

DA launches info service center for farmers, fisherfolk

The Department of Agriculture (DA) has launched a novel project in tandem with a major telecommunications company that will enable farmers and fisherfolk to easily access agriculture-related information and extension services via telephone, the Internet or short messaging service (SMS).

Secretary Arthur C. Yap said the Farmers' Contact Center (FCC), which is being run by the DA's Agricultural Training Institute (DA-ATI) in partnership with Philippine Long Distance Telephone Company (PLDT), is part of the Extension component of the government's flagship program on food security dubbed FIELDS.

FIELDS, which enumerates the six areas where government support are being focused on under the President Arroyo's food security and sufficiency agenda, stands for Fertilizers, Irrigation and other rural infrastructure like farm-to-market roads (FMRs), Extension services and education for farmers, Loans, Dryers and other postharvest facilities, and Seeds and other genetic materials.

Yap led agriculture officials in recently launching the Farmers' Contact Center (FCC), which was held in Tagbilaran, Bohol and attended by some 400 guests composed of agricultural extension workers, farmers, local government officials, people and non-government organizations, as well as some representatives from the DA agencies and partner agencies of the

Department.

The FCC can be contacted through the hotline numbers 982-2474 (AGRI) for Metro Manila, 1-800-10-982-2474 (AGRI) for provincial toll free calls and 0928-4990-965 for mobile users.

Inquiries can also be sent through text at 391-32 (DA) for SMART and TalkNText subscribers and 0928-4990-965 for non-SMART subscribers. The FCC can also be accessed through e-mail at info@e-extension.gov.ph

"The FCC is the DA's alternative delivery channel in providing timely information and extension services to our farmers and fisherfolk," Yap said.

FCC services available to farmers and fisherfolk include technical advisory on agriculture and fisheries technologies and agricultural marketing assistance to make their farming or fishing activities more profitable for them.

The DA-ATI has organized three levels of support for the effective implementation of the FCC which would be made available to respond to clients' queries.

Level 1 involves the contact center agents with agriculture background who will answer the



PHOTO: RDELACRUZ

queries using the FCC Knowledge Base (KB). Should the queries need further information, they will be escalated to the experts from the various DA agencies and institutions.

If the query needs further probing or requires field and farm visits, the query may be referred to the FCC's Level 3 experts, which include agricultural extension workers (AEWs), agricultural scientists and representatives of institutions and organizations like State Universities and Colleges (SUCs).

Moreover, Yap led the signing of Memorandum of Agreement with the Devolved Agriculturists of the Philippines, Inc. (DAPI) and the Philippine Association of Provincial and City Agriculturists (PAPCA) to strengthen the provision of technical advisories through the FCC. **(DA Press Office)**



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BAR promotes important uses of indigenous herbs and spices

Oregano (*Coleous aromaticus Benth*) is a perennial plant commonly found in the backyard of houses in the provinces. However, this ordinary indigenous plant has extraordinary potential for culinary and medical applications.

A study conducted by Dr. Estela C. Taño of the Department of Agriculture (DA) Quezon Agricultural Experiment Station (QAES), oregano contains essential elements which are carminative (relieves flatulence), emmenagogue (ability to induce menstruation), and diaphoretic (increase sweating). Oregano also improves digestion and blood circulation. It has the potential to cure asthma, chronic and dry coughs, bronchitis, and for effective removal of phlegm. Through continuous research, Dr. Taño has created different products that are now available in the market.

Oregano is only one among the indigenous plants that the Department of Agriculture (DA) is promoting through the Indigenous Plants for Health and Wellness RDE Program. This program is a joint effort of Bureau of Agricultural Research (BAR), University of the Philippines Los Baños (UPLB), and Bureau of Plant Industry (BPI) that studies in-depth the country's indigenous plants on its various purposes such as functional food, herbal medicine, and as raw material for pharmaceutical and cosmeceutical products. The program promotes and highlights the importance of indigenous plants and their by-products in improving people's health while creating employment and additional livelihood opportunities in the provinces to help improve the local economy.

With this, BAR has embarked on an information campaign to promote awareness on the program, the conduct of seminars and the distribution of books and other related materials not only in the provinces but also in Metro Manila. As such, the BAR 2010 Technology Calendar features "herbs and spices" (one of the components of the program) with the theme "Adding flavor to agriculture: Promoting herbs and spices in the Philippines". The calendar features the most common herbs and spices indigenous to the country. These are sweet basil, parsely, peppermint, rosemary, tarragon, thyme, oregano, fennel, and cilantro for herbs while chives, black pepper and turmeric for spices.

