DA-PIOs meet for 2011 consultative meeting

AFIS Director Noel O. Reyes (center) poses with the members of the Public Information Officers (PIOs) of DA. Representing from BAR were: Rita T. dela Cruz (third from right, second row) and Patrick Raymund A. Lesaca (second from right, second row) of the Applied Communication Division. PHOTO: AFIS

The consultative meeting, held twice a year, was called in an effort to urge DA agencies through the PIOs to produce regular updates and success stories on the agency's activities contributing to DA's major programs and initiatives.

Recognizing the important role of public information officers (PIOs) as conduits of relevant and updated information on the latest initiatives and programs of the Department of Agriculture (DA), a consultative meeting for the second semester of was held on 16-17 November 2011 at the Philippine Carabao Center (PCC), Muñoz, Nueva Ecija.

Spearheading the event was the Department of Agriculture - Agriculture and Fisheries Information Service (DA-AFIS) led by Director Noel O. Reyes.

Mr. Reyes, who welcomed the information officers from various DA attached agencies and staff bureaus, highlighted the importance of the activity and how cooperation is important in building a strong network among info officers.

The consultative meeting, held twice a year, was called in an effort to urge DA agencies through the PIOs to produce regular updates and success stories on the agency's activities contributing to DA's major programs and initiatives. With AFIS at the helm, the activity hoped to develop an efficient, working network among PIOs in spreading the "good news" and keeping the public aware and updated in the agriculture sector.

As the host agency for this semester's meeting, PCC director, Dr. Libertado C. Cruz threw in some of his insights on the significance of delivering relevant information and the role of PIOs in the agriculture sector.

Consummating the two day meeting were presentations on the updates and status of the Department's banner programs including the: 1) Rice Program/Food Staples Sufficiency Program, 2) Corn Program, High Value Crops Development Program, and Livestock Program.

Also presented were some of the recent initiatives of DA particularly on 1) Climate Change, and 2) Public-Private Partnerships. Agency reports and updates were also presented including programs and projects of PCC, Philippine Center for Postharvest Development and Mechanization (PhilMech), and Philippine Rice Research Institute (PhilRice).

Representing the Bureau of Agricultural Research (BAR) in the meeting were Rita T. dela Cruz and Patrick Raymund A. Lesaca of the Applied Communication Division. ###

(Rita T. dela Cruz)

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BAR eyes sweet sorghum processing for bioethanol production in Negros

PHOTO: RDELACRUZ

After the success of the 1st Sweet Sorghum Business Summit and Plantation Showcase held in June 2011, the Department of Agriculture - Bureau of Agricultural Research (DA-BAR) and the Biofuels Research Team led by Professor Rex B. Demafelis of the University of the Philippines Los Baños (UPLB) together with Dr. Heraldo L. Layaoen of the Mariano Marcos State University (MMSU), went back to the drawing board to draw up the plans and strategies needed for the targeted planting schedule of sweet sorghum in the province of Negros.

The business summit held in Bacolod City successfully introduced to the participants the potentials of sweet sorghum as a competitive feedstock for bioethanol production and its various uses for the agriculture sector and the industry. Series of technical discussions and plantation tours shaped the said summit. The involvement of local ethanol investors, farmers, ethanol distillers and other government institutions is indicative of strong partnership between the government and the private sector in boosting the bioethanol industry in the Philippines. The summit was a joint undertaking of DA-BAR and UPLB.

To keep track of the agreements made during the business summit, a meeting and workshop was again ensued to the BAR commissioned experts on sweet sorghum and the local government unit (LGU) of Northern Negros with the hope of establishing a processing plant.

Commercialization and plantation of sweet sorghum

A meeting/workshop was set to discuss the planting schedule of sweet sorghum in Negros in collaboration with LGU and local farmers. Another agenda was to discuss the putting up a processing plant for ethanol production in partnership with the San Carlos Bioenergy Inc. (SCBI).

