



New ABARE board members inducted

The Association of BAR Employees (ABARE) bids farewell to its outgoing Board of Trustees, which served the association from 2005 to 2007.

The previous set of officers was headed by Dr. Alvin Bernardo V. Divinagracia, along with Dr. Carmencita V. Kagaoan (vice president

for internal affairs), Dr. Marlowe U. Aquino (vice president for external affairs), Mr. Jude Ray P. Laguna (secretary), Mr. Bernardo S. Manuel (marshal), Ms. Melody T. Memita (treasurer), Mrs. Julieta SD. Yonzon (business manager), Ms. Judith A. Maghanoy (auditor), and Mr. Braulio Tamayo (public relations officer).

The accomplishments of the previous officers were too many to mention and the members of the association were quick to attest to what they have achieved for the association.

As the saying goes, "all good things must come to an end."

All I can say, being a member of the board myself, is that dedication and hard work go hand in hand with the duties and responsibilities of being an officer. At times expectations fell short, complaints arose, but the board held on to keep the association intact and in order.

Although there were times when it felt as if we were caught in the crossfire whenever there were misunderstandings between the members and management, still the group made it. This is something that

is not new to us or to any organization for that matter but it is the board's duty to see to it that dialogues between the parties are organized and orderly, and have passed through the proper channels. Also to ensure that amid all the misgivings, camaraderie is enhanced among the staff members.

A new set of elected officers will be put to the challenge of guiding the ABARE into the next two years. Most of the new officers served in the past council, and are confident that they will continue the programs started by the officers before them.

The newly elected board members are Dr. Carmencita V. Kagaoan (president), Ms. Melody T. Memita (vice president for internal affairs), Mr. Angel S. Morcozo (vice president for external affairs), Ms. Julieta SD Yonzon (secretary), Ms. Corazon L. Barretto (assistant secretary), Mr. Bernardo S. Manuel (treasurer), Mr. Rolando V. Labios (assistant treasurer/business manager), Ms. Judith A. Maghanoy (auditor), and Dr. Marlowe U. Aquino (PRO).

They were inducted to office on 17 April 2007 at the RDMIC lobby, by BAR Director Nicomedes P. Eleazar. (*Jude Ray P. Laguna*)

BAR is...from page 1

as Feedstock for Ethanol Production," technology-investment forums, and a feasibility study on the production and processing of the crop.

R&D activities, particularly for other commodities that could be potential sources of biofuels, are still in the pipeline.

Details of the information about the biofuels law and information could be obtained from Mr. Obligado of the Technology Commercialization Unit (TCU) under the Office of the Director (OD).

Interested parties could avail of the services from the DA Agribusiness Center wherein BAR's contribution is on biofuels. The center will be formally inaugurated on 6 May 2007 by President Gloria Macapagal-Arroyo at the DA compound, Elliptical Road, Diliman, Quezon City. (*Marlowe U. Aquino, PhD*)



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BAR is DA's focal agency on biofuels

photo courtesy of MMSU

The Bureau of Agricultural Research's critical role in the coordination and management of research and development (R&D) led the Department of Agriculture (DA) to designate BAR as the focal agency for its biofuels program. Given such responsibility, the Bureau is expected to coordinate and channel all efforts of key players and stakeholders for a unified biofuels plans, programs, and activities.

Under the leadership of BAR Director Nicomedes P. Eleazar, the bureau will work with prospective investors and businessmen that are willing to be part of the development of biofuels. BAR will also continue to support R&D areas to improve biofuel production management system and processing of raw materials as source of bioethanol. The identified commodities are sweet



BAR promotes sweet sorghum production as source of bioethanol.

sorghum, coconut, cassava, sugarcane, corn, and jathropa.

The BAR team is composed of Director Eleazar (team leader), Mr. Anthony Obligado (focal person), Ms. Ma. Norriza Herrera (technical staff of

the Technology Commercialization Unit), and the Management Information and Systems Division (MISD) headed by Dr. Marlowe Aquino. It will assist and coordinate the promotion, utilization, application, commercialization and development of the biofuels' related activities.

The BAR team is supported by the University of the Philippines Los Baños (UPLB) Biofuels Group headed by Dr. Enrico Supangco, UPLB vice-chancellor for RDE; Dr.

Rex Dimapelis and Engr. Ari Halos of the College of Engineering and Applied Technology (CEAT); Dr. Virgilio Villancio of the College of Agriculture (CA), and Dr. Roberto Ranola, UPLB vice-chancellor for administration.

Both teams will play important roles and responsibilities in making biofuels a part of the development in agriculture sector for global recognition and competitiveness.

In support of this new development, both teams are currently promoting sweet sorghum as source of bioethanol. This is supported by a national project on the "Commercialization of Sweet Sorghum

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BAR, PCARRD, CHED, UPLB, MMSU convene for a synergy meeting on sweet sorghum initiatives



ICRISAT Director General William D. Dar (left) and BAR Director Nicomedes P. Eleazar (right).