Like oregano, each of these indigenous plants has its own potentials not only for culinary purposes but for other uses like medicine, as raw material for pharmaceutical and cosmeceutical products. **(Edmon B. Agron)**



**"Adding Flavor to Agriculture:
Promoting Herbs and Spices in
the Philippines"**

Herbs



Spices



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RDMIC Bldg., Visayas Ave., cor. Elliptical Rd.
Diliman, Quezon City 1104
PHILIPPINES

ALL ABOUT BROWN RICE: Four hits with one stroke

With brown rice, the bottom line is that people and the country will make four hits with one stroke.” This was revealed in the book titled *About Brown Rice* by the Brown Rice Advocates (BRADS). Brown rice production and consumption helps prevent certain diseases, maximizes rice harvest, lowers per capita food consumption, and makes more efficient use of energy.

BRADS, which is a coalition of government and non-government establishment institutions, was formed to spearhead the campaign to promote the production and consumption of brown rice.

“We the Brown Rice Advocates intend to impart knowledge about different aspects of brown rice with the hope that this information can be passed on to a wider community,” BRADS Co-Chair Rogelio V. Cuyno said.

Furthermore, the team persuades consumers to change their life style and replace white rice with brown rice in their diet.

As published in the book, brown rice is not metabolized and digested as quickly as white rice. With a smaller volume of brown rice consumed, a person will feel full and does not get hungry easily. As a result, eating brown rice helps lower the per capita rice consumption, hence reducing the national requirement for rice.

The book promotes brown rice for better nutrition and its economic opportunities. It contains valuable information on the production, dietary contribution, health benefits, and nutrient content.

The Bureau of Agricultural Research (BAR) provided support for the production of the book under its Scientific Publication Grant program which aims to promote excellence in research and development by providing financial support to different scientific and professional societies, researchers and editors of organizations under the National Research and Development System for Agriculture and Fisheries (NaRDSAF). (Ma. Eloisa E. Hernandez)



BRADS Co-Chair, Dr. Rogelio V. Cuyno (left) hands over copies of the book, “About Brown Rice” to BAR ACD Head Julia A. Lapitan (right). PHOTO: NDELROSARIO III



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PRODUCTION TEAM

Managing Editor/Layout:
Consulting Editors:
Writers:

Rita T. dela Cruz
Manuel F. Bonifacio, PhD and Victoriano B. Guiam
Edmon B. Agron, Johanna B. Benavente, Rita T. dela Cruz,
Don P. Lejano, and Ma. Eloisa E. Hernandez
Ricardo G. Bernardo and Anthony A. Constantino
Maricel F. Fortaleza and Victoria G. Ramos
Julia A. Lapitan
Nicomedes P. Eleazar, PhD, CESO IV

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commercialization concerns.

The technical group looked into the R&D agenda, priorities, and programs of the host institutions with the aim of assessing their relevance vis-à-vis that of the Philippines; potential collaborative R&D works and areas of complementation; relevance of R&D facilities in relation to their R&D agenda; and lessons learned during the study visit.

The administrative/institutional focused on the procedures and policies of government and private funding support for aquaculture and fisheries R&D of countries visited; programs available to researchers and scientists in terms of incentives; organization structure, policy support at the national and local levels; and lessons learned.

The group on technology transfer and commercialization determined how the various linkages with stakeholders and private sectors were developed; useful policies on impact assessment, monitoring and technology transfer; and features, components, and support services relevant to technology transfer and commercialization including packaging and marketing strategies.

Group outputs highlighting observations, lessons learned and feedback from the study visit were presented during the debriefing meeting held on 14 December 2009.

Observations/ Lessons learned

Thailand and Vietnam, like the Philippines, are dependent on fishery resources— where fish is a major



Dr. Le Thanh Luu, director of the Research Institute for Aquaculture No. 1 (RIA1) with Mr. Len Garces (left) of The WorldFish Center and other participants.

PHOTO: RDELACRUZ

source of food and livelihood for millions of people. The fishery and aquaculture sector of these countries greatly contribute to the growth of their national economy thus much importance is given to the sector by their governments.

For example, fisheries R & D investment in both countries is high and long-term research activities are pursued to make sure that aquaculture productivity is sustained. The private sector also plays a major role in the development of the fisheries sector as seen in Thailand's Angthong and Suphanaburi provinces where fish marketing is effectively handled by the private sector. It was also observed that aquaculture production in these areas is greatly assisted by private companies providing technical support particularly in feeds, water quality maintenance, and animal health.

