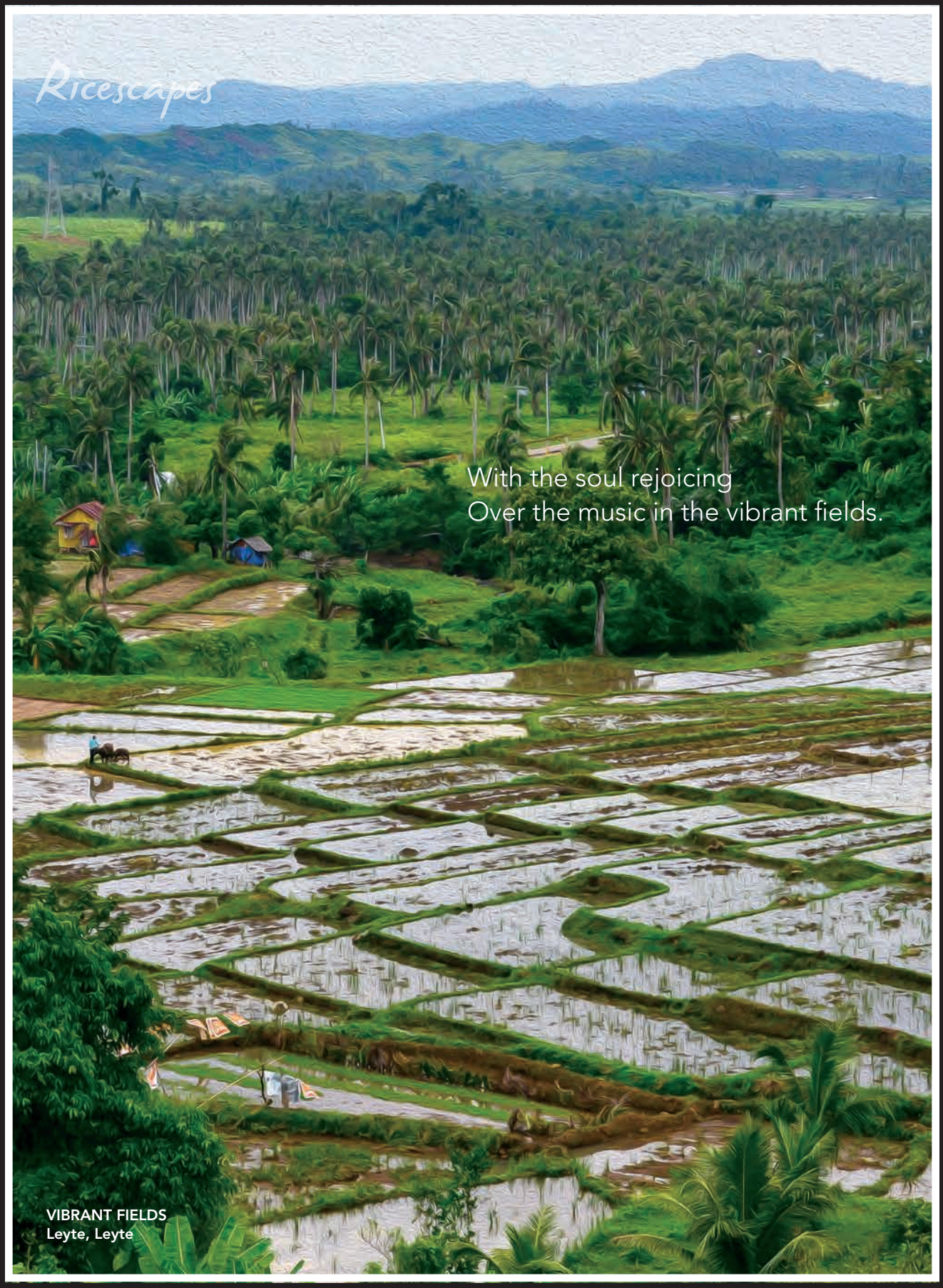
There's no stronger
than the call to serve

