



**BAR**  
BUREAU OF  
AGRICULTURAL  
RESEARCH

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# Magsaysay signs MOA for project on exportable crop varieties



Senator Ramon B. Magsaysay Jr., (center, front row) signs MOA on the BAR-PARRFI project. Other signatories include: BAR Dir. Nicomedes P. Eleazar (left) and PARRFI President Ramon V. Valmayor (right). Witnessing the signing are (L-R): PARRFI Vice-President Versalynn Roa, Dr. Benito Vergara of Mama Sita Foundation, Inc., BAR Accountant Roberto Quing Jr., BAR Planning Unit Head Joell H. Lales, PARRFI Accountant Helen Amurao, and PARRFI Executive Assistant Marinela Anonas.

photo by MMOJICA

Sen. Ramon B. Magsaysay Jr. led in the signing of a memorandum of agreement (MOA) to support the project, "Collection, evaluation, and utilization of exportable agricultural products" with the Department of Agriculture's Bureau of Agricultural Research (DA-BAR) and the Philippine Agriculture and Resources Research Foundation, Inc. (PARRFI), 21 Nov. 2006, at the GSIS Bldg., Financial Center, Roxas Blvd., Pasay City.

Mr. Nicomedes P. Eleazar, director, DA-BAR; Dr. Ramon V.

Valmayor, president, PARRFI, and Senator Magsaysay are the signatories of the MOA. Witnessing the signing were Ms. Versalynn N. Roa, vice-president, PARRFI; Dr. Benito S. Vergara, Mama Sita Foundation, Inc.; Mr. Roberto Quing Jr., accountant, DA-BAR; Mr. Joell H. Lales, planning officer, DA-BAR; Ms. Helen Amurao, accountant, PARRFI; and Ms. Marinela F. Anonas, executive assistant, Office of Sen. Ramon Magsaysay Jr.

The five-year project aims to collect outstanding new varieties of selected crops developed in other

countries and those indigenous in the Philippines. It will evaluate the new varieties for adaptability and productivity so it can provide stock materials for large-scale production in the country. It is expected that the introduction of selected cultivars of fruit crops and anthurium (cutflower) will contribute to the large-scale agricultural production that would cater to the export market.

PAARFI is a private corporation that assists public and private institutions engaged in research and development (R&D) in agriculture, forestry, and natural resources. DA-BAR is the coordinating and funding agency mandated by the government to plan, monitor, and evaluate agriculture and fisheries R&D. Senator Magsaysay, head of the Congressional Oversight Committee on Agriculture and Fisheries Modernization (COCAFAM), promotes modernization and entrepreneurship in agriculture and fisheries in the country. (Miko Jazmine J. Mojica, DA-BAR)

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## BAR Chronicle

The official monthly publication of DA-BAR

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**BAR Chronicle** is the official monthly publication of the Bureau of Agricultural Research (BAR) of the Department of Agriculture (DA), which is mandated to ensure that all agricultural research is coordinated and undertaken for maximum utility to agriculture.

It provides regular updates on BAR's activities as the country's national coordinator for agriculture and fisheries; and features and news and articles concerning NaRDSAF-member institutions.

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## BAR Asst Dir Solsoloy attends consultation on agri'l innovations

**B**ureau of Agricultural Research (BAR) Assistant Director Teodoro S. Solsoloy attended the *Expert Consultation on Agricultural Innovations: Linking Farmers to Market (LFM)*, 6-7 November 2006 at the National Agricultural Science Center (NASC), Indian Council of Agricultural Research, New Delhi, India.

The two-day consultative meeting was divided into five sessions, namely: (1) Enabling Policy Framework for Agricultural Innovations to LFM; (2) Best Practices of Agricultural Innovations (Farmers, Institutions and Entrepreneurs); (3) Donors' Perspective on LFM; (4) Working Group Discussions on LFM; and (5) The Role of Emerging Technologies (Biotechnology, ICT, Postharvest Technology) in LFM.

Dr. Raj S. Paroda, executive secretary, Asia-Pacific Association of Agricultural Research Institutions (APAARI), welcomed the participants. In his speech, he stressed that "LFM is the key for increasing income of poor farmers in the Asia-Pacific region and thereby alleviating poverty-being one of the major goals of all developing countries". He added that postharvest technologies and management lead to tremendous opportunities for increasing both on-farm and off-farm incomes-linking farmers to the market.

In the opening remarks delivered by Professor HPM Gunasena, APAARI chairman, he pointed out that "LFM would demand greater R&D efforts in agriculture linked to postharvest, agricultural diversification around low-volume-high-value crops or products, market intelligence and ICT for knowledge management and dissemination".

During Session IV, Dr. Solsoloy served as co-chair for the

group on "Enabling Policy Environment". The group was composed of the National Agricultural Research System (NARS), Consultative Group on Agricultural Research Institutions (CGIAR), Food and Agricultural Organization (FAO), International Federation of Agricultural Producers (IFAP), non-government organizations (NGOs), donors, and other stakeholders.

The group was expected to come-up with 3 critical policy issues for retooling the NARS to address the LFM. In the presentation of Dr. Wilberforce Kisamba-Murgewa, director, ISNAR-IFPRI Program, he mentioned areas for transformation. These include change in basic objectives of R&D, public funding constraints, brain drain and attrition, need for impact orientation, recognition of pluralistic systems, enhancing smallholder competitiveness and decline of funding and service provision.