In Vietnam, the Research

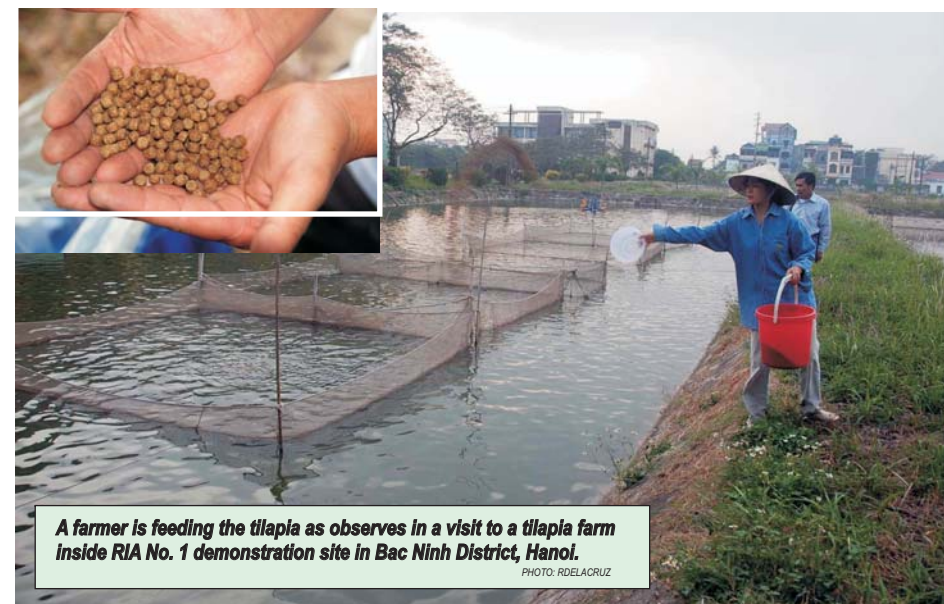
Institute for Aquaculture No. 1 in Bac Ninh and the Research Institute for Marine Fisheries in Hai Phong City were visited and the group learned that the present government has put emphasis on aquaculture development in the country. At present much is being by done by the R & D institutions of Vietnam on technologies particularly in processing, quality control and hygiene management, and the culture of high value fish species.

Dr. Carmencita Kagaoan, one of the participants stressed the importance of this activity, not only for the institutions but also as an effective means to encourage the researchers and research managers in the country. “Exposing our researchers and scientists to the current research developments in other countries is an effective way of encouraging them to be more creative and innovative in their thinking,” she stressed.

Another participant, Ligaya Santos said that, “Allowing our research managers and administrators to see for themselves how we fare with our neighbors in terms of technology and product development will also help them think of new opportunities and develop new products that would help boost our competitiveness in the regional and/or international markets.”

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A farmer is feeding the tilapia as observes in a visit to a tilapia farm inside RIA No. 1 demonstration site in Bac Ninh District, Hanoi.

PHOTO: RDELACRUZ

project sites of the WorldFish Center and its network of agencies across Southeast Asia.

Just like the Philippines, countries such as Thailand and Vietnam depend greatly on aquaculture and fisheries for their peoples' livelihood. But with the various challenges of increased population, globalization, and depleting resource-base, the industry is slowly turning its attention to the besieged concern for most fishers and stakeholders, particularly the smallholders.

While production challenges have been largely met through the introduction of new technologies, the current challenges require a different approach particularly now with the inevitable effect of climate change looming in.

According to the WorldFish Center, "climate change poses new challenges to the sustainability of fisheries and aquaculture systems, with serious implications for the 520 million people who depend on them for their livelihoods and the nearly three billion people for whom fish is an important source of animal protein." The Philippines is no exception to this.

Through the South-South collaboration, it encourages countries to work together on shared problems such



The participants visit the Aquaculture and Aquatic Resources Management (AARM) hatcheries inside the Asian Institute of Technology (AIT) campus in Thailand.

PHOTO: RDELACRUZ

as threats from climate change and broadens opportunities for researchers working in developing countries. These collaborating countries could help each other develop their indigenous capacity to generate, manage and use R&D to address their specific needs.