A leveling-off and synergy meeting on sweet sorghum initiatives in the Philippines was conducted by key institutions involved in the sweet sorghum project

on 17 April 2007 at the BAR Conference Room, Visayas Ave., Diliman, Quezon City.

The meeting was held to discuss updates on the recent activities on sweet sorghum initiatives of the Department of Agriculture-Bureau of Agricultural Research (DA-BAR), Philippine Council for

Agriculture, Forestry and Natural Resources Research and Development (PCARRD), Commission on Higher Education (CHED), University of the Philippines Los Baños (UPLB), and Mariano Marcos State University

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This publication provides regular updates on BAR's activities as the country's national coordinator for agriculture and fisheries R&D; and highlights features and news articles concerning NaRDSAF-member institutions.

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Commercialize technologies from R&D to hoist agri production—SACY



photos by Rita T. dela Cruz

DA Secretary Arthur C. Yap keynotes the 35th UPLB Commencement Exercises.

If you keep all these technologies incubating here, they will all go to waste. We have to bring these to the private sector because it is the private sector's imagination and entrepreneurial skills that's going to give us solutions on what to do with all the great technology that you have here." Thus stressed by Agriculture Secretary Arthur C. Yap when he spoke at the 35th University of the Philippines Los Baños (UPLB) Commencement Exercises on 28 April 2007 at the UPLB Freedom Park, Los Baños, Laguna.

In his address to the 1,700 graduating UPLB students, he expounded on the current status of the agriculture sector and its central contributions to the country's economic progress.

One of these significant contributions is through R&D. He expressed his full support for the commercialization of technologies developed by UPLB to raise the farmers' production and meet the rising global demand.

Over the years, UPLB has established a solid reputation not only as a premiere learning institution in the country and in Asia but also takes the lead in generating diverse

breakthroughs and technologies in the fields of hard sciences.

Yap said that although technologies are there, many of them remained confined in the laboratories. Many of these useful technologies have yet to be commercialized and utilized by the private sector.

The DA Secretary underscored the key role of the private sector in the chain of technology transfer since, according to him, it is the private sector that will invest in these technologies.

In the issue of rising food demand and scarce resources, Yap emphasized that the only way to ensure the sustainability of Philippine agriculture is to guarantee its profitability for Filipino farmers and fisherfolk. To make the agriculture sector profitable, Yap underlined the importance of "business-sizing" Philippine agriculture, infusing modern perspectives of agribusiness development into the production and marketing aspects of agriculture.

The main gauge of course is if food products are readily available and accessible and the prices of wage goods can be afforded by the low-income consumers. (Rita T. dela Cruz)

Keeping it sweet...from page 10

photo by Nicanor B. Del Rosario III



Dr. Heraldo L. Layaoen, vice president for administration, planning and external linkages of the Mariano Marcos State University (MMSU) and overall coordinator of the DA-BAR Sweet Sorghum Project, speaks during the 4th BAR Seminar Series.

Other varieties were also planted and tested for adaptability and grain yield. Some were the Taiwanese variety with high grain yield, and the local collection of seeds from Bohol which also showed promising results.

So far, six R&D studies are being conducted on sweet sorghum production. These are: 1) Juice quality, grain yield and ratooning potential of ICRISAT sweet sorghum lines; 2) Studies on pest and diseases; 3) Fermentation and characterization of juice; 4) Cultural management studies on outstanding ICRISAT sweet sorghum varieties in the Philippines; 5) Effect of date of planting on juice quality, grain yield, and ratooning potential; and 6) Variety x level of irrigation x fertilizer rate. Most of these studies are going on.

Since sweet sorghum is not only a crop for ethanol production, researchers and food technologists also developed food products for sweet sorghum. These include jaggery, syrup, cookies, vinegar, pops, and flour.

Collaborative efforts with private sector

Dr. Layaoen said that part of the effort of commercializing sweet sorghum as source of ethanol for biofuel is to collaborate and link with

the private sector.

Dr. Layaoen's group has been in contact with the San Carlos Bio-energy for the turning over of seed material for the "Variety x Time of Planting x Fertilizer Rate Study". The first planting trial was conducted in February 2007.

Big companies such as the Ginebra San Miguel, Inc. is collaborating its effort on fresh juice characterization, adaptability trials of different strains of *S. cervicae* on sweet sorghum fresh juice, and production of jaggery. MMSU, together with the Distilleria Bago, Inc., has conducted trial planting in La Granja and Bago City, Negros.

Fuel companies such as SEOIL, Ford Phils., and Lucio Tan Group are interested in the fermentation and adaptability trials of different strains of *S. cervicae* on sweet sorghum fresh juice and jaggery.

Other

collaborative efforts are with Sweet Crystals, Yujuico Group, and Cagayan Sugar Mill for the planting trials in Pampanga, Cotabato, and Cagayan, respectively. Also with India-based distilleries such as ICRISAT, RUSNI, and Bio-Phil Energy Ltd.

