Forum pools efforts on climate change; task force welcomes DOH

The Department of Health (DOH), in collaboration with the World Health Organization (WHO) organized the "Multi-sectoral Forum on the Impacts of Climate Change to the Environment, Agriculture, and Health" held at the Lung Center of the Philippines, Quezon City, 25 June 2008.

The forum was organized as one of the activities during the celebration of World Health Day with the theme, "Protecting Health from Climate Change". The theme's objective was to raise the awareness on the emerging threat of climate change to health security and the global community. It also aimed to establish linkages and attract the concerted actions to reduce the threats of climate change in the country.

In his keynote message, Energy Secretary Angelo T. Reyes, concurrent Presidential Task Force on Climate Change (PTFCC) chair, said the PTFCC was convened in April to determine how they could strengthen priority cross-sector initiatives currently being led by different government agencies and private groups.

He also cited Dr. Rosa Perez, climate change scientist, who said that the "one size fits all" approach would not work because adaptation measures must be based on specific local conditions, resources, and capacities.

For its part, the Department of Agriculture (DA), through Dr. Manuel Bonifacio, technical adviser, Bureau of Agricultural Research (BAR), presented the initiatives of BAR to address climate change. These include the following projects:

Biogas Technology from Animal Wastes. In 2005, BAR in coordination with the Bureau of Animal Industry (BAI), funded the project on biogas technology using animal wastes from swine farms. Methane from animal waste is the primary effluent that increases greenhouse gases. Biogas technology captures methane and transform it into usable energy source such as for cooking, and lighting.

Good Agricultural Practices (GAP). BAR is coordinating the conduct of GAP and Good Manufacturing Practices (GMP) for agricultural production. GAP will minimize the "kaingin system" and use of fertilizers and chemicals. This will result in less pollutant in the atmosphere.

Establishment of PhilDRI. BAR, in collaboration with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), is supporting the creation of an institution – Philippine Dryland Research Institute (PhilDRI) – to facilitate researches on heat-tolerant plants for food, feed, and biofuels in a bid to address climate change.

Development of Biofuel Feedstock. In 2006, Republic Act 9367 or Biofuels Law of 2006 was enacted to replace diesel by 1%-2% biodiesel blends, and fossil fuels with 5% to 10 % bioethanol. DA was mandated to ensure the availability of feedstock for the production of biofuels. BAR is currently engaged in various research and development, and commercialization of viable biofuel feedstock for bioethanol such as sweet sorghum and cassava, and jatropha for biodiesel, among other activities. Biofuels are clean sources of energy that minimize pollution from fossil fuels while providing livelihood to rural farmers.

The DA is part of the PTFCC which was created through Administrative Order 171 issued last year in response to the report of the United Nations Intergovernmental Panel on Climate Change (IPCC) with regard to the alarming rate at which impacts of climate change is being felt, most especially in poor countries. The PTFCC, chaired by the secretary of DOE, is also originally composed of the Departments of Science and Technology (DOST), Interior and Local Government (DILG), and two representatives from the private sector/civil society as members.

Recognizing the importance of engaging all stakeholders in the mitigating and adapting efforts of the country to climate change during the multi-sectoral forum, Secretary Reyes officially welcomed the Department of Health (DOH) as member of the PTFCC.

According to the World Health Organization, the impact of climate change will adversely affect the most fundamental pillars of health which are food, air, and water.

"The warming of the planet will be gradual, but the frequency and severity of extreme weather events, such as intense storms, heat waves, droughts, and floods could be abrupt and the consequences are fatal," WHO Regional Office for South East Asia said in its publication. *(Miko Jazmine J. Mojica)*

Sources:
1) Obligado, Anthony. "Agriculture and Climate Change: Impact and Challenges", paper prepared for DA-BAR.
2) WHO Fact Sheet on Climate Change, World Health Day: Protecting Health From Climate Change".
3) PGMA creates task force on climate change, http://www.gov.ph/news/default.asp?i=17298

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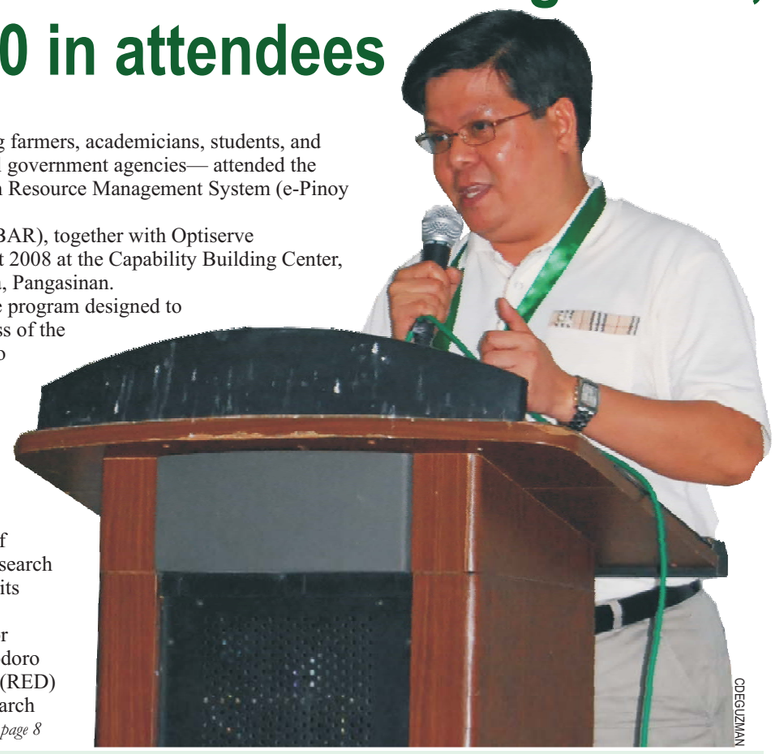
e-Pinoy FARMS® launched in Pangasinan; More than 1,000 in attendees


CDEGUZMAN

More than 1,000 participants—including farmers, academicians, students, and members of various national and local government agencies— attended the official launching of the *e-Pinoy* Farm Resource Management System (e-Pinoy FARMS®).