Policy implications enumerated were: (1) policies related to NARS internal efficiency and to attitudinal and cultural changes at all levels; (2) pluralism (networks and partnerships); (3) national policies on IPR, biotech and biosafety; (4) standards and quality and sustainability issues; (5) trade and market infrastructures (communication storage); (6) formation of organizations and collective action; and (7) regional approach and information sharing.

The event was participated in by stakeholders, namely: NARS, Integrated Area Research Centers (IARCs), Regional and Global Fora, Global Forum on Agricultural Research (GFAR), FAO, farmers' organizations, NGOs, private sector, donor representatives, and the youth. (Ma. Eloisa E. Hernandez)



## BAR consults nat'l partners on R&D agenda & programs for 2006-2010

The Bureau of Agricultural Research (BAR) through its Planning Unit (PU) held a two-day national consultation workshop with its national partners to update the R&D agenda and programs for 2006-2010 on 23-24 November 2006, Tagaytay City.

Specifically, the activity was held to discuss problems and emerging issues in the agriculture and fisheries sector, focusing on major/important commodities, prospects, and strategies which R&D can address. The output of the consultation workshop becomes the basis of BAR in the preparation of a demand-driven R&D agenda for the next five years.

Opening the activity was BAR Dir. Nicomedes P. Eleazar who acknowledged the efforts of the different sectors that attended the workshop in coming up with a unified scheme in prioritizing research. In essence, he mentioned that a more relevant and responsive agricultural research requires strategic choices and strong partnerships with other institutions. This can be done with the sectoral representatives from the agriculture and fisheries contributing to the effort.

Among the sectors represented during the activity include: plantation crops, rice, corn, fruits and vegetables, livestock and poultry, and fisheries and aquatic resources. These sectors were represented by Dr. Eugenio Alcala of the Philippine Rubber Research Center



photo by RDELACRUZ

(PhilRubber), Dr. Frisco Malabanan of the GMA Rice Program, Dr. Jesus S. Binamira of the GMA Corn Program, Ms. Jenny Remoquillo of GMA High Value Commercial Crops (HVCC), Mr. Pedro Ocampo of the Livestock Development Council (LDC), and Dr. Westly Rosario of the National Fisheries Research and Development Institute (NFRDI).

Highlighting the event are paper presentations of invited resource persons from the public and private sectors to provide inputs and directions in drafting and updating of the R&D agenda and programs. They were: Dr. Emil Javier of the National Academy of Science and Technology (NAST) who presented "Philippine Agriculture 2020"; Mr. Victorio Amante of the National Agribusiness Development

Center Foundation, Inc. who discussed "Private Sector Perspective on Agriculture and Fisheries R&D for the Next Five Years"; and Dr. Roberto Ranola, Jr. of the University of the Philippines Los Banos (UPLB) who lectured on "Major Socio-economic Issues Facing Agriculture and Fisheries R&D in the Next Five Years and Beyond: A Perspective".

The workshop outputs presented were consolidated and will become the basis for updating agenda and programs.

Prior to this national consultation, BAR conducted regional consultations and came up with the Regional RDE Prioritization, a compilation of immediate RDE needs of the sectors classified by commodity and by region. (Rita T. dela Cruz)

### ICRISAT...from page 4

The second topic of Dr. Sharma on public and private partnership was also beneficial for the Bureau, being the agency that coordinates and strengthens R&D in agriculture and fisheries in the country and formulates integrated RDE agenda and programs for both

the national and regional levels. Strategic alliances, whether among the agency's own sector or the private sector, play a crucial part in the RDE continuum.

ICRISAT, like BAR, operates through networking and institutional linkages. For it to operate, it must forge bond among institutions working in

R&D and use this tie to make the relationship work effectively for both ends. Through networking and alliances, the R&D community learns to work together and function as one.

Governed by this principle, the structure is able to work smoothly through the leadership of a coordinating body. This prevents duplication of efforts and waste of



## Propagation of genetically-modified buffaloes gears on

On 8 Nov. 2006, the Bureau of Agricultural Research's Director Nicomedes P. Eleazar met with Senator Ramon Magsaysay Jr. and Ms. Danilda Hufana-Duran of the Philippine Carabao Center (PCC) at the Senator's office in Pasay City to discuss updates of the project, "Propagation on genetically superior water buffaloes through embryo *in vitro* production (IVP) and embryo transfer (ET) techniques". The project's objective is to propagate genetically-modified water buffaloes by producing superior buffalo with embryos from India. The buffaloes of farmer cooperators in the country will be the recipients and surrogate mothers of the buffaloes that would be produced from the genetically-superior embryos. This will enhance rapid propagation and multiplication of buffaloes for milk, meat, and breeding purposes in the country.

In this meeting which was also attended by Ms. Digna Sandoval, one of

the coordinators of the National Technology Commercialization Program (NTCP), and Mr. Edwin Bacani, staff of Senator Magsaysay, updates of the projects were discussed and the group agreed to implement the project first in Batangas, Quezon, Pangasinan, Zambales, and in the provinces of Region III where the population of buffaloes is high.

It was in 2005 when Ms. Duran first presented the technology during BAR's 3<sup>rd</sup> Agriculture and Fisheries Technology Forum. The forum is a promotional activity undertaken by NTCP. The event was held during the week-long celebration of the National Research Symposium which BAR organized and where Senator Magsaysay was the guest of honor and speaker. The senator recognized the potential of PCC's project and supported its funding through BAR's NTCP.