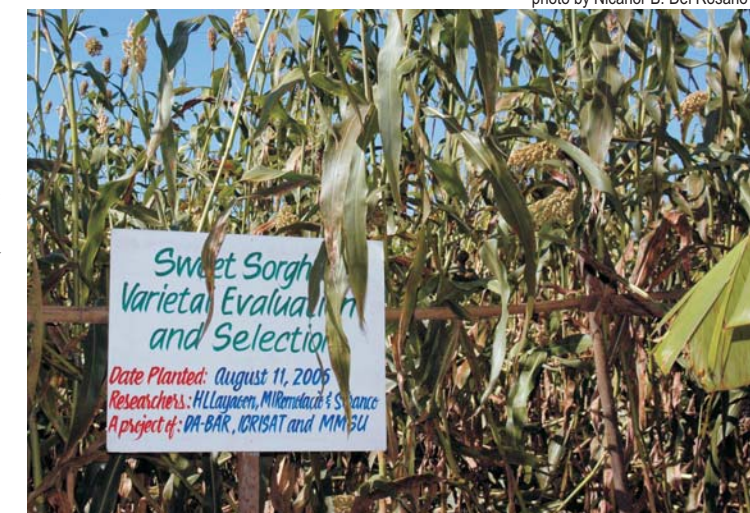
Recommended RDE areas for studies

Although a lot has been done to promote the use of sweet sorghum in the country, Dr. Layaoen said that it's still at its initial step as productions sites and varietal trials have yet to be in place. He further said that much is yet to be done, particularly in the RDE areas. He mentioned areas of studies that need to be focused on.

Some of these are: 1)

Optimum time of harvest (if juice is the priority; if grain is the priority, if both grain and juice will be used as feedstock for bioethanol); 2) Effect of cutting panicle at full bloom, soft dough, and hard dough stages on biomass and juice quality; 3) Determination of most cost-efficient source of feedstock (on the part of the farmer and the distillery); 4) Varietal response to time of planting, fertilizer and irrigation and to population density and row spacing; and 5) Isolation of most efficient organism to ferment raw/pasteurized sweet sorghum juice, syrup, and jaggery. 🌱

photo by Nicanor B. Del Rosario III



Keeping it sweet.

What's new with sweet sorghum?

by Rita T. dela Cruz

Among those I call the climate crops, sweet sorghum is relatively unknown among those species that catch the CO₂ from the air and turn it into food, feed, fuel, fertilizer for the survival of the species. I know that to advocate sweet sorghum as the global source of ethanol for biofuel is to advocate a relatively unknown and largely unappreciated crop. This should not be the case

- William D. Dar

Sweet sorghum as a potential source of bioethanol production is not new anymore. Thanks to the constant promotion of the Department of Agriculture (DA) through the Bureau of Agricultural Research (BAR) in support of its biofuels program. The seeds were brought in, planted and tested for Philippine soil adaptability. Feasibility studies have been conducted, and fermentation characterization of juice to produce ethanol proved earlier claims that sweet sorghum is indeed the “sweetest” source of ethanol to produce biofuels.

People have become curious about this sweet potential that they wanted to know more. This is the main reason why BAR conducted the fourth of its seminar series for this year focusing on “Updates on Sweet Sorghum for Bioethanol”. Who is best to invite than the pioneer

scientist grower of sweet sorghum in the country, Dr. Heraldo L. Layaoen, vice president for administration, planning and external linkages of the Mariano Marcos State University (MMSU) and overall coordinator of the DA-BAR Sweet Sorghum Project.

Dr. Layaoen's presentation consisted four major parts: 1) A backgrounder on the potential of sweet sorghum, 2) what has been done, 3) collaborative efforts, and 4) recommended RDE areas for studies.

Why sweet sorghum is a sweet choice?

Sweeter, multi-purpose, easy to mature, versatile, and productive.

These precisely sum up the most viable reasons why sweet sorghum is best considered as source of bioethanol for the country's fuel problems.

According to Dr. Layaoen, compared to sugarcane (14%), sweet

sorghum is definitely much sweeter (15-23%). Its uses are not limited as source of ethanol as sweet sorghum is also a food, feed, and forage crop. In 100-110 days, the seed matures (sugarcane matures in 300-330 days after planting). If reproduced by cutting, the



photo by Julia A. Lapitan

ratoon matures after 85-95 days.

It is the most versatile climate crop as it can withstand both drought and flooding. It easily fits as a component crop in an existing cropping system. Most important, this crop produces high yield per unit area for both its juice and grain. Stalks can be harvested within 10 days after the grains are harvested.

What has been done so far?

DA-BAR provided the first institutional support for the production of sweet sorghum. Meanwhile, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) based in India, through the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), provided the seeds to be planted and tested at MMSU.

The first field trial and varietal testing were done on 27 October 2004 at MMSU. Since then, five sweet sorghum varieties with high juice and grain yield from ICRISAT have been ready for commercialization. These varieties are NTJ 2, SPV 422, ICSV 700, ICSV 93046, and ICSR 93034.