Study visits to Thailand and Vietnam

To provide practical perspective on the R&D situation and institutional arrangements including administrative and policy environments for fisheries and aquaculture research, a 19-member delegation participated in the eight-day study visit in various fisheries and

aquaculture institutions and processing facilities in Thailand and Vietnam on 6-13 December 2009. Fifteen of the participants are RFRDC managers from the DA-Bureau of Fisheries and Aquatic Resources (DA-BFAR); three from DA-BAR; and one from The WorldFish Center.

This allowed the participants to appreciate their own situations, to learn key lessons that could be modified and adopted in their own research stations and to formulate specific plans of action that would enhance the quality and relevance of fisheries and aquaculture research in the Philippines. The activity also enabled them to assess technology transfer mechanisms pursued to enhance the commercialization and adoption of research results by the private sector.

To ensure that all possible perspectives are captured during the visits and are shared with concerned agencies, the participants were formed into three groups. The groupings were on technical, administrative/institutional, and technology transfer and

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Dr. Carmencita V. Kagaoan (left) and Ligaya C. Santos (2nd from left) of BAR listen to Prof. Kriengkrai Satapornvanit during the tour around the Faculty of Fisheries in Kasetsart University, Thailand.

PHOTO: RDELACRUZ



Participants are briefed before touring inside the Talaad Thai Market in Pathumthani Province.

PHOTO: RDELACRUZ

New promising peanut breeding lines from ICRISAT identified

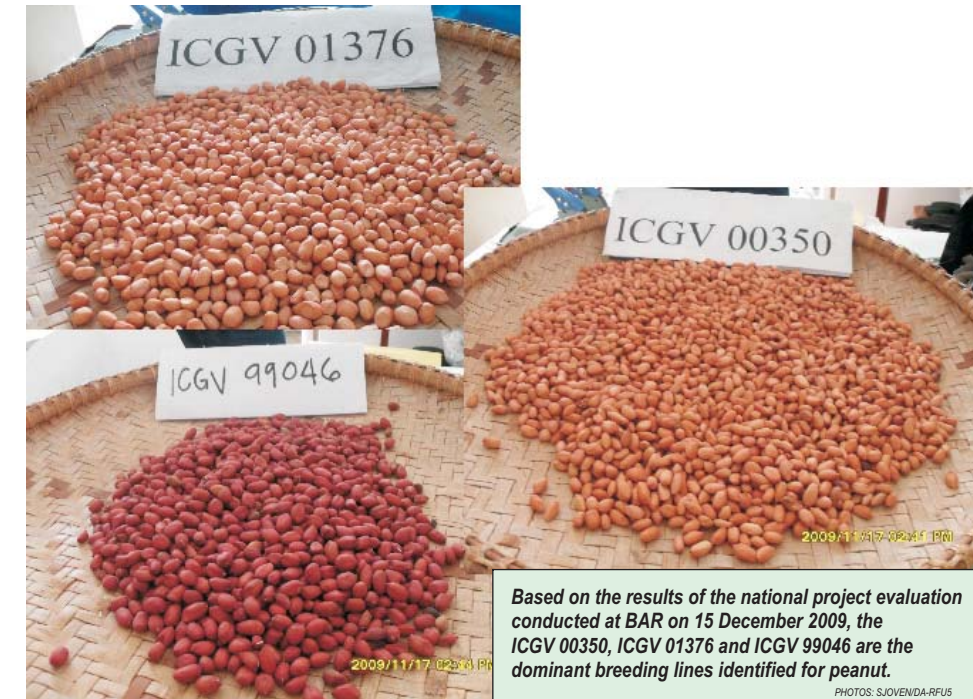
As a result of the continuous collaboration between the Bureau of Agricultural Research and the International Crop Research Institute for the Semi Arid Tropics (ICRISAT), new potential breeding lines of peanuts were identified through the project "Field Testing of ICRISAT Legume Varieties and Technologies in Selected Regions in the Philippines".

Adaptability of ICRISAT peanut varieties under the Philippine climatic condition has potential for local production and development. In fact, peanut germplasm and breeding lines/selections had already proven suitable under Philippine condition, as five (5) introduced peanut lines from India (UPL Pn 10, NSIC Pn 11 and Pn 14 or the *Namnama*, NSIC Pn 12 or Ilocos Pink and recently the *Asha* peanut or NSIC Pn 15) passed the standard field testing requirements of the National Cooperative Test (NCT) and the National Seed Industry Council (NSIC).

For the purpose of increasing food production in the country, the project aims to make available and provide farmers with different varieties of peanuts, pigeon pea and chick pea.