To reach boundaries
wherever the wind leads

THE JOURNEY
Legazpi City, Albay

DISTANT SPACES
Mangatarem, Pangasinan


Long passage, patient talks
Distant spaces closing in

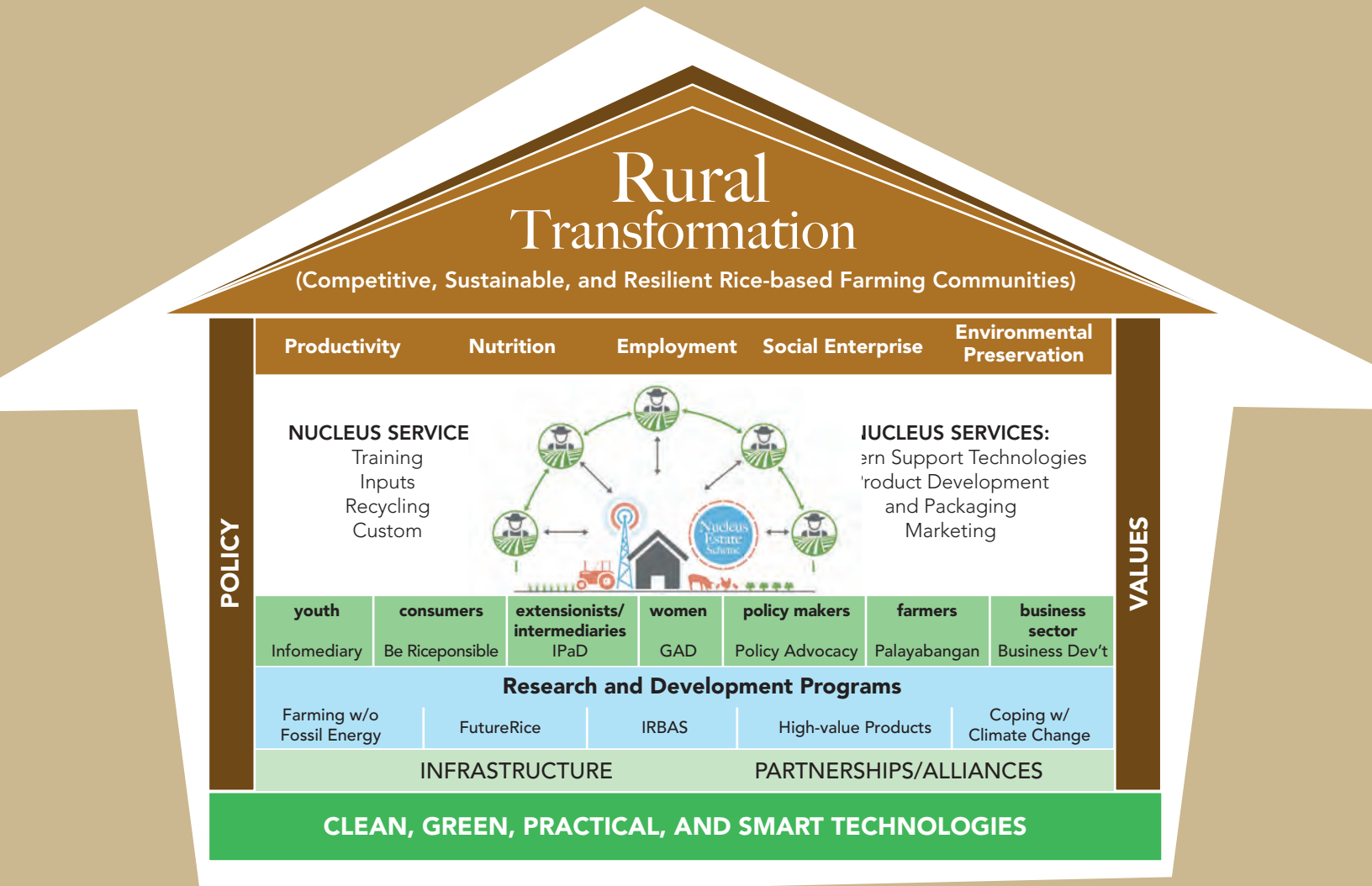


VIBRANT FIELDS
Leyte, Leyte

Transformation, not merely transmission

RONAN G. ZAGADO

From a science and information-based R&D institute, PhilRice is now driven by a holistic R&D paradigm ensuring that rice-based science is translated into development outcomes at the farming community and household levels.



Reality check

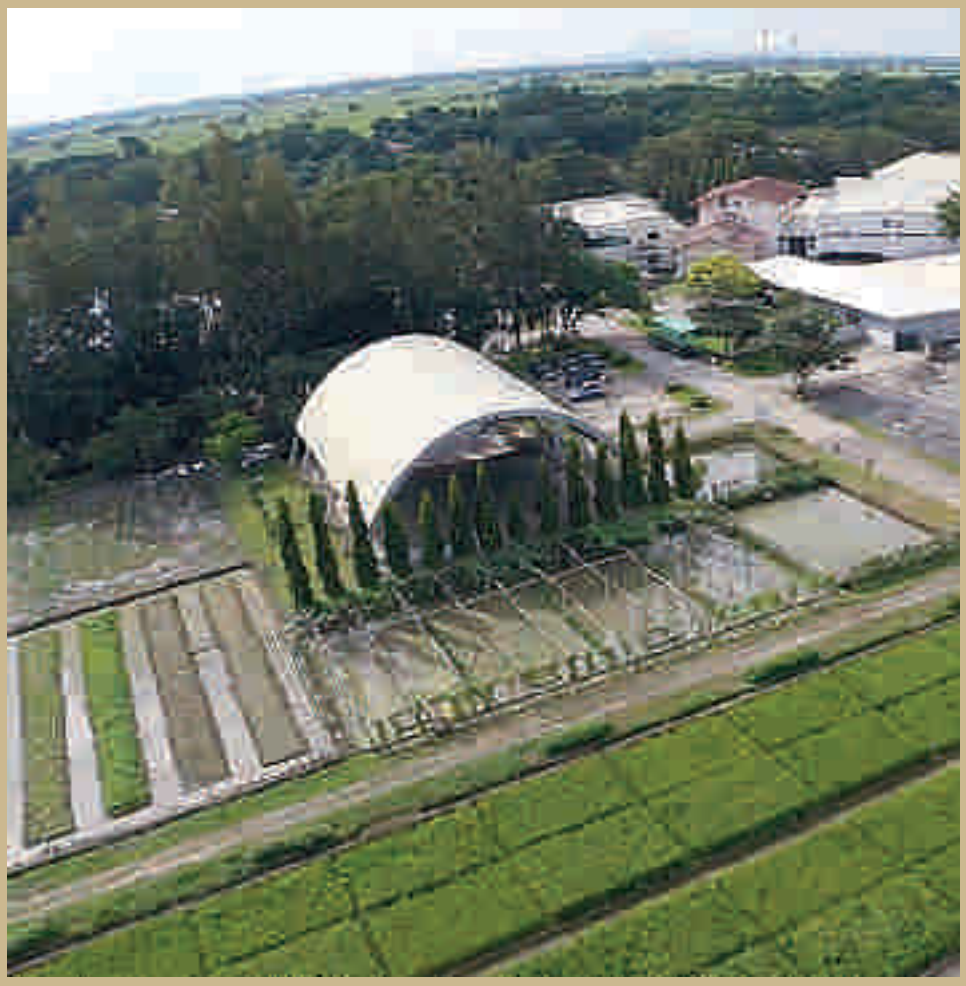
Problems in the rice industry cannot be blamed mainly on technological gaps. Many of them are man-made socio-cultural and political debacles that are highly evident and entrenched in the rice communities. Rice therefore cannot be viewed as a mere agricultural commodity. Its production is labor-intensive. It requires a team of farmers if not a community to productively grow it. From planting to harvesting to marketing, farmers are confronted by many unique challenges that require interventions. These can be in a form of knowledge shared by or negotiated with fellow farmers or acquired from an expert, or services (e.g., financial, which could be sourced out from a financing institution).

This reality is often given little premium if not neglected by government's interventions, which are highly focused on technology transfer. It is imperative to have a closer look at these social and power relations in the farming community and see how well should these be facilitated that they may contribute to farm productivity.

A community-based intervention

PhilRice has acknowledged the value of social capital in any R&D work. Hence, it has reconstituted its operational framework, following the Nucleus Estate Strategy (NUESTRA). NUESTRA is a system approach that supports a farming community through integration and provision of rice-based support services. Facilitated by a multi-disciplinary team, these support services can be in a form of capacity enhancement, inputs, custom services, product development and packaging, and marketing. NUESTRA does not only facilitate access to technologies but also promotes social enterprises.

Currently, the PhilRice stations spread across the country are being adapted to the NUESTRA framework. As indicated in its framework (p.19), PhilRice pursues its advocacy of developing clean, green, smart, and practical technologies and farming systems to be able to achieve its goal of rural transformation – that is, catalyzing competitive, equitable, sustainable, and resilient rice-based farming communities in the country.



Rural transformation as PhilRice's beacon

By rural transformation, we refer to a process of enabling positive and relevant change in a community of farmers' perceptions, attitudes, and practices of rice-based agriculture as a driver of sustainable development.

Guided by this framework, PhilRice is committed not only to improving its technical capacities to develop both technological and socio-cultural services but also to enhancing its partnerships with other organizations (both public and private). PhilRice believes in the integration of various expertise and organizations as instrumental to creating a holistic impact on the farmers.

With this, a Rural Transformation Movement (RTM) has been initiated by PhilRice to mobilize various expertise, organizations, and resources to bring about inclusive and sustainable prosperity in rice-based communities. PhilRice believes that while rice is an important resource it alone cannot guarantee more income for the farmers. Hence, it has created an R&D program called intensified rice-based agri-bio system (IRBAS) to develop rice-based agricultural enterprises that take into account crop diversification, intensification, and integration. Using the NUESTRA framework, it aims to transform a farming community into a rural economy that is composed of enterprising farmers.

