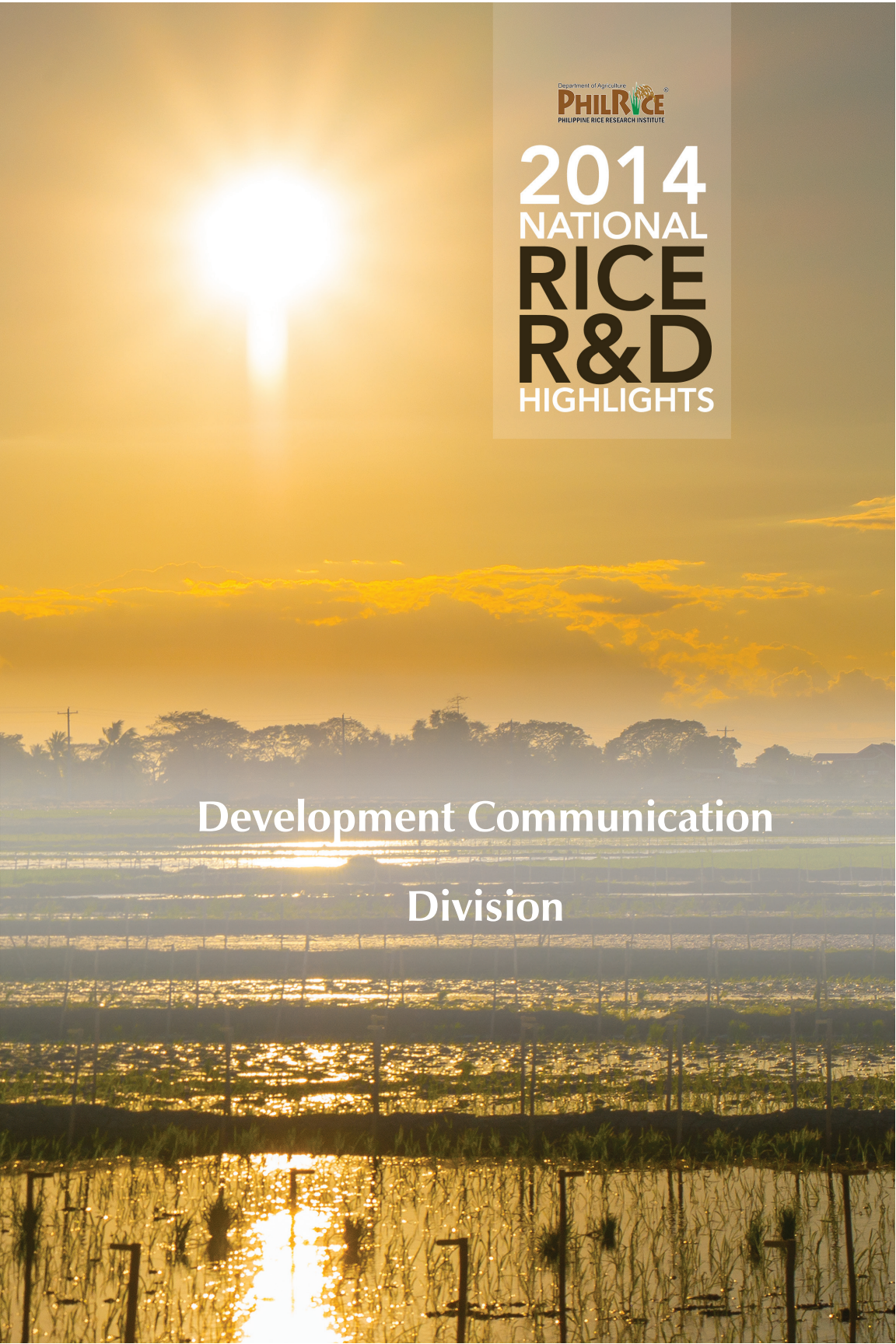

Department of Agriculture
PHILRICE
PHILIPPINE RICE RESEARCH INSTITUTE

2014 NATIONAL RICE R&D HIGHLIGHTS

Development Communication Division

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Development Communication Division

Division Head: JA Manalo IV

Executive Summary

There were three key objectives that the Division set itself on achieving in 2014. They were: (1) manage rice S&T information and knowledge, particularly on CleanGPS for CSR; (2) share these information and knowledge to stakeholders particularly in identified areas of intervention; and (3) examine, explore, and promote KSL processes and pathways.
There were several milestones that were achieved last year, but some of the most important are the following: (1) 3 big national campaigns and 1 national initiative; (2) 3 recognitions; and several firsts.

In 2014, three big national campaigns were housed in the Division: BeRiceponsible, Gusto Namin Milyonaryo Kayo, and The Infomediary Campaign. BeRiceponsible Campaign inexorably pushed for the passing of half-cup serving of rice in major cities of the country, and it was very active in its no rice wastage campaign. The Gusto Namin Milyonaryo Kayo took off last year promoting the stories of successful farmers nationwide. The Infomediary Campaign worked on integrating knowledge on climate change and rice production in the curriculum of agricultural technical vocational high schools. Likewise, the Division also played key roles in implementing the IPAD project funded by the Department of Agriculture.

A number of new initiatives were started in 2014. Cognizant of the need to provide intellectual leadership, the Division also initiated a couple of innovations in its services and products. To efficiently handle communication service requests, DevCom launched the Online Service Request Form. This is the Division's way of showing faithfulness to PhilRice's dedication to quality management. Over 100 requests were catered to last year with a "Very Satisfactory" rating, on average, from clients served. We also took part in enhancing capacities of our branch station staff members through the DevCom Short Courses. The initiative was a package of communication skills useful for a PhilRice staff—writing technical reports, presenting in conferences, and photography. Ricescapes in the PhilRice Magazine was also launched in 2014 to engage photographers to show off their beautiful photos of the Philippine rice fields. This section adds color and beauty to our multi-awarded science magazine. In 2014, the Division launched the first Filipino version of the PhilRice Magazine, a testament to our dedication to better serve the Filipino farmers. The Division also started its internship program. This way, any student who undertakes his/her internship in the Division is properly guided. Finally, the Division launched Documenta-Rice, a short film documenting the lives of Filipino farmers.