Prof. Demafelis, being the focal person, led the meeting and provided the rationale and workshop mechanics. He acknowledged the involvement of Dr. Layaoen as one of the project leaders. Dr. Layaoen is also involved in the biofuels program of BAR.

Prof. Demafelis said that the meeting calls for the identification of the needed logistical requirements; discussion on the expected problems to be encountered during the time of

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BAR eyes sweet sorghum...from page 1

implementation and finding doable means to address them.

Mr. Jerelu T. Ganancial, city agriculturist of Sagay, Negros Occidental, presented an overview of the Northern Negros Agro – Industry Economic Zone, which is located within the city, and showed the on-going structural developments in the area like the construction of a Triple A Slaughter House, Water Disposal Facilities and the 50-hectare Napier grass, 35-hectare sugarcane and 2.5 hectare sweet sorghum plantations. Mr. Ganancial reported the promising results of the sweet sorghum production trials in Sagay city. He said that the agro-climatic and physio-chemical properties of soil in Sagay are suitable for the requirements of the plants.

Meanwhile, Mr. Nelson Aquino of the Negros Biochem Corporation presented the results of the sweet sorghum cultural management and practices in Bago City, Negros Occidental while Dr. Cecilia B. Pascual of the Institute of Plant Breeding (IPB), UPLB reported on the assessment and control of pest and diseases in the sweet sorghum plantations in Negros Occidental. Dr. Pascual, in her presentation, identified the common pests and diseases she discovered in the sweet sorghum plantations in Sagay, Bago, Binalbagan and San Carlos Cities and enumerated the recommended control measures.

Sweet sorghum for bioethanol processing

When the Biofuels Act of 2006 was enacted into law, BAR, being the research arm of the DA has viewed the law as an opportunity to explore other potential feedstocks that would complement the production of sugarcane for ethanol production. Hence, BAR in collaboration with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) jointly explored the potential of sweet sorghum as an alternative feedstock for bioethnol production. Since then, BAR has conducted series of plantation trials in selected regions in the country.

Over the years, ongoing researches on sweet sorghum trials have shown and yielded positive results and indicated further that the crop is viable and a competitive complementary feedstock to sugarcane.

With this development, the biofuels program of BAR shifted its gear and directed its attention to the production of sweet sorghum syrup needed for ethanol production. Specific to this undertaking were tapping experts to conduct pre-planting seminar to the concerned LGU's focusing on the effective planting and other cultural management for sweet sorghum. The commissioned experts will conduct on-site assessment visits to the identified potential plantation areas in the northern and southern parts of Negros.

With the biofuels research team on board, extending its technical support, cooperation of the LGU, and funding assistance from BAR—promoting the potentials of sweet sorghum as a viable and alternative source for ethanol production is on the go.

Exploratory talks between the government through the initative of DA-BAR and the San Carlos Bioenergy, Inc. are beginning to shape the prospect of a commercial scale sweet sorghum-based ethanol production. This collaborative endeavor may soon be realized in the coming years. The San Carlos Bioenergy, Inc. (SCBI) is the first multi-feedstock bioethanol and co-generation facility in the country.

PHOTO:ACONSTANTINO

The introduction of sweet sorghum which contains high amounts of reducing sugars and considered as a non crystallizing juice will make it a dedicated crop for bioethanol production and ensure that sugarcane will used for sugar production and not divert its volume to produce the much needed supply of bioethanol in the country. ###

(Patrick Raymund A. Lesaca)

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specific technologies for climate change adaptation and mitigation in the fields of rice/horticulture, livestock, and perennial crops. He also mentioned location specific technologies that their institution is being employed given the imminent onslaught of climate change to food production.

Participating countries were made to share technology transfer mechanisms that were being employed in their respective countries. In relation to food security, the expert-panellists tackled the issue of biodiversity, adjustment in farm management practices, the role of diversification, strengthening crop germplasms. More importantly, the role of timely delivery of information was also cited.