In the rural transformation framework, PhilRice has highlighted the critical role of value formation and policy support in the execution of its R&D activities. It has also emphasized audience segmentation in the framework in that PhilRice is being transparent who it is particularly collaborating with and working for. Some of the Institute's banner advocacies that are client-driven are the *Be Riceponsible* (that caters to rice consumers), the Infomediaries (the youth), the IpAD or Improving Technology Promotion and Delivery (the extension workers or intermediaries), the Gender and Development Initiatives or GADi (the women), and policy advocacy through the production of a policy brief, Rice Science for Decision-makers (the policy-makers).

To top it off, the Institute's goal is to rally a holistic rural transformation rather than simply transmission of the technologies it has developed.

PhilRice stations as nucleus estates

Phase I

I. PhilRice Stations established as nucleus estates

II. Social diagnostics, benchmarking, feasibility, and market studies conducted

III. Campaign initiated to raise interest and awareness

IV. Partnerships established to support the movement

V. Creation and operationalization of RTM as mobilizer of rural transformation in rural farming areas

VI. Groundwork for the establishment of Rural Transformation Task Force (RTTF)

VII. Field day conducted to showcase rice-based enterprises developed by PhilRice

Phase II

VIII. RTTF established to spearhead RTM implementation in regions where PhilRice stations are located

IX. Identification of farmer-participants in the region

X. PhilRice stations to serve as nucleus estates or service providers to participating farmers

XI. Field day to showcase farmer's rice-based enterprises

Upscaling

XII. Other agricultural institutions trained to serve as additional nucleus estates

XIII. Social mobilization and networking intensified to create more nuclei across the country.

XIV. Non-rice organizations tapped to provide additional services

Counting every little step for everyone's big dream

MYRIAM G. LAYAOEN

One of the most legitimate hallmarks of a successful agricultural intervention lies in the collective growth of every farming household and individual within a community. Although rural development is a slow and complex process, the goal is highly attainable given efficient program framework with appropriate provisions on resources – stakeholders included.

PhilRice's Rural Transformation Movement (RTM) recognizes the importance of everyone in its vision of creating farming communities that grow in unity and prosperity. Forging partnerships and alliances is among the RTM's feat indicators. Thus, it strongly urges partnerships and alliances among its identified stakeholders from various sectors including health, environment, education, and information and communications technology.

As Dr. Ronan Zagado, RTM lead, puts it, "With RTM, we talk of community as a whole, both agriculture and non-agriculture. They are important to catalyze the genuine transformation that we aim for."

Zagado added the movement is a team effort and each one has a role to play. His team maps out the road to encourage participation among stakeholders. Zagado is confident the RTM's three-pronged intervention plan in technologies, behavioral and social diagnostics, and capital linkages offers attractive opportunities to each participant.

But where, exactly, can stakeholders come in?

> With RTM, we talk of community as a whole, both agriculture and non-agriculture. They are important to catalyze the genuine transformation that we aim for.
>
> – Dr. Ronan Zagado

PhilRice stations as nucleus estates

As pilot sites, PhilRice stations will serve as the first hosts of the RTM's nucleus estate strategy (NUESTRA). As nuclei, they will develop protocols and set standards of various enterprises. Once ready, these enterprises will be promoted to the nearby farming community. PhilRice will initially provide production inputs, link up with financing institutions, conduct capacity-enhancement programs, and extend technical expertise on production and marketing. Moreover, it will aim to empower participants and sustain the activities therein by converging all manners of assistance the community may require.

Farmers

A group of at least 100 farmers will be the primary participants and beneficiaries of each NUESTRA site. A farmer must allot at least 1.1 ha of land for production and come up with an agreement with PhilRice. Farmer groups, should they express willingness, will be prioritized.

Private input companies

Private companies' involvement may start from ensuring the availability of crucial production inputs such as seeds and fertilizers. PhilRice will negotiate with them to offer reasonable loan schemes to help the farmers access quality products on a payback basis.

Lending institutions

Securing capital may be the most critical aspect of RTM as the process entails an investment-intensive production. However, data assures a gross income of roughly more than 1 million pesos. To address the issue on financing, PhilRice will link the communities to lending institutions, both small-scale and macro credit corporations.

Agricultural extension workers (AEW)

Owing to their extensive reach, AEWs will serve as frontliners in the field to extend to the farmers the benefits of joining the NUESTRA. They will also provide technical support and linkages to farmers.

Researchers and Scientists

As the backbone of technological intervention, research findings will help update the farmers on the most efficient production technologies. Thus, researchers and scientists are expected to continue pursuing breakthrough studies to increase yield potentials amidst the emerging challenges in the environment.

International R&D partners

Gearing toward a common goal of alleviating poverty, PhilRice's partner institutions in the international R&D community may contribute in developing mechanisms for a better rural development. Their expertise learned in countries similar to the Philippines may be useful to understand some new rural transformation concepts. More importantly, they may also extend financial support in RTM's R&D component.

Government agencies, including state colleges and universities

RTM will involve participation of DA-attached agencies but equally necessitates support from the health, education, environment, and information and communications technology sectors. They will serve as the springboard of upscaling the strategies into a national movement. RTM will tap the development projects of each agency and explore avenues for partnership.

Investors

With its scale, the NUESTRA will need potential investors who are willing to venture into an agricultural business in a large scale. An investor may sponsor a NUESTRA site in agreement with PhilRice and the farmer-participants.

Youth and students

The Infomediary Campaign of PhilRice taps schools to encourage and teach students on becoming channels of agricultural information for farmers. In the same manner, the youth in each NUESTRA site will be mobilized in the RTM for them to seek and cascade technological information to farmer-parents.

General public

To support sustainability of local production, consumers will be encouraged to buy the products from the NUESTRA site. They may also join as advocates of the RTM, by conscientizing them on the importance of their support to the local farmers.

As an old saying goes, the whole is greater than the sum of its parts. Big or small, each effort indeed counts. Should we work together, a long-night sleep may just turn into a blink before we witness the dream of rural transformation.

From huge chunks to bite-size:

How information becomes farmer-ready

MA. VICTORIA STEPHANE G. ASIO AND APRIL M. JOSE

A baby cannot swallow a whole potato unless mashed. Rice is usually threshed and bagged before it is sold. Information cannot be easily grasped unless understandable and accessible.

Over the years, development workers have been looking for ways to communicate valuable research findings from the laboratory to the field. To address such demand for information on rice farming, PhilRice and other agencies developed ways to transmit information to rice farmers and target stakeholders. It is deemed important to establish a link between researchers and farmers through interaction and partnerships.

ICT as a bridge

With the digital era, mobile phones and computers are now easily accessible. Hence, most research organizations use these gadgets as channels of information. PhilRice has two ICT-based resources: PhilRice Text Center (PTC) and Pinoy Rice Knowledge Bank (PRKB).

