BAR sets new R&D directions;
focuses projects for poorest provinces

Photo by NDELOSARIO

BAR Dir. Nicomedes P. Eleazar delivers key points to consider in crafting BAR's plans for 2007.

In line with the anti-poverty initiatives of the Department of Agriculture (DA), the Bureau of Agricultural Research (BAR) has set new agriculture and fisheries R&D directions, particularly in the creation of projects that have great impact on the poorest provinces of the country.

This was announced by BAR Director Nicomedes P. Eleazar at the "BAR Year-end Review and Annual Planning Workshop" held on 24-26 January 2007 in Antipolo City.

In the planning of the programs and activities, Dir. Eleazar reminded the staff to refocus the research and development (R&D) agenda and programs to prioritize the depressed areas in the country without setting aside the DA's twin goals and the nine priority areas in R&D.

The twin goals of DA include: 1) identify and pursue agribusiness development of 2 million hectares of agriculture and fisheries areas; and 2) reduce costs of wage goods through productivity enhancement, more efficient logistics, and improved retailing linkage.

Priority commodities for Goal 1 are coconut; high value commercial crops (HVCC) such as mango, and vegetables; sugar; abaca; corn; livestock; fisheries. The priority commodities for Goal 2 include rice, yellow corn for feeds, pork, chicken, egg (chicken), tilapia, bangus, vegetables (*chopsuey* for upland and *pinakbet* for lowland) for Priority 1 (or wage goods), while mango, pineapple, abaca, and rubber comprise the Priority 2 focusing on the export winners, and the regional champions for Priority 3.

The nine priority areas in R&D are conduct of basic and strategic research (upstream research); commercialization of appropriate technologies; intensification of Community-based Participatory Action Research (CPAR); establishment of agribusiness development projects (ADPs) in the regions; intellectual property management; human resources development program; R&D facilities development program; knowledge products and services program; and information communication and technology program.

In other policy-related directives, Dir. Eleazar announced the involvement of BAR in the establishment of a biofuel one-stop shop to be established at the DA main office. This is in relation to the recently enacted Biofuels Law.

Related to the biofuel program, he instructed the regional coordinators of BAR to identify areas for sweet sorghum production as intercrop with the poorest provinces of the country as priority areas for the field sites. *(Rita T. dela Cruz)*

PGMA supports...from page 1

sorghum for two cropping seasons ranged from P65,000 to P72,000 per hectare.

The recommended capacity for any distillery of ethanol is 270 days. The combined milling and distillery operations for sugarcane takes only 150 days.

One strategy would be to use the slack period of 120 days for the milling of sweet sorghum. This will mean added income for the sugarcane farmers.

"Thus, overall, there are bright prospects in growing sweet sorghum, not only as feedstock for ethanol production, but also as food and feedgrain," noted Dar.

He further averred: "The commercialization and massive planting of sweet sorghum augur well for our country, as President Arroyo recently signed into law the Biofuels Act, mandating the use of ethanol-blended gasoline and biodiesel."

Dar also commended Secretary Yap of DA for initiating the first technology investment forum on sweet sorghum for ethanol on 19 January. The forum attracted stakeholders and prospective Filipino and foreign investors."

One investor is Rusni Distilleries, which was incubated at the Agri-Science Park at ICRISAT and recently put up the world's first sweet sorghum-fed ethanol plant in Andra Pradesh. Dar said the distillery has a capacity of 40,000 liters a day, and required an initial investment of US$8.5 million. It started operating in October 2006.

The Agri-Science Park at ICRISAT is a hub for strategic public-private partnerships to enhance the development and commercialization of ICRISAT's innovations to ultimately benefit the poor. It was established as part of the Genome Valley initiative of the Government of Andhra Pradesh.

Five local and foreign companies have signed up with Rusni Distilleries and ICRISAT to use the multi-feedstock distillery system, including the use of sweet sorghum hybrids. The companies are eyeing Ilocos Region, Cagayan Valley, Central Luzon, Southern Tagalog, and the Visayas as sites of the distilleries for ethanol production using sweet sorghum.

Such development would indeed benefit tens of thousands of farmers and their families in Northern Luzon, where production trials have been successful--as they would have a viable cash crop in sweet sorghum, and also as source of food and feed.

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PGMA supports sweet sorghum for bioethanol

President Gloria Macapagal-Arroyo has given her blessing and full support for the commercialization of the planting of sweet sorghum as a viable and sustainable source of bioethanol.