Meanwhile, the second seminar, chaired by Dr. Elsie Quaite-Randall of the International Rice Research Institute (IRRI), discussed two pressing issues: 1) Intellectual Property in Technology Transfer, and 2) Role of Private Sector in the Agricultural Technology Transfer. Among the distinguished experts and member of the panelists were: Prof. Paul Liu of the Cornerstone. Intellectual Property Foundation (CIPF), Dr. Jennie Shen of Pioneer China, Dr. Song Weiping of Beijing DBN Technology Group Co. Ltd., and Mr. Kyeongha Johan Kang of the Foundation of Agricultural Technology Commercialization and Transfer (FACT), Korea.

The second seminar dealt on the various issues attaching to IP and technology transfer. Since there were both parties from the public and private sectors, issues raised were on how to balance profit and the right of the public including, marginalized farmers/beneficiaries, to know and use the technologies.

Dr. Virginia Cardenas (center) of UPLB chairs the seminar on "Agri-tech Transfer in Climate Change and Food Security". The members of the panelist include: (L-R) Dr. Andrea Sonnino of FAO, Dr. Mei Xurong of CAAS, Dr. Koyama Osamu of JIRCAS, and Dr. Kasdi ICATAD. PHOTO: RDELACRUZ

Learned lessons

One of the pressing issues shared and discussed during the forum was the role of agri-tech transfer under the backdrop of climate change vis-à-vis food production. And the participant from Indonesia had singled out the important role of "timely and relevant dissemination of information to the public in addressing climate change." Effective information and communication initiatives are keys to effective climate change intervention.

Another key point discussed during the forum was agribiotechnology as a potent tool for climate change adaptation and food security. All the expert-panellists have recognized its significant role particularly in increasing food production and shared some of the agri-biotech products/crops that were now being grown and produced in various countries i.e., climate-related technologies.

Biotechnology is one of the priority R&D areas of the Philippine Department of Agriculture recognizing its impact in terms of agricultural productivity. And given how the other countries were able to salvage food production given the climate-related challenges, the Philippines could very learn from these experiences.

Another relevant topic was on Public-Private Partnership (PPP) which the experts/panellists look into as a crucial arm for an effective technology transfer.

Although the business sector plays a major role for R&D on activities with a commercial objective, many of the important technologies with great implications and significance were results from publicly funded research that were not intended for immediate commercial use. The importance of ensuring a greater collaboration between the private and the public sector was well recognized. Likewise, transfer of technology is important in international joint ventures in order to maintain a competitive edge in a market economy. ###


Coinciding the APEC Agricultural Technology Transfer Forum was the "4th China Advanced Agricultural Technology Exhibition" which served as a communication platform on the latest technologies in the field of agriculture. These include technologies on new products and new techniques. PHOTO: RDELACRUZ

Addressing food insecurity

through comprehensive, efficient agricultural technology transfer

Rita T. dela Cruz

Food insecurity is a global problem. Against the more pressing challenges of climate change, declining arable land, and the ever escalating population—ensuring the availability of food and one's access to it, becomes formidable to achieve.

The agriculture sector plays a crucial role in food production and given that majority of the population depends on this sector for income and livelihood, improvements in agriculture and land use are fundamental.

Over the years, many advanced agricultural technologies have been developed and generated to address food production-related problems. Unfortunately, some (if not most) of the important technologies generated from R&D were not able to reach the commercialization stage due to various constraints including intellectual property, trade barriers, even policy environment. Currently, most countries are transferring their agri technologies using the bi-lateral approach, which is highly-decentralized emphasizing both the interest and needs of the investor and private sector.

Looking closely into the problem, the Asia-Pacific Economic Cooperation (APEC) organized the "Agricultural Technology Transfer Forum" on 23-24 November 2011 in Beijing, China to establish an efficient agricultural technology transfer platform that would address constraints in effective and efficient transfering of agricultural technologies to the sector. As Beijing played host to this year's forum, it was organized in cooperation with the Chinese Academy of Agricultural Sciences (CAAS), a national comprehensive agricultural research institute that engages in agricultural research on fisheries and tropical crops; and the Beijing Municipal Science and Technology Commission.