By 2007, it is targeted that

about 386 genetically-superior calves will have been developed (193 females and 193 males). Ms. Duran said that the female buffaloes could produce milk and calves starting 2011. "The produced milk from 193 female buffaloes could be translated into P18.5 M per lactation while the calves could be worth P1.6 M," she said. PCC produces genetically-superior buffaloes using three major reproductive techniques, namely, *in vitro* embryo production, cryopreservation, and embryo transfer.

By the end of the project in 2008, the project will have created impact on communities by providing an alternative but sustainable source of income from raising buffaloes for their milk and meat. The projected increase in local milk and meat is seen to necessitate the establishment of dairy and meat enterprises and at the same time overcome malnutrition problems and enhance generation of employment and food security in the country.

BAR and PCC are set to coordinate with concerned local government units for the identification of farmer-cooperators in their respective areas and in the implementation of the project. (Miko Jazmine J. Mojica)

## ICRISAT scientist talks on recent R&D activities relevant to RP

Dr. Kiran K. Sharma, of the International Crops Research Institute for the Semi-arid Tropics (ICRISAT), visited the Bureau of Agricultural Research (BAR) to discuss some of the recent research activities and efforts conducted by ICRISAT which are relevant to Philippine agriculture R&D. His lecture was presented during BAR's Seminar Series, the fifth for this year, on 13 November 2006, RDMIC Lobby, Visayas Ave., Quezon City.

Specifically, his lecture comprised of two major topics: a) ICRISAT's recent research activities on transgenic crops; and b) a case study of ICRISAT's public and

private partnerships.

ICRISAT is one of the 15 international agricultural research centers supported by the Consultative Group on International Agricultural Research (CGIAR) that envisions to improve the well-being of the poor people in the semi-arid tropics.

ICRISAT has been pioneering in the field of transgenic crops which are particularly suitable for the tropics. Among their developed transgenic crops are the hybrid pigeonpea, pearl millet, *ASHA* peanut, and the sweet sorghum, which BAR is also adopting. The crops are not only suitable to Philippine

conditions but they also promise productivity and profitability to Filipino farmers.

BAR has a long-time partnership with ICRISAT making it one of its reliable international partners when it comes to adopting improved crops. This has made the Philippines an extension of ICRISAT's research benefits.

In the past, many of ICRISAT's prominent scientists have been granting the Bureau two to three hours of lectures on ICRISAT's latest research and innovations. These lectures proved to be beneficial not only in the implementation of BAR's priority programs but also in solving anticipated problems. BAR has become aware of their latest research efforts and developed technologies, and was able to learn from their experiences to the country's advantage.

see ICRISAT...page 3



## BAR participates in the 2006 Adivay Festival

This year's Adivay Festival proved to be more interactive and participative with emphasis on agriculture and tourism development. Adivay Festival is the Benguet Province's celebration of its founding year complete with promotion of food, dances, songs, culture and agriculture products through tourism activities. It is synonymous to the festivals supported by Department of Tourism in all regions. *Adivay* is a local term used to signify the gathering of all indigenous people to celebrate, similar to thanksgiving.

Moving towards a more dynamic program, Benguet province, which is celebrating its 106<sup>th</sup> founding anniversary, made sure that its agricultural products are promoted and commercialized through the establishment of new businesses with support coming from tourism enthusiasts.

The participation of the Bureau of Agricultural Research (BAR) was focused on its support role in the commercialization of Benguet products.

Highlighted during the event from 20 November to 02 December held at the Benguet State University (BSU) grounds were agri-industrial activities, farmer interaction and information exchange, fashion show, market encounters, technology forum, and tourism activities

like kayaking, mountain hiking and trekking, food discovery challenges and cookfest.

BAR triggered an increase on the level of awareness and competitive mood of stakeholders – farmers, researchers, academicians, processors, consumers and investors through lectures on commercialization and market challenges of selected high value commercial crops. Carrots and other major vegetables as fresh or processed products were discussed in terms of their potential in local and international markets. Also, future directions on commercialization were further discussed using an innovative approach – from farm to fork/plate making use of up-to-date technologies. The approach emphasizes on value adding of fresh produce through better post harvest handling, product development and food



photo by MAQUINO

processing. In addition, the establishment of partnership between the Benguet provincial government and private sector, like the DOLE Philippines, ensures stable markets of selected competitive agricultural products.

Moreover, the province of Benguet is reviving the silk industry and creating a market niche at the domestic and international arena. The Department of Agriculture – Fiber Industry Development Authority (FIDA) and silk industry stakeholders, believe that silk enthusiasts will make a difference in this part of the country because of their dedication, skill, creativity, competitiveness, and business attitude. Through FIDA's technical assistance, Benguet provincial government support and BAR's technology commercialization program, the potential of Benguet products and other Cordillera produce will surely create a niche in the market.

The event also showcased the BAR-BSU supported project on the commercialization of Cordillera products like potato, strawberry, ginger and other minor rootcrops that have comparative advantage through product development and commercialization activities including the establishment and development of enterprises and eventually agribusinesses. (Marlowe U. Aquino, Ph.D.)

### *Luzon...from page 9*

create an energy particularly fisheries because of the support now of Taiwanese investors in northern provinces of Ilocos Norte, Ilocos Sur, Cagayan and even Isabela. Japanese and Korean investors including their technologies are now felt in some Cordillera provinces wherein agriculture is the major economic activity. In Pangasinan, their dried mangoes are now getting recognition and are getting a niche in the markets in European countries. Sea urchins, milkfish and seaweeds are catching up because of the NLC's proximity to

nearby domestic and international markets.