The chief executive also instructed Agriculture Secretary Arthur C. Yap to assist prospective investors in identifying appropriate areas in the country where they could locate and engage in the commercial planting of sweet sorghum and establish ethanol distilleries.

"In fact, President Arroyo has accepted an invitation to visit the Mariano Marcos State University (MMSU) in Batac, Ilocos Norte, where the Department of Agriculture (DA) through the Bureau of Agricultural Research (BAR) has been conducting sweet sorghum production field trials," said former Agriculture Secretary William Dar, now director general of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) based in Andhra Pradesh, India.

ICRISAT DG William D. Dar handshakes with PGMA during a briefing at the Malacañan Palace on the potential of sweet sorghum for biofuel production.

ICRISAT is one of 15 international centers of the Consultative Group on International Agricultural Research (CGIAR). ICRISAT conducts innovative agricultural research and capacity building with a wide array of partners in 48 countries to help alleviate hunger and poverty and protect the environment of the dry tropics.

"She also accepted an invitation to visit India and ICRISAT in April this year," added Dar, who along with ICRISAT officials and Indian investors recently met with President Arroyo and Secretary Yap in Malacañang.

Early last year, President Arroyo received from Indian President APJ Abdul Kalam several kilos of foundation seeds of sweet sorghum developed by ICRISAT. Immediately thereafter, with funding from BAR and the Commission on Higher Education (CHED), MMSU went on to field-test eight varieties, of which five have been adopted locally.

Dar said field tests of sweet sorghum in MMSU have shown encouraging results.

The average yield is 110 tons per hectare for two cropping seasons in eight months (one main crop followed by one ratoon crop). The yield of sweet sorghum is higher with a much shorter cropping season (one cropping season for sugarcane is 12 months compared to four-month cropping season for sweet sorghum), and it also requires less inputs especially water compared to other bioethanol sources.

Furthermore, sweet sorghum has a total grain yield of 7.2 t/a from two crop harvests. The net income from sweet

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DA sets direction in support to BioFuels Law

The Technology-Investment Forum on Sweet Sorghum for Ethanol Production held on 19 January 2007 at the BSWM Convention Hall, Elliptical Road, Diliman, Quezon City was well attended and successful activity. This can be primarily attributed to the full support of DA Secretary Arthur C. Yap, Director General William D. Dar of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and BAR Dir. Nicomedes P. Eleazar, and the participation of the private sector including businessmen and investors, academe, regional research and development center managers, government and non-government agencies and other key stakeholders.

Highlighting the Department of Agriculture's support to Republic Act 9367, also known as the Biofuels Act of 2006 signed by President Gloria Macapagal-Arroyo on 12 January 2007 during the ASEAN Summit in Cebu City, Philippines, Secretary Yap emphasized that DA's programs on the production of biofuels will be technologically available and increase job opportunities to individuals.

With the identification and intensification of existing and alternative crops such as sugarcane, cassava, jatropha, and sweet sorghum, DA will be all out in making agriculture an image of energy source. In so doing, he proposed three initial activities to be instituted in the department. These are the creation and establishment of a biofuel group to oversee the coordination and management of biofuel programs and activities; encourage and seek the assistance of the "veterans" to support DA initiatives (veterans are retired DA officials whose enthusiasm and dedication are still up on issues confronting farmers and fisherfolk including areas in research and development and agriculture development as a whole); and a regular forum that will strengthen DA activities attractive to investors domestically and globally.

Moreover, Secretary Yap pointed that out that there will be a shift in the DA's development paradigm, particularly on sweet sorghum, as the initial crop for biofuel; improve other conditions in support of this initiative and enhance market activities that increase profit and improve product quality for a sustainable program. *(Marlowe U. Aquino, Ph.D.)*

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Dr. Aquino is new MISD head


Photo by RDELACRUZ

The Management Information Systems Division (MISD) of the Bureau of Agricultural Research (BAR) has a new head in the person of Dr. Marlowe U. Aquino. He succeeded Rudy L. Galang, who is now the coordinator for plantation crops at the Technology Commercialization Unit (TCU).

Marlowe, known to his friends as *Mauchi* is a free-spirited and energetic individual who immediately makes his presence known in a group. He is noted for his "other" talents in singing and dancing.

He enjoys weeknight stress reduction activities like playing tennis, badminton, or volleyball.