Three initiatives under the Division, BeRiceponsible, Masiglang Agrikultura Radio Program and the Infomediary Campaign, received recognitions both here and abroad.

I. Enhancing Knowledge Sharing and Learning

Project Leader: KET Barroga

Improved understanding and use of knowledge sharing and learning (KSL) has been found to result in more equitable and sustainable development outcomes. It also helps promote informed and timely decision-making, consequently enabling stakeholders to actively engage in the change process and respond better to opportunities and challenges. Thus, this project which has three components, aims to understand and help enhance KSL processes and practices for better development interventions and outcomes.

Documentation and analysis of KSL profiles

CLBGado

The component, which has eight studies, aims to document and analyze existing KSL practices and processes, including the preconditions, and lessons shared and learned; and to profile stakeholders' knowledge in the context of a particular development intervention to document and be enlightened by its meaning in farmers' or other stakeholders' lives.

Knowledge production, sharing, and consumption of the Pinoy Rice Knowledge Bank

RG Zagado and EP Angeles

Highlights:

- Five knowledge profiles (i.e., farmers, students, extension workers, researchers, and others [professionals, agri-engineers]) surfaced in the PinoyRice.
- Profiling covered how these stakeholders used the PinoyRice including the portal services they accessed and used, their access modes to the portal, as well as the portal chatting system where they actively participated.
- Based on initial results, it is recommended to make PinoyRice more personalized and sociable similar to any social media, such as Facebook.

How to make it big in farming: an ethnomethodological study of the everyday farming practices and strategies of selected Gawad Saka farmer awardees
RG Zagado, CLB Gado, and GB Nidoy

Highlights:

- Seventeen knowledge profiles (i.e., millionaire rice-based farmers) surfaced.

- Modalities were designed to facilitate KSL of these knowledge profiles, such as the conduct of Talakayan (conversation) and production and distribution of testimonial videos.

- Farmers' farms has potential as KSL venues .

- Initial results showed that time and space are critical elements in farming as a business venture, thus further study is needed to know how to maximize the elements of time and space.

Information needs of NISRIP trainees
DG Esmero

Highlights:

- Produced knowledge profile of NISRIP farmer-trainees from Solsona, Cagayan; Agusan del Norte; Iloilo

In general, farmer-trainees of NISRIP seem to be passive information seekers, getting information about rice farming only when there are materials given to them. They rely on their experiences in rice production for decision-making. However, if materials for rice production are available, they like to read it in leaflet and magazine formats. Information delivery through radio is also preferred in a magazine type format and they prefer to listen from 4 to 6AM.

In particular, Solsona farmers like to have more intensive information on PalayCheck key checks 1, 2, and 5; Agusan and Iloilo farmers prefer to have detailed information on Key Checks 1, 2, and 6. They prefer the information to be in the vernacular.

- Produced knowledge profile of NISRIP technicians

NISRIP technicians are generally active information-seekers. They look for information not only for decision-making but for updates on concepts in agriculture. They heavily use online

materials, specifically those from PinoyRice. They also prefer leaflets and magazines as information sources. Radio is least preferred because of time constraints.

Key checks 1, 5, 6, and 7 are their preferred technical content on leaflets or magazine. They also like to have these in Powerpoint format for ready presentation to farmers.

- Thus, materials for distribution to NISRIP trainees should very well consider their preferences. Infographics may enhance information retention and appreciation.

- The preferred contents were prepared for layout and production while preferred key checks were prepared in Ilonggo, Cebuano, Tagalog, and Ilocano.

Social impact analysis of PhilRice in its immediate communities
DG Esmero

Highlights:

- Developed nine knowledge profiles covering all PhilRice stations

PhilRice Batac appears to have high-impact on its immediate rice-farming communities; other stations seem to have low impact. Common reasons include weak partnerships with these communities in terms of projects done, unavailability of seeds, no invitation on field days and other PhilRice activities, limited or wrong perceptions regarding the institutional tasks of PhilRice to its farmers, impressions that PhilRice staff members are not friendly, and that the PhilRice seeds being sold are either unavailable or expensive.

- Thus, it is recommended that each station increases its institutional impact on its immediate communities. It is also recommended that PhilRice stations should have more activities engaging their immediate communities to increase their visibility and impact. Examples of these could be invitations to field days and teknokliniks, if possible. The stations should also engage the immediate communities on different projects the stations have as seen in the case of the Batac station. A more welcoming exterior of the station should also be made as some farmers expressed hesitation in going inside the station premises due to its "unwelcoming" look from the outside. Information brigade or contact numbers where

farmers can inquire or reserve available seeds can also be a good initiative for the stations.

Extension stakeholders' knowledge profile for next-gen rice extension professionals and rice extension intermediaries

EP Angeles, KET Barroga, LdR Abaoag, and IR Tanzo (PhilRice); JLapitan and B Pamatmat (IRRI)

A series of focus group discussions and key informant interviews with various stakeholders was conducted in the second half of 2013. These primary data gathering activities were complemented with secondary data, a review of literature, and consultation activities with various stakeholders and experts in early 2014. Results from these activities generated a wealth of data on the current state of the rice extension system, its future challenges and opportunities, suggestions for improvements in the current rice extensionists' training program, and highlighted the need to prepare, build, and sustain the capability of the next generation of rice extension professionals and other intermediaries. With these data as significant inputs, the project team was able to accomplish the following 2014 outputs:

Highlights:

- Definition/Vision of the next-gen REP. In contrast to the technology-focused extensionists, the next-gen of rice extensionists are envisioned to be development catalysts competent in science-based and locally-appropriate strategies for managing and adapting rice-based farming systems toward competitiveness, sustainability, and resilience.

  In contrast to the technology-focused extensionists, the next-generation of rice extensionists are envisioned to be development catalysts competent in science-based and locally-appropriate strategies for managing and adapting rice-based farming systems toward competitiveness, sustainability, and resilience. This implies (i) a broader and more active role in the development process (i.e., from technology transmission and learning facilitation to rice-based farming community transformation); (ii) a renewed capacity and attitude in their usual roles in rice technology transfer (i.e., more competent in diagnosing field problems and localizing recommendations; with an entrepreneurial mindset and core values essential to catalyze development work); and (iii) a new set of knowledge and skills to handle current and future challenges in agriculture, in general, and in rice-based farming systems, in particular (i.e., adept in ICT and in networking with relevant

players in the rice industry; knowledgeable of practical and smart options for climate change adaptation and food security).