Carrying the theme, "Strengthening Agricultural Technology Transfer for Food Security in APEC Region," the forum invited APEC-member economies to discuss and share ideas on how to effectively facilitate agricultural technology transfer particularly in APEC region to ensure food security and food safety. Likewise, the forum served as a venue to establish a comprehensive and efficient agri tech transfer platform that the APEC member countries could be used.

In attendance were more than 600 participants representing 17 APEC member economies including the Philippines. Other countries present were: Chile, China, Chinese Taipei, Hongkong, Indonesia, Japan, Malaysia, Mexico, Papua New Guinea, Peru, Singapore, South Korea, Thailand, United States, and Vietnam. Each economy was represented by two participants. The Philippines was represented by participants from the Department of Agriculture (DA), namely: Rita T. dela Cruz of the Bureau of Agricultural Research (BAR) and Vicente S. Dayanghirang, Jr. of the Agricultural Training Institute (ATI).

Highlights of discussions

Highlighting the two-day activity were two seminars which were relevant to the theme of the forum. The topics of the first seminar, chaired by Dr. Virginia Cardenas of the University of the Philippines Los Baños, were on:

PHOTO: RBERNARDO

1) Agri-tech Transfer in Climate Change and Food Security, and 2) Technology Transfer Cooperation among APEC Member Economies. Among the member of the panelists were: Dr. Andrea Sonnino of the Food and Agriculture Organization (FAO), Dr. Koyama Osamu of the Japan International Research Center for Agricultural Sciences (JIRCAS), Dr. Kasdi Subagyono of the Indonesian Center for Agricultural Technology Assessment and Development (ICATAD), and Dr. Mei Xurong of CAAS.

The panelists recognized the importance of agri-tech transfer in addressing climate change vis-à-vis its effects on food security in developed and developing countries. According to Dr. Koyama of JIRCAS, "as the global food market is becoming insatiable, climate change will just amplify the risk." He cited efforts that must be addressed and implemented including measures for climate change in order that the global/regional food security is not severely affected. These measures for climate change, according to Dr. Koyama, could provide new opportunities for agricultural development and new markets that could be created for external values. Related to measures for climate change, Dr. Subagyono of ICATAD cited

Over the years, many advanced agricultural technologies have been developed and generated ...unfortunately, some (if not most) of the important technologies generated from R&D were not able to reach the commercialization stage...

Eleazar attends

APAARI Executive Committee Meeting

Dr. Nicomedes P. Eleazar, director of the Bureau of Agricultural Research (BAR) and Mr. Joell H. Lales, senior executive assistant and OIC, Planning and Project Development Division of BAR, attended the Asia-Pacific Association of Agricultural Research Institutions (APAARI) Executive Committee Meeting, held at the Taiwan Agricultural Research Institute (TARI), Taichung, Chinese Taipei.

This event, which was attended by 80 representatives from government, academia, and private sector from 25 countries, was organized by the Council of Agriculture (COA), Taiwan Agricultural Research Institute (TARI), Asia-Pacific Association of Agricultural Research Institutions (APAARI), and the Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB).

Among the key persons who attended the executive meeting were Dr. Raj Paroda, executive secretary of APAARI, who welcomed the members and other guests, and Dr. Mason Smith, permanent secretary of the Ministry of Agriculture and Primary Industries, Fiji, who, in behalf Dr. S. Ayyappan, chairman of APAARI, delivered the opening message. Dr. Smith, in his message, emphasize the importance of APAARI in promoting cross-border partnerships for food safety and natural resources preservation in the Asia-Pacific region and the institution's participation on various research projects.