Although the technology forum showed a direction for the three regions, much work needs to be done by the different stakeholders of development. Since this is the first within the cluster much is expected. Above all, this must be viewed as a learning experience and more development programs should be done to make the agricultural and fishery products more competitive and available to sustain food sufficiency. (Marlowe U. Aquino, Ph.D.)



# GFAR int'l confab reorients agri research



**T**he Global Forum on Agricultural Research (GFAR), a stakeholder-led initiative that serves as a neutral platform to discuss and act on strategic issues related to agricultural research for development (ARD), conducted the Triennial Conference on 8-11 Nov. at New Delhi, India. The event was attended by at least 400 participants from more than 50 countries representing National Agricultural Research Systems (NARS), agricultural research institutes and universities, the Consultative Group on International Agricultural Research (CGIAR), non-government organizations (NGOs), farmers' organizations, and the private sector.

The Government of India through its Department of Agricultural Research and Education (DARE), Union Ministry of Agriculture, and Indian Council of Agricultural Research (ICAR) hosted the conference with the theme, "Reorienting Agricultural Research to Meet the Millennium Development Goals (MDGs)". This year's conference focused on the contributions of ARD to the MDGs that make up the primary objectives of the Millennium Declaration adopted by the United Nations in Sept. 2000. This is a commitment of the international community to an expanded vision of development. The eight MDGs range from halving extreme poverty to halting the spread of HIV/AIDS and providing universal primary education by 2015. The foremost concern of the conference is MDG Number 1 which

aims to eradicate extreme poverty and hunger.

The conference addressed the need to re-orient agricultural research to meet the MDGs in a sustainable manner. One of its significant outputs was the provision of guidelines for the development of an ARD agenda (GFAR Business Plan for 2007-2009) that will be implemented by GFAR stakeholders and their partners.

The event was graced by India's top government officials, namely, President Abdul Kalam and Minister of Agriculture Sharad Pawar. Respected figures in agricultural R&D, namely: Dr. Gordon Conway, chief scientist, Department for International Development, United Kingdom; Dr. Rodney Cooke, director, technical advisory division, International Fund for Agricultural Development (IFAD) and chair, donor support group, GFAR; Dr. Christian Patemann, director-general for research, European Commission; and Mr. Daniel John Gustafson, representative, Food and Agriculture Organization (FAO) gave inspiring messages.

During his keynote message, Conway highlighted the benefits of agricultural growth and the role of agriculture R&D to international development. Conway, a scientist-philanthropist, who was also the former president of GFAR and the famous Rockefeller Foundation in New York. He said, "The immediate needs for MDG 1 are the higher yielding and resilient varieties and breeds; integrated pest and nutrient management; efficient small scale water management; accessible input markets with low prices; and accessible output markets with fair prices. We also need to promote the appropriate mix of using traditional and new technologies."

Cooke recounted that it was in New Delhi where the seeds of GFAR were sown during the mid-term meeting of the Consultative Group on International Agricultural Research (CGIAR) in 1994 where IFAD started to organize a platform to develop the "National Agricultural Research System's (NARS) Vision of International Agricultural Research".

"This GFAR platform is one where we should reiterate our collective commitment not only emphasizing enhanced investment targeting pro-poor R&D, but also on R&D alliances which involve all key stakeholders – based on principles of sound strategic partnerships – that of complementarity, subsidiarity, efficiency, and comparative advantage," Cooke stated. He said that IFAD stand by its belief that the poor can work their way out of poverty by using their own skills and talents and that privileged citizens and governments should forge partnerships and promote enabling conditions for the poor to help themselves.

In his speech, Patemann noted that Europe is the biggest international contributor with almost half of the worldwide support to agricultural research for development citing its contribution to CGIAR. He also advocated responsible governance by saying that, "the key element for responsible governance is the open dialogue between industrialized and developing countries in order to define challenges and needs to coordinate international efforts."

The conference was also organized into three sub-themes that provided avenues to discuss the following: 1) new paradigms for the generation of and access to agricultural research results; 2) innovations in institutional arrangements; and 3) technologies for emerging societal needs. One of the five Filipino

*see GFAR...page 8*



## AVRDC team conducts vegetable R&D evaluation

In line with the vision and programs of partnership between the Bureau of Agricultural Research (BAR) of the Department of Agriculture (DA) and the Asian Vegetable Research and Development Center – The World Vegetable Center (AVRDC) to improve vegetable research and development (R&D) activities in the country, a team from AVRDC recently visited three regional integrated agricultural R&D centers for vegetable evaluation. The team, composed of Dr. George Kuo, the deputy director for international cooperation of AVRDC and Ms. Mandy Lin, principal research assistant and technical staff of IC-AVRDC were accompanied by Dr. Marlowe U. Aquino of BAR. The visit was conducted on 26 November to 03 December in Regions I, CAR and XI.

The vegetable evaluation is part of the Asian Vegetable Evaluation and Exchange Program including the monitoring of trainees who successfully completed a season-long training program at the AVRDC headquarters in Taiwan. The trainees who also served as DA-BAR-AVRDC focal persons are Ms. Wilhelmina Castaneda (DA-RFU I), Mr. Nicasio Baucas (DA-RFU CAR), and Ms.



photo by MAQUINO

Melani Provideo (DA-RFU XI). The training included a vegetable seed testing evaluation in different sites of the country wherein vegetable is part of the priority commodities for R&D. The vegetables being tested are tomato, garlic, eggplant, Chinese cabbage and sweet pepper. These commodities are evaluated for regional adaptation to support the vegetable R&D and later on the vegetable industry for sustainability of quality vegetable produced. The present regional adaptation evaluation is the second batch following the success of the initial activity last year which culminated with technical presentation of evaluation results in Thailand.