The Bureau of Agricultural Research (BAR), together with Optiserve Technologies, Inc. led the launching on 1 August 2008 at the Capability Building Center, Pangasinan State University (PSU) in Sta. Maria, Pangasinan.

e-Pinoy FARMS® is a unified database program designed to support and improve the decision-making process of the specific community-based activities. It intends to enable farmers' organization, cooperatives, and agribusiness enterprises to record their transactions and operations.

The launch served as a kick-off activity in the nationwide implementation of the Community-based Participatory Action Research (CPAR) integrating the use of e-Pinoy FARMS®, particularly, in various Department of Agriculture-Regional Integrated Agricultural Research Centers (DA-RIARCs) and local government units (LGUs).

Leading the activity were BAR Director Nicomedes Eleazar, BAR Assistant Director Teodoro Solsoloy, Region I Regional Executive Director (RED) Cipriano Santiago, PSU Vice-President for Research

turn to page 8

DA, SUC, LGU forge ties to address rice sufficiency concern

In a time where rice crisis and food insufficiency is facing the Filipino people, three major key players in agricultural development collaborate to work on the issue of declining food availability, especially in major cities and local areas.

The major players are the Department of Agriculture (DA), state universities and colleges (SUCs) of the Commission of Higher Education (CHED), including the Philippine Association of State Universities and Colleges (PASUC) and Association of Colleges of Agriculture in the Philippines (ACAP), and the Department of Interior and Local Government (DILG). The move was to institute a strong partnership and develop a working approach and strategies to make basic commodities available to the people.

The approach being adopted is a collaborative extension service (CES) that enables the farmers to avail themselves of the quality and appropriate service they need in order to produce the optimum or desirable rice production, including other commodities that are in demand and require proper production and distribution.

The CES is a means to improve the delivery of services to farmers to produce quality products and ensure food sufficiency. This underlying objective-strategy and relationship through effective interactions plays a vital role in making agricultural and fisheries systems more effective in agribusiness development.

At the DA, the Bureau of Agricultural Research (BAR) is spearheading the coordination of the CES activity with the national and regional DA units together with the national technical committee (NTC) headed by Dr. Emil Q. Javier, former University of the Philippines

turn to page 9

IN THIS ISSUE...

BAR supports the rehabilitation of La Granja R&D Center

BPI-LGNCRDC

Greenhouses at LGNCRDC restored and rehabilitated through BAR's IDG. They are now being used for the center's germplasm collection and breeding

The Bureau of Agricultural Research (BAR) has responded to the needs of the La Granja National Crop Research and Development Center (LGNCRDC), Bureau of Plant Industry, La Granja, La Carlota City, Negros Occidental for better facilities.

This challenged the Center's management to search collaboration with funding windows so that the old and dilapidated infrastructures and facilities could be rehabilitated and be utilized again.

Through the Infrastructure Development Grant (IDG) of BAR, the seed storage facility was the first to be rehabilitated. This fulfills the annual requirement of LGNCRDC to produce 10-15 metric tons of seeds.

This also coincided with the center's mandate to produce higher classes and quality seeds in support of the food production program of the Department of Agriculture and likewise assist directly its farmer-clientele in terms of their seed requirements.

The counterpart of the National Seed Industry Council (NSIC) provided additional support for some equipment needs of the facility. This leads to better working conditions among staff members and researchers of the LGNCRDC.

Moreover, the two-unit greenhouses were restored and rehabilitated through fund support from BAR. They are now being used for germplasm collection and breeding activities of the center.

This year, a 363-lineal meter of concrete perimeter fence were constructed to enclose the research area. This is to reduce the center's problem on pilferage, especially when seed crops are to be harvested, and other factors affecting experimental results in some R&D projects.

These IDG projects were inaugurated and blessed during the LGNCRDC Field Day on 23 July 2008 with BAR Assistant Director Teodoro S. Solsoloy gracing the event. Joining him were BAR IDG Program Leader Elvie Rapada and BAR Project Evaluation Section (PES) Head Leoncia Del Mar.

BAR Asst. Dir. Solsoloy, in his speech, acknowledged LGNCRDC's effort to improve the center through collaborative works with other research institutions.

"As your seed storage facilities improved, propagation of quality fruit, plantation crops and the production of higher classes of seeds would be achievable. Development of facilities would mean efficiency in work," Dr. Solsoloy said.

The IDG program of BAR aims to strengthen the institutional capacities of members of the national, regional, and provincial RDE networks through upgrading and acquisition of priority facilities and equipment. *(Ma. Eloisa E. Hernandez and Milagros B. Abaquita)*

BPI-LGNCRDC

BPI-LGNCRDC

A 363-lineal meter of concrete fence built to enclose the center and protect the research area from pilferage.

The rehabilitated seed storage facility.

DEPARTMENT OF AGRICULTURE BAR Chronicle

The official monthly publication of DA-BAR

BAR Chronicle is the monthly publication of the Bureau of Agricultural Research (BAR) of the Department of Agriculture (DA), which is mandated to ensure that all agricultural researches are coordinated and undertaken for maximum utility to agriculture. This publication provides regular updates on BAR s activities as the country s national coordinator for agriculture and fisheries R&D. It also highlights features and news articles concerning NaRDSAF-member institutions.

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Producing high quality crops with cost-saving bamboo-structured greenhouse

RDELACRUZ

Low-cost bamboo structured greenhouse at Central Experimental Station in Manambulan, Tugbok, Davao City.