Dr. Aquino completed his BS degree in Agricultural Education at the Benguet State University (BSU) in 1987 with honors and his MS in Agricultural Education in 1993. In 2005, he finished his Doctor of Philosophy in Community Development and Social Forestry at the University of the Philippines Los Banos (UPLB) with an Academic Excellence Award.

He started working at the Bureau as a junior technical staff worker and rose from the ranks. He is one of the youngest staff members to be appointed as senior agriculturist at BAR.

In 2006, he received a citation award from BAR as outstanding employee (supervisory category) for his contribution and devotion to his work.

Prior to his appointment as head of MISD, he was the head of the Technology Commercialization Unit (TCU) of the Bureau wherein he initiated the mobilization of the technology commercialization activities of BAR with the leadership of Dir. Nicomedes P. Eleazar.

Being head of the MISD is not new to him as he was also the former division head of the then, Knowledge Products and Services Division (KPSD) under the management of former Director Eliseo R. Ponce.

It was during his time that the two major publications of the Bureau, BAR Chronicle and BAR Today (now the BAR R&D Digest) started running.

As he takes the helm once more, he plans big things for MISD ans is persistent to realize all of them in the coming months.

His working philosophy for his new found assignment: "*Our key to effective teamwork is communication When in doubt - ask, when in trouble - seek help, when in need - search for information, and when praise is given appreciate, acknowledge, and share.*" *(Ma. Eloisa E. Hernandez)*

e-Learning program:
A convergence for A/F development

by Marlowe U. Aquino, Ph.D.

Consider it as response to the cyber and information technology age, the e-Learning Program is a new means that would address the emerging trends and developments in agriculture and fisheries. This was the basis why the e-Learning Program was conceptualized using information communication and technology strategies for agriculture and fisheries development.

Started from the learning and experiences of the Open Academy of Philippine Agriculture spearheaded by the Philippine Rice Research Institute (PhilRice) specifically for rice and as a strategy to improve the Philippine Extension System, the e-learning Program was elevated to a more interactive and reliable modality for agriculture and fishery key players at the local level. It was viewed as an alternative mechanism to bring forth a better avenue for information and knowledge exchange activities at the same time for dynamic and integrated information acquisition by farmers, fisherfolk, local government units and other stakeholders.

The e-Learning Program envisions to establish and institutionalize a network of institutions providing efficient and effective e-learning (information and knowledge) management system for agriculture, fisheries, and natural resources sectors. The program is participated in by PhilRice, DA-Bureau of Agricultural Research (DA-BAR), DA-Agricultural Training Institute (DA-ATI), DOST-Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), and the DA-Information Technology Center for Agriculture and Fisheries (DA-ITCAF).

The objectives of the program are: 1) to enhance the e-learning management system of the AFNR sectors; 2) to integrate and harmonize e-learning services of various institutions; and 3) to empower the stakeholders in agriculture, fisheries, and natural resources on the value of e-learning products and services. These objectives will be attained through the different activities of the agencies involved, particularly on content development, infrastructure and systems development, capacity building, social mobilization, and program management.

For the first semester of 2007, the agencies will prepare the content and develop the priority commodities such as corn, bamboo, small ruminants, and organic fertilizer to be handled by PCARRD; tilapia, prawn, seaweeds and coconut for DA-BAR; rice and rice-based technologies for PhilRice; while DA-ATI will synthesize and integrate the content buildup and maintenance of e-learning modules including translation into local languages and dialects, and administration of e-learning courses.

DA ITCAF will host the web portal and provide software applications systems.

All activities will be coursed through the different regional consortia, regional integrated agriculture and fisheries research and development center, regional training centers, selected state universities and colleges, and branch stations for commodity institutes.

Based on the identified activities, the participating agencies will have a unified approach in disseminating research and development information, breakthrough and technologies through information and communication technology strategies.

Also, resources and initiatives will be co-shared by the involved agencies to ensure that the program will be sustainable and reliable for effective and efficient delivery of services. From these initiatives, the agencies believe that the long-awaited convergence to support the agriculture and fisheries

BAR programs address poverty-stricken areas

As the Bureau of Agricultural Research (BAR) moves to become more responsive and dynamic, its programs and activities for 2007 are more attuned to address pressing issues and concerns on agriculture and fisheries development.