The partnership strategy is now the model to be introduced by the AVRDC to its partner agencies and

country representatives, most especially in Asia, Africa, and Latin American regions. According to Dr. Kuo, they will adapt this model and introduce it to the different regions to sustain their operation to make vegetable programs efficient and effective globally.

Furthermore, the present vegetable evaluation at the identified sites in Batac, Ilocos Norte, La Trinidad, Benguet and Manambulan, Davao City is supported by BAR through its National Technology Commercialization Program (NTCP). This is part of the technology sourcing and validation activities that determine whether introduced technologies are properly accepted, utilized, and adopted for wide-scale application. In this case, vegetable varieties are initially tested prior to distribution for farmers' utilization.

Aside from the technical evaluation, the AVRDC team visited some vegetable farms and had some interaction with stakeholders to get a glimpse of the realities confronting the vegetable farmers as far as production management practices, post harvest handling, marketing and even policies are concerned. In turn, the team provided some assistance and technical inputs to strengthen and enhance information exchange of new innovations, trends and directions of vegetables in the global arena with domestic focus. (Marlowe U. Aquino, Ph.D.)

### ITPGRFA...from page 10

- ended a seven year-long negotiation
- opened for signature by all members of FAO and any states that are not members of FAO but are members of the United Nations, or any of its specialized agencies or of the International Atomic Energy Agency from 3 November 2001 to 4 November 2002
- entered into force on 29 June 2004 after the deposit of the 40<sup>th</sup> instruments of ratification, acceptance, approval, or accession
- President Gloria Macapagal Arroyo signed the instrument on 29 December 2004
- Malacañang submitted to the Senate for consideration a certified true copy of the treaty on 24 January 2005
- the Second Regular Session of the 13<sup>th</sup> Congress conducted committee hearings (2 February 2006)
- the Committee on Foreign Relations prepared and submitted Committee Report No. 57 recommending the treaty's approval without amendment (15 March 2006)
- the First Session of the Governing Body of the ITPGRFA was held in Madrid, Spain on 12-16 June 2006
- on 28 August 2006, P.S. Resolution 472 entitled "Resolution Concurring in the Accession of the International Treaty on Plant Genetic Resources" was approved on the third and final reading by the Philippine Senate during the Third Regular Session of the 13<sup>th</sup> Congress and was adopted through Resolution No. 99 signed by Senate President Manny Villar

see ITPGRFA...page 11



BAR updates R&D agenda and programs

# Javier talks on Philippine Agriculture 2020

The Bureau of Agricultural Research (BAR) conducted an Updating of the Research and Development Agenda and Programs for 2006-2010 on 23-24 November 2006 at Tagaytay Country Hotel, Tagaytay City. One of the highlights of the activity was the presentation of *Philippine Agriculture (PA) 2020: A Strategy for Poverty Reduction, Food Security, Competitiveness, Sustainability, and Justice and Peace* by Dr. Emil Q. Javier, president of the National Academy of Science and Technology.

PA 2020 envisions a "robust and vibrant agricultural and natural resources production systems and ecosystems services that improve and sustain human well-being in the Philippines"

He enumerated four major challenges in agriculture, namely: (1) population growth; (2) globalization; (3) weak governance; and (4) deteriorating natural endowments. PA 2020 targets to achieve an agriculture growth rate from 2.5% (1980-2004) to 7%, increase GVA from P206 B to P422 B, generate employment from 11M to 23 M and attain export receipts from US\$1.9B to

US\$9.4B.

Dr. Javier enumerated several philosophies, pillars and enabling strategies to achieve PA 2020 vision. Agriculture is considered as a way of life, serving as "culture" with shared values, goals, attitudes, traditions and practice. Another aspect raised was the organization and management of agriculture as a business. This deals on establishing entrepreneurs out of subsistence farmers, improving the efficiency of the supply chain, transforming products and markets for higher value and clustering industries to strengthen linkages. Assets reforms in lowlands, uplands and in coastal communities serve as key instruments for

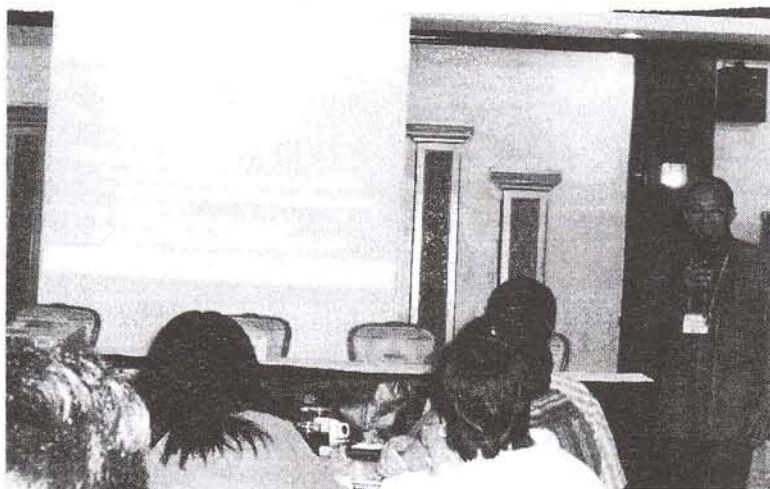


photo by RDELACRUZ

alleviating poverty.

Technological development is directed on: (1) technology support on primary production, distribution, processing and value adding; (2) agricultural mechanization and water-use efficiency; (3) biotechnology; and (4) socio-economic and policy research and advocacy.