On 11 August 2006, the second set of 66 lines was planted while the third set of 37 new lines was tested on 21 December 2006. All the strains originated from ICRISAT.

see next page



photo by Nicanor B. Del Rosario III

Vinegar from sweet sorghum

CPAR

project consultations in 10 poorest provinces completed

The consultations on the 10 poorest provinces in the country for Community-based Participatory Action Research (CPAR) projects of the Department of Agriculture (DA) through the Bureau of Agricultural Research (BAR) have been completed.

The first consultation on the 10 provinces was held last March 19-22 in Masbate. The consultation for the remaining nine provinces took place during the whole month of April.

Different consultation teams were created to visit the provinces of Camarines Norte, Lanao del Norte, Zamboanga Sibugay, Zamboanga del Norte, Agusan del Sur, Surigao del Norte, Sarangani, Maguindanao, and Mt. Province.

A simultaneous consultation was done from April 11 to 13 in Camarines Norte and Lanao del Norte by two different teams.

Selected site for the implementation of CPAR project in Camarines Norte and barangays Tigbinan and Guisican for the town of Labo and barangays Rizal and San Lorenzo for the town of Sta. Elena. For Labo, the problems identified were lack of irrigation equipment, integrated farming system, development of pasture area, absence of solar drier, and construction of hanging bridge were identified. Other problems were on illegal fishing, illegal logging, poor water supply caused by landslide, provision for low interest in agricultural loan, construction of new bridges, and pasture area development were identified. The memorandum of agreement (MOA) was already signed by the region and BAR while the finalization of the proposal for the identified project is being accomplished.

For Lanao del Norte, three barangays in the town of Kapatagan—Balili, Concepcion and Lapinig—were selected for the implementation of the CPAR project. The proposal for the identified projects for the three barangays is being finalized while the MOA is ready for signature by the Regional Executive Director (RED) of Region 10.

On the third week of April, two provinces in the Zamboanga peninsula and Caraga region were visited.

From April 16 to 20, separate consultation teams visited Zamboanga del Norte and Zamboanga Sibugay in the Zamboanga peninsula region and Agusan del Sur and Surigao del Norte in the Caraga region. The selected sites for the implementation of the CPAR project were barangays Coloran, Mirangan, and Balucanan in the town of Siay in Zamboanga Sibugay and barangays Litalip, Ilihan, and Tamil in the town of Jose Dalman in Zamboanga del Norte.

MOAs for the two provinces were already signed by the region and BAR which will be followed

photos courtesy of CPAR Proc Doc Team



Agusan del Sur

Camarines Norte



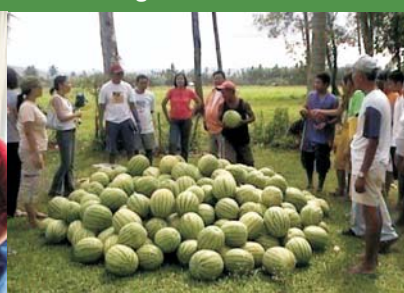
Lanao del Norte



Maguindanao



Masbate



Surigao del Norte



Sarangani



Mountain Province



Zamboanga Sibugay



Zamboanga del Norte

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BAR searches for 2007 outstanding agricultural scientist

photo by Nicanor B. Del Rosario III



(L-R) Gawad Saka Evaluation Committee compose of Dr. Teodoro S. Solsoloy (DA-BAR), Mr. Jude Ray P. Laguna (DA-BAR), Mr. Rolando Edra (PCAMMRD), and Dr. Enrico

It has been an annual activity of the Department of Agriculture (DA) to recognize the accomplishments of the major players and stakeholders of the agriculture and fisheries sectors through the *Gawad Saka* Search for the Outstanding Achievers in Agriculture Fisheries.

Through Special Order 110 or the Creation of the Gawad Saka 2007 National Technical and Support Committees, Funding Requirement and Organization of Regional Search Committees, BAR was tasked with taking the lead in the search for the 2007 Outstanding Agricultural Scientist (OAS).

Based on the DA guidelines, qualified nominees must comply with the following criteria: 1) must have done outstanding research work in any field directly related to agriculture and fisheries, 2) must have at least a bachelor's degree in agriculture or any related field, and 3) must be a researcher of a project/s or research activities. Previous awardees are no longer eligible to qualify.

For those who passed the minimum qualifications and have been endorsed by their respective agency heads or local government

officials, they will be judged based on: 1) quality of scientific work (30%), 2) productivity of the scientist (25%), 3) creativity of the scientist (20%), and 4) impact of research projects (25%).

Nominations are not just confined to government employed scientists and researchers but also include private research institutions, colleges and universities, professional organizations/ associations and societies. Meanwhile, non-government organizations (NGOs) are welcomed to nominate candidates.