The following breeding lines have been tested through on-station adaptability yield trial (AYT) on regions 1, 5, 6, 7, 8, 9 and 10: ICGV 00350, ICGV 01376, ICGV 99046, and ICGV 01376 for peanut, ICPL 88039, ICPL 88034, ICPL 87091, ICPL 161, ICPL 81, ICP 8863, ICP 7035, ICPL 87051, and ICPL 87119 for pigeon pea and ICCV 93952, ICCV 93954, ICCV 94954, ICCV 92944, ICCV 92311, ICCV 2, ICCV 95311, and ICCV 95332 for chickpea.

These breeding lines were compared with the existing national varieties (check variety). Peanut breeding lines were compared to *Asha* peanut, *Namnama* 1 and 2 and the NSIC Pn 12 or Ilocos Pink. Meanwhile, because there is no existing national variety for pigeon pea and chick pea,



Based on the results of the national project evaluation conducted at BAR on 15 December 2009, the ICGV 00350, ICGV 01376 and ICGV 99046 are the dominant breeding lines identified for peanut.

PHOTOS: SJOVENDARFUS

local varieties were used for this purpose. Among the parameters used were: days to flower, days to mature, number of pods per plant, biomass yield, number of seeds per pod, seed weight, and seed yield.

Based on the results of the national project evaluation conducted at BAR on 15 December 2009, the ICGV 00350, ICGV 01376 and ICGV 99046 are the dominant breeding lines identified for peanut while chickpea and pigeon pea have no results yet because harvesting season is still ongoing.

The peanut experts facilitating

the national evaluation were Elmer Enicola, of the Institute of Plant Breeding – University of the Philippines Los Baños (IPB-UPLB) and Rose Mary Aquino of the Department of Agriculture – Cagayan Valley Integrated Agricultural Research Center (DA-CVIARC).

According to the project evaluators, the identified potential breeding lines can already be included in the national screening as NCT test entries this year if found stable in producing high yield in the second yield trials to be conducted in six test-sites in the country. (Edmon B. Agron)



Susan Joven (left) of DA RFU 5 presenting the results of their field trials. Rose Mary Aquino of DA-CVIARC and Elmer Enicola of IPB-UPLB serve as evaluators during the presentations of field trials.

PHOTOS: EAGRON

NAFC, BAR monitor RMTU, BPSU projects

To monitor the progress of the funded projects of the Dept. of Agriculture-National Agriculture and Fisheries Council (DA-NAFC) – Japan 2KR Program Grant Assistance for Underprivileged Farmers and the Bureau of Agricultural Research (BAR), the Technology Commercialization Unit (TCU) of BAR along with DA-NAFC representatives recently visited project sites in Zambales and Bataan.

Three DA-NAFC-BAR-funded projects were covered in this monitoring activity – (1) the Promotion of Protective Cultivation Technology for High Value Organic Vegetable Production, (2) the Establishment of 100-Doe Level Goat Breeding Farm of the Bataan Peninsula State University (BPSU) and (3) the Commercialization and Technology Promotion of Dried Mango and Mango Wine of the Ramon Magsaysay Technological University (RMTU).

For the Promotion of Protective Cultivation Technology for High Value Organic Vegetable Production, the following have already been undertaken: 1) identification and establishment of low cost net house; 2) soil testing to determine nutrient content; 3) production of organic

fertilizer; 4) market survey on price, supply and demand to ascertain the timing of planting; 5) preparation and planting of seeds; 6) final preparation of beds inside the net house and application of organic fertilizer; 7) maintenance of the crops using organic approach; and 8) harvesting and marketing.

The DA-NAFC-BAR monitoring team advised the proponents of the project to explore the demand in nearby provinces and Metro Manila. The proponents were encouraged to establish linkages with institutional buyers as this would ensure the market for the farmers' organically grown vegetables.

For the second project in BPSU on the 100-Doe Level Goat Breeding Farm, these were the actions noted: 1) community organizing, 2) housing construction, 3) pasture establishment, renovation and fencing, 4) operation of 100-doe level goat breeding farm, 5) conduct of farmer's livestock school and 6) conceptualization of marketing strategies.

Monitoring and assessment will be a continuous activity for this project since culling and selection of the best animal for breeding purposes will be done.

As for the RMTU project on the Commercialization and Technology Promotion of Dried Mango and Mango Wine, these were the courses of action already done: 1) upgrading of processing facilities, 2) conduct of training, 3) technology and product promotion and adoption. Technology patenting and BFAD accreditation are also part of their future plans.