Highlight to the event was the presentation of Dr. Paroda on the progress of the various decisions made by the Executive Committee in addressing the different issues being faced by the institution. Included to these, among others, were: 1) Interest for research on stress resistance breeding, rice productivity enhancement and the indigeneous vegetables as crops for the future; 2) Importance of information technology in agriculture of developing countries and the need to support its application in the region; 3) Participation of farmers and NGOs as well as private sector in APAARI meetings and expert consultations; 4) Adoptation of cost-effective updating of agricultural research information systems and regional information exchange; and 5) Need for greater awareness of APAARI's activities.

BAR Director Nicomedes P. Eleazar and BAR Planning and Program Development Division OIC Joell H. Lales attending the APAARI Executive Committee Meeting in Taichung, Chinese Taipei. PHOTO: courtesy of JLALES

An account on the progress of the different activities conducted by the institution during the period of January- June 2011 was also made by Dr. Paroda. Highlight to these were the meetings organized/attended, recent APAARI publications, membership status, and signing of Memorandum of Understanding (MoU)/ Letters of Agreement (LoA) with international institutions/ organizations.

Included to the institution's publications was the APAARI Newsletter, which was being supported by the Bureau of Agricultural Research (BAR) through the submission of success stories and articles on R&D projects being funded. The publication is being released twice every year. The institution's future initiatives and programs were also discussed afterwards.

Overall, APAARI's diverse activities have provided further thrust on strengthening its mandate, addressing the emerging needs and expectations of the region. APAARI looks forward to further strengthening its partnership with member institutions in pursuing common goals and objectives, especially in areas of biotechnology, ICT networking, and commodity chain programs. ### ***(Mara Shyn M. Valdeabella)***

Eleazar chairs session on biosafety and biosecurity

With the aims of reviewing the status of biotechnology and biosafety adoption in the Asia-Pacific countries and deliberating on the harmonization of national biosafety system in the broader context of biosecurity, the Steering Committee of Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB) held an "Expert Consultation on Agricultural Biotechnology, Biosafety and Biosecurity" at Taiwan Agricultural Research Institute (TARI). The expert consultation was also organized to suggest approaches to regional cooperation in biotechnology and biosafety in the context of biosecurity.

The two-day consultation meeting of the Asia-Pacific Association of Agricultural Research Institutions (APAARI), organized by the Council of Agriculture (CoA), featured four sessions that centered on advancing technologies to increase the world's agricultural productivity and secure its food supplies despite the impacts of climate change.

One of the sessions, "Session IV: Advances in Biosafety and Biosecurity", was chaired by Dr. Nicomedes P. Eleazar, director of the Bureau of Agricultural Research (BAR) and co-chaired by Dr. Dinesh Pariyar, acting executive director of the Nepal Agricultural Research Council (NARC). He was joined in by Mr. Joell Lales, senior executive assistant and OIC, Planning and Project Development Division of BAR. The session included presentations on: "Biosecurity in Asia-Pacific, Its Status and Future," discussed by Dr. Khetarpal of CABI, "Translational Research on Transgenic Crops" by Dr. K.K. Sharma of the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), and "Organizing Biotech research to biosafety compliance" by Dr. Ruaraidh S. Hamilton of the International Rice Research Institute (IRRI).

Meanwhile, Session I focused on: "Status of Biotechnology, Biosafety, and Biosecurity R&D in Asia-Pacific" chaired by Dr. Dyno Keatinge, director general of AVRDC – The World Vegetable Center and co-chaired by Dr. Su-San Chang of CoA. In this session, seven papers from the Asia-Pacific countries were presented with Dr. Patricio Faylon of the Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD) representing the Philippines.

For this session, six other papers were presented, namely: Dr. Ravi Khetarpal of the Centre for Agriculture and Biosciences International (CABI), Dr. Abd Shukor Abd Rahman of the Malaysian Agricultural Research and Development Institute (MARDI), Dr. Dinesh Pariyar of NARCAS, Dr. M. T. K. Gunasekare of the Sri Lanka Council for Agricultural Research Policy (SLCARP), Dr. Kuo-Yun Fang of COA, and Prof. Vu Manh Hai of the Vietnam Academy of Agricultural Sciences (VAAS).