The National Technical Committee (NTC) for the search for Outstanding Agricultural Scientist is composed of BAR Director Nicomedes

P. Eleazar (chairman), BAR Assistant Director Teodoro S. Solsoloy (vice chairman), Dr. Virginia C. Cuevas (member), Dr. Rolando Edra (member), and Dr. Enrico E. Supangco (member).

BAR serves as the secretariat for the committee providing logistics and technical support to the group. Currently, NTC is evaluating the nominees. Results will be announced in May prior to the 2007 Gawad Saka Awarding Ceremonies which will be held at the Malacañang Palace and to be awarded by President Gloria Macapagal-Arroyo. (*Jude Ray P. Laguna*)

CPAR project...from page 3



by the submission of proposals.

MOAs for Agusan del Sur and Surigao del Norte were already submitted to BAR accompanied by the necessary attachments. Selected sites for the implementation of the project in Agusan del Sur are barangays Afga, El Rio, and Mahayahay in the town of

Sibagat. For Surigao del Norte, the selected sites are barangays Villaflor, Villafranca, and San Isidro in the town of Gigaquit.

The last batch of consultation was held in Sarangani, Maguindanao, and Mt. Province on April 23-27. In Sarangani, three barangays were selected in the town of Malapatan for the implementation of the CPAR project. These are Tuyan, Libi, and Lun Masla. Three barangays were also selected in Datu Anggal Midtimbang, Maguindanao, namely: Adaon, Midtimbang, and Mapayag. The MOAs and project proposals for the two provinces will be submitted to BAR on May 4.

Up north in Mt. Province,

barangays Banga-an and Madongoin the town of Sagada and barangay Macalana in the town of Barlig were the sites selected for the implementation of the CPAR project. The MOA for the province was already prepared and ready for the signature of RED while the project proposal is for finalization and signature of the Cordillera Integrated Agricultural Research Center manager and RED to be forwarded on May 3.

The consultations in the 10 poorest provinces will be followed by the implementation of the project that will last for a year or two. It is expected that through the CPAR project, the poverty and hunger problem in the country will be alleviated. (*Ellaine Grace L. Nagpala*)

OpAPA Advisory Council sets target for program operation

photo by Marlowe U. Aquino



PhilRice Executive Director Leocadio Sebastian (center, left) and ICRIAT Director General William Dar (center, right) lead the discussion during the 15th OpAPA Council Meeting.

The Open Academy for Philippine Agriculture (OpAPA) Advisory Council has set targets to operationalize and institutionalize the program activities of the academy. The council acted on the targets during its 15th meeting held at the Philippine Rice Research Institute (PhilRice), Science City of Munoz, Nueva Ecija on 11 April 2007.

This was based on the near program completion of the project that supports the implementation of the OpAPA which focuss on rice and rice-related activities.

The advisory council felt that it should expand its services to cater to other commodities supportive of the Department of Agriculture (DA) programs. With this new development, the Agricultural Training Institute (ATI) will take the lead wherein OpAPA's main strategy is anchored on extension modalities.

Given this strategy, it is believed that ATI will make use of the experiences and lessons learned by PhilRice, particularly on rice, to improve and develop appropriate and responsive strategies for the other commodities.

The meeting discussed updates on the implementation of OPAPA, including directions to formulate plans and programs for the e-Learning Program of the Department of Agriculture. OPAPA implementing units from PhilRice, pilot State Colleges and Universities (SUCs) such as the Pampanga Agricultural College (PAC), University of Southern Philippines

(USP), and Isabela State University (ISU) presented their accomplishments for the first quarter of 2007. Agricultural Training Institute (ATI), Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), and Bureau of Agricultural Research (BAR) presented their programs supportive to the e-Learning Program.

BAR presented its e-Learning Program highlighting the e-Pinoy FARMS Project complementing the Community-based Participatory Action Research (CPAR), National Technology Commercialization Program (NTCP), and other partnership initiatives supportive to the Research, Development, Extension/Education (RDE/E) sector of DA programs.

Through ATI's leadership, it is envisioned that the fast and emerging trends in extension delivery system and the integration of the information communication technology (ICT) to the mainstream of e-learning approach of production management systems will be addressed.

With an end view of making ICT work for the different

priority commodities of DA, the OpAPA Advisory Council is optimistic that this will elicit positive support from other DA units. Technical experts on the priority commodities will be tapped to provide the necessary technical information that would enhance the e-learning modules to be developed for the farmers and fisherfolk, as well as other resources that would drumbeat the full blast operation of the enhanced OpAPA program for agriculture and fisheries development.

In order for the identified plans and activities to be implemented accordingly, OpAPA's advisory council made sure that all activities must meet the guidelines, directions, and standards. As such, the council provided inputs on program planning and implementation approaches and strategies and source out resources to be shared to enhance the program.

Moreover, the council emphasized that in order that the e-learning modules of the new commodities are accepted for wider utilization, these must be responsive and user friendly. This will enable users to be proactive on information and technology being offered by the program.