Mango Wine from RMTU PHOTOS: E. JUANILLO

To maintain sustainability of the project, a village type processing facility will be put up for two mango growers and processors associations. Specialists from RMTU will provide technical assistance in the operations and RMTU may opt to buy the output of these 2 facilities to cope up with the demand in mango wine and dried mango.

According to the report provided by TCU's Agribusiness Coordinator, Evelyn Juanillo, the three BAR-NAFC projects were "smoothly implemented" by the two previously mentioned universities with satisfactory results.

In the case of BPSU, they were still able to grow and harvest lettuce inside their net house even though a series of typhoon hit the area in the past months. RMTU, on the other hand, is now also producing, aside from mango wine, cashew, santol, duhat, and bignay wines during off seasons. (**Don P. Lejano**)



Technical staff from BAR-TCU during the monitoring of the BPSU project on organic vegetables. PHOTO: E. JUANILLO

Strengthening aquaculture and fisheries R&D through SOUTH-SOUTH INTERACTION

By Rita T. dela Cruz



The participants with Prof. Kriengkrai Satapornvanit (4th from left), associate dean of the Department of Fisheries, Faculty of Fisheries, Kasetsart University in Thailand.

Enabling researchers to collaborate across regions and institutions is important. It can pave the way to realizing a long term vision that is more sustainable, transparent, and ubiquitous in nature. And with the advent of information technology (IT) and the Internet, communication and collaboration have allowed researchers in various parts of the globe to work together with ease. Hence, scientific and technological research is now becoming a transboundary endeavor—making way for a growing and thriving and vibrant academic and scientific network.

One important trend that has recently emerged and is gathering steam due to its concrete benefits is the scientific collaboration between and among developing countries, often referred to as South-South collaboration.

In a recent study of Dr. Athar Osama of Pardee Rand Graduate School in USA, wherein he discussed opportunities and challenges in South-South collaboration, he

emphasized how such collaboration is now growing in scientific and economic importance. He said, "South-South research collaboration can promote research on problems that have low priorities in the North (developed countries), and can provide shared opportunities for capacity building. It also fosters social and economic links between countries, potentially helping them strengthen their position in the global economy."

South-South collaboration for aquaculture and fisheries

One important aspect of strengthening the competencies and capacity in aquaculture and fisheries research management is through South-South partnership, enabling researchers in the Philippines to have a practical perspective of the R&D situation in other developing countries.

Given its potential impact in the sector, The WorldFish Center and the Bureau of Agricultural Research (BAR) have forged ties for a capacity

building program specifically intended for the Philippines' Regional Fisheries Research and Development Centers (RFRDC) managers. The hope is that this collaboration would greatly contribute to the capacity building efforts of the Department of Agriculture (DA) and complement related programs being pursued by the members of the National Agricultural Research System (NARS).

The WorldFish Center is one of the 15-member centers supported by the Consultative Group on International Agricultural Research (CGIAR) with a mission of reducing poverty and hunger through research-for-development initiatives to improve the smallscale fisheries and aquaculture sector. One of its approaches is the cultivation of South-South interaction.

The activity is a major component of an ongoing project titled, "Strengthening Partnerships in Aquaculture and Fisheries Research in the Philippines". The trainings include awareness programs/exposure activities to relevant partner institutions and

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Benefits of eating brown rice highlight PDI Read-Along session



Reading the story of Popong to the excited kids are Kathryn Villanueva (right) of IRRI, celebrity and theater actor Miguel Mendoza (center), and Percy Gapas (left) of Alitaptap during the Inquirer Read Along session held at IRRI in Los Baños, Laguna.

PHOTO: RDELACRUZ

Spreading the healthful benefits of eating brown rice through storytelling, "Popong Eats Brown Rice" was featured in a special Philippine Daily Inquirer (PDI) Read-Along session held at the DL Umali Hall, International Rice Research Institute (IRRI) on 18 December 2009. The book, written by Chat Garrido-Ocampo of IRRI and published by the Bureau of Agricultural Research (BAR) is one of three children's books featured in the storytelling session.

Over 140 kids from various schools in Laguna stormed IRRI to join the activity. The schools included Christian School International, Little People School, Los Baños Faith Christian School, Maquiling School Inc., Masaya Elementary School, Morning Star Montessori, Paciano Rizal Elementary School and South Hill School Inc.