Through a social media-based naming contest held from 12 June to 25 August, the new rice extensionist was named AgRiDOC. Chosen from more than a hundred entries, AgRiDOC stands for Agricultural Development Officer of the Community, with the "R" capitalized for rice, being the country's staple crop and the entry point for intervention. For branding/identity, an AgRiDOC logo was designed.

- Definition of rice extension intermediary (REI). Other rice extension intermediaries (REIs) are information conduits, learning facilitators for rice stakeholders, and farmers' link to providers of advisory and extension services. They are seen to be more conscientious and empowered in their roles of providing timely science-based information and technology to help improve the welfare of rice-based farming communities. Thus, partnerships with them must be strengthened, and knowledge sharing and learning activities must be designed and provided for them to have a more purposive and productive engagement in the extension system.

Social diagnostics and anthropological understanding of the farming community dynamics for rural transformation
DGEsmero

The diagnostics reveal that there is an average to low level of knowledge regarding the Rural Transformation Movement (RTM), both as a concept and program. Transformation is generally understood to be economic in its formulation. This confusion on the concept is not unfounded. Primarily, this is brought about by the unclear relationship of the concept, especially the RTM and the Gusto Namin Milyonaryo Kayo themselves. The ever-changing and lack of finality on the concept makes it hard for people to understand the relationship.

With the confusion that characterized the program, the message has to be repackaged and an appropriate communication infrastructure is required. The goal must be clear and the strategies defined. An initiative with this massive intention, needs a clear message. With a clear message, a working and definite communication plan and infrastructure is required.

Highlights:

- Produced 24 knowledge profiles for 8 labor groups, 8 R&D groups, and 8 admin groups.
- Produced eight sets of recommendations to enhance KSL.
- Working draft of paper for publication has been produced.

Documentation and knowledge profiling of farmer field school participants in Tarlac
CLBGado

Highlights:

- This study addresses the need in literature for participatory evaluation on Farmers Field School (FFS), which is heavily concentrated on immediate impacts. Most of the studies employed quantitative methods focusing on FFS effects on pesticide use and yield. Qualitative studies tried to fill the gap; however most of them emphasized social and political impacts. The social construct or meaning given by farmers on how FFS affected their lives is shaped by their experience. With experience as the study's central data, the case study research design is utilized to explore the experiences.
- This study focuses on the affordances of FFS and how is it socially constructed by the farmer-participants under the Improving livelihoods and overcoming poverty in the drought-prone lowlands of South and Southeast Asia project in Tarlac. Although the 16 participants were trained in FFS on Integrated Pest Management, interestingly, majority of them still perceived beneficial and harmful insects, and pest and diseases problems as difficult topics.
- Four themes emerged from the structural and textural narratives gathered from the participants: FFS is a confidence booster, driver of change, guide, and an experience.

  Confidence booster. Although farming for an average of 20 years, the FFS participants still rely on technicians and on their fellow or relative-farmers when it comes to rice information. After joining the FFS, despite their absences, farmers claim that their knowledge can "almost equal what some of the technicians know."

Driver of change. Although the farmers' average age is 44, they did not hesitate to try the new recommendations they learned from the FFS and implemented changes in their farming traditions. After joining the FFS on rice production, farmers made significant changes in their land preparation, crop establishment, and management of pests, nutrient water, and water. As they change their practice, farmers also developed a sense of discipline in farming as they have learned the value of monitoring. However, farmers admitted that once in a while, they deviate from what they have started to practice owing to financial constraints, ability to accomplish the task, and they want other ways of managing their farm.

Guide. The FFS participants claimed that they may already know the information they need but have difficulties recalling them owing to their busy farm-related activities. The participants, who were only curious when they were invited by their peers, regarded the FFS as a guide because they want to be experts and improve their quality of life.

Experience. The majority of the FFS participants occurred absences more than five times during the five-month training and few dropped off owing to sickness and conflict in schedule and priorities. Despite the difficulty in attending the classes and attending to their other chores, the FFS provided an avenue of experience for them. As FFS provided experiential learning, some topics became easier for them to understand including varieties and seeds (31%), nutrient management and LCC use (25%), and water management (12%)

Most significant changes gained by project farmer-collaborators in Tarlac
CLBGado

Highlights:

- In rice production, development projects are implemented not only to help farmers increase their harvest but to help improve their quality of life and well-being. The International Fund for Agriculture Development implemented the Improving Livelihoods and Overcoming Poverty in the Drought-prone Lowlands of South and Southeast Asia to identify, adapt, and validate improved rice technologies. The project promoted the Nutrient Manager, PalayCheck in Farmer Field School, and PSB Rc18-Sub1 at two barangays in Victoria, Tarlac in 2011.

- All 20 FFS-participants of the IFAD project were considered

for interview. However, four of them were either out of the country or had moved to other towns during the conduct of the study. Sixteen rice farmers from two barangayin Victoria, Tarlac were then interviewed. Farmers attended the Farmers Field School and are cooperators on PSB Sub-1 variety and Nutrient Manager recommendation trials.

- A case study was employed to unravel the farmers' stories of change and the most significant change they obtained from the project. In validating the findings, the following were employed: referring the finding to data sources; gathering detailed and thick description; and identifying farmers' repetitive significant statements.

- Farmers' narratives showed that the governing domain in their stories includes the changes in the quality of people's lives. The most significant change that farmers derived from the project included gaining new knowledge (31%), learning new technology and practice (25%), and obtaining new seeds (25%).

- Most of the farmers learned new knowledge in attending to the FFS on rice production from June 2011 to November 2011. With two agricultural extension workers of the Municipal Agriculture Office facilitating the FFS, the sessions enhanced farmers' knowledge on pest and disease management (75%), nutrient management and use of LCC (44%), and varieties and certified seeds (44%).

