

Our work at Philippine Rice Research Institute

Elmer G. Bautista, PhD
Supervising Science Research Specialist
Rice Engineering and Mechanization Division











Agency Mandate, Vision and Mission

Mandate

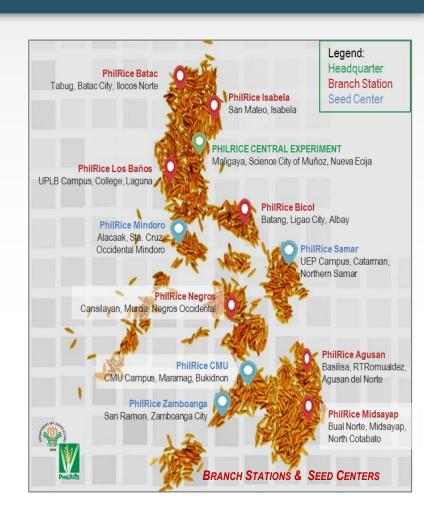
- Government corporate entity attached to the Department of Agriculture
- Created through Executive Order 1061 (Nov. 1985) to help develop high-yielding and costreducing technologies for rice farmers.

Vision

Rice-secure Philippines

Mission

Improve the **competitiveness** of the Filipino rice farmer and the Philippine rice industry and transform it to be **more profitable**, **resilient**, **and sustainable** through responsive, balanced, environmentally sound and partnership-based research, development and extension.





Rice Research for Development (R4D) Programs 2018-2022

R&D PROGRAMS

Climate Resiliency for Enhanced Agricultural Trade and Efficiency for Rice (CREATE Rice)

Hybrid Rice Research (HRR)

Rice Farm Modernization and Mechanization (RFMM)

Science-based Policies in Advancing Rice Communities (SPARC)

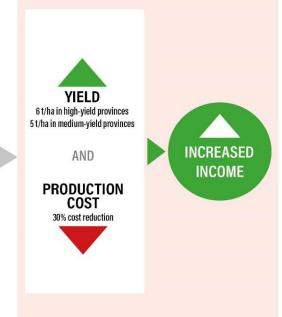
> Rice Seed Systems (RSS)

> > Rice Business Innovations System (RiceBIS Community)

STRATEGIC OUTCOMES

- Increased productivity, costeffectiveness, and profitability of rie farming in a sustainable manner
- Improved rice trade through efficient postproduction, better product quality, and reliable supply and distribution system
- Enhanced value, availability, and utilization of rice, diversified ricebased farming products, and byproducts for better quality, safety, health, nutrition, and income
- Science-based and supportive rice policy environment
- Advanced rice science and technology as continuing sources of growth
- Enhanced partnerships and knowledge management for rice research for development (R4D)
- Strengthened institutional capability of PhilRice

MISSION: COMPETITIVENESS



R4D PROGRAMS/ DIVISIONS/ OFFICES/

CENTERS/

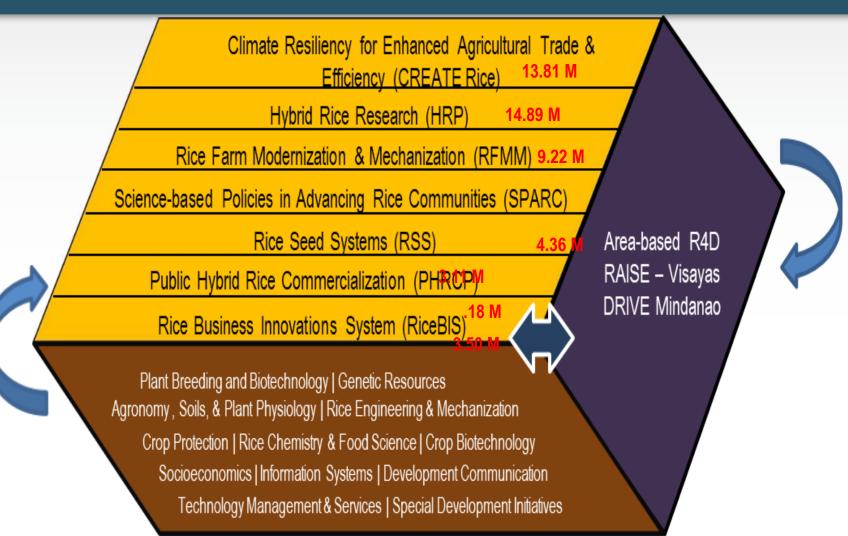
BRANCH

STATIONS

Co

Directions

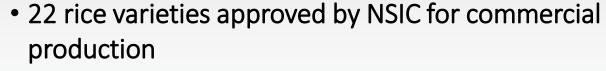
Rice Research for Development (R4D) Programs 2018-2022