Reading the story of Popong to the excited kids, were Kathryn Villanueva of IRRI, celebrity and theater actor Miguel Mendoza, and Percy Gapas of Alitaptap. The three told the story in a lively skit for better appreciation.

The book tells the story of a young boy named Popong and his adventures in his grandfather's farm where he learns the benefits of eating brown rice by befriending the Rice Prince. The book is a follow-up to "Popong Eats His Rice" which was published in 2008.

According to Ocampo, she wrote the book to support the information campaign of the Brown Rice Advocates (BRADS) in promoting the benefits of eating brown rice and, once again, dedicates the book to her two sons, Anthony Manuel and Alvin Carlos. BRADS is a coalition of NGOs, farmers' groups, business, academe and research institutions, local government units (LGUs) and government agencies which advocate better nutrition by promoting the health benefits of eating

brown rice for the more deprived and vulnerable sector of society.

The other two children books featured during the activity were: "The Wonderful Story of Christmas," a retelling of the Bible story written by Matthieu de Laubier and "Bertday ni Dyisus Bukas" by Alberta Angeles, both published by Adarna. The latter tells the story of a child who cannot wait for Christmas, knowing that it's the happiest time of the year.

The Read-Along session is a regular program of the Philippine Daily Inquirer (PDI) conducted in various locations to impart the love of reading books to children aged 7-13.

Also present during the activity were Ms. Julia A. Lapitan and Rita dela Cruz of the Applied Communication Division of BAR. *(Rita T. dela Cruz)*

"As dietary staple, brown rice is an inexpensive source of energy and substantial source of vitamins, minerals and other non-nutritive active components that have significant health benefits."

source: About Brown Rice, 2009

BAR, UPV monograph series on fisheries development completed

A project funded by the Bureau of Agricultural Research (BAR) and implemented by the University of the Philippines Visayas (UPV) was completed before the end of this year.

Titled "Monograph Series-Crisis in Fisheries Development: Views from the Social Sciences", this project was carried out to 1) produce articles on topics that address critical issues of human participation in coastal resources management (CRM), 2) identify a more precise description, understanding and explanation of the dynamics of coastal resources management, and 3) provide managers of coastal resources with a focused understanding of the human side of coastal resources management, according to the Project Leader Prof. Ida Siason of UPV.

The papers in the monograph series include topics on: 1) Creating Stable and Adaptive Systems in Philippine Coasts by Pepito R. Fernandez, 2) Organizing and Mobilizing in Community-based Coastal Resources Management

(CBCRM): Lessons and Insights by Elmer M. Ferrer, 3) Rethinking Livelihoods in Coastal Communities by Alice Prieto-Carolino and Lenore Polotan-dela Cruz, 4) Market and Fisheries Development Issues in Coastal Resources Management in the Philippines by Nerissa D. Salayo, 5) Women and Gender and Development in Coastal Resources Management by Ida M. Siason, and 6) Integrating Economic Valuation in Coastal Resources Management and Policy by Rodelio F. Subade. All the writers are from UPV and UP Diliman except for Dr. Salayo who is from the Southeast Asian Fisheries Development Center (SEAFDEC).

The monograph was conceptualized in response to the emerging crisis in fisheries like decrease in production and destruction

of marine resources. It also focuses on critical social science perspectives. Dr. Siason adds, "The potential value of the monograph series is manifold: its attempt to provide a conceptual framework for the various social science aspects, its thoughtful synthesis of the CRM experience in the Philippines during the past decade and its recommendations for future effective conduct of CRM. It is hoped that the monographs can serve as a source book for those who seek understanding of issues of governance, alternative livelihoods, gender issues, community organizing, marketing and resource valuation within the framework of CRM. It is expected that these monographs will aid policy makers and practitioners in understanding the human and social organizational dynamics in fisheries development. It is further hoped that the engagement of social scientists in addressing perhaps novel but relevant topics on fisheries development will draw fisheries social sciences more into the mainstream of Social Science theory and practice."

The contents of the monograph series will be disseminated through lectures, seminars and fora to reach intended beneficiaries and stakeholders. *(Johanna B. Benavente)*



PHOTO: RDELACRUZ

NAFC, BAR conduct new round of project monitoring in Laguna and Quezon

As part of the monitoring activity being conducted by the Department of Agriculture-National Agriculture and Fisheries Council (DA-NAFC) – Japan 2KR Program Grant Assistance for Underprivileged Farmers (GAUF) and the Bureau of Agricultural Research (BAR), four project sites in Quezon and Laguna were recently visited and examined by a team composed of BAR and NAFC staff.