Agapito Regulacion demonstrates how the mulching technique is done.

RDELACRUZ

"Building a greenhouse need not be expensive and time-consuming," quipped Agapito N. Regulacion, agriculturist at the Central Experimental Station (CES) in Manambulan, Tugbok, Davao City, when a group from the Bureau of Agricultural Research (BAR) visited the experimental station on 17 July 2008 for a documentation of the Community-based Participatory Action Research (CPAR) projects.

Regulacion, who is also the project leader of the CPAR project on "Production of High-Value Vegetables under the Low-Cost Bamboo Structured Greenhouse," said that farmers only need Php 45,000 to build a 400-square-meter greenhouse made of indigenous and locally-available materials such as bamboo poles. This is cheap considering that commercial greenhouse costs as high as Php 600,000.

"The bamboo-structured greenhouse can last up to five years or longer giving enough time for farmers to maximize production and increase their profit," he added.

During the first cropping season, vegetables such as cauliflower (*Tokita Silver Cup 40* variety) and tomato (*Diamante* variety) were planted in view of their suitability in such condition.

Among the technologies applied to tomato under the greenhouse condition were the installation of trellis for 20 days after transplanting (DAT), fertigation (four kilos of urea: 200 liters of water), application of family drip irrigation system (irrigation must continue up to five months). For cauliflower, fogging is applied (10:00 am – 3:00 pm) to prevent wilting, weeding the area 20 DAT, and shallow cultivation a mechanical control for insects and eliminating infected plants. Other vegetables planted were sweet pepper (*Improved Smooth Cayene* variety), ampalaya (*Galaxy* variety), and pechay (*Black Behi* variety).

These vegetables are commercially preferred by the local market. Production and economic data showed a net income of Php 10,383 (84% ROI) and Php 7, 567 (90% ROI) for cauliflower and tomato, respectively.

RDELACRUZ

Agapito Regulacion (standing) shows a honeydew production inside a low-cost bamboo structured greenhouse to Region 11 BAR Coordinator Angel S. Morcozo (sitting) during BAR's visit to SMIARC.

Aside from vegetables, planting of honeydew (*Ilocos Gold*, *Sweet Globe*, *Jade Lady* varieties) also proved to be a productive venture under greenhouse condition.

According to Regulacion, "planting honeydew is profitable because the market price for this crop is stable, about 40 pesos a kilo and it can be planted and harvested all year round."

During the first cropping, harvest of honeydew (*Ilocos Gold*) showed a net income of Php10, 200 or 113% ROI.

Regulacion stressed that it is better to use the right varieties that will thrive best in the area. The area in which the bamboo-structured greenhouse is to be constructed must be typhoon-free to avoid destruction of the structure.

The Southern Mindanao Integrated Agricultural Research Center (SMIARC) and the High-Value Commercial Crops (HVCC) Program of the Department of Agriculture are supporting and promoting this technology, making it a model for high-value vegetable production.

Currently, the technology generated from this CPAR project has been successful and other provinces are also replicating the low-cost greenhouse to grow high quality crops. Among the technology adopters are the Provincial Agricultural Office (PAGRO) of Davao del Norte; Municipal Agriculturist Office (MAO) of Panabo City; Mt. Apo Science Foundation, Toril, Davao City; UNDP funded projects in Matalam, North Cotabato and Baul, Sultan Kudarat; Local Government Unit of Island Garden City of Samal; and a farmer form Kapatagan, Davao del Sur. *(Rita T. dela Cruz)*

9th BAR Seminar Series presents two topics on social science


MEHERNANDEZ

As a continuing effort of the Bureau of Agricultural Research (BAR) to accelerate timely delivery of information, exchange of knowledge among researchers, scientists, academicians, and policymakers, a seminar on social science was conducted on 30 July 2008 at the BAR RDMIC Building, Visayas Avenue, Diliman, Quezon City. The topics were "Agriculture: In Search of Viable Knowledge Systems" and "Meta-research to Synthesize Knowledge from Existing Studies in Agriculture".

Western agricultural science vs. indigenous science

Dr. Daylinda B. Cabanilla, professor at the College of Forestry and Natural Resources, University of the Philippines Los Baños (UPLB), was the resource speaker on the topic "*Agriculture: In Search of Viable Indigenous Knowledge (IK) Systems*."

Her presentation focused on the issues of western agricultural science versus indigenous science, specifically on three issues: privileged position of western agricultural science in the world, significance of IK, and interfacing of these two knowledge systems.

Western agricultural science, Cabanilla explained, is on "top of the world" now. In our society, science is privileged because powerful people accept science as the most valid way of knowing.

Quoting McIntyre (2005:9), she stated: *"Is the finding or claim grounded in science, or merely clothed in the 'guise' of science? Is the claim being made backed by research? Who conducted it? Who paid for it? How was it done –what sort of methods and sampling techniques were used? How were the results interpreted? These are the sorts of questions that must be asked to distinguish good science from what has come to be called 'junk' or 'pseudo' science."*

Cabanilla also explained that to date, IK is softly being killed. She differentiated scientific knowledge from IK. Scientific knowledge is based on subsets of the whole (reductionist) while IK is based on the whole system (holistic). IK is lengthily acquired but scientific knowledge can be rapidly obtained. Additionally, scientific knowledge is generated by resource users through personal observation, trial and error, and synthesis of facts whereas the 1K is generated by specialized researchers through experimentation, and systematic and deliberate accumulation of facts.

Furthermore, the third issue presented by Dr. Cabanilla addresses the question – Can (or should) Western Science and IK hold on together? This branched out to different sub-issues and other culture-related matters. Such include applicability of IK and cultural differences.