PTC, launched in 2004, answers queries about anything related to rice production. Since majority of its registered clients are farmers, it also sends *Tagalog* rice tips twice a month. In 2009, the center developed the *Info-on-Demand*, a service that enables clients to text a keyword, then an automated response will be generated.

"We do text surveys or queries to farmers where we send them questions about rice-related problems. Their answers serve as a basis for sending rice tips in the future and as inputs to our operations," said Fredierick Saludez, PTC agent.

An internet-based resource, PRKB provides up-to-date information on rice production from seed to harvest. Information is available in different types including downloadable PowerPoint presentations and handouts, audio and video clips, and e-books. Users can also interact with the operator through the website's chat feature.

> Community-based approach project tries to help farmers test and adopt technologies and research findings from PhilRice and partner agencies to improve farming practices and earn income.
>
> - Dr. Aurora Corales

"We immediately answer clients' questions through chat. We have also developed an offline version of the website which may be downloaded once for use of those who have no internet access," explained Christina Frediles, PRKB content developer. PRKB will launch its new URL, www.pinoyrice.com – with more exciting features to assist farmers and would-be farming enthusiasts.

Like PhilRice, other agencies also use ICT-based resources for farming stakeholders. International Rice Research Institute's (IRRI) Rice Knowledge Bank (RKB) aims to translate information on rice production from seed to market in various forms (e.g. decision tools, videos, fact sheets, etc.). The website is designed for extension workers and researchers who work directly with smallholder farmers.

While these resources are online, IRRI also acknowledges the lack of internet access in most rural communities. Thus, it has designed several mobile application decision tools that are accessible offline such as Rice Crop Manager and Rice Doctor to help farmers make appropriate farm management decisions. RKB now features country-specific information through various projects in Africa and in Asia, including the Philippines.

The Agricultural Training Institute (ATI) has its e-Extension services such as e-Learning and e-Farming. With e-Learning, clients

can select from 38 different courses on crops, livestock and poultry, fisheries, social technology, sustainable agriculture, and other agricultural technologies. Courses are offered both online and offline. Blended courses are also available, a combination of online and hands-on learning activities with face-to-face interaction.

"Courses are offered year-round. English is the medium of instruction since we are still pilot-testing the *Tagalog* courses," said Antonieta J. Arceo of ATI. Students who complete the course receive a certificate from ATI and partner agency.

E-Farming started 2009 with the Farmer's Contact Center (FCC) under its wing.

"FCC has evolved from a text support center to a full-blown contact center for farmers and extension workers through call, text, e-mail, and even chat. We also broadcast techno tips to all users in our directory," Arceo added.

Messages are sent in Tagalog or *Taglish*. The center ensures the sending of need-based information. ATI also plans to launch e-Trading as part of the e-Extension service to directly connect farmers to provincial markets.

"We will pilot-test e-Trading in 2015 and hope to launch it in the same year," Arceo stressed.

Reaching out by hand

In some cases, interpersonal communication still proves highly effective in delivering agricultural information. Through training programs and participatory activities, a strong partnership among researchers, development workers, and farmers is established.

PhilRice and partner agencies collaboratively work on participatory varietal selection (PVS) and farmer cooperative- and community-based approach to encourage a more personal participation among farmers.

PVS intends to consider farmers' preferred rice variety traits based on the needs of their area. Here, farmers participate in the selection process forging a direct link between the farmer and the researcher.

On the other hand, the farmer cooperative project aims to enhance knowledge and decision-making skills through exchange of ideas and best practices in rice production. Training programs and technology updating for farmer-members are conducted to enhance awareness and understanding of rice science and production technologies. Farmer-members then act as opinion leaders since they impart knowledge gained from training programs to other farmers to increase technology adoption in their area.

"Researchers immerse with farmers, so there is direct interaction," explained Joel Pascual of PhilRice's Technology Management and Services Division (TMSD).

"Community-based approach project tries to help farmers test and adopt technologies and research findings from PhilRice and partner agencies to improve farming practices and earn income," said Dr. Aurora Corales of TMSD. Cooperation of farmers is significant since they are the technology's primary beneficiaries. "Knowledge products are developed based on farmers' preference, literacy level, and social conditions to ensure appropriateness of materials," Corales added.