Based on the pronouncements of President Gloria Macapagal-Arroyo on the development of mega regions and Department of Agriculture (DA) Secretary Arthur C. Yap's development pillars, the Bureau is all set to enhance its activities and provide support on poverty-stricken areas in the country. Given the challenge, research and development efforts are focusing on commodities that highlight sufficient and sustainable food and nutrition, efficient production systems, processing of raw materials, including postharvest activities and marketing of quality products.

Through the two major programs, particularly the intensification of the community-based action research and the commercialization of appropriate technologies, BAR is very optimistic that it will come up with more location-specific, commodity-based, and community-based strategies in the preparation of projects for the poorest provinces. The programs and projects is in make R&D responsive and dynamic and visible on appropriate planning, implementation, monitoring and evaluation supporting interactive and participative approach at the ground level.

To do this, BAR Director Nicomedes P. Eleazar created a team to assist in program development for the provinces of Maguindanao, Zamboanga del Norte, Lanao del Norte, Masbate, Mountain Province, Surigao del Norte, Agusan del Sur, Zamboanga Sibugay, Camarines Norte, and Sarangani.

The team is composed of technical experts and specialists in different fields in crop, livestock, fisheries, social and economic development, including agribusiness and marketing. Also, the team will ensure that regional concerns are addressed through technology

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Sweet sorghum to play major role in RP's drive for energy independence and agri job promotion

"Sweet sorghum is going to be a major player in the country's drive towards energy independence because of its many uses."

Thus, declared Agriculture Secretary Arthur C. Yap at the Technology-Investment Forum on Sweet Sorghum for Ethanol Production, held on 17 January 2007 at the Fernando Hall, Bureau of Soils and Water Management (BSWM), Visayas Ave., Diliman, Quezon City.

The investment forum was conducted and organized by the Bureau of Agricultural Research (BAR) in collaboration with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT). ICRISAT is a non-profit, non-political organization based in India that does innovative agricultural research and capacity building for sustainable development with a wide array of partners across the globe, including the Philippines.

"With sweet sorghum, nothing is wasted, Secretary Yap said. "From sweet sorghum comes the biofuel that will produce the energy to support our drive for energy independence. From its grains to its stalks, everything is utilized as human food, feeds, and forage."

Recently, talks on biofuels drew worldwide attention and recognition owing to the increased economic activity and the ever-growing population that have resulted in an unprecedented exhaustion of our primary energy demand specifically for industrial and transportation uses.

Secretary Yap noted that the timing was right, because every country is now paying attention to the issue of energy and alternative energy sources.

The newly-enacted Biofuels Law signed by President Gloria Macapagal-Arroyo on 12 January during the recently concluded ASEAN Summit, is the most important legal mechanism that would support the adoption of biofuels as a viable alternative, he stressed.

The DA official further said that the production of sweet sorghum will also provide opportunities for the country particularly in creating more jobs for the agriculture sector. The implementation of the law will boost the biofuel industry since many private investors will be putting up the ethanol refineries in the country.

ICRISAT Director General William D. Dar, a former DA Secretary, also said: "Through an established pilot plant for the ethanol production, we aim to link established sweet sorghum distilleries with the local farmer-producers. This way, continuous production and generation of income are ensured."

It is hoped that through the technology-investment forum, concerned stakeholders will become aware not only of the potentials of sweet sorghum as alternative source of biofuel but also for the public to know that the technology is ready for adoption and that support equipment and facilities are already in placed.

This concurs to what Secretary Yap had earlier said that the technology is available and that funding and support are ready. According to Dr. Dar, the sector has lots of opportunities that must be taken full advantage of, given that the technology is available, the machineries and equipment for support to process these raw materials are there, and that the private sector is willing to invest. *(Rita T. dela Cruz)*

New livelihood opportunities for farmers in watershed areas

Upland degradation is one of the emerging environmental issues being faced by the Philippines today. To resolve and prevent further ecological imbalance resulting in poverty, unemployment, poor health and sanitation, the Department of Agriculture-Bureau of Agricultural Research (DA-BAR), in collaboration with Bureau of Soils and Water Management (BSWM), came-up with a project titled *Community-Based Watershed Management Approach in Improving Livelihood Opportunities in Selected Areas.*

In the First-Regular Meeting and Writeshop conducted on 10-11 January 2007 at the Ilocos Sur Polytechnic State College, Sta. Maria, Ilocos Sur, the project's accomplishments and outputs were presented to the group.