Table 1. Changes in farmers' practices

Recommended practice	Before FFS	After FFS
No high and low soil spots after final leveling.	Prepare land for 1-2 weeks and follow the *"araro-basag-linang"* system	Fields are well-leveled and no visible mound of soil above the water surface after final leveling.
Sufficient number of healthy seedlings.	Seeding rate of 80-120 k.	Seeding rate of 40-80 k.
Sufficient nutrients from tillering to early panicle initiation.	Apply fertilizer thrice a season when the leaves are yellowish.	LCC-based.
No significant yield loss due to pests.	Apply insecticides and pesticides at the sight of an insect.	Apply insecticide or pesticide twice a season or when there are more harmful than beneficial insects.
Avoid excessive water or drought stress.	Flood the field four to five times a season.	Flood the field thrice or four times a season.

II. Exploration and field-testing of KSL-enhancing mechanisms

JA Manalo IV

This component, which has four studies, aims to test knowledge sharing and learning mechanisms. This is where development communicators explore new ideas that may be useful in disseminating advocacies and research outputs generated through years of research in PhilRice.

Establishment of a rice science Exploratorium

DG Esmero

This activity revolves around giving a new face to the Rice Science Museum of PhilRice. In 2014, several activities were conducted to revive the museum. Collaborations with key national institutions were implemented as well as aggressive moves to increase museum collections.

Highlights:

- Re-launched Rice Science Museum with 200 collections.
- Conducted PalayKamalayan Art Exhibit in partnership with artists from all over the country.

- Developed curatorial brief and launched mobile rice museum and reached 3 schools with 20, 348 viewers.

- Established partnership with the National Museum, National Commission on Culture and Arts, Museo Pambata, National Commission on Museum, KOPIA, PhilRice Foundation and the Science City of Muñoz.

- Received more than 12, 000 visitors and raised around 20,000 income from the entrance fee.

- Conducted art workshop for kids and raised Php6,000.

- Developed 5 research proposals for funding on archaeological, cultural, and art disciplines.

- Developed new architectural design for the proposed rice Exploratorium.

Palay-Kwentuhan: Storybook as a tool for riceponsibility
DG Esmero and AB Lanuza

This study was conducted to teach about being riceponsible to children (ages 4-7). The overarching aim of this research was to come up with a storybook that instills the value of rice and motivates riceponsible behavior. This was achieved by researching the most effective techniques in rice/agriculture education and children's literature, and consultation with grades 1 and 2 students from Maligaya Elementary School (public school) and San Sebastian School (private school) in the Science City of Muñoz, Nueva Ecija. Several hours were spent with skimming through different types of storybooks among 75 kids in two schools. This paved the way for the brainstorming/story building, character development, layout concept, and pacing.

After weaving the concept story of the kids, their teachers were also interviewed to get a sense of which rice conservation values are most important to translate to children. With their first-hand experience in communicating with children, they were able to suggest effective techniques in writing the story.

Highlights:

- The storybook was developed and pretested.

- Both grades 1 and 2 students preferred the "Big Book" (around 22" x 28" in size) for easy reading, appreciation of illustration,

and sharing with other kids in a big group.

- Adventure and horror stories were found interesting.
- In interpreting the story, first and second graders preferred highly illustrative pages with cartoon characters.
- Short stories are preferred.
- Activity section of the book was found essential in reinforcing the moral story of the book.

III. Development and Pilot-testing of KSL Activities for REIs

EP Angeles, KET Barroga, LdR Abaoag, and IR Tanzo (PhilRice); JLapitan and BPamatmat (IRRI)

Highlights:

- Identified REIs were categorized and priority groups identified based on their positions of strength (i.e. reach/influence, location) and to be tapped as information conduits, learning facilitators for rice stakeholders, and farmers' link to providers of advisory and extension services. The REI groups include: civil society/private sector-based who are strategically located in farming communities and are a main 'go-to' for farmers' input needs; media-based who have the ability to spread information faster to many people; community-based who are constantly in contact with farmers; academe-based who mold the minds of future farmers and extensionists.
- To recognize and strengthen their roles, knowledge sharing and learning (KSL) activities are being designed for specific REI groups. Although there could be distinct KSL activities per REI group, each KSL is meant to: (1) Inform REIs of current and future challenges farmers face in producing food; (2) Commend them of what they are currently doing to help farmers; (3) Offer them resources to meet the challenge, which could include ICT-based resources and tools, printed materials, research fellowships, tours/farm visits, trainings/technology updates, and others; and (4) Challenge and make them commit to share knowledge with and do more for the farmers.
- The KSL for the private sector-based (i.e., input providers) was pilot-tested on October 8 and 9 at PhilRice CES, with one batch for each day. The two-day event involved some 100 agricultural input suppliers (i.e., fertilizers, chemicals),

seed sellers, farm machine dealers, and staff of credit and microfinance institutions from Region III as participants. The KSL featured viewing of the three agriculture videos, Rice TeknoKlinik of different ICT-based resources/tools, field tour, and a commitment ceremony. Follow-up activities are being conducted to sustain their engagement. These include, among others, engaging the REIs as resource persons during the AgriSurvivors module of the training, providing them with printed promotional materials of ICT-based resources/tools that they can give-away to clients and copies of agriculture videos that they can use during their activities with farmers; registering them to the text centers of PhilRice and ATI, and engaging them in the promotion of these ICT tools.

Based on participants' feedback on the activity, other KSL activities are now also being designed for other REI groups. These will be simultaneously conducted by the three collaborating agencies, with each agency to focus on a specific REI group to reach a large number of rice stakeholders.

IV. Improving access to rice information in Region III (RFU III-funded)

These are projects funded by the Regional Field Office of the DA in Central Luzon. The aim is to test new modalities on how to improve access to information for farmers and other rice stakeholders in the region.

Providing easier and cheaper access to information through ICT (Palay price advisory)
HV Antonio, EP Angeles

Taking off from the benefits of ICT-based initiatives in doing development work, this study experimented on the use of mobile phones to assist farmers to get better prices for their produce through palay price advisory. Prices were provided by palay traders in Nueva Ecija and Aurora provinces. Several farmers were invited to participate in this study. This study commenced in 2012.

Highlights:
Conducted final analysis of data and discussion of results:

- Almost all respondents think that the price advisory is useful; however, not all benefited from it.