According to Dr. Cabanilla, indigenous peoples (IPs) sometimes do not apply their own IK anymore because of external constraints and influences, such as market economy, "modern" ideas and technologies. "The best way to sustainable agriculture would be cross-cultural visits, farmer-to-farmer learning. Let people decide what, how, why they want to apply among IK; that's 'self-determination,'" she said. "We (researchers) are facilitators only but not decision-makers."

In closing, Cabanilla encouraged the participants to think critically and suggested "missions" guided by vision and implemented with commitment, instead of "projects." She also challenged them by enunciating that basic knowledge and skills are necessary but good intentions are never enough. *(Christmas B. de Guzman)*

Re-using existing data through meta-research

Re-using existing data –thus one of the major key points stressed by Dr. Corazon B. Lamug, professor at the College of Arts and Sciences, UPLB, in her topic, "*Meta-research to Synthesize Knowledge from Existing Studies in Agriculture*."

Meta-research was designed to synthesize knowledge arising from existing studies. As compared with secondary analysis, Dr. Lamug explained that meta-research is concerned with appraising and summarizing existing knowledge, not exploring new research questions. This mainly involves the study of research reports and seldom utilizing raw data.

Dr. Lamug defined the application of meta-research in the conduct of her studies on: *Meta-ethnography of four domains of community relationships in Community-based Natural Resource Management (CBNRM) studies* and *Inferring paradigms from research designs of studies on CBNRM.*

Four paradigms were discussed in conducting a social research design, namely: positivism/neopositivism; interpretivism, critical theory, and participatory action research. The participatory action research can be applied in BAR's banner program, the Community-based Participatory Action Research (CPAR) which was designed to implement and integrate production management system at the community level.

"For participatory action research, studies are action-oriented involving community members and researchers," Dr. Lamug said.

In conclusion, Dr. Lamug enumerated some of the challenges in conducting meta-research, which is considered to be a useful tool for researchers with broad perspectives and cross disciplinal experience. Reports must meet standards as defined by Marshall and Rossman (1989), including its credibility, transferability of findings, dependability, and utilization/application/action orientation. *(Ma. Eloisa E. Hernandez)*


MEHERNANDEZ

CES Planning Workshop in Region 3 concludes; Dir. Eleazar identifies four major areas to focus

RDELACRUZ

Following the national consultation workshop on collaborative extension service (CES) held at the Shangri-La Hotel last May and two planning workshops conducted in Region 1 and CAR and Mindanao Cluster, it's now Region 3's turn.

The Bureau of Agricultural Research (BAR), in coordination with the Central Luzon State University (CLSU) and the Department of Agriculture-Regional Field Unit III (DA-RFU), organizes the "**DA-SUC-LGU Collaborative Extension Service Planning Workshop for Region 3**" at CLSU, Science City of Muñoz, Nueva Ecija on 30-31 July 2008.

The two-day planning workshop was aimed at designing and coordinating workable extension methodologies following the concept of shared responsibilities between and among DA, SUCs, and local government units (LGUs). BAR, being the lead agency for R&D/E, leads in organizing and coordinating these batches of planning workshops and consultations to prepare and finalize the Regional/Provincial Agriculture Plans and Programs (2008-2010) and agree on specific responsibilities of partnering institutions.

BAR Director Nicomedes P. Eleazar, in his message, emphasized the crucial role of SUCs and LGUs in view of the Rice Self-Sufficiency Plan. He also reechoed the importance of conducting the CES planning workshop for Region 3.

Specifically, Dir. Eleazar identified four major areas that could serve as guidelines in preparing the extension service plan of the region. These are: 1) SUCs to help DA in the provision of technical assistance based on their fields of specialization; 2) provide training programs for LGU extension workers and DA in the regions; 3) serve as back-up to the LGU extensionists in the conduct of extension service in agriculture and fisheries; and 4) allot areas for seed production.

Dr. Manuel F. Bonifacio, BAR consultant and member of the DA National Experts Team, discussed "Framework for a Unified Extension Service" in connection with Agriculture Secretary Arthur C. Yap's pronouncements of making agriculture a business and an efficient, information-driven sector. In perspective, Dr. Bonifacio posed five specific questions to serve as guidelines in making their regional action plan on extension service: What is its focal concern? What does it take to increase production? What is wrong with agriculture? What do we want to do with agriculture? What is the problem with technology transfers?

Other guests were Dr. Libertad C. Rivera of DA-RFU III, CLSU President Ruben C. Sevilleja, and CLSU President Emeritus Fortunato A. Battad – who each gave their message of support for the activity.

The opening activity was followed by a series of presentations focusing on the status of rice in Central Luzon and an updated situationer of the extension service in Region 3 and SUCs. Culminating the second day activities were presentations of workshop output which will be consolidated and evaluated for inclusion in the Unified Extension Service for Region 3.

The planning workshop was attended by more than 100 participants and representatives from the DA national and regional offices, SUCs, Regional Agriculture and Fishery Council (RAFC), Provincial Agriculture and Fishery Council (PAFC), and Office of the Provincial Agriculturist (OPA). *(Rita T. dela Cruz)*

RDELACRUZ

COMSTE meets at BAR for a national review on S&T and engineering

MEHERNANDEZ

MEHERNANDEZ

(Left photo) Agriculture and food panel of COMSTE in a review meeting at BAR. (Right photo) Dr. William G. Padolina, chair of COMSTE leads the activity.

The Agriculture and Food Panel of the Congressional Commission on Science and Technology, and Engineering (COMSTE) chaired by Dr. William G. Padolina met on 8 July 2008 at the BAR Conference Room, RDMIC Bldg., Visayas Ave., Diliman, Quezon City.

The whole afternoon was devoted to presentations of invited resource persons. Topics discussed were: 1) Supply and Utilization Accounts, 2) Department of Science and Technology-Philippine Council for Aquatic and Marine Research and Development Profile, 3) Formulation of Investment Policy Report and Indicative Investment Plan for Agriculture and Fisheries Research, Development and Extension, 4) GMA Fisheries Program, and 5) Scenario Building Framework.