Lastly, the council emphasized that OpAPA is not a sole function of one or two agencies but rather a responsibility of the whole DA as it moves toward a challenging agriculture and fishery sector using information communication technology system. (*Marlowe U. Aquino, PhD*)





BAR Director Nicomedes P. Eleazar welcomes the participants and guests.



Participants comprising of 18 technical senior staff members of BAR and RFRDCs.



BAR RCD Head Tito Z. Arevalo delivers a message during the opening program.

photos by Julia A. Lapitan

First of five batches of technology management training conducted

The National Technology Commercialization Program (NTCP), now on its second year as coordinated by the Technology Commercialization Unit (TCU) of BAR, held its first of five batches of Technology Management Training on 22-28 April 2007 at PHINMA Training Center, Tagaytay City. The training is a component of the “Operationalization of Support-Based Initiative for Agriculture and Fisheries Technology Management,” a collaborative project of University of the Philippines National College of Public Administration and Governance (UP-NCPAG) through the Center for Local and Regional Governance (CLRG) and the Department of Agriculture-Bureau of Agricultural Research (DA-BAR).

The first batch of training on technology management was attended by 18 technical senior staff members of BAR's Research and Coordination Division (RCD), Program Development Division (PDD), Management Information and Systems Division (MISD), Technology Commercialization Unit (TCU), and representatives from the Regional Integrated Agricultural Research Centers (RIARCs) and Regional Fisheries Research Development Centers (RFRDCs) of the Luzon Cluster B, including Regions III (Central Luzon), IVA (CALABARZON), IVB (MIMAROPA), and V (Bicol). The five-day training

aimed to formulate criteria in sourcing technologies for presentation and commercialization. The activity focused on four specific objectives: a) enhance the capability of the regional focal person and selected technical staff of the DA-BAR on technology commercialization and management, b) raise the level of understanding of the participants on technology commercialization experiences in agriculture and fisheries, c) equip the participants with guides in formulating technology commercialization action plan, and d) develop guidelines in enterprise development as a stage in the technology commercialization efforts of the DA-BAR.

The training was carried out through lecture and discussions, case studies, field observation, workshops and brainstorming, participatory action planning, and plenary sessions.

Five modules were presented, as follows: 1) introduction to

technology management, 2) management of research and development, 3) intellectual property management, 4) technology commercialization process, and 5) financial technology valuation and business planning.

Invited resource persons and speakers shared their expertise and experiences in the field of technology management. They were Dr. Roger D. Posadas, an expert in science and technology (S&T) policy and technology management; Dr. Elvira A. Zamora, professor at the College of Business Administration in UP Diliman; Atty. Editha R. Hechanova, managing partner of the Hechanova Bugay & Vilchez law offices and CEO of Hechanova & Co., Inc.; and Prof. Edison D. Cruz, executive director of the Technology Management Center of the University of the Philippines. (Julia A. Lapitan and Maria Noriza Q. Herrera)



Participants, guests, and speakers pose for a group photo.

DA National GMA Programs conduct its 1st quarter review

To ensure the successful implementation of the Department of Agriculture's (DA) Productivity Program as well as the foreign-assisted and locally-funded projects, the DA-Field Operations Service (FOS) spearheaded the 1st Quarter National Ginintuang Masaganang Ani (GMA) Programs/DA Projects Review on 12-13 April 2007 at Legenda Hotel, Subic Bay Freeport Zone, Olongapo City.

The two-day activity assessed the 1st quarter physical and financial accomplishments of GMA banner programs, Goals 1 and 2, *Gulayan ng Masa* (Hunger Mitigation) program, foreign-assisted and locally-funded projects. This also served as venue for refinement on the operational policies and guidelines and further provides remedial actions to enhance programs/projects implementations.

Mr. Eduardo M. Gonzales, Assistant Regional Director for Administrative and Finance of DA-Regional Field Unit (RFU) III, welcomed the participants after which Undersecretary for Operations Jesus Emmanuel M. Paras delivered a message.

The presentations of program accomplishments started with Engr. Roy M. Abaya, OIC-FOS, giving an overview of the event. “The review provides continuous feedback that

enables managers to keep track of progress towards attaining programs/projects' objectives and to adjust operations to take account of accomplishments and problems as well as opportunities,” Abaya stated.

Program Coordinators Felix Valenzuela (livestock), Rodel G. Maghirang (HVCC), Dennis B. Araullo (corn), Frisco M. Malabanan (rice) and Malcolm I. Sarmiento (fisheries) presented for the GMA banner programs. Focal persons for Goal 1 (Carlos B. Mendoza), Goal 2 (Francisco A. Ramos III), DA-Biofuels Program (Marriz Agbon), accelerated hunger mitigation program (Ma. Vicenta Magpantay), *Programang Gulayan ng Masa* (Joel S. Rudinas), locally-funded projects (U-Nichols A. Manalo), and foreign-assisted projects (Renato P. Manantan) likewise laid down the DA's productivity programs for the first quarter.