- Among those who benefitted, benefits included being able

to haggle, selling to buyer with higher price, saving on cost of canvassing, and being able to avoid agents.

- The reasons for those who did not benefit include did not receive price advice because harvest was on a Sunday, may suki/sanay na, and indebted to buyers.

- The use of a price advisory system entailed costs on software or system and manpower, and required active engagement of farmer registrants to the PTC and millers/traders who provide price quotations .

- Terminal report is being prepared.

Providing better information support to farmers by tapping other possible conduits, (Seed/Agricultural supply traders as information conduits)

MG Layaoen, CLB Gado

There are various ways by which PhilRice or any agricultural institutions reach farmers. The use of broadcast, print, face-to-face has all been explored. These, however, have not proved sufficient to address the information poverty that many farmers experience. Hence, there is a need to continue innovating on how to bring the technologies to farmers. This study is one such innovation. The use of seed centers was explored as information hubs. This took off from the information that most farmers visit seed centers for various reasons. This study commenced in 2012.

Highlights:

- Interviews extracted the seed centers' (1) capability to deliver information, (2) willingness to share information, and (3) innovativeness to maximize info sharing.

- The seed centers' capacity to deliver information was measured in terms of their profile, experience in rice farming or seed growing, and store's marketing reach.

- Although the seed center owners recognize the usefulness of the material and are willing to share the brochure, they did not innovate to maximize information sharing.

- Innovation may include distributing the publication for every 40kg of seeds bought.

- Seed centers operating for more than 10 years expressed their

interest to finance the printing of the material.

- Seed growers can also be tapped as content developers of agricultural publications because they have knowledge on location-specific technologies and farm practices.

- Terminal report is being prepared.

Providing technical information to ATs and farmers through print publications (CWTS students as info conduits)
JA Manalo IV

This study explored the use of Community Welfare and Training Service students to help in disseminating information on cost-reducing and yield-enhancing technologies on rice. The participants were students of the Central Luzon State University. Progress of this study was reported to DA-RFO representatives. The study was conducted from 2012 to 2013. Draft of the terminal report was submitted in July 2014.

Highlights:
The strategy is not yet for upscaling. Several adjustments are needed:

- Students must internalize their roles in this campaign.

- Administrative issues must be settled early on.

- Carefully select student-participants. CWTS students are rather young. Members of student organizations in their junior or senior years would probably perform better.

- Thorough identification of participating areas for proper planning, which is crucial especially that students are not yet used to doing community-based tasks.

- Partnership with local DA for additional source of resource speakers.

- Technical staffers of PhilRice are often busy.

- Bigger budget is necessary (This initiative was implemented with a Php50,000 budget that was not enough to cover all expenses of this project).

V. Application and promotion of field-tested KSL practices

Project Leader: KET Barroga

Cognizant of the need to have more KSL-enhancing mechanisms, it is imperative that they be tried and promoted for wider application. This activity seeks to push for the promotion and application of some of the KSL-enhancing mechanisms. This completes the KSL cycle.

Infomediary 2.0: Engagement of and support to the schools implementing the infomediary curriculum Development and roll out of climate smart rice farming module in the Infomediary Campaign-participating schools in the Philippines (with CGIAR-CCAFS)

JA Manalo IV, MG Layaoen, JP Berto, KP Balmeo, FM Saludez, CA Frediles, JD Villaflor, and AM Pagdanganan

These projects were implemented from October 2013 to December 2014. The Infomediary Campaign is a project of PhilRice on youth engagement in agriculture, which started in 2012, in collaboration with the Technical-Vocational Unit of the Bureau of Secondary Schools of the Philippines's Department of Education. The overarching aim was to create new communication pathways in delivering agricultural information through the infomediaries or the high school students. Several activities were conducted: training of teachers on the Climate Change and Rice Production modules, distribution of communication materials, integration of the module in the school curriculum, random conduct of Infomediary Quiz Bee, establishment of rice gardens, monitoring, and evaluation. The evaluation used a combination of qualitative and quantitative methods. Qualitative methods were focus group discussions with key school officials, participant observation, and snowballing. Surveys constituted the quantitative method.

Highlights:

- Results showed that there are significant positive changes in the level of awareness of the students on climate change especially relating to the phenomena associated to it. Increase in the use of the Internet, from 25% (baseline) to 60% (evaluation) was also noted. It seems that schools optimized various communication media in conveying key messages of the Project. Offline and online media were useful depending on communication contexts. For instance, in areas with poor internet connectivity such as in Eastern Samar, offline means such as conduct of field work was rated as the main strategy in discussing the Climate Change and Rice Production modules.

Lessons include the following:

- Different communication channels will be useful in different contexts.
- A platform that is easy to use will be appreciated quickly.
- Internet-based platform will be successful if promoted properly and the mechanisms to allow usage are in place.
- Offline means of communication will hardly lose their value.
- Those who initiated at least one big school activity, however, managed to drive home the key messages of the campaign.
- Done properly (during the morning, in groups, fun way, or in the afternoon as they no longer have to clean themselves for their next class), field work can be a good practical tool.
- Less complex topics such as general information on CSA were shared more than the complex ones such as adaptation mechanisms. If successful sharing of the complex topics by the students is desired, the need to further popularize these topics becomes even more relevant, and so do the need for more edutainment (education and entertainment) initiatives.
- There is a need to segment the stakeholders of this campaign relative to the message that they can competently convey.
- There is a significant association between gender and the act of sharing ($p=0.071$). Females are more likely to share than male students.
- Non-crops students are also more likely to share what they learned than students who major in crops production ($p=0.052$).
- Land ownership is not associated with the act of sharing that transpired ($p=0.430$).
- It is not enough that the students share the technical knowledge s/he may have picked up in the process. S/he must also share the PTC number to ensure that the information shared will be reinforced, and so the chance for adoption or adaptation of certain technologies is higher.
- It is not enough that the students share what they gathered

from their classes. There should be entities or other avenues in the community that will say the same thing to increase the credibility of the messages passed on in this process.