MEHERNANDEZ

Dr. Ponciano S. Intal presents study on the formulation of investment policy report and indicative investment plan for agriculture and fishery RDE during the COMSTE meeting.

Dr. Ponciano Intal, executive director of the De La Salle-Angelo King Institute, presented the study conducted by SEAMO Regional Centre for Graduate Study and. Research in Agriculture (SEARCA) and submitted to BAR in 2005 on the *Formulation of Investment Policy Report and Indicative Investment Plan for Agriculture and Fisheries Research, Development and Extension*.

According to him, the Philippines suffers from "productivity crisis" in agriculture and agricultural RD&E; for nearly all crops except corporate-based fruits, the country fared poorly in yield and productivity as compared to those of countries in the region. This can be attributed to the underinvestment in agricultural RD&E and its ineffective use.

Dr. Intal enumerated the opportunities in different areas in order for the country to jumpstart agricultural modernization and competitiveness through RD&E. These include: 1) growing demand in new industrial uses (geotextile, cocopeat) and food and nutritional uses (cocowater, cocomilk); 2) recent output performance supports and RD&E-based import substitution strategy for the sugar industry; 3) large potential for mariculture, fish fillet and *tilapia* for export; 4) Rice: hybrid rice can substantially raise palay yield in tandem with open-pollinated varieties-high yielding varieties (OPV HYVs); 5) new product uses widens market for abaca if yield improves substantially (e.g., furniture, Laminas, burlap bags, among other items).

He also reported that the country could be a net importer in a decade given the current production and domestic consumption trends. There is a need to improve management of municipal fishery resources, increase productivity of aquaculture, and expand mariculture and capture fishery.

Dr. Padolina concluded by considering "industry-specialists" who can lead in the development of projects. "We should have a holistic value-chain and know how to handle food security,' he concluded

COMSTE was created through a Joint Resolution No. 1 of the Thirteenth Congress signed on 19 February 2007. The Commission is tasked with undertaking a national review and assessment of the science, engineering, and technology research and development system of the country with a view to: 1) enhancing the system's internal capability to satisfactorily implement the constitutional provisions on science and technology; 2) providing the system with the necessary funding requirement and other infrastructure support; 3) strengthening the linkages will all sectors concerned with science, and technology and engineering R&D; and 4) assisting the science and technology and engineering sector in achieving its goals and targets through policies and approaches that are consistent with the nation's development perspectives. *(Ma. Eloisa E. Hernandez)*

e-Pinoy FARMS® Scoping Sessions conclude in Visayas

RCABRAL

RFU-7 RTD Eduardo S. Alama (right) receives the receipt of the e-Pinoy FARMS® server from BAR MISD Head Marlowe U. Aquino (left) as staff members from CVIARC and BAR look on.

After a series of consultation-briefings, field validations, systemizations, and customizations of the Community-based Participatory Action Research (CPAR) monitoring and evaluation system of the e-*Pinoy* FARMS®, its scoping sessions was concluded with the distribution of e-*Pinoy* FARMS® server and hands-on-training of focal CPAR research staff of the DA-Regional Field Units (RFUs), particularly the Western Visayas, Central Visayas, and Eastern Visayas Integrated Agricultural Research Centers.

The activity was held simultaneously during the Visayas Zonal Agriculture and Fisheries Research and Development Quarterly Meeting on 17-18 July 2008 at Mambukaw Resort, Murcia, Negros Occidental and jointly facilitated by the Bureau of Agricultural Research (BAR) and Optiserve Technologies, Inc.

The Luzon and Mindanao scoping sessions were also held simultaneously with the Zonal Agriculture and Fisheries Research and Development Cluster quarterly meetings for Luzon on 11 June 2008 at BAR, Diliman Quezon City, and in Mindanao on 17-18 June 2008 at Paras Beach Resort, Camiguin Island.

The e-*Pinoy* FARMS® is a proprietary integrated farm resource management system, designed and developed by Optiserve Technologies, Inc. for agribusiness, and was customized to fit the requirements of the Community-based Participatory Action Research (CPAR) through a project funded by BAR in October 2006.

An interactive software-based system, it helps farmers and their organizations effectively organize, allocate, and manage vital resources for sustainability, increase profitability, and achieve agribusiness development.

Furthermore, it is customized to automate information management and feedback mechanism between BAR and RIARCs. The e-*Pinoy* FARMS® platform helps planners and decision-makers compile useful information from raw data, documents, personal knowledge, and/or business models to identify and solve problems and make decisions. Included are computer-generated reports for CPAR monitoring and evaluation (M/E).

As a decision support system (DSS), the e-*Pinoy* FARMS® provides stakeholders with the following: 1) access to information assets; 2) comparative costs and return records; 3) assumptions and projected production figures based on historical data; and 4) choices/consequences of different decision alternatives, given past experience in a context that is described.

In view of the inherent value of information in the overall decision-making process, the CPAR M/E system is installed to provide stakeholders with relevant information - ranging from Social, Technical, Economic, Environment and Political (STEEP) concerns to guide them in making informed decisions, and to shorten CPAR's trajectory or timeline from a simple village-level production to a more systematic enterprise development, and on towards profitable agribusiness venture.

Central to e-*Pinoy* FARMS® CPAR M&E is the ability of stakeholders to translate information into action and effectively link this to current body of knowledge for effective utilization of resources. It highlights the value of community participation and strategic management of resources as it encourages proactive and multi-stakeholder participation in research, development, and extension.

BAR's response in translating the vision of DA "to make agriculture business" meant coming up with a unified information system that is vital to meet the needs of multi-level decisions. By providing stakeholders with access to the right information at the right time through BAR's CPAR program, the much-needed information for local business and institutional development including strategic human resource management will be met.