Session II, on the other hand, featured three papers on the Status of Biotechnology, Biosafety, and Biosecurity R&D in 1) Pacific, 2) Africa, and 3) Asia. These were presented by Dr. Raghunath Ghodake of the National Agricultural Research Institute (NARI), Prof. Walter Alhassan of the Forum for Agricultural Research in Africa (FARA), and Dr. J. L. Karihaloo of APCoAB-APAARI, respectively.

Session III, which focused on the "Advances in Biotechnology for Food Security," was chaired by Dr. Thomas Lumpkin, director general of CIMMYT (International Maize and Wheat Improvement Center) and co-chaired by Dr. Ghodake of NARI. Three papers were presented, namely: "The contribution of biotechnology to stress tolerant vegetable crops," by Dr. Roland Schafleitner of AVRDC, "Genetic Engineering technology to produce crops tolerant to environmental stresses," by Dr. Kazuo Nakashima of the Japan International Research Center for Agricultural Sciences (JIRCAS), and "Biotechnology: An Imperative in Sustainable Food Production," by Dr. Francis C. Ogbonnaya of the International Center for Agricultural Research in the Dry Areas (ICARDA).

The COA described the APAARI as an important organization dedicated to promote cross-border partnerships for food safety and natural resources preservation in the Asia-Pacific region. *APAARI* programs, such as these, are aimed to enhance exchange of scientific and technical know-how and information in agricultural research for development, assist in strengthening research capability of member institutions, and promote cross linkages among national, regional and international research organizations.

This event also paved the way to Taiwan, the host country, to be internationally recognized of its agricultural and biotechnological development. ### ***(Mara Shyn M. Valdeabella)***

The expert consultation was also organized to suggest approaches to regional cooperation in biotechnology and biosafety in the context of biosecurity.

NOMIARC receives CSC 2011 Pagasa Award

NOMIARC Asst. Manager Carmelito Lapoot (right) receives the Pagasa trophy from Exec. Sec. Paquito Ochoa Jr., (center) and CSC Chair Francisco Duque III (left) during the awarding in Malacañang Palace. PHOTO: CSC

Exemplifying true and quality service to the public, the Northern Mindanao Integrated Agricultural Research Center (NOMIARC) received this year's Civil Service Commission (CSC) Pag-asa Award for Outstanding Work Performance (group category).

NOMIARC, together with other 30 state officials and employees, was recognized and awarded during the 2011 National Search for Outstanding Public Officials and Employees on 9 November 2011 at the Malacañang Palace. Bestowing the award was Executive Secretary Paquito Ochoa Jr., (representing President Simeon Aquino III), CSC Chair Francisco Duque III, and Commissioner Mary Ann Fernandez-Mendoza.

The Pag-asa Award is conferred to a government employee or group of employees who have contributed exceptional idea or excellent performance that significantly benefited their respective government agency and emanated to a great number of people.

NOMIARC was awarded for its commendable achievements in the field of agricultural research and development (R&D), including the implementation of successful programs and projects that generated relevant technologies benefitting the farming communities in Region 10 and the whole country.

NOMIARC, as the nerve center of agriculture R&D in Region 10, plays an important role in generating various technologies on crops, livestock, and integrated farming systems. As an active partner of the Bureau of Agricultural Research (BAR) particularly in developing productivity-enhancing and cost-reducing technologies for farmers, BAR has been providing funding support to the various research activities that generated high-impact results including the Community-based Participatory Action Research (CPAR) which continues to build and promote integrated farming in rural communities in the region.

Known for its tangible accomplishments in potato R&D, NOMIARC is recognized as the White Potato Center of Mindanao paving way to the establishment of facilities and support systems. NOMIARC is also the Zonal Center for Agricultural R&D in Mindanao leading in the earmarking and inception of inter-regional projects, specifically on organic agriculture in Mindanao and coordinating with other research stations in Mindanao in the orchestration and implementation of a unified and integrated RDE program for the island.