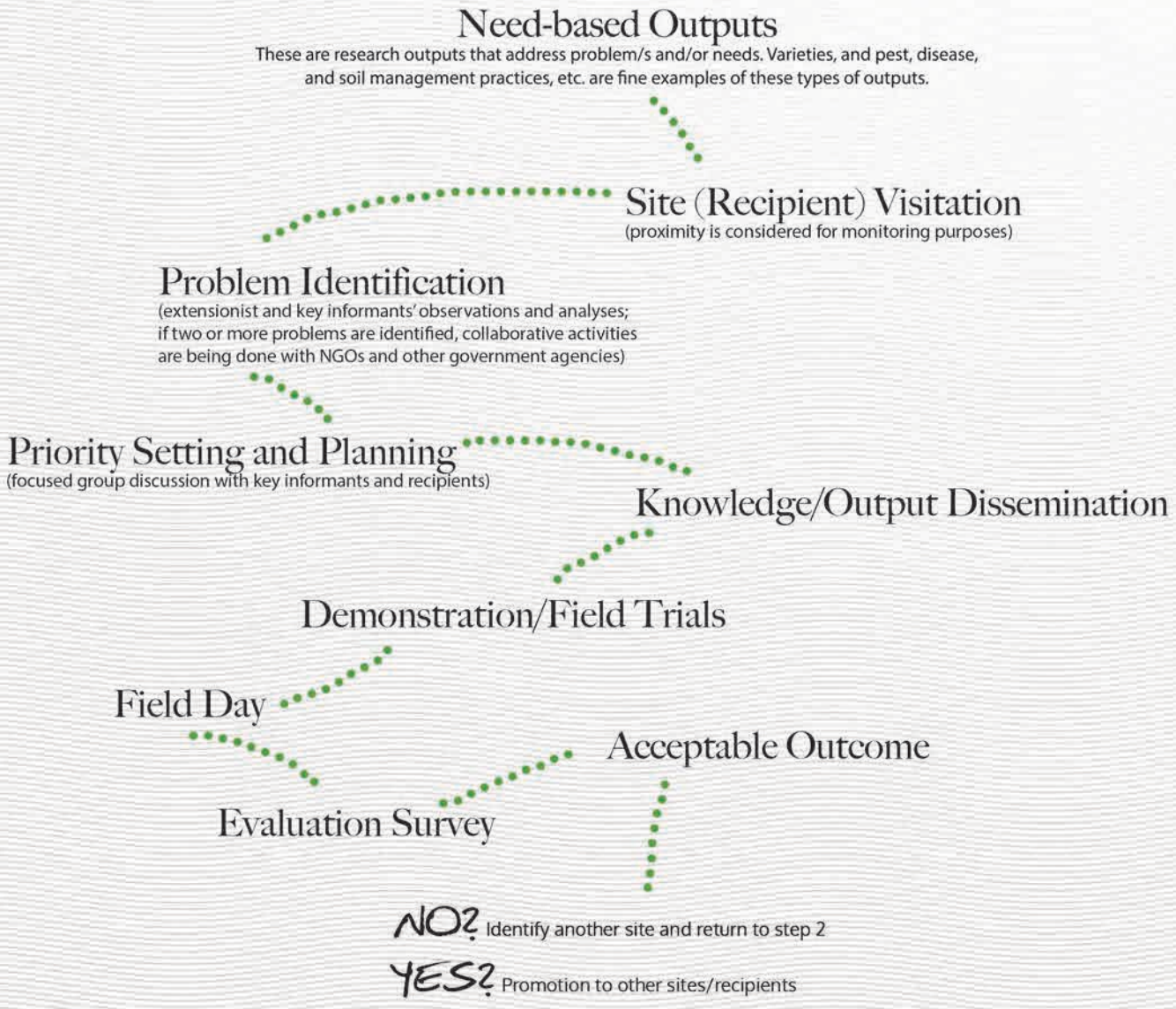
Transforming communities

ICTs and participatory activities elicit faster and effective relay of information to farmers and other stakeholders especially to those living in remote rural areas. Through interaction, their needs are considered first before information or technology is introduced, hence increasing chances of adoption.

Use of such methods also promotes a solid partnership between the agency and the community. According to the World Health Organization (WHO), people who feel involved through obtaining partners and networks gain control over shaping their lives for the better. Thus, the involvement of farmers and stakeholders strengthens self-empowerment. Once informed, they become agents in knowledge transfer and in the long run, become catalysts in empowering their respective communities.

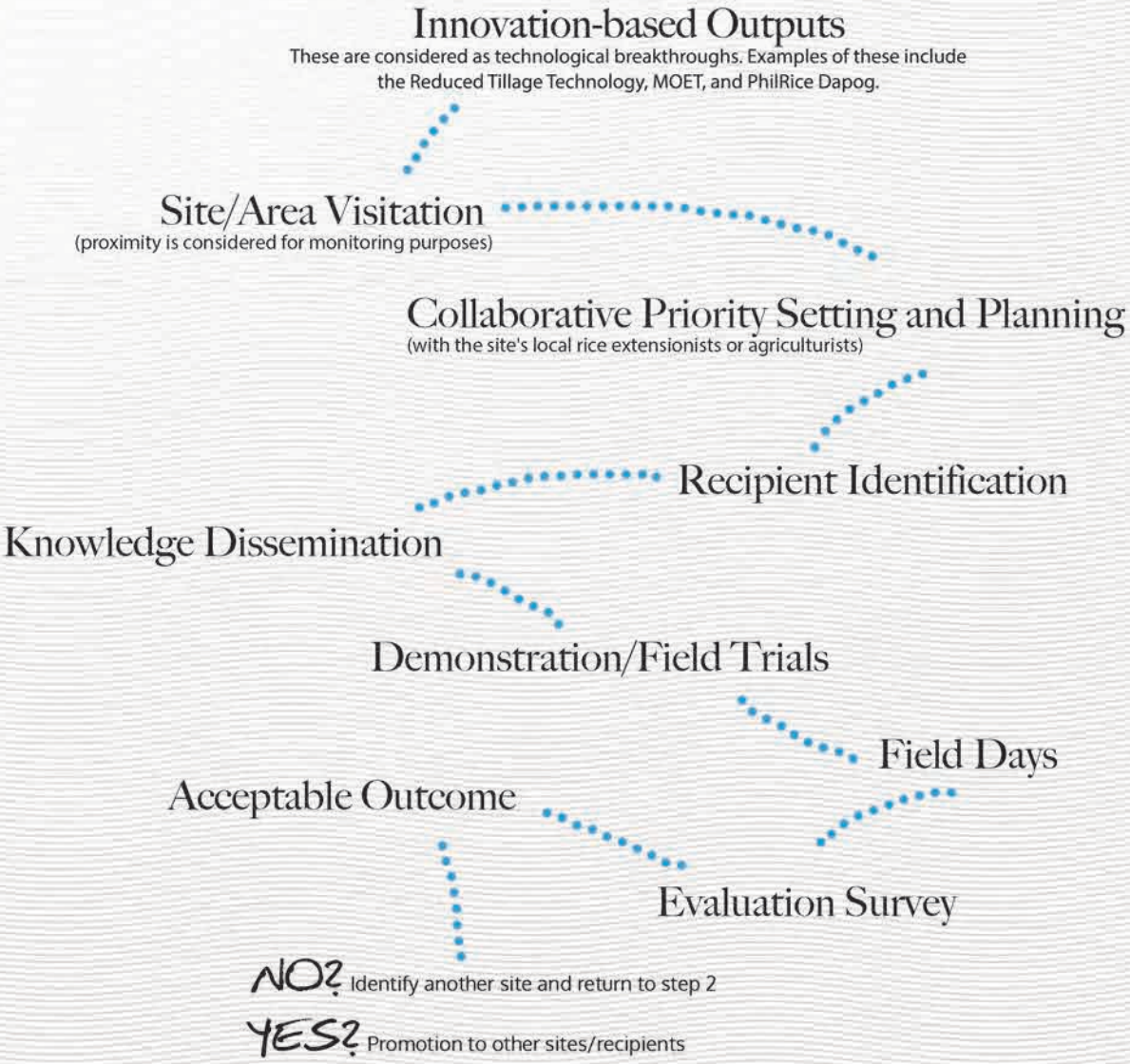
FROM OUTPUTS TO OUTCOMES

ASHLEE P. CANILANG | MARLON M. PRADO



OUTLETS FOR WIDER REACH. PHILRICE ALSO TAKES ADVANTAGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) IN BRINGING NEW RICE INFORMATION AND TECHNOLOGIES TO FARMERS AND EXTENSION WORKERS ON A WIDER SCOPE.

The rice production system generally consists of research, extension, and farmers. To channel information and desired outputs, linkage mechanisms are used. Rice production development and innovation require access to research outputs. As such, the merit of a research output is highest when it leads to acceptance and adoption. But how does a particular research output reach its intended recipients?



PhilRice Text Center [0920-911-1398]
It is a digital platform that provides daily consultation services to rice farmers around the country through call and short messaging service.

Pinoy Rice Knowledge Bank
It is a website, www.pinoyrice.com, that offers easy and fast search, retrieval, and sharing of rice information and technologies.

Better than a thousand good intentions

MARY JANICE C. BULAONG

Aljonar V. Milambiling had taught at the College of Civil Engineering of the Eulogio Rodriguez Institute of Science and Technology in Manila until 1997. After 17 years, he is teaching again. His students: farmers 3-5 years his senior in an informal classroom setting.

"I never thought I still have the ability to teach. Like a machine that's unused for a long time, I became faulty, but now my confidence is back," Milambiling said.