PA 2020 also encourages governance reform which includes support for ARCs, institutional reforms, role of LGUs, private-public partnerships and civil society organizations.

PA 2020 faces several challenges. Key players (national leaders, small farmers, corporate sector, consuming public and the bureaucracy) should know how to make the whole system work.

One example he cited is the Abaca ISP in PA 2020. This is to make abaca growing profitable to growers and expand and diversify its uses and exports.

There are also cross-cutting concerns on PA 2020. These include (1) industrial clusters in the organization matrix of DA; (2) statistics for timely policy and decision making, strengthening services of BAS, and mobilizing SUCs; (3) agricultural information and communication; (4) LGU commitment and capability; (5) management of the regulatory environment; (6) producers organizations/cooperatives; (7) access to affordable credit; (8) processing, value-adding in countryside; and (9) rural mechanization.

As a concluding statement, Dr. Javier stressed the need for cluster and regional implementation plans, citing the Northern Mindanao Consortium Plan on Yellow corn-legume-livestock system as an example. (Ma. Eloisa E. Hernandez)

## GFAR...from page 6

delegates from different research institutions in the country was Dr. Teodoro Solsoloy, assistant director of the Bureau of Agricultural Research, who officially represented the Department of Agriculture.

GFAR was founded in 1996 with headquarter at FAO Rome, Italy. It was in 2000 when GFAR started to hold a triennial conference for its stakeholders to collectively reflect on current global ARD issues and outline a long-term program of collaborative researches which they will carry out to address important global ARD concerns. (Miko Jazmine J. Mojica)



## Coffeetable book on global rubber industry published

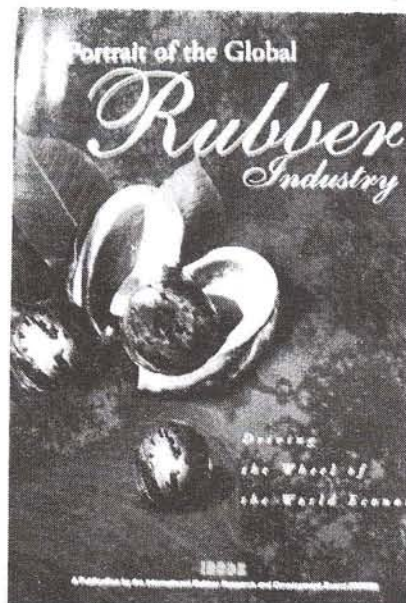
The International Rubber Research and Development Board (IRRDB) published a coffeetable book on rubber, "Portrait of Global Rubber Industry" which was formally launched during the International Rubber Conference held on 13-14 November 2006, Ho Chi Minh City, Vietnam.

The coffeetable book, the first of its kind, traces the origins and history of the rubber industry in the world. It also pays tribute to the pioneers, entrepreneurs, visionaries, scientists, and industrialists who transformed rubber into the industry that helps fuel economic growth and social development in the world.

As a coffeetable book, it serves as a general interest publication on world rubber industry, particularly to the stakeholders like the government organizations (GOs), non-government organizations (NGOs), private sector, plantation owners and planters, rubber products manufacturers, and rubber ancillary industries and products suppliers. The book could also serve as a time-honored promotional corporate gift, featuring exquisite pictures and a rich content of divergent economic, social and cultural aspects of the global rubber industry.

The coffeetable book is a set of two copies comprising a Main Book and an Industry Supplement contained in a box casing. The Main book comprises of about 200 pages while the Industry Supplement has 120 pages. IRRDB hopes to publish the Main Book into other languages, i.e. Chinese, Indonesian, Portuguese, Thai, and Vietnamese, to reach a wider audience.

IRRDB is an international voluntary association based in Kuala Lumpur, Malaysia that comprises of national research institutions from 16 countries concerned with R&D of natural rubber. The Bureau of



Agricultural Research (BAR) and the Philippine Rubber Research Center (PhilRubber) are two of the representative institutions from the Philippines. Representing these institutions during the launching are BAR Director Nicomedes P. Eleazar and PhilRubber Executive Director Eugenio A. Alcala.

BAR also collaborated the publication of the coffeetable book with some of the images and photos taken by staff of BAR's Applied Section Communication (ACS). (Rita T. dela Cruz)

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## Luzon A Cluster technology forum tackles NLQ dev't

The recently concluded Luzon A Cluster Regional Technology Forum of Regions I, II and CAR on 16 November 2006 held at Teatro Ilocandia, Mariano Marcos State University (MMSU), Batac, Ilocos Norte was both a reunion of friends and a visioning of the development of the North Luzon Quadrangle (NLQ) through agriculture and fisheries programs.

The emphasis on the NLQ development was highlighted by the host region particularly the officer-in-charge of DA Regional Field Unit I, Ms. Flora D. Gagni, MMSU President Miriam Pascua, BAR representative Marlowe Aquino, and Hon. Mayor Jesus Nalupta of the municipality of Batac, Ilocos Norte.

In their speeches, they mentioned that within the North Luzon rim which is also considered as one of the mega regions identified by President Gloria Macapagal-Arroyo, the NLQ is a good area for agricultural and fisheries development because of the available natural resources of the three regions which could be tapped and utilized for improved systems and sustained food with relevant technologies. The coming in of enterprise development and agribusiness ventures is a welcome strategy because of the open market present in the different regions. Noting that there is an international airport, domestic airports and seaports within the cluster, development will surely take place. However, strong support from the different agencies at all levels is required especially the local government units which are the driving force of development.