The Goal 1 Program presented the target, validated and developed areas by commodity and region. Also, the potential areas for biofuels group and other commodities were presented.

The Goal 2 program highlighted the *Barangay Food Terminals*, *Bagsakan sa Palengke*, and *Expanded*

Tindahan Natin program of the Department of Agriculture. As a Presidential Directive on Hunger Mitigation, an Anti-Hunger Task Force was created to eliminate hunger within six months. This included



DA Undersecretary for Operations Jesus Emmanuel M. Paras delivers a message during the project review.

the *Tindahan Natin* outlets, port projects, farm-to-market roads, food for school program, and the NGO network to support feeding programs. Rice production was able to achieve a 5.87 percent increase from 15.33 MMT in 2006 to 16.23 MMT in 2007 while corn production showed 13.73 percent increase from 6.08 MMT in 2006 to 6.97 MMT production in 2007.

Messrs. Antonio B. Obligado and Amador C. Macabeo represented the Bureau of Agricultural Research (BAR) for the Biofuels Group and Corn RDE Network, respectively.

On the DA-Feedstock Roadmap, the role of the Department as per IRR of RA 9367 was enumerated. This includes: (1) coordination with the Department of Science and Technology (DOST) in identifying and developing viable feedstock for the production of biofuels; (2) developing a national program for the production of crops for use as feedstock supply; (3) instituting a program that would guarantee a sufficient and reliable supply allocated for biofuel production; (4) identifying potential areas suitable for expansion and production of raw materials; and (5) publishing information on available and suitable areas for cultivation and production of biofuels group.

BAR Director Nicomedes P. Eleazar serves as chair for the Biofuels R&D Group. (Ma. Eloisa E. Hernandez)



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photo by Nicanor B. Del Rosario

Dr. Heraldo L. Layaoen, vice president for administration, planning and external linkages of the Mariano Marcos State University (MMSU), presents updates on DA-BAR Sweet Sorghum Project during the synergy meeting.

(MMSU).

Present during the meeting were Director General William D. Dar of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), BAR Director Nicomedes P. Eleazar, MMSU Vice President for Administration, Planning, and External Linkages Heraldo L. Layaoen, UPLB Chancellor Luis Rey I. Velasco, UPLB Vice Chancellor for Administration Roberto F. Rañola Jr, UPLB Vice Chancellor for Research and Extension Enrico P. Supangco; Associate Professor Artemio M. Salazar of UPLB-Institute of Plant Breeding (IPB), UPLB-College of Engineering and Technology (CEAT) Associate Professor Ari Luis dC. Halos, UPLB Department Chair Rex Demafelis (UPLB), Pampanga Agricultural College (PAC) President Zosimo Battad, PCARRD-Crop Research Division Director Jocelyn E. Eusebio, Ms. Nilda M. Tuason of Seaoil, Mr. Sonny V. Domingo of the Kapatiran ng Malayang Maliliit na Mangingisda ng Pilipinas (KAMMMPI), and Dr. Norman de Jesus of PAC. Also present were TCU staff members of BAR.

BAR Dir. Nicomedes Eleazar welcomed the guests. In his speech he said that sweet sorghum is now a priority high value crop under DA and

BAR is tasked with overseeing the overall coordination of sweet sorghum initiatives in the country.

Dr. Dar underscored the objectives of the meeting which were: to synchronize and synergize efforts of the key institutions and come up with an integrated program for bioethanol, to organize a unified team approach for monitoring and evaluation, and to identify gaps to enhance promotion of sweet sorghum in the Philippines.

Topics presented during the meeting were: 1.) Updates on ICRISAT, Philippine Government Agencies and Industry Collaboration in the Promotion of Sweet Sorghum for Bioethanol, presented by Dr. Layaoen; 2.) Integrated R&D Program on Biofuels: Subprogram on Utilization of Sweet Sorghum and Cassava as Feedstocks for Ethanol Production, presented by Dr. Eusebio; 3) PAC R&D Initiatives on Sweet Sorghum and Pigeon Pea, presented by Dr. de Jesus; and 4) DA Biofuels Program: First Quarter Review, presented by Engr. Halos.

Updates on the promotion of sweet sorghum

Dr. Layaoen, overall coordinator of the sweet sorghum project, delivered a paper titled, "Updates on ICRISAT, Philippine Government Agencies and Industry

Collaboration in the Promotion of Sweet Sorghum for Bioethanol." He highlighted partnership among private companies such as San Carlos Bio-energy plant, Seaoil Phil, Ginebra San Miguel, Yujuico group, Sweet crystals and Cagayan Sugar Mills.

Ongoing studies on sweet sorghum and important observations were also discussed.

Currently, a group of MMSU students in cooperation with the Fuel Oil Inc, a private oil company, is conducting a study on the potential of utilizing *Zymomonas mobilis*, a strain of yeast, to substitute *Saccharomyces cerevisiae* to assess the former as a possible fermenting microorganism of the sweet sorghum juice.