III. Highlights of Accomplishments, 2018





- ICT-aided integrated crop management techniques
- Management strategies for blast and sheath blight
- Technologies for coping negative impacts of climate change
- 905 germplasm regenerated, processed and conserved
- 31 publications on ISI, Non-ISI journals, books, and patent application
- Policy materials and advocacy campaigns
- High-value products from rice grain (GABA rice as base ingredient for instant and ready-to-eat foods)
- Farm machines 2 for pilot testing and 5 for further refinement













2016-2019 Accomplishments

Accomplishments	2016	2017	2018	2019 (Jan-Jun)	Average	Total
Projects Implemented	122	114	85	77	99	-
Rice Varieties approved by NSIC	25	13	22	2	1	62
PhilRice Bred Varieties	6	2	3	-	-	11
Machines for pilot testing	5	6	6	9	-	26
Policy papers/brief	1	1	1	-	1	3
Journal Publications (R&D)	39	29	36	12	-	116





Machines for Pilot Testing

2016

- 1. 100-kW Rice Husk Gasifier
- 2. Retrofitted Engine for Mechanized Rice Farming Operation
- 3. Rice husk gasifier for shallow-tube well pumping of water
- 4. Universal Fuel Feeding Device
- Flatbed drying operation through a continuous flow rice hull gasifier

2018

- Local mechanized weeder for straight row planting of rice
- 2. Gear transmission power tiller
- 3. Local riding-type precision seeder
- 4. Pilot-testing of multi-crop reduced till-planter (MCRTP)
- 5. Lightweight riding boat tiller using molded tough virgin polyethylene (MDPE)
- 6. Multi-purpose mini-tractor for climate change adaptation

2017

- 1. Stripper combine harvester
- 2. Riding boat tiller
- 3. Ricehull Gasifier Engine Pump System
- 4. MP Seeder and reduced planter
- 5. Riding type transplanter
- 6. Brown rice machines (Village type)

2019

- 1. Four (4) Brown rice machines (Model type: 1 micro-enterprise, 2 improved village, 1 household)
- 2. Infrared dryer
- Automon (instrument for water measurement)
- 4. Two (2) SACLOB) for brown rice packaging and storage (50 kg, 5 kg)
- 5. Reaper header combine harvester



FRAMEWORK

Development of REMD Farm Model for Modernization and Mechanization Goal

REMD

Division Operations and Services

Implementation of ABE Agricultural Projects

Farmers
Rice Millers
Rice Traders
Manufacturers



CORE PROJECTS

Pevelopment of REMD Farm Model for Modernization and Mechanization Goal

Study 1. Land Consolidation with Optimum Plot Sizing for Efficiency and Leveling Effects

Study 2. Establishment of Efficient and Suitable Irrigation and Drainage Facilities at the REMD Model Farm for Mechanization

Study 3. Provision of Appropriate Machines and Access Roads for Mechanization

Study 4. Evaluation of REMD Model Farm in Application of All Interventions

Division Operation and Services

Study 1. Supporting RDE Through Shop Custom Service Provision

Study 2. Establishment of Agricultural and Biosystems Engineering Unit in PhilRice Branch Station

Study 3. Instrumentation Services

Study 4. Operationalization of Agrometeorological Station in CES and Branch Stations

PROJECT 3

REMD Machine Shop Maintenance



PROJECTS with other funding

Proj. 1 (DA - BAR)

\$1. Improvement and Pilot Testing of Brown Rice Machines

\$2. Improvement and pilot testing of hermetic storage technologies (SACLOB) to prolong shelf life of brown rice

Proj. 2 (MP Seeder) (DA-BAR)

Proj. 3 (RiceStrawPH) (DA-BAR)

Proj. 4
(FIR Dryer)
(PCAARRD)

Proj. 5 (DA-BAR)

S1. Develop an irrigation advisory service using AutoMon^{PH} for improving water productivity and enhancing coordination among water-user associations.

S2: Increase production efficiency through efficient water management, mechanization, and integrated weed management

S3. To explore and develop an enabling environment for the adoption of different interventions

Photo Documentation

Seedling Preparation in Seedling Trays and Dapog for Mechanical Transplanter



Crop establishment using Mechanical Transplanter and Drum Seeder and Harvesting using Combine Harvester

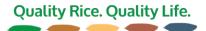


Photo Documentation









Thank you for listening!

- PhilRice Text Center 0917-111-7423
- f rice.matters
- **▶** PhilRiceTV
- www.philrice.gov.ph www.pinoyrice.com
- prri.mail@philrice.gov.ph