The project aimed at improving livelihood opportunities through community-based watershed management. Four selected areas were enumerated for project implementation, namely: Sta. Maria, Ilocos Sur; San Clemente, Tarlac; Doña Remedios Trinidad, Bulacan; and Talibon, Bohol.

Based on the rationale of the project, it can be noted that "promotion of integrated watershed development approach through active participation of local people is considered essential in conserving and protecting the natural resourced in the country".

Furthermore, the project is expected to generate employment utilizing natural resources-based technologies, train farmers and establish techno-demonstration farms on sustainable watershed management, and develop materials for broader adoption of soil and water conservation and management technologies encouraging number of adaptors.

To date, the group has conducted validation and ocular visits of project sites, consultation meetings with stakeholders, farmers' training on soil and water conservation, field survey and mapping, technology demonstration, agro-meteorological station and small farm reservoir, nursery and bunkhouse.

The two-year project is expected to be completed by May 2007 are also being worked at by the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); Federation of Free Farmers (FFF); DA-Regional Field Units I, III, and VII; and the Local Government Units (LGUs). *(Ma. Eloisa E. Hernandez)*

High-yielding crops from China tested for Philippine soil; adoption of super sweet corn and soya bean considered

Photo by RDELACRUZ

A Chinese farmer at the ATDC shows a super sweet hybrid corn from China.

High-yielding crops developed by the Crops Research Institute of the Guangdong Academy of Agricultural Sciences (CRI-GAAS) are now being tested for Philippine suitability at the Agricultural Technology Development Center (ATDC) in Barangay Mawaque, Mabalacat, Pampanga.

ATDC serves as the show window for other regions in the Philippines to promote the technology on high-yielding crops. After two years of its implementation, the center/techno-demo farm was visited by a group of scientists from China on 24 January 2007.

Among the high-yielding crops from China tested for Philippine soil suitability at the ATDC are bitter gourd, patola, stringbeans, cauliflower, tomato, soya beans, pepper, and sweet corn.

This establishment of the Center is part of the China-Philippines agri-sciences cooperation which jumpstarted in 2005 through a collaborative project between the Federation of Filipino-Chinese Chambers of Commerce and Industry, Inc. (FFCCCII) and the Bureau of Agricultural Research (BAR) and its regional R&D partnersthe Pampanga Agricultural College (PAC) and Central Luzon Integrated Agricultural Research Center (CLIARC). The Federation also taps scientists and experts and from GAAS to work closely with their counterparts in the Philippines to oversee the trials.

On the part of the Philippines, the project is a strategy to expedite the country's agricultural and economic development. The project promotes agricultural modernization by providing effective agricultural equipment and facilities, and varietal adoptability testing of high-yielding varieties from China.

Aside from providing employment opportunities to rural communities, the project also provides opportunities for local and foreign investors to invest in agribusiness and to recommend policies that provide concrete directions for agriculture.

For China, the collaborative effort is its strategy of "Going to the World" wherein it extends its developed high-yielding varieties to partner-countries like the Philippines.

Present during the technology-demonstration visit were Mr. Elpidio Duca, director/auditor and adviser of the Agricultural and Natural Resources Committee of the FFCCCI, and BAR Director Nicomedes P. Eleazar.

During the visit, Dir. Eleazar identified high-yielding crops that the Philippines could adopt for agricultural production, namely: Yuetian #13 also known as the super sweet corn hybrid and two high-yielding varieties of soya bean (Huaxia #13 and Huachun #1). These crops were identified as priority commodities of the Department of Agriculture (DA) under the leadership of Secretary Arthur C. Yap.

Mr. Zhang Yanrong, researcher from GAAS and overall-coordinator of the techno demo farm, said that Yuetian # 13 or the super sweet corn hybrid is a short plant that is easy to manage owing to its resistance to diseases and tolerance to extreme weather. It has also a superb quality, taste- and appearance-wise. The two varieties of soya beans are not only suited for Philippine soil but are also cheaper to produce compared to the variety that the country is currently producing. *(Rita T. dela Cruz)*

Linking SCUs...from page 5

the agriculture industry should join in this task. Private sectors will move the biofuel industry in the Philippines. "We want to transform the smallholders from self-sufficient level of farming to commercial farming, and by doing the partnership we shall be able to do more works for the country," Dr. Dar added.