With the operationalization and institutionalization of e-*Pinoy* FARMS®, it will scale up the systems-driven, resource-based implementation of CPAR leading to the inevitable formation of efficient clusters of enterprises that are strongly capable of: 1) establishing strong partnerships and linkages with institutional markets; 2) accessing steady flow of growth capital; and 3) providing customized services to farmer-members for sustainability and growth. (*Marlowe U. Aquino, Ph.D*)

DA, SUC, LGUs...*from page 1*

president and now president of the National Academy of Science and Technology (NAST).

To date, NTC and BAR have conducted consultation-workshops for Rice Self-Sufficiency Program from 2009-2010 in Davao City for Mindanao Cluster (4 July 2008); Baguio City for Regions 1 and CAR (24 July 2008); and Science City of Munoz for Region 3 (30 July 2008).

The DA-SUC-LGU partnership started in May 2008 through several consultations and briefings soliciting ideas on the collaborative extension framework with local leaders especially provinces which are considered potential areas for sustainable rice production. In addition, PASUC and ACAP did their share of bringing and addressing the rice crisis issues through cooperative partnership with similar strategies of implementation during their national conventions on14-17 July 2008 in Tagbilaran, Bohol.

The consultation-workshops addressed and discussed ideas and strategies such as cluster farming, social preparation interventions and initiatives for farmers to be actively involved, and joint undertaking in the provision and delivery of services on quality planting materials, fertilizers, irrigation, credit and loan, provision of dryers and other post harvest facilities.

With these in mind, the DA-SUC-LGU partnership will eventually be strengthened to highlight the lessons learned, experiences, and technologies for better resource management, production management system, extension delivery service, and responsive farmer-entrepreneur-practitioner-oriented initiatives. *(Marlowe U. Aquino, PhD)*

Cordillera local products gears-up for global competitiveness

The uniqueness of Cordillera indigenous agricultural products is the focus of the Department of Agriculture-Cordillera Integrated Agricultural Research Center (CIARC) for research and development and commercialization through the leadership of Dr. Magdalena Wanawan and Dr. Leonora Verzola.

Agricultural products are considered the centerpiece of competition. Be it fresh or processed, these are the subject of quality assurance and competitiveness. Through the infusion of indigenous knowledge and quality assurance, products are blended to satisfy customer satisfaction. This is the vision of Cordillera in response to quality standards and competitiveness including value-adding, packaging and promotion.

Based on a BAR-funded project, Cordillera products will be produced to be *at par* with other imported products because of their authenticity and affordability. These products include Arabica coffee produced in Barlig, Mt. Province; organic vegetables in Benguet Province; vinegar from indigenous fruits in Tadian, Mountain Province; and several of indigenous rice varying varieties in colors of black, red, and brown in Sagada (Mountain Province), Naguey, Atok (Benguet), and Banaue (Ifugao).

The project is jointly collaborated and implemented by local women and farmers' groups as active partners with the support of local government units and Department of Trade and Industry – CAR and places these agricultural products in local and global markets.

Owing to the continuous efforts of the local people and their desire for global acceptance, these Cordillera products will be showcased more often to solicit suggestions and will seek financial support from institutions that are interested in making Philippine products available, uniquely Filipino, recognizable and competitive.

Furthermore, these products will create a domino effect as they support the initiatives of the DA in strengthening local groups for enterprise development and venture in agribusiness. Making sense on quality products draw the line

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of sustainability and security and ensuring that these Cordillera products will not only be for production and profit but also improve the living conditions of farmers and producers to be economically stable and socially responsible (*Marlowe U. Aquino, PhD*).

e-Pinoy...*from page 1*

More than 1,000 in attendees during the e-Pinoy FARMS® launching in Pangasinan.

and Extension Honorio Cascolan; Sta. Maria Mayor Jose Ginez, Provincial Administrator Nestor Batalla, Asingan Mayor Carlos Lopez Sr., and Rosales Mayor Ricardo Revita.

RED Santiago, in his opening remarks, expressed his appreciation to BAR and Optiserve for choosing Pangasinan as the launching venue. "Pangasinan is very lucky to have the highest opportunity in getting acquainted with the new technology," he said.

To provide the participants a brief orientation on the essentials of the e-Pinoy FARMS® and how the system functions, Ms. Cheryl Marie Natividad, chief executive officer (CEO) of Optiserve Technologies, Inc., discussed the role of information management and value creation for research, development, and extension (RDE). "In looking for alternative solutions, farmers used their basic knowledge/experience to solve the problem," she said.

Dr. Marlowe Aquino, head of the Management Information Systems Division (MISD) of BAR, gave details on the effective and efficient monitoring and evaluation of CPAR through e-Pinoy FARMS®. In his presentation, he emphasized that participatory monitoring and evaluation is important for learning about the achievement and deviation from original concerns and problems faced by local development projects and programs being implemented, so that corrective measures can be taken in time.

At the launching ceremony, Ms. Natividad presented and handed over the e-Pinoy FARMS® manual and farmer's access card to RED Santiago, who represented the LGUs and the whole agricultural sector in the province. She was assisted by Dir. Eleazar.

Dr. Jovita Datuin, RIARC manager of the Ilocos Integrated Agricultural Research Center (ILIARC), presented the "Community-based Participatory Action Research: Enhancing the Productivity and Profitability by Accelerating Transfer in Farming Communities in Region 1."

In closing, Dir. Eleazar acknowledged the farmers of Pangasinan for the support they showed and willingness to adopt and incorporate new modalities to their community-based activities. *(Christmas B. de Guzman)*

Western Visayas identifies priority projects for fishery R&D

A Consultative Workshop on the Prioritization of Researchable Fishery Studies Based on the CY 2007-2010 Regional Integrated Research and Development Agenda Program (RIRDEAP) for Region 6 was held on 23 July 2008 at the Iloilo Grand Hotel, Iloilo City.