PHOTO: NOMIARC

NOMIARC staff members with their Center Manager Juanita Salvani (center, front row).

Given NOMIARC's bottom line for success—true service, stewardship and professionalism—the Center and its workforce continue to reap awards and distinctions from various national commending bodies. The Pag-asa Award is their second. The first was bestowed in 2005.

Given the accomplishments and recognitions, Center Manager Juanita Salvani remained humble and beholden. "The award is indeed an inspiration to the NOMIARC staff and its community and institutional partners in continuing to propel community-based initiatives that realize local agricultural development," she cited.

NOMIARC Asst. Manager Carmelito Lapoot received the award at the Malacañang Palace. After the awarding, a testimonial dinner was held at the Philippine International Conventional Center (PICC), Pasay City.

The group received a gilded gold medallion of honor, a plaque, and P100,000 cash prize. ### ***(Rita T. dela Cruz)***

Myanmar officials visit BAR

PHOTOS: RBERNARDO

Dr. Tin Htut
YAU rector

Dr. Ye Tint Tun
MAS deputy manager

Mr. U Kyaw Win
MAS managing director

Three officials from Myanmar, specifically, the Yezin Agricultural University (YAU) and the Myanma Agriculture Service (MAS) visited the Bureau of Agricultural Research (BAR) to learn about the recent developments in Philippine agriculture R&D and for a briefing/orientation on the RDE programs.

The visitors from Myanmar were: Dr. Tin Htut, YAU rector, Dr. Ye Tint Tun, MAS deputy manager, and Mr. U Kyaw Win, MAS managing director. They were accompanied by Mr. Julian A. Lapitan, national programs relations manager of the International Rice Research Institute (IRRI) and Ms. Leah A. Samson, asst chief of the Department of Agriculture- International Relations Division (DA-IRD).

YAU is considered the only center of higher learning in agriculture in Myanmar which main's objective is to train students appropriately and enable them to attain high standard of education in agricultural science, and generate high-qualified agriculturists for the country. The university produces about 250 bachelor's degree graduates and a small number of master's and doctoral graduates each year.

Meanwhile, MAS is mandated with agricultural research and extension developments functions with objectives geared towards the increased production of major crops and the development of improved production technology through proper researches on management of soil crop and pest control.

Leading the briefing/meeting was BAR Assistant Director Teodoro S. Solsoloy who welcomed the officials from Myanmar. He was joined in by BAR key officials and technical staff members for the orientation on the bureau's programs and projects being supported and funded.

To provide an introduction/briefer on BAR and its programs and projects being funded, an audio-video presentation, *BAR Primer*, was shown and presented to the visitors. Highlighted in the presentation were BAR's banner programs: Community-based Participatory Action Research (CPAR) and National Technology Commercialization Program (NTCP).

Meanwhile, Mr. Patrick L. Cabrera of the Planning and Program Development Division presented the Research and Development and Extension Agenda and Program (2011-2016).

During the open forum, the group from Myanmar inquired about the *adlai (Coix lacryma-jobi* L.) and DA's R&D initiatives on the crop. Dr. Tin Htut, rector of the Yezin Agricultural University (a rector position is the level of chancellor in Philippine university), mentioned that they have also many indigenous crops that are untapped but have great potentials.

After the briefing, the group was toured at the BAR Technology Commercialization Center (Tech Com Center) located at the lobby of the BAR building. The center showcases R&D generated technologies and research results supported by DA through BAR's CPAR and NTCP. The Center presents an array of products from food, liquor, wine, tea, coffee, concentrates, cosmetics, among others which were developed by researchers and scientists from partner R&D institutions.