Infomediary with RFU III

JA Manalo IV, JC Berto, KP Balmeo, F M Saludez, AM Pagdanganan, and JD Villaflor

Highlights:

- The campaign was implemented in eight schools in Central Luzon: Pampanga Agricultural College (PAC), Bayanihan National High School (BNHS), Ibona Agricultural High School (IAHS), Corazon Aquino High School (CAHS), Panan National High School (PNHS), FF Halili National High School (FFHNHS), Balagtas National Agricultural High School (BNAHS), and Gabaldon Vocational High School (GVHS).

- The table below shows the activities that were conducted in the participating schools. GVHS, BNAHS, FFHNHS, and BNHS participated in the training on Climate Change and Rice production as they were also TecVoc High Schools except for BANHS, which was invited owing to it being the pilot school of the campaign.

- Video testimonials of participating students are now uploaded in the Infomediary Campaign website www.infomediary4d.com .

- Participating schools have also been very active in posting their activities in the Infomediary Campaign Facebook Group (Infomediary Campaign).

Table 2. Activities conducted in the participating schools.

Activities	PAC (Pampanga)	BNHS (Aurora)	IAHS (Aurora)	CAHS (Tarlac)	PNHS (Zambales)	FFHNHS (Bulacan)	BNAHS (Bulacan)	GVHS (Nueva Ecija)
Establishment of rice gardens								
Integration of rice production modules								
Infomediary Quiz Bee								
TeknoKlinik								
Farm Machinery Operations Training								
Training on Climate Change and Rice Production								
Lakbay palay								

KSL at PhilRice

KET Barroga and JQ Amacanin

Highlights:

- The KSL hour was started this year within the Division to further improve application and promotion of KSL modalities. Nine topics have been discussed, which included research methodologies, new strategies, research findings, and conceptual frameworks.

- Almost a hundred sharing opportunities by DevCom staff have been done for the year. This included institutional, national, and international events.

- Two issues of the KSL Tips were uploaded to the PinoyRice Knowledge Bank website, one on infomediary and the other on conducting field days.

VI. Promoting rice science for development through strategic use of communication media

Project Leader: AB Lanuza

PhilRice's new corporate strategic plan, which is guided by the credo of promoting clean, green, practical, and smart technologies for competitive, sustainable, and resilient rice-based farming communities (CleanGPS for CSR), brings with it new possibilities and challenges in promoting rice science and technology as well as new pathways for development interventions. The Development Communication Division plays a major and significant part in these efforts. It has often been said, of what use are the results/products of rice science if these are not communicated effectively, particularly to the intended users. With the operationalization of the new corporate plan, the Division finds it important to employ strategic communication.

Strategic communication is an evidence-based, consultative communication process that fosters the principle of specificity (i.e. user- and location-specific). It also favors best mix of communication approaches/media to facilitate change or learning. The large amount of information and technologies generated by the rice R&D network each year and its various intended users with specific information needs make the application of strategic communication vital in promoting these knowledge assets using various communication media.

Development and production of knowledge products

MG Layaoen, JA Manalo IV, MGM Nidoy, MM Prado, CA Frediles, AB Lanuza, CG Dacumos, CLB Gado, JGS Sarol, JC Berto, and AP Canilang

This activity aimed to develop and produce knowledge products in various formats that meet the needs and preferences of specific end-users to enable them to appreciate and understand rice science and technology, with emphasis on the benefits of Clean GPS for CSR.

Highlights:

- The study produced 77 titles consisting of 57 new, seven reprints, and 13 updated versions. In 2014, 125,200 copies of said publications were produced; 110,263 of which were distributed.

- Four issues of the PhilRice magazine were published. The themes for 2014 were: ASEAN Free Trade: Are the local farmers prepared?; Ripples of Change; Creating a Farm of Abundance; and Touches of Transformation. This year also launched the first Filipino issue of the magazine (El Niño,

'di na bago, kaya natin 'to!) in response to the El Nino pronouncement of PAGASA. The magazines were printed at 3,000 copies each.

- One issue of Rice Science for Decision-makers was released: How can rice trade liberalization affect producers and consumers? with 500 copies. This publication simplifies and synthesizes topics and findings in rice science to help craft decisions relating to rice production and use of technologies. This was distributed to members of the Upper and Lower Houses of Congress, government agency heads, and civil society groups.

- KPs produced include three primers/booklets; 14 leaflets/brochures; 11 Q&A series; 5 billboards; 7 banners; 4 posters; 18 technology videos/teasers; 3 teaching modules; and 6 rice technology bulletins.

- To cater to the information needs of more farmers and intermediaries, more KPs in the vernacular were also produced such as the Rice Komiks and the El Niño communication materials.

- A new initiative, the development of an interactive multi-media form of the PhilRice magazine is expected to contribute more in efficient sharing of knowledge on rice farming, and to stir interest of more Internet surfers to read, download, and/or share the e-file of the magazine.

- A circulation plan was also developed based on previous trends and demands to ensure efficient distribution of materials to intended recipients. The branch stations were tapped as major players in production and distribution.

Year 2014 has witnessed a significant increase in KP production as a result of the various campaigns and advocacies that PhilRice has started to implement - BeRiceponsible, Rural Transformation Movement, Infomediary Campaign, all based in DevCom. The study further envisions to support more rice R&D causes and reach as many stakeholders with the most appropriate communication materials.

Design and execution of information/social marketing campaigns

AB Lanuza, O Domingo, FA Saludes, AP Canilang, MG Nidoy, JA ManalaoIV, JP Berto, JG Sarol, JQ Amacanin, KET Barroga, CA Fredilles

For a target audience to accept or become interested on an idea, technology/product, service, or person, information campaigns and exhibits are used. Information campaigns may be as simple as putting up a series of posters or as extensive as involving the use of several popular media (local or national) and even human elements (i.e. celebrities). They can last from a few months to a few years, often targeting specific audiences.

At PhilRice, campaigns such as on hybrid rice technology and rodent management have been conducted in the past at varying scales. The hybrid rice technology campaign, for instance, was done nationwide while that of rodent management was a municipal-wide campaign. Such campaigns have led to greater awareness about these technologies and also garnered awards for PhilRice.

Exhibits, on the other hand, are much smaller in scale, and thus more manageable. In a year, PhilRice would receive several invitations to participate in exhibits to promote its technologies and services. These exhibit events are attended well by people curious and interested to learn. Within the Institute, there are also exhibits needed to cater to the staff and the Institute's visitors.