The activity was organized by the Bureau of Fisheries and Aquatic Resources Regional Fisheries Research and Development Center (BFAR-RFRDC) Region 6 to come up with an agreement among the network members of their assigned research proposal to be prepared based on the prioritized researchable commodities.

Ms. Ligaya C. Santos, Bureau of Agricultural Research (BAR) research coordinator for Region 6, and Dr. Westly R. Rosario, executive director of the National Fisheries Research and Development Institute (NFRDI) were the resource persons during the workshop.

Santos presented the concept and implementing guidelines of the Community-based Participatory Action Research (CPAR) and the Technology Commercialization (TechCom) which are the two major banner programs of BAR.

CPAR is a unified approach to production management and livelihood activities through Research, Development, and Extension (RDE). Its distinctive feature takes into account production-related activities of farmers and fisherfolk.

TechCom, on the other hand, aims to assist the commercialization of newly developed technology to facilitate their utilization. It is envisioned that by strategically placing and transferring technologies to areas and communities that needed them the most, technology transfer will be enhanced and the impact of research results realized.

BFAR-RFRDC REG 6

Participants and resource speakers during the consultative workshop.

BFAR Regional Director Drusila E. Bayate, in her message, stressed that "the Bureau's priority is not totally mainstream-downstream research but from matured technology that we can pass on to the fisherfolk through field trials. It will shift and should go hand and hand with the RDE Agenda including, production agenda. Implementation should synchronize and must be attuned with the RDE agenda of the state universities and colleges, research institutions, and private sector in the region."

NFRDI Dir. Rosario, in the research viewpoint, presented possible research areas for the next three years. The identified high value species for aquaculture include: rabbitfish, grouper, shellfish (oysters and mussels), crustacean (*Penaeus vannamei*), and sea cucumber. He also mentioned three research centers of NFRDI in Batangas, Eastern Samar, and Dagupan City where majority of the projects are situated.

Dir. Rosario emphasized that sea cucumber is the priority commodity of NFRDI. At present the Philippines is the second largest exporter of sea cucumber in the world, next to Indonesia.

Current issues and concerns on sea cucumber include: biology, geographical distribution, hatchery production, broodstock nutrition (hatchery), growth translation, photoperiod, and environmental manipulation. Dagupan constructed the first semi-commercial hatchery but was destroyed by typhoon Cosme.

It was agreed that each subsector will submit their research proposal in September 2008 to RFRDC. The subsector priority researchable areas are on: 1) post-harvest sector on improvement of seaweeds, milkfish, and blue crab post harvest handling and reduction of losses; 2) capture fisheries sector on passive gear technology, abalone culture and installation of artificial reefs (AR's); and 3) aquaculture sector on *tilapia*, grouper, sea cucumber, and abalone hatchery and cage management as well as human resource development.

Network members--from the University of the Philippines Visayas, Northern Negros State College of Science and Technology, Northern Iloilo Polytechnic State College, Tario Lim School of Fisheries Polytechnic State College of Antique, Capiz State University, Aklan State University, representatives from the private sector, and BFAR Region 6 staff members--participated in the workshop. (*Remia A. Aparri and May P. Olores, BFAR-RFDC Region 6)*

BFAR-RFRDC REG 6

Participants during the workshop proper.

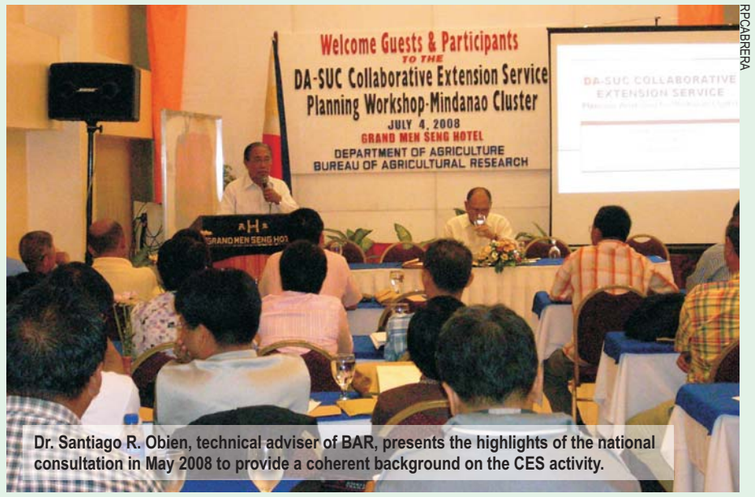
Mindanao Cluster conducts CES Planning Workshop

The Bureau of Agricultural Research (BAR), in coordination with the Department of Agriculture (DA) National Experts Team and DA-Regional Field Unit XI (RFU), organized the "DA and State Universities and Colleges (SUCs) Collaborative Extension Service (CES) Planning Workshop for the Mindanao Cluster" on 4 July 2008 at the Grand Men Seng Hotel in Davao City.

The activity was a follow-up of the national consultation held on 21 May 2008 at the EDSA Shangri-La Hotel in Mandaluyong City.

Mindanao Economic Development Council (MEDCo) Executive Director Janet M. Lopoz welcomed the participants. She expressed MEDCo's full support for the initiatives of the program, particularly in defining the Collaborative Extension Service for the Agricultural and Fisheries Sector in Mindanao. Regional Technical Director (RTD) Romulo S. Palcon of the DA-RFU XI gave the opening message for the activity highlighting on the importance of the collaboration between DA and SUCs.

In providing a coherent background the activity, Dr. Santiago R. Obien, technical adviser of BAR, presented the highlights of the consultation activity conducted in May 2008 while Mr. Abner Montecalvo of PhilRice-Agusan presented the National Rice Program with emphasis on production and extension and Mindanao updates. These presentations were followed by Dr. Rogelio V. Cuyno explaining and discussing the integrated promotional, knowledge dissemination, and technology transfer process in agriculture, particularly on rice production.