PhilRice is in partnership with the National Irrigation Administration (NIA) in executing the National Irrigation Sector Rehabilitation and Improvement Project (NISRIP) under a loan agreement between our government and the Japan International Cooperation Agency (JICA). It aims to contribute to the national rice self-sufficiency program by increasing yield by at least 1 t/ha. PhilRice handles the Agricultural Support Component that pursues three levels of capacity enhancement.

Last year, Milambiling was among the 1,115 participants of the Farmers Field Schools (FFS) organized in 45 irrigators' associations (IA) in Ilocos Norte, Pangasinan, Pampanga, Quezon, Palawan, Iloilo, Bukidnon, Davao del Sur, Maguindanao, Sultan Kudarat, and Agusan del Sur. This year, the Farmer-Technicians' Training (FTT) is being conducted. It is the level where IA members are further trained to equip them as resource persons in a farmer-to-farmer training approach. To date, 12 batches of FTT's had been conducted, and Milambiling is one of the 267 FTs.

A day before meeting the farmers, Milambiling prepares lessons and reviews the previous week's action plan. He checks if materials needed are available.

The same thing with Rafael V. Manaloto of Guagua, Pampanga who sometimes enlists the help of his wife in drawing blown-up images of insects for farmers' use in the FFS. But unlike Milambiling, Manaloto did not undergo FTT or FFS.

Browsing through the PhilRice website and other literature on rice farming, Manaloto learned about Location-Specific Technology and how he can harvest more with less farm input cost. He saw the importance of adapting the appropriate farming technologies for farmers, thus he sought the help of the Municipal Agriculturist Office of Guagua to find out about PhilRice's activities in the area. Since then, every Wednesday when the farmers

> Some compare and combine their best farming practices with the science-based technology we offer, thereby improving their management and increasing their yield.
>
> – Mr. Jose Arnel Cordova

gather for FFS, he shares his learnings, and interviews some farmers on their farming experiences, problems encountered, and solutions made.

Learning and doing

The project has molded farmer-beneficiaries into farmer-scientists.

"Some compare and combine their best farming practices with the science-based technology we offer, thereby improving their management and increasing their yield. For example, Eduardo Alcasarin of Sta. Barbara, Iloilo conducts MOET in all his farm area and makes necessary adjustment in fertilizer based on his observation," said Jose Arnel Cordova, Iloilo rice technician.

The project not only delivers science-based farming knowledge but also makes inputs available, such as recommended seeds and fertilizers, to allow farmers to apply what they learn and experience results first-hand. This is especially helpful to most farmers with to-see-is-to-believe attitude.

Milambiling sees farmers becoming better farm managers because of the knowledge they gain from the PalayCheck system.

FFS graduates have become more confident in managing their rice fields using the technologies they learned from the training.

It made them realize the significance of using the right seeds and managing the water. In addition, the system taught them to properly identify field problems such as zinc deficiency, insect pests, and natural enemies.

However, there are still drawbacks to following the keychecks, mainly due to water scarcity. Elsa Sustiguer, one of the farmer-beneficiaries in Leganes, Iloilo can attest to that because water supply is scarce in her area. It hampers synchronous planting and distorts efficient water and fertilizer management.

A rippling effect

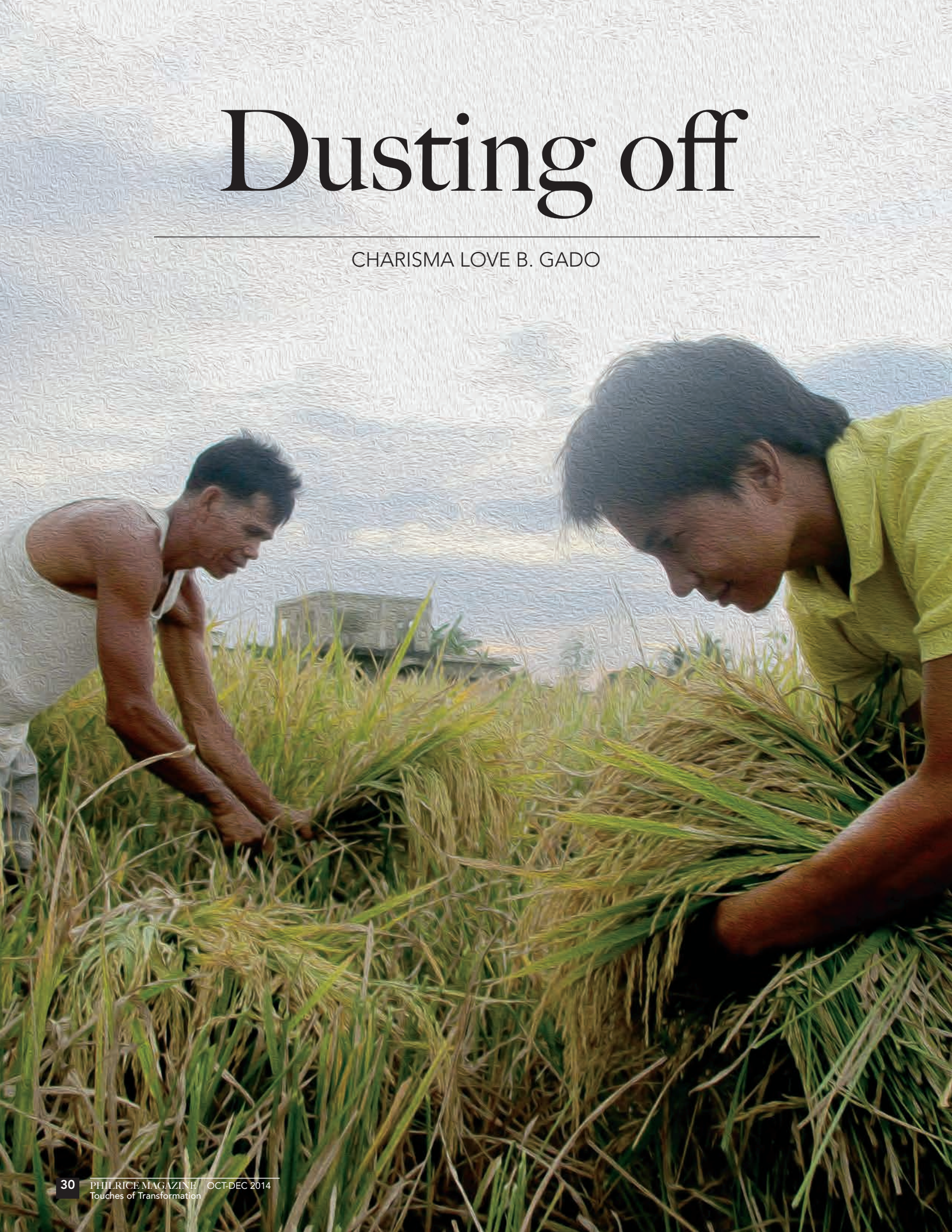
Crisanto Sinen, senior water master facilities technician in NIA-San Fabian, Pangasinan noted the importance of the Participatory Demonstration Farm (PDF) cum seed production area, one of the AgriSupport Component's activities. Sinen says other farmers in the area copy what they see in the demo farm. Some of them now sow just 40 kgs of seeds per hectare while others have observed and adopted the pest and nutrient management practices in the demo farms. Approximately 132 hectares of PDFs have been established under the project. An average increase in yield of 1.1 t/ha was recorded in 2013 WS.