These projects are: (1) Native Swine for “*Lechon de Leche*” Production Improving Feed Availability through Integration of SAKWA as Forage Feed in Coconut-Based Production System in San Narciso and Mulanay, Quezon; (2) Sapinit (*Robus rosifolius*) Production and Utilization Project in Dolores, Quezon; (3) Commercialization of *Moringa oleifera* Leaf Meal as Feed Supplement for Dairy Cattle in the Philippines in Tiaong, Quezon; and (4) Modification of Commercial Protocol on Extended Hot Water Dip as a Quarantine Treatment on Mango Fruits in UP Los Baños, Laguna.

The project monitoring group, composed of BAR's Patrick Lesaca and Evelyn Juanillo and NAFC's Marissa Montemayor and Ronei Aldmee Cambel, was instructed to gather information on the implementation strategies being adopted by and among the proponents as well as ascertain the benefits and impacts of the projects to the farming communities of the province. They were also tasked to identify and quantify the effects and impact of services on the target beneficiaries and enumerate observations during the project monitoring and evaluation.

Here are the highlights of their report:

Native Swine

The project intends to use locally available and abundant alternative feeds which have proven use in producing swine with performance comparable to those fed with corn-based diets. Among those already tested were cassava and sweet potato. The project features the use of Sakwa as feed. *Sakwa* is a by-product of gabi/taro harvesting. Farmers, particularly in some parts of Quezon province use Sakwa as feeds. Sakwa (left over gabi parts) can be given fresh or boiled along with feed concentrate. The project also intends to highlight that Sakwa-fed sucklings have lower cost compared to sucklings fed with corn-based feeds. Moreover, one of the main objectives of the project is to improve the income of coconut farm households by enhancing the integration of existing coconut-livestock enterprise.

Both the Native Swine projects in San Narciso and Mulanay, Quezon adopted the strategies recommended and followed most of the protocols listed. Swine dispersal were on time and taken cared well by all of the farmer-cooperators.



Documentation and monitoring of the project on native swine in Brgy. Latangan, Mulanay in Quezon

PHOTOS: EJUJANILLO



Sapinit (*Robus rosifolius*)

The project involves the conservation and development of the economic potential of the Sapinit, a wild raspberry which is an endemic plant species found in Mt. Banahaw in Quezon Province. *Sapinit* can be processed into jam, wine, vinegar and many other food products which could generate additional income to the rural households. The project aims to develop a package of technology to enhance the production and utilization of the wild raspberry.

The team observed that *Sapinit* plantation, although planted last May of 2009, showed different stages of growth. The lower bearing of *Sapinit* fruit per hill was further observed. Also, sapinit suckers are considered better planting materials compared to cuttings.



Hot Water Tank for Heat Treatment of Carabao Mango

Dr. Elda Esguerra, the proponent of the project, provided a brief report on the progress of the facility. She said that the Hot Water Tank Facility is 100% completed, fabricated and tested already. However, certain modifications in the treatment procedures have to be made. For instance, the reduction of holding period at 46 degrees from 15 minutes to 10 minutes and the elimination of the 10 minute air cooling period are some of those.

Dr. Esguerra likewise explained that such modifications are needed to suit the requirement of local mango producers whose target markets are overseas. The project proponent also showed the team the methodology through power point presentations how green and fresh mangoes harvested are being subjected to such treatments.

Dr. Esguerra also reported that the initial results of the modifications conducted were periodically given to the National Mango Action Team (NMAT) of DA-NAFC. (**Don P. Lejano**)



Moringa oleifera Leaf Meal

The project aims to provide farmers an alternative viable source of feed supplement in view of the ever increasing cost of production inputs. While a number of forage and legumes species are recommended for dairy animals, Moringa or *malunggay* leaves are superior in that these are an excellent and nutritious source of vitamins A and C and minerals such as calcium, potassium and protein which are important in milk production of dairy animals. However, the lack of information with regard to the effects of feeding *Moringa oleifera* on milk production of dairy cattle has not yet been explored locally, thus, the proposal of this project.

Based on their ocular inspection, the BAR-NAFC team observed that some transplanted Moringa trees were defoliated due to the typhoons *Ondoy* and *Pepeng*. As a result, the production of Moringa leaves for feed supplement suffered considerably and this has delayed project progress.

The project proponent relayed to the monitoring team the difficulty of obtaining Moringa seedlings within the province. He added that he was planning to obtain it from Pangasinan or in nearby provinces.