Papers presented were (1) Prospects and Potentials of Pigeon pea for Soil Conservation and Cash Crop in the Philippines (Dr. Saxena), Sweet Sorghum for Ethanol; The ICRISAT and Rusni Experience (Dr. Reddy and Mr. Swamy) and Enhancing Livelihood and Income Opportunities Thru Community Watershed Management (Dr. Mula).

The forum was attended by the MMSU faculty and staff, students and researchers, DA-Regional Field Units (DA-RFUs), DA-Regional Integrated Agricultural Research Centers (DA-RIARCs), other State Colleges and Universities (SCUs), non-govenrment organizations (NGOs), Provincial Agriculturists and the local government units (LGUs). *(Ma. Eloisa E. Hernandez)*

Chinese scientists visit RP for agri-sciences cooperation

Photo by NDELROSARIO

(L-R) CRI-GAAS Director Zheng Jinrong, FFCCCII Director Elpidio Duca, BAR Director Nicomedes Eleazar, DOST-Guangdong VP Ma Xianmin, and GAAS VP Cao Junming.

A delegation of Chinese scientists and researchers has recently visited the Bureau of Agricultural Research (BAR) for a briefing on priority programs of the Philippine Department of Agriculture (DA).

The visitors, all officials and professors of the Department of Science and Technology (DOST)-Guangdong and Guangdong Academy of Agricultural Sciences (GAAS) were briefed by BAR Director Nicomedes P. Eleazar on 24 January 2007 at the Research and Development Management Information Center (RDMIC) Bldg., Visayas Ave., Diliman, Quezon City.

Heading the delegation were Mr. Ma Xianmin, vice-president of DOST-Guangdong Province, and Dr. Cao Junming, vice president of GAAS. Other scientists present included Mr. Zheng Jinrong, director of the Crop Research Institute (CRI) of GAAS; Mr. Zhang Yanrong, associate professor of CRI-GAAS; Mr. Dong Ming, section chief of the International Cooperation Division, DOST-Guangdong; Dr. Chen Jin Can of GAAS; Mr. Han Fuguang of GAAS; and Ms. Sun Ling, professor and section chief of the science and technology division, GAAS.

In the briefing, Director Eleazar presented R&D priority commodities in line with DA's twin goals and the R&D priority areas of concerns of BAR, particularly on its banner programs on technology commercialization, Community-based Participatory Action Research (CPAR) intensification, establishment of agribusiness development projects, and conduct of upstream researches. The twin goals of DA include: 1) identify and pursue agribusiness development of 2 million hectares of agriculture and fisheries areas; and 2) reduce costs of wage goods through productivity enhancement, more efficient logistics, and improved retailing linkage.

Mr. Ma Xianmin expressed optimism on the possibility of future collaboration with the Philippines through BAR, particularly on its priority crops which, according to him, do not differ from China's priority crops. He also mentioned that even the weather and soil in the Philippines are like that in Guangdong.

The possibility of forging ties with the Philippines through BAR also received a nod from Dr. Cao Junming. He mentioned further collaborative efforts and alliance, particularly on agri-sciences cooperation between two countries.

After the briefing at BAR, the group visited the agricultural technology development center (ATDC) in Barangay Mawaque, Mabalacat, Pampanga.

This agricultural demonstration farm serves as field trial for high-yielding crops from China which are tested for Philippine suitability. The project is part of an earlier agri-sciences cooperative effort between China and the Philippinesa strategy of "Going to the World" in agricultural area.

The project is an initiative of the Federation of Filipino-Chinese Chambers of Commerce and Industry, Inc. (FFCCCII) in coordination with BAR through its partnersPampanga Agricultural College (PAC) and Central Luzon Integrated Agricultural Research Center (CLIARC). The Federation taps scientists and experts from GAAS to work closely with its local counterparts in the Philippines.

Also present during the activities were Mr. William Co, Philippine agriculture attaché to China, and Mr. Elpidio Duca, concurrent director/auditor and adviser of the Agricultural and Natural Resources Committee of the FFCCCI. *(Rita T. dela Cruz)*

BAR programs...from page 7.

demonstration, use of geographic information system suitability maps of identified commodities, participatory approaches to development, and stronger partnerships with local government units, partner agencies, and stakeholders.

Furthermore, the newly created team will be sent to the field to assist the local development officers including provincial and regional R&D staff, to come up with appropriate and workable projects that will improve the living conditions of the people at the same time create product niche to increase production and profit of those engaged in the production of the priority commodities in the identified areas.