"The project also partly lessens the problems in seed demand and scarcity in the localities. Because of the PDF, we are able to provide high-quality seeds of a recommended variety that can give a 5-10% yield increase. Also, because of accessibility, farmers do not have to travel far to avail of seeds that are even sold cheaper than in commercial seed centers," Cordova said.

Another activity of AgriSupport is the distribution of agricultural machinery to IA beneficiaries, which is expected to begin this year.

Dusting off

CHARISMA LOVE B. GADO



Dust is irritating that when it hits the road as storm, lives could be taken away. As in improving farmers' lives, abundant harvest could be compromised if researches are gathering dust in laboratories or when published, buried in papers; forever quoted and cited but may not benefit farmers.

Development work, which includes disseminating technologies for rice growers to adopt, could blow away the dust that threatens research. In 2008-2011, PhilRice major programs on extension included the Location-Specific Technology Development (LSTD) and Japan International Cooperation Agency (JICA) projects.

Julian Macadamia, 33-year-old PhilRice technologist, says development work complements research as farm know-hows and competencies are passed on to farmers.

While working as Rice Sufficiency Officer (RSO) under the LSTD program, Macadamia traveled about 9 hours by bus from Nueva Ecija to reach farmers in Sta. Cruz, Zambales, where residents claim that the nickel ore mining had been causing threats to their environment, livelihood, and lives.

"Sta. Cruz is quite far from my hometown (Muñoz City) but I chose to be assigned there as Zambaleño farmers have low yield. To reach the farmers faster, I used a single-motorcycle; cutting down my travel time by 3 hours," he said in Filipino.

Reaching with impact

PhilRice implemented LSTD from 2008 to 2011 to help the country improve its rice harvest through localized PalayCheck, an integrated crop management system for rice. Variety trials, technology demonstration, and Farmers Field Schools (FFS) were conducted in more than 60 provinces with yield below 4 t/ha in irrigated areas and 2.5 t/ha in rainfed areas.

The completed program had established about 600 techno-demonstration farms, and trained more than 10,000 farmers and about 400 rice specialists. More than 160 technology packages were also developed.

In a study by PhilRice sociologists Rhemilyn Relado and Marco Antonio Baltazar, RSOs like Macadamia were rated as very good and excellent in imparting knowledge on rice, which includes variety and selection, land preparation, and pest, nutrient, and water management.

"It's difficult to invite farmers to listen to us, especially that we're far younger than them. More than that, it was challenging to convince farmers to try the new technologies. But I learned to deal with them," Macadamia said.

> Reaching farmers in far-flung areas using a single-motorcycle is not easy with 40kg of seeds and a big backpack filled with notebooks, Manila paper, ballpens, pencils, and crayons. But the sweats are all worth it.
>
> – Mr. Julian Macadamia

To convince farmers, Macadamia encouraged them to share with him their ways of farming while keeping their minds open to the modern practices he was showing them.

"Maybe let's meet half-way, *Tatang*," was his challenge to the farmers.

Meeting half-way by localizing or customizing technologies led to good results. An impact study by PhilRice's Alice Mataia and Resi Olivares showed that farmers producing less than 3 t/ha were reduced by 21% in 2010. Farmers averaging 5 t/ha also increased by 44%.

The study also showed an improved income by 25% or P3,900/ha after two seasons of implementing LSTD. Mataia and Olivares said that improved practices, which include right seeding and fertilizer rates, and judicious use of pesticides reduced production cost.

"Reaching farmers in far-flung areas using a single-motorcycle is not easy with 40kg of seeds and a big backpack filled with notebooks, Manila paper, ballpens, pencils, and crayons. But the sweats are all worth it," Macadamia said.

The JICA project on its fifth implementation in the Autonomous Region in Muslim Mindanao also helps improve the Bangsamoro's quality of life through rice-based farming.

In 2012 to 2013, about 200 extension workers and 4,000 rice tillers and vegetable growers participated in the FFS. About 50 farmers were also trained to be extension workers in their areas while about 100 women were trained on food preparation and processing.

Meanwhile, the JICA project in Nueva Ecija had brought significant changes. From 2005 to 2011, technology demonstration farms were established and location-specific technologies were developed for villages in Cabanatuan City, Rizal, and San Antonio.

The study of PhilRice's Ronell Malasa and his team found that farmers participating in the project harvested more rice in 2010 WS and 2011 DS. Farmer-cooperators harvested 4.3 t/ha and 6.8 t/ha during the two seasons while non-cooperators gained only 4 t/ha and 6.1 t/ha.

"Farmers' stories keep me going as a development worker. There's a story in every food, even in the steamed *kangkong* leaves and simmered *saluyot* they serve me. They share their struggles, dreams, and complaints. Being with them completes my soul," Macadamia said.

If "art washes the dust of daily life off our souls" for Spanish artist Pablo Picasso, then development or extension work does not only dust off research, but for some, it is a noble deed that serves as food for the inner self.

Upland farmers urged to continue cultivating traditional rices

HANAH HAZEL MAVI B. MANALO

More than 100,000 upland farmers in the Philippines are encouraged to continue growing traditional rice varieties (TRV) apart from planting modern upland rice varieties for additional income and seed conservation, according to Ruben B. Miranda, national coordinator of the Upland Rice Development Program (URDP).

Miranda says the TRVs should be grown as well because they command high price in the local market and would have a niche in the international market if purified. Moreover, this effort prevents the extinction of the TRVs.

The 2013-2014 report of URDP presented farmers' most preferred TRVs.

Area	**Most preferred varieties**
CAR	Palawan, Mimis, Azucena, Pinilisa
Region 1	Palawan, Kamuros, Inumay
Region 2	Palawan, Mimis, Galo, Kamuros, Pinilisa
Region 3	Palawan, Galo, Binernal white, Dinorado, Binundok
Region 4A	Binirhen, Kinamuros, Kinandang, Inipot-ibon, Pirurutong
Region 4B	Kamuros, Inipot-ibon, Inasucena, Dinorado, Milagrosa
Region 5	Dinorado, Palawan, Gios, Binirhen
Region 6	Dinorado, Malido, Manumbalay, Azucena, Palawan
Region 7	Dinorado, Kamuros, Azucena
Region 8	Kalinayan, Baysilanon, Kanukot
Region 9	Dinorado, Remulites, Mimis, Zambales, Azucena
Region 10	Dinorado, Azucena, Dumudao, Palawanon, Mimis
Region 11	Dinorado, Peria, Remulites, Azucena
Region 12	Dinorado, Azucena, Hinumay
Region 13	Dinorado, Azucena, Mimis, Remulites
ARMM	Dinorado, Hinumay, Azucena

CAR - Cordillera Administrative Region

ARMM - Autonomous Region in Muslim Mindanao

Miranda also urges upland farmers to plant modern and suitable upland rice varieties for their higher yield. Increase in yield could help upland communities become food-secure. Some of these varieties are PSB Rc9, Rc11, NSIC Rc192, and Rc23, which are all susceptible to tungro. Their other traits are:

Variety	**Average Yield (t/ha)**	**Maturity (DAS)**	**Reactions to pests**			
			Blast	**BLB**	**Stemborer**	**BPH**
Rc9	2.9	119	I	I	S	I
Rc11	2.6	125	I	I	R	S
Rc192	3.7	106	I	S	-	MS
Rc23	2.9	108	I	I	S	I

*I – Intermediate R – Resistant S – Susceptible MS – Moderately Susceptible

The Program aims to harness the potential of the upland rice ecosystem as one of the major sources of the country's rice supply and other food staples.