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Dr. Santiago R. Obien, technical adviser of BAR, presents the highlights of the national consultation in May 2008 to provide a coherent background on the CES activity.

During the workshop, the following were identified as possible extension support that the SUCs can provide to DA: training, preparation of training materials, seed production, assistance in preparing area extension plan, providing content (from research and best practices) of extension activities, applied research and demonstration of technology, and radio-support to field activities considering the lack of field personnel by providing broadcast-ready materials.

Participants expressed their willingness, enthusiasm and commitment to join the collaborative arrangement for a shared extension service by identifying and listing the promotional, advocacy, knowledge dissemination, and technology transfer activities and division of labor for their respective regional coverage.

The workshop was facilitated by members of the DA National Experts Team composed of Dr. Obien, Dr. Cuyno, and Dr. Ruben L. Villareal, former University of the Philippines Los Baños chancellor.

The activity was attended by presidents, vice presidents for Research, Development and Extension, and extension directors of selected SUCs in Mindanao, namely: University of Southern Mindanao, Central Mindanao University, Mindanao State University, University of Southeastern Philippines, Sultan Kudarat Polytechnic State College and Misamis Oriental State College of Agriculture and Technology. Other attendees included Mindanao DA regional executive directors, RTDs and RIARC managers/staff, and PhilRice-Agusan and Midsayap Branch managers and staff members.

GMA Rice Program Director Frisco M. Malabanan provided answers to the queries of the SUCs regarding the rice program in Mindanao.

The consultation, which was the first among the batches of DA-SUC Collaborative Extension Service Planning Workshops that would be conducted for the regions, was organized to work out the actual working relationship and plan of action for the agreed collaborative extension service between DA and the SUCs in Mindanao.

The workshops for the Luzon and Visayas cluster are already being planned by BAR and DA National Experts Team. *(Raymond Patrick L. Cabrera)*

RPCABRERA

(L-R, front) Dr. Santiago R. Obien, Dr. Ruben L. Villareal, and Dr. Rogelio V. Cuyno pose with the participants of the CES Planning Workshop held in Davao City.

Region I and CAR draft CorPlans for their provinces

The Bureau of Agricultural Research (BAR), on its continuing initiative to implement the Collaborative Extension Service (CES), organized the DA-LGU-SUC Collaborative Extension Service Planning Workshop for Regions I and Cordillera Administrative Region (CAR) on 24 July 2008 at the Microtel Inn and Suites in Baguio City.

The workshop served as the venue for the participants to establish the proposed CES by preparing/drafting their Provincial Agriculture Plans and Programs (CorPlan) with focus on the Rice Self-Sufficiency Program of the Department of Agriculture (DA). The CorPlan must agree on the specific working relationship, division of labor, and roles and responsibilities of partnering institutions particularly on extension.

The participants were the Provincial Local Government Units (Abra, Ifugao, Mt. Province, Benguet, Apayao, Ilocos Norte, Ilocos Sur, Pangasinan, and La Union) and State Universities and Colleges (Pangasinan State University, Don Mariano Marcos Memorial State University, Ifugao State College of Agriculture and Forestry, Benguet State University, and Abra State Institute of Science and Technology) in Region I and CAR.

OIC-Regional Executive Director Pedro Jerry D. Baliang (DA-RFU CAR) welcomed the participants from the DA, SUCs, and PLGUs while BAR Dir. Nicomedes P. Eleazar explained the activity background and discussed the rationale, objectives, and expected outputs from the workshop.

The activity proceeded with lectures/presentations of Dr. Santiago R. Obien, BAR consultant, and Dr. Eulito U. Bautista of the Philippine Rice Research Institute (PhilRice) on the following topics: 1) Extension service situationer in the country, 2) Initiatives conducted for the proposed collaboration, 3) Concept and framework of the DA-LGU-SUC Collaborative Extension Service, 4) Proposed extension service activities by DA and SUCs for Region I and CAR LGUs Provincial Action Plan, 5) GMA Rice Program, and 6) F.I.E.L.D.S. Program in boosting rice production nationwide. **FIELDS** stands for **F**ertilizer, **I**rrigation, **E**ducation and training of farmers and fisherfolk, **L**oans, **D**ryers and other postharvest facilities, and **S**eeds of high-yielding hybrid varieties.

The data and information on these presentations served as their guides/bases in the preparation of their respective CorPlans.

During the workshop, the participants were grouped according to regions (I and CAR) to have a unified approach at the regional level in preparing their plans and programs. The groups were then divided into provincial groupings and were tasked with working on the Provincial Rice Self-Sufficiency Program, a key component in their CorPlans.


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BSU President Rogelio D. Colting (center) leads the Benguet group during the CES Planning Workshop in Baguio City.


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OIC-Regional Executive Director Pedro Jerry D. Baliang of DA-RFU CAR welcomes the participants.

Identified major components and interventions for the drafted program were: 1) formation and reorganization of the Provincial Action Teams; 2) capacity enhancement activities for the farmers, seed growers/producers, and seed inspectors; 3) R&D activities such as verification trials of latest technologies in collaboration with research agencies and varietal trials of newly released rice varieties; 4) irrigation systems repair, restoration, and rehabilitation; 5) assistance in the post harvest and mechanization, 6) marketing and credit assistance; and 7) program management and regulation.

The CorPlans will be finalized by the Provincial LGUs with assistance from the SUCs, Philippine Rice Research Institute, and DA-RFUs, and will be integrated in the DA National Programs. *(Raymond Patrick L. Cabrera)*

CorPlan must agree on the specific working relationship, division of labor, and roles and responsibilities of partnering institutions particularly on extension.