With the Institute's push to strengthen awareness about how rice science is being used for development, information campaigns and exhibits are two strategic communication media that can be tapped.

The objective of the study is to design and execute information campaigns and exhibits that promotes and support specific and various applications of CleanGPS for CSR and to conduct activities in support of the Golden Rice project.

Highlights:

- Participation in 9 exhibit, expo and tradefair events ; distributed 21,922 knowledge products.
- 3 Billboards (Palayamanan, Clean GPS for CSR, and El Nino'y di nab ago, kaya natin 'to!) were produced and distributed to PhilRice's branch station.
- PhilRice's Exhibitor's Manual was updated and distributed to all branch stations. This publication is used to help guide PhilRice staff members in conducting and coordinating activities such as tradefairs and expos.

- Distributed CD's packages containing the offline version of PinoyRice and all recent campaign posters, banners, and billboards to all branch stations.

- 38 Golden Rice- related articles were monitored and synthesized Produced 1 Golden Rice Video to be used for promotion and;

- Conducted briefings on Golden Rice with 2 SUCs, and coordinated interviews with 2 media outfits.

- Binhi Award for Outstanding Agricultural Campaign for the BeRiceponsible Campaign.

- Finalist, Communication for Social Change Awards based in the University of Queensland, Australia for the Infomediary Campaign.

Management of communication resource bases and services
MM Prado, CA Frediles, KP Balmeo, FA Saludez, CG Dacumos, AM Pagdanganan, JD Villaflor, AP Canilang, AB Lanuza, JGS Sarol

To facilitate the promotion of rice science and technologies, this component aims to effectively manage and maintain different repositories of rice knowledge to facilitate better provision of services to PhilRice's clientele. These resource bases include PinoyRice Knowledge Bank, PhilRice Text Center and media databases (i.e. knowledge products, videos, and images). It also aims to ensure quality and timely communication support services to PhilRice staff, especially the branch stations.

Highlights:
PhilRice Text Center

- 57,412 received SMSs ; 4,784 average SMS received/month; Highest bulk of messages received in November (6,984).

- 27,247 active texters; 3.5% higher than 2013 with only 26,321.

- 2,273 average texters/month; 75 average texters/day; most number of active texters in August (3,025).

- Received 568 phone calls; 51% higher than 2013 with only 375; 119% higher since PTC receives call in 2011 (259).

- Top 3 SMSs received: 1) seed quality and varietal information (23,726), 2) seed availability (6,006), 3) pest management (3,412).

- 2,412 new registered clients; top (5) provinces with the most number of newly registered clients were from – Davao Oriental (235); Occidental Mindoro (223); Ilocos Norte (169); Northern Samar (150); Tarlac (132).

- 17,695 registered clients; 15.78% higher than 2013 with only 15,283 registered clients.

- 100 new info-on-demand keywords; received a total of 20,753 keywords, slightly higher than last year with 19,225 keywords; highest number of keywords received in November (3,274) while in 2013 it was in June (2,193).

- Sent 24 rice tips to all regions.

- PTC used for quick surveys; sent 5 surveys.

- Involved in different projects and campaigns – Infomediary Campaign, Be RICEponsible Campaign, and IPaD.

Pinoy Rice Knowledge Bank

- 1,666 total number of resources since the website was uploaded; 104 uploaded resources in 2014 – 68 new handouts, RTB, and posters; 36 rice tips.

- 65,497 total number of visits, 20.49% increase from 2013 with 54,360 visits.

- 44,497 unique visitors; 26.47% increase from 2013 with 35,184 unique visitors.

- 256,980 page views; 9.40% increase from 2013 with 234,895 page views.

- Most viewed pages were on rice varieties, variety and seed selection, rice facts and figures, resources, nutrient management, land preparation, location-Specific PalayCheck results, pest management, and crop establishment.

- 5,225 downloads (learning modules); 20.59% increase from 2013.

- 1,528 video downloads; 15.67% increase from 2012 and slightly higher than 2013 with 1,520 video downloads.
- High increase in users using mobile devices, from 1,682 in 2012 to 3,944 in 2013 to 8,888 in 2014.
- New website interface and URL; website is now in HTML format and is mobile ready and compatible; New URL: www.pinoyrice.com.
- Printed all rice handouts and packaged/compiled as a ready-to-photocopy book; distributed to RIOs, Infomediary Campaign- participating schools, and IPaD's AgriDOCs.
- Involved in different projects and campaigns – Infomediary Campaign, Be RICEponsible Campaign, and IPaD

Services

- Designed and developed webpages for online service request form (SRF) and rate-us function to solve the problem on monitoring and easy access of the communication services; accessible through www.pinoyrice.com/srf.
- Catered 32 service requests through SRF since it was promoted and uploaded online in April.
- Received average rating of 4.63 for responsiveness, 4.69 for quality, and 4.53 for timeliness (Highest was 5).

Database

- Databased 96,748 photos, deleted 12,860 photos; 3,407 keywords in the library; 279 publications

Management of stakeholders' perception of PhilRice
CLB Gado

It is imperative that PhilRice maintains good relationship with its stakeholders. The Institute owes it to the taxpayers to report on how public funds are being spent on rice research and development. In 2014, PhilRice has been very active in engaging its stakeholders by quickly responding to highly contested issues relating to rice such as rice smuggling and El Niño-ready rice varieties.

Highlights:

- Published 100 stories on various subjects such as corporate stories and breakthroughs in rice research and development; with 300 pick up rates from wire news services.

- First corporate billboard of PhilRice in NLEX (El Niño'y 'di nab ago, kaya natin 'to!).

- 28 media opportunities. The Division linked up with some of the major broadcast media outlets in the country such as ABS-CBN, DZRH, and GMA 7 to widen reach of the Institute in talking about its advocacies.

- Some of the most popular topics in 2014 were on climate change (particularly El Niño-ready rice varieties); rice smuggling, Gusto Namin Milyonaryo Kayo Campaign, and BeRiceponsible (Responsible rice consumption).'

- 2014 Binhi Award for Outstanding Agricultural Radio Program for DevCom's radio program in collaboration with DA-RFU III—Masiglang Agrikultura.