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Kwento ni Sherwin V. Lazarte, 34 ng Tayug, Pangasinan
Inilahad kay Perry Neslynn H. Duran

ANG PHILRICE PARA SA AKIN

Kinamulatan ko na ang pagsasaka mula bata dahil kabuhayan ito ng mga magulang ko. Sa katunayan noong bata kami, ayaw naming magsaka. Umiiyak pa kami noon at sapilitan pa ang pagpunta sa bukid. Pero naglaon ay nagustuhan ko na rin siya dahil iyon ang iniwan ng tatay namin. Ipinagmamalaki naming magsasaka ang magulang namin at napagtapos nila kaming anim na magkakapatid. May iba pa nga na nakadalawang kurso, tulad ko na *graduate* ng *I.T.* at *Nursing*.

Baguhan talaga ako sa pagsasaka. Kahit na mula elementarya ay nararanasan ko nang magsaka nang wala akong alam. Inuutusan lang kami ng magulang namin at ng ibang mga nakatatanda. Dati hindi ko alam iyang pagsusuwi. Ilokano ako! Anong malay ko diyan sa pagsusuwi? Tawag namin dito ay "panaggipi". Kaya noong sineryoso ko ito noong taong 2009, medyo nahirapan ako. Doon ako naghanap ng paraan para makakuha ng impormasyon sa mga eksperto, at nagsimula akong magtingin sa *internet*.

BAUL NG KAALAMAN

Taong 2010 nang magsimula akong magtext sa PhilRice. Nakita ko kasi ang *mobile number* niyo sa *website* at naisip ko na subukang mag-*register* at mag-*text*. Ngayon ay humihingi pa rin ako ng payo sa kanila lalo na't halos tatlong ektarya na ang sinasaka namin ng kapatid ko at ng pamangkin kong si Genard. Malaking parte nito ay *irrigated* habang ang iba ay *rainfed*. Kapag may hindi kami alam o sigurado ay magtatanong ako sa PhilRice at nagbibigay sila ng solusyon.

Sa katunayan, nagbabahaginan kami ng kanya-kanyang *input*. Ako ang nagtetext sa PhilRice at si Genard naman ang naghahanap ng mga rekomendasyon at solusyon mula sa *internet*. Siya ang naka-*assign* sa *Pinoy Rice Knowledge Bank*. Doon niya tinitingnan 'yong mga sakit. Noong nakaraan nga, doon niya tiningnan ang sakit na *bacterial leaf blight* sa palayan ng kapatid ko at nakapagbigay pa siya ng payo.

Sa PhilRice rin namin nakuha ang *Leaf Color Chart* (LCC). Nilagay namin iyon sa *tablet* kaya minsan tinatawanan kami ng mga nakatatanda sa bukid dahil akala nila naglalaro kami. 'Yon pala ay tinitingnan namin 'yong palay. Nagtitingin din si Genard ng mga suhestiyon mula sa iba't bang mga *agricultural blog* at pini-*print* namin iyong mga *reading materials*

sa *website* ng PhilRice tulad ng mga babasahin tungkol sa binhi.

SANDIGAN SA PAGSASAKA

Ang laking tulong ng PhilRice para sa akin kasi may mga dagdag kaalaman akong nakukuha. Sa katunayan, 'yong mga impormasyon na nakukuha ko sa PhilRice ay naka-*save* lahat sa aking *cellphone*. Ginagawa ko iyon kasi 'yong iba sa amin, nagtatanong sa akin dahil alam nila na may *communication* ako sa PhilRice. Masasabi ko "Parang meron ako non ah. Teka, hanapin ko sa *cellphone* ko." Tapos ipapabasa ko yung *text* ng PhilRice. Sinasabi ko nga sa kanila na "Kunin niyo kasi 'yong number ng PhilRice. Ibigay ko sa inyo. Mag-*text* din kayo."

Pag nagtatanong ako sa PhilRice, nagbibigay sila kaagad ng mga kailangan kong gawin. Nagpasalamat pa nga ako sa kanilang *text center* kasi 'yong sinabi nilang solusyon sa naging problema ko sa palayan ay epektibo talaga. Unang beses kong magkaroon ng sakit noon sa palay. 'Yong namumula? Sabi sa *text center*, tanggalan ko raw ng tubig at huwag ko raw tirahin ng abono. Ang *concern* ko kasi noon ay malapit na siyang magsuwi at kailangan na sigurong abonohan. Pero sinunod ko ang payo nila at naging OK ang resulta.

Masasabi ko talagang pinakanakatutulong na impormasyong binigay sa akin ng PhilRice ay ang pag-aabono. Noong panahon ng tatay ko, isang beses lang sila nag-aabono. Mas tipid noon. Pero noong nagtanong ako sa PhilRice, nalaman ko ang *timing* ng paglalagay ng abono para pagandahin ang palay at maparami ang ani nito. Kapag nakuha mo pala ang tamang panahon ng paglalagay ng abono, doon talaga gaganda ang palay. Nagawa namin iyon kaya kung dati umaani lang ako ng 40 kaban kada ektarya, ngayon dumodoble na! Nakamemenos din ako sa gastos dahil tama at alam kong epektibo ang paglalagay ko ng abono.

Marami pa talaga akong gustong malaman tungkol sa agrikultura. Sana nga ay may madalas bumisitang *agricultural technician* dito para may magturo sa amin tungkol sa mga makabago pang pamamaraan at solusyon sa pag-iwas sa damo at mga pesteng tulad ng kuhol. Gusto rin namin makadalo sa mga *training* ng PhilRice. Pero masasabi ko talaga na noong nagsimula akong makakuha ng impormasyon sa PhilRice, may naambag akong malaki sa aking produksyon. Wag lang sa usapin sa patubig dahil iyon ay malaking problema dito sa lugar namin.

Places and journeys. Through the years, productivity-enhancing technologies are continuously being developed to improve the lives of the Filipino farmers. PhilRice always extends an extra hand to fulfill its commitment to let the farmers experience first-hand the benefits from these innovations that they well-deserve.

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Photo: Renato B. Bajit

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