The team will start working first week of February 2007 and project implementation will start immediately after documents and financial arrangements are in order. *(Marlowe U. Aquino, Ph.D.)*

Scientists from ICRISAT visit MMSU sweet sorghum pilot-sites

"Sweet Sorghum production is a job-creation investment." Thus stated Director General William D. Dar of the International Crops Research Institute for the Semi-arid Tropics (ICRISAT) during the field visit to some farms in Northern Philippines spearheaded by Department of Agriculture-Bureau of Agriculture Research (DA-BAR) from 15 to 19 January 2007.

Dr. Dar, together with Dr. Belum S. Reddy (ICRISAT principal scientist on sweet sorghum), Dr. K.B. Saxena (ICRISAT principal scientist on pigeon pea), Dr. Rosanna Mula (Benguet State University) , Dr. Santiago R. Obien (DA-BAR) and staff from DA-BAR Management Information System Division (MISD) visited the Mariano Marcos State University (MMSU) in Batac, Ilocos Norte and some farms in Pangasinan and Ilocos Region. MMSU serves as the pilot-site for seed trials on sweet sorghum.

The group first visited Rosales, Pangasinan, under the leadership of Mayor Ricardo Revita. Mr. Rod Valentine from Biofuel Energy, a private sector in Australia, is eyeing Rosales for an establishment of the first distillery in the Philippines. He looks forward to improving the quality of life of people in Rosales through the project. The distillery developed in the community will also provide them health and educational needs. Another LGU counterpart showing interest in the project is former Rep. Eric P. Acuña of Villasis, Pangasinan.

One promising intervention in Ilocos Norte is the village-based mill located in Barangay Bungon, Batac, Ilocos Norte. A commissioning was held on the *Barangay-based* sweet sorghum cane mill. Products include ethanol, vinegar, jaggery, syrup, cookies, and popgrain. These would later be tapped for seed production. The LGUs also extended their support to the project.

Dr. Flora Gagni, DA OIC-regional executive director for Region I, presented the current status of the Ilocos region. Dr. William D. Dar looks forward to the inclusion of sweet sorghum, pigeon pea, and peanut in the list of priority commodities under the high-value commercial crops.

In an interview with Dr. Dar, the ICRISAT official shared that local farmers benefit the most from this "joint-venture model" to be established by the investors. These farmers, the smallholders, will serve as partners of the investors. "Farmers will benefit tremendously because with two cropping seasons of sweet sorghum a year, they can generate a minimum of P50,000 net income and a maximum of P65,000," Dr. Dar said.

With the existing techniques on the adoption and testing activities with regards to sweet sorghum, two varieties that have good potentials for commercial venture have been identified.

This is where the national research systems come into picture. DA-BAR, MMSU, and PCARRD in tandem with the local government units (LGUs) along with ICRISAT will develop promotional strategies to expand sweet sorghum production in the country. With this, Dr. Dar said "In the end, we want our smallholders to benefit from this project not only the investors." The requirement for labor will create jobs in the area. As has been said, it is a "job-creation investment" which helps farmers increase their income.

"I am a Filipino, and I want Philippines to benefit after India and Uganda," Dr. Dar concluded. *(Ma. Eloisa E. Hernandez)*

Photos by MEHERNANDEZ

Dr. Belum S. Reddy, ICRISAT principal scientist on sweet sorghum

(L-R) MMSU Vice President Heraldo Layaoen, ICRISAT Principal Scientist on Sweet Sorghum Belum Reddy, MMSU President Miriam Pascua, and ICRISAT Director General William Dar.

Linking SCUs in commercializing technologies

To further promote biofuel as a major source of alternative fuel in the Philippines, Mariano Marcos State University (MMSU) conducted the *Symposium cum Investment Forum on Biofuel and Environment Protection* last 17 January 2007 at Teatro Ilocandia, MMSU, Batac, Ilocos Norte.

Dr. Nancy GB Balantac, MMSU Vice-President for Academic Affairs, gave the opening remarks. She encourages strengthening active participation in collective efforts. Dr. Miriam E. Pascua, MMSU President, welcomed the participants. She pointed out that with the help of ICRISAT, MMSU envisions the establishment of a research center in biofuel in MMSU in the near future. "This is in support of the government's thrust of keeping the country's dependence on expensive oil imports and increase its energy-sufficiency," she added.

Dr. Dar, in his message, highlighted the blessings of hope and faith, science and technology and partnership. He said, adding that the big players in

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