Abbreviations and acronymns

ABA – Abscicic acid
Ac – anther culture
AC – amylose content
AESA – Agro-ecosystems Analysis
AEW – agricultural extension workers
AG – anaerobic germination
AIS – Agricultural Information System
ANOVA – analysis of variance
AON – advance observation nursery
AT – agricultural technologist
AYT – advanced yield trial
BCA – biological control agent
BLB – bacterial leaf blight
BLS – bacterial leaf streak
BPH – brown planthopper
Bo - boron
BR – brown rice
BSWM – Bureau of Soils and Water Management
Ca - Calcium
CARP – Comprehensive Agrarian Reform Program
cav – cavan, usually 50 kg
CBFM – community-based forestry management
CLSU – Central Luzon State University
cm – centimeter
CMS – cystoplasmic male sterile
CP – protein content
CRH – carbonized rice hull
CTRHC – continuous-type rice hull carbonizer
CT – conventional tillage
Cu – copper
DA – Department of Agriculture
DA-RFU – Department of Agriculture-Regional Field Units
DAE – days after emergence
DAS – days after seeding
DAT – days after transplanting
DBMS – database management system
DDTK – disease diagnostic tool kit
DENR – Department of Environment and Natural Resources
DH L– double haploid lines
DRR – drought recovery rate
DS – dry season
DSA - diversity and stress adaptation
DSR – direct seeded rice
DUST – distinctness, uniformity and stability trial
DWSR – direct wet-seeded rice
EGS – early generation screening
EH – early heading
EMBI – effective microorganism-based inoculant
EPI – early panicle initiation
ET – early tillering
FAO – Food and Agriculture Organization
Fe – Iron
FFA – free fatty acid
FFP – farmer's fertilizer practice
FFS – farmers' field school
FGD – focus group discussion
FI – farmer innovator
FSSP – Food Staples Self-sufficiency Plan
g – gram
GAS – golden apple snail
GC – gel consistency
GIS – geographic information system
GHG – greenhouse gas
GLH – green leafhopper
GPS – global positioning system
GQ – grain quality
GUI – graphical user interface
GWS – genomwide selection
GYT – general yield trial
h – hour
ha – hectare
HIP - high inorganic phosphate
HPL – hybrid parental line
I - intermediate
ICIS – International Crop Information System
ICT – information and communication technology
IMO – indigenous microorganism
IF – inorganic fertilizer
INGER - International Network for Genetic Evaluation of Rice
IP – insect pest
IPDTK – insect pest diagnostic tool kit
IPM – Integrated Pest Management
IRRI – International Rice Research Institute
IVC – in vitro culture
IVM – in vitro mutagenesis
IWM – integrated weed management
JICA – Japan International Cooperation Agency
K – potassium
kg – kilogram
KP – knowledge product
KSL – knowledge sharing and learning
LCC – leaf color chart
LDIS – low-cost drip irrigation system
LeD – leaf drying
LeR – leaf rolling
lpa – low phytic acid
LGU – local government unit

LSTD – location specific technology development
m – meter
MAS – marker-assisted selection
MAT – Multi-Adaption Trial
MC – moisture content
MDDST – modified dry direct seeding technique
MET – multi-environment trial
MFE – male fertile environment
MLM – mixed-effects linear model
Mg – magnesium
Mn – Manganese
MDDST – Modified Dry Direct Seeding Technique
MOET – minus one element technique
MR – moderately resistant
MRT – Mobile Rice TeknoKlinik
MSE – male-sterile environment
MT – minimum tillage
$mtha^{-1}$ - metric ton per hectare
MYT – multi-location yield trials
N – nitrogen
NAFC – National Agricultural and Fishery Council
NBS – narrow brown spot
NCT – National Cooperative Testing
NFA – National Food Authority
NGO – non-government organization
NE – natural enemies
NIL – near isogenic line
NM – Nutrient Manager
NOPT – Nutrient Omission Plot Technique
NR – new reagent
NSIC – National Seed Industry Council
NSQCS – National Seed Quality Control Services
OF – organic fertilizer
OFT – on-farm trial
OM – organic matter
ON – observational nursery
OPAg – Office of Provincial Agriculturist
OpAPA – Open Academy for Philippine Agriculture
P – phosphorus
PA – phytic acid
PCR – Polymerase chain reaction
PDW – plant dry weight
PF – participating farmer
PFS – PalayCheck field school
PhilRice – Philippine Rice Research Institute
PhilSCAT – Philippine-Sino Center for Agricultural Technology
PHilMech – Philippine Center for Postharvest Development and Mechanization
PCA – principal component analysis
PI – panicle initiation
PN – pedigree nursery
PRKB – Pinoy Rice Knowledge Bank
PTD – participatory technology development
PYT – preliminary yield trial
QTL – quantitative trait loci
R - resistant
RBB – rice black bug
RCBD – randomized complete block design
RDI – regulated deficit irrigation
RF – rainfed
RP – resource person
RPM – revolution per minute
RQCS – Rice Quality Classification Software
RS4D – Rice Science for Development
RSO – rice sufficiency officer
RFL – Rainfed lowland
RTV – rice tungro virus
RTWG – Rice Technical Working Group
S – sulfur
SACLOB – Sealed Storage Enclosure for Rice Seeds
SALT – Sloping Agricultural Land Technology
SB – sheath blight
SFR – small farm reservoir
SME – small-medium enterprise
SMS – short message service
SN – source nursery
SSNM – site-specific nutrient management
SSR – simple sequence repeat
STK – soil test kit
STR – sequence tandem repeat
SV – seedling vigor
t – ton
TCN – testcross nursery
TCP – technical cooperation project
TGMS – thermo-sensitive genetic male sterile
TN – testcross nursery
TOT – training of trainers
TPR – transplanted rice
TRV – traditional variety
TSS – total soluble solid
UEM – ultra-early maturing
UPLB – University of the Philippines Los Baños
VSU – Visayas State University
WBPH – white-backed planthopper
WEPP – water erosion prediction project
WHC – water holding capacity
WHO – World Health Organization
WS – wet season
WT – weed tolerance
YA – yield advantage
Zn – zinc
ZT – zero tillage

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