The initial technologies presented serve as the jump-start to propel the social and economic development of the quadrangle. As presented, these technologies will

see Luzon...page 5



# The International Treaty on Plant Genetic Resources for Food and Agriculture

*...and what we need to know about plant genetic resource conservation*

By RUDYARD R. ROXAS

**T**he Philippines is the latest country to be added to the list of contracting parties to the treaty on plant genetic resources of the UN Food and Agriculture Organization.

Following the deposit of the instrument of accession with the FAO Director General, officially entered on 28 September 2006 the Philippines as the 50<sup>th</sup> country to ratify the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). The treaty be in force on the ninetieth day after the deposit of the said instrument as stipulated under Article 28.2 of the treaty.

But what is the ITPGRFA really all about and why do 127 countries, to date, adhere to it by depositing their instruments of ratification, acceptance, approval, or accession.

## Why is there a need for an agreement on plant genetic resource?

Plant genetic resources for food and agriculture, simply put, is "any genetic material of plant origin of actual or potential value for food and agriculture". They are raw materials used by both farmers and breeders for crop genetic improvement either through farmers' selection, classical plant breeding or modern biotechnologies. Although these materials exist in abundance, no country is sufficient in itself due to the distinct nature of genetic materials within crops and locality.

Essentially, plant genetic resources for food and agriculture constitute a man-made form of biodiversity developed over thousand of years of farming. Outside the protection of human intervention those cultivated crops would not survive in the wild.

History shows, too, that these resources have been freely exchanged

thus promoting intra-specific diversity. This has happened not only among farmers in their communities but also from continent to continent. The development of diversity within a crop is the strength of agriculture genetic resources in the form of resistance and good yields.

These have led to the situation that all countries are now mutually dependent on each other for PGRFA. All nations have come to depend for their food and agriculture on crops that originated elsewhere – on an average 70% to as high as 100%.

Since plant genetic resources are international, meaning they cross country boundaries and continents, their conservation and use requires distinctive solutions and are important internationally for food security. There is a need for a global mechanism that would ensure that plant genetic resources vital for present and future food security be kept accessible to all farmers and in the public domain.

The ITPGRFA answers this distinct problem through a multilateral system of access and benefit sharing which are vital for ensuring continuous supply of plant genetic resources among countries and for future consumption.

Its objectives, as stated under Article 1, include the conservation and sustainable use of plant genetic resources for food and agriculture as well as the fair and equitable sharing of benefits derived from their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.

## What is to conserve and who shall benefit from it?

There are 64 major crops and forages identified under the treaty —35

of which are food crops, while 29 are forages like legumes, grass and other forages.

Benefits to or among the contracting parties and their constituents shall be in the form of exchange of information, access to and the transfer of technology, and capacity-building. A funding strategy to mobilize funds shall also be set that may be used for activities, plans, and programs to help small farmers in developing countries. This funding strategy also includes the share of the monetary benefits paid under the multilateral system.

Other benefits include protection of certain sectors, such as:

- a) Farmers and their communities, through Farmers' Rights;
- b) Consumers, because of a greater variety of foods, and of agriculture products, as well as increased food security;
- c) The scientific community, through access to the plant genetic resources crucial for research and plant breeding;
- d) International Agricultural Research Centers, whose collections the Treaty puts on a safe and long-term legal footing;
- e) Both the public and private sectors, which are assured access to a wide range of genetic diversity for agricultural development; and
- f) The environment, and future generations, because the Treaty will help conserve the genetic diversity necessary to face unpredictable environmental changes, and future human needs.

## Timelines

- adopted by the FAO through Resolution 3/2001 on 3 November 2001 after 115 member countries voted for the approval of its adoption which

*see ITPGRFA...page 7*



The issue of farmers' rights was hotly debated during the negotiations leading to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA). In an earlier FAO resolution (FAO Resolution 5/89), Farmers' Rights were defined as "rights arising from the past, present and future contributions of farmers in conserving, improving and making available plant genetic resources". The purpose was to support the continuation of farmers' contributions to the conservation and development of genetic resources by providing funds, and assisting them in these efforts. Further, it hoped to allow farmers, their communities and countries in all regions to participate fully in the benefits derived at present and in the future from the improved use of plant genetic resources, through plant breeding or other scientific methods.

However, farmers' rights were not clearly defined in the documents from the international negotiations for the ITPGRFA. What all countries agreed on in the international treaty was to recognize the enormous contribution that local and indigenous communities and farmers of all regions of the world had made and would continue to make for the conservation and development of plant genetic resources for food and agriculture.

To promote farmers' rights would mean to protect relevant traditional knowledge, enable their participation in the sharing of benefits arising from the utilization of plant genetic resources for food and agriculture, and enable farmers to participate in decision making (Article 9). From a judicial point of view, farmers' rights may be seen as customary rights arising from the practice of farmers during the past 10,000 years of agriculture to reuse and exchange seeds from their harvests. How these concepts stack up against the Philippine Plant Variety Protection Act (PVP) is an issue for our policy crafters.

The discussion on the idea of farmers' rights has led to various suggestions on what it is all about. Most have dealt with the right of farmers to control the seeds and propagating material they grow and to receive a fair and equitable share of the benefits arising from the commercial use of these genetic resources. Some warn against particular forms of intellectual property rights for

## Farmers' rights takes on the hot seat at PGR int'l treaty

By VICTORIANO B. GUIAM



photo by RDELACRUZ

farmers since it could result in reduced access to genetic resources for the farmers themselves. There have also been attempts to develop operational domestic guidelines and acts of legislation for the implementation of farmers' rights.