One of the concerns identified during the meeting is to rehabilitate and upgrade distillation laboratory at MMSU since instruments used are only improvised (beverage containers). Another is the results of the multi-location trial (MLT) in which the output will be incorporated in the national cooperative trial (NCT). A package of technology (POT), which includes frequently asked questions (FAQs), cost of production, and net income for each region must also be prepared.

Integrated R&D program on biofuels

Dr. Eusebio presented a paper titled, *Integrated R&D Program on* next page

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Biofuels: Subprogram on utilization of sweet sorghum and cassava as feedstock for ethanol production integrated R & D program on biofuels which focused on sweet sorghum. The project components and current initiatives were discussed. She told the group that a Php5-million budget has been approved by DOST Secretary Estrella F. Alabastro.

PAC R&D initiative on sweet sorghum and pigeon pea

Dr. de Jesus presented the "R&D Initiative on Sweet Sorghum and Pigeon Pea." He updated the participants on the activities undertaken by PAC.

DA Biofuels Program: First quarter review

Engr. Halos presented "DA Biofuels Program: 1st Quarter Review." He showed a map of the Philippines exhibiting areas for sweet sorghum production including regions that have submitted proposals for upscaling the project. Dr. Dar suggested that training of local agents is necessary where demonstration sites will be established.

In conclusion, Dr. Dar suggested the creation of a technical working group (TWG) that will regularly meet to fully implement the sweet sorghum initiatives in the Philippines. It was agreed that Dir. Nicomedes Eleazar will oversee all the activities for sweet sorghum. Dr. Layaoen will be the chairperson while Dr. Salazar and Dr. Eusebio will serve as co-chairpersons.

BAR will be the secretariat. The agenda for the next meeting are the following: terms of reference for the technical and administrative levels; a comprehensive monitoring and evaluation system for sweet sorghum initiatives in the Philippines; and a detailed plan of activities for the whole year.

The next meeting is slated either on May 22 or May 23. (Maria Noriza Q. Herrera)

BAR sets consultation meetings for regional technology commercialization forum for 2007



photo by Anthony A. Constantino

In preparation for the conduct of the regional technology forum for 2007 the Technology Commercialization Unit (TCU) of the Bureau of Agricultural Research (BAR) has scheduled a series of consultation meetings for the different clusters.

This year's theme is "Stronger Technology-Investment Linkage for Competitive Agriculture and Fisheries".

As a head start, Luzon Cluster B comprised of Regions III (Central Luzon), IV-A (CALABARZON), IV-B (MIMAROPA), and V (Bicol) conducted its consultation on 29 March 2007 at Villa Caceres Hotel in Naga City.

The consultation was participated in by technology generators/developers/project leaders from the Regional Field Units (RFUs), Regional Integrated Agricultural Research Centers (RIARCs), Bureau of Fisheries and Aquatic Resources-Regional Fisheries Research and Development Centers (BFAR-RFRDCs), and UP Public Administration Research and Extension Service Foundation, Inc.-National College of Public Governance and Administration-Center for Local and Regional Governance (UPPAF-NCPAG-CLRG) that facilitated the activity in coordination with the TCU.

Ms. Digna L. Sandoval, TCU coordinator, presented an overview of the activity. The meeting served as a venue where potential technologies on crops, livestock and poultry, fisheries, and aquaculture are evaluated for inclusion in the final list of technologies that will be presented in the regional technology forum. The criteria and guidelines for technology selection were likewise presented together with the standard

format of presentation.

The following are the technologies to be presented for the 1st regional techno forum on 30 May 2007 at the Convention Center, Provincial Capitol, Pili, Camarines Sur: (1) Waxing emulsion for "Queen" Pineapple of UPLB; (2) Dehydrated Formosa Pineapple of DA-BIARC; (3) Formosa Pineapple Handmade Paper of DA-BIARC; (4) Handwoven Formosa Piña Cloth of DA-BIARC; (5) Artificial Fish Egg Incubator for Intensive Tilapia Hatchery of BFAR-Region V; (6) Village-level cashew-apple processing of Region IV-B; (7) Technology Management Enhancement of Lanzones Production of Region IV-A; and (8) Technology on Tamarind wine of Region IV-A.

These technologies have passed the criteria set by the evaluators. These were based on the evaluation of the Research and Development Team. The evaluation was focused on technology, intellectual property protectability, and commercialization potential.

The second consultation meeting will be held for Luzon Cluster A (CAR, Regions I and II) on 9-11 May 2007 in Baguio City in preparation for the forum proper on 15 June 2007. This would be followed by the third (Mindanao cluster) and fourth (Visayas cluster) consultation meetings on 27-29 June in Cagayan de Oro and 25-27 July 2007 in Tacloban City, respectively.

Technology forum proper is scheduled on 23 August 2007 for Mindanao Cluster and 4-5 October 2007 for Visayas Cluster. (Ma. Eloisa E. Hernandez)