In the Philippines, participants to the NGO-organized 1<sup>st</sup> National Workshop on Farmers' Rights held in Cebu City on 25-26 February 2003 came out with the Cebu Declaration on Farmers' Rights which lists various rights that should be given to the Filipino small farmers. A non-government organization

(NGO), the SEARICE, has attempted to develop this document into a draft called Farmers' Rights Bill for consideration by local legislative bodies and the Philippine Congress. Among the draft's unique features is that it seeks to establish protection for small farmers against "legal conditionalities" that may be imposed by the PVP law on farmers' customary use of seeds, among other things.

### Sources:

1. <http://www.fnri.no/farmers/theconcept.htm>
2. <http://www.searice.org.ph/Whats%20New/Farmers%20Backgrounder.html>

### ITPGRFA...from page 11

The treaty is not perfect. Questions have been raised on how far IPR will be allowed particularly on the extent to which it may be freely used by the farmers and the communities to exchange and breed seeds; the commercial use of genetic materials; and the limited number of plants covered by the ITPGRFA. Still, many find the treaty the useful for ensuring the accessibility of plant resources.

### Links:

1. <ftp://ftp.fao.org/ag/cgrfa/res/c3-01e.pdf> for full text of the FAO Resolution 3/2001
2. <http://www.fao.org/ag/cgrfa/itpr.htm> Committee on Genetic Resources for Food and Agriculture webpage on ITPGRFA
3. <http://www.fao.org/ag/cgrfa/meetings.htm> webpage on meetings related to plant genetic resources
4. <http://www.fao.org/Legal/TREATIES/033s-e.htm> for full list of countries with instruments deposited with the FAO
5. <http://www.senate.gov.ph/resolutions/ResNo99.pdf> full text of Senate Resolution No. 99
6. <http://www.senate.gov.ph/resolutions/SRN-472.pdf> for full text of the senate approval of the ITPGRFA
7. [http://en.wikipedia.org/wiki/International\\_Seed\\_Treaty](http://en.wikipedia.org/wiki/International_Seed_Treaty)
8. <http://web.searca.org/files/EngSiangPaper.pdf>



## NBN Channel 4 features BAR's commercialized technologies

photos by MHERNANDEZ



To further promote R&D breakthroughs and mature technologies, the Bureau of Agricultural Research (BAR), in collaboration with NBN Channel 4, featured commercialized technologies of the Bureau of Fisheries and Aquatic Resources – Inland Sea Ranching Station (BFAR-ISRS) in Puerto Prinsesa, Palawan in NBN Channel 4's *Mag Agri Tayo* on 25 November 2006.

Staff from the Management Information System Division – Applied Communication Section (MISD-ACS), Research Coordination Division (RCD) Crop Section and from NBN Channel 4 visited BFAR-ISRS and conducted on-camera documentation and photo shots.

Mr. Roberto Abrera, Regional Fisheries Research and Development Center (RFRDC) manager, discussed the operations of the BFAR-ISRS and updated the listeners on the status of the commercialized technologies of the Center.

One of the featured technologies developed by the station which is now regarded as commercialized or matured technology is the grouper culture in cages. At present, some fish farmers are adapting the technology. This is considered more sustainable than the traditional method because the fry and fingerling resources can be maximized.

Currently, the RFRDC is developing the mother grouper for breed production. Eventually, this will create a sustainable industry for fingerlings produced in hatcheries. Grouper,

considered as high-valued species, has a large market locally and even in other countries like China, Hongkong, and Taiwan.

Seaweed farming is another technology popularized by the station. Seaweeds farming is an assured income generating and livelihood source for the people of Palawan.

Also, BAR currently has funding support for sea cucumber, focusing on studies on its growth and survival. Ms. Mryna Candelario, BFAR-ISRS OIC, stressed that if this technology succeeds, farmers and fisherfolk can be tapped to improve the yield of cucumber. Sea cucumber can be a livelihood option for fisherfolk.

Also featured in the program is Mr. Felipe Manlapas, Jr., farmer-cooperator on sea cucumber processing. He earns as much as P1,500.00 from an initial capital of P400.00. This showed a family enterprise as the father will be the one in-charge with the operations while the wife and children on marketing. As to



## Web news

**Two UP scientists developing abaca resistant to viral diseases**  
<http://www.bic.searca.org/>

**Experts developing techniques on clonal propagation of coconut**  
<http://www.bic.searca.org>

**ASEAN endorses major initiatives to boost regional rice production**  
<http://www.irri.org/media/press/press.asp?id=143>

**Novel 'Talipapa' outlets to sell cheaper goods**  
<http://www.da.gov.ph>

**China concerned about future grain supply despite three years of bumper crops**  
[http://english.people.com.cn/200612/16/eng20061216\\_333129.html](http://english.people.com.cn/200612/16/eng20061216_333129.html)

**Plant biologist seeks molecular differences between rice and its mimic**  
<http://news-info.wustl.edu/tips/page/normal/8054.htmlnews/2006/oct/thewheatrust.htm>

Mr. Alfredo Oscon, another farmer-cooperator, he is thankful that he was able to send his children to school. He and his family adapted the technology of culturing grouper in cages.

Another aspect emphasized in the program is BFAR-ISRS' links with the private sector, cooperatives and Local Government Units (LGUs) of Palawan. Board Member Arthur Ventura, Chairman Committee on Environment, encourages more information dissemination to further promote the technology on grouper culture. He added that government funding should support the technology for sustainability. (Ma. Eloisa E. Hernandez)

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