After BAR, the group of Dr. Htut also visited other offices of the Philippine Department of Agriculture (DA) for orientations on the RDE programs of the country particularly on rice and other staple crops. ### ***(Rita T. dela Cruz)***

PHOTOS: EAQUINO AND AALA

Ms. Evelyn J. Juanillo, BAR-TCD

Dir. Nicomedes P. Eleazar, BAR

Dr. Florentina S. Dumlao, DMMMSU

Dr. Cleofas R. Cervancia, UPLB

BAR spearheads R&D roadmap writeshop for beekeeping R&D

In support to the apiculture or beekeeping industry, which is one of the priority research areas under Department of Agriculture - High Value Crops Development Program (DA-HVCDP), the Bureau of Agricultural Research (BAR), spearheaded the conduct of a writeshop cum workshop on 23-26 November 2011 at Burnham Suites, Baguio City. The writeshop was conducted specifically to tailor-fit project proposals under the National Bee Industry Research, Development and Extension (RD&E) Roadmap for 2011-2016.

BAR was tasked as the focal agency in crafting a roadmap to address the current gaps and problems of the bee industry.

“Considering the potential of native bee species as source of livelihood and its use in pollination, DA-HVCDP included beekeeping as one of its priority programs. Honey produce and its by-products are highly-priced given the high demand in the industry,” reported Evelyn H. Juanillo, agribusiness coordinator of the Technology Commercialization Division (TCD) of BAR.

The four-day event was actively participated in by representatives from the DA-HVCDP, National Apiculture Research and Training and Development Institute, Don Mariano Marcos Memorial State University (NARTDI-DMMSU), University of the Philippines Los Baños (UPLB) Bee Program, DA-Southern Tagalog Integrated Agricultural Research Center (STIARC), other state universities and colleges (SUCs), private sector (BEE Net), and BAR technical staff.

BAR Director Nicomedes P. Eleazar welcomed the participants and commended the people in attendance as the important players in the beekeeping industry. He noted that, the Philippines imports honeybee products bringing in 200 tons of honeybees every year and other bee products including those for pharmaceutical and cosmeceutical uses.

"This is a high end product. There is a need to identify problems and constraints to make it affordable and available to the people. We should satisfy the demand in the domestic market, and ultimately aim to penetrate the export market," underscored Dir. Eleazar in his message. He encouraged inputs from the participants especially those from the private sector. "For next year, one of the outputs is for us to have ready proposals for BAR funding. We'll be releasing funds to all implementers. With this, we'll be able to contribute to the Philippine agriculture," he said.

Juanillo presented the National Technology Commercialization Program (NTCP) of BAR and the proposed Bee RD&E Roadmap Workplan. The components of the proposed roadmap included: 1) creation, establishment of regional centers for beekeeping, 2) provision of technical services to various sectors, 3) generation of R&D apiculture technologies, and 4) support to commerciable technologies, among others.

Dr. Cecilia Gascon, president of the Southern Luzon State University (SLSU), presented their experiences during a study tour on commercial

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First DA-HVCDP-BAR National Review concludes; 23 funded-projects presented

PHOTO: DDELEON

BAR Director Nicomedes P. Eleazar (3rd from left) sits at the VIP table with the members of the panel of evaluators (L-R): Dr. Edralina Serrano of the University of the Philippines Los Baños (UPLB); Dr. Luis Rey Velasco of UPLB; Dr. Teotimo Aganon of the Central Luzon State University (CLSU); Dr. Rose Mary Aquino of DA-RFU 2-Cagayan Valley Integrated Agricultural Center (CVIARC); and Mr. Elmer Enicola of UPLB. PHOTO: DDELEON

The Bureau of Agricultural Research (BAR) conducted the 1st National Review and Planning Workshop for 2010 – 2011 for BAR-funded Research and Development (R&D) projects under the Department of Agriculture-High Value Crops Development Program (DA-HVCDP) on 16 -18 November 2011 at the Hotel Vida, Clark, Pampanga.

Attending the event were the proponents and project leaders of the 23 BAR-funded projects under DA-HVCDP being implemented from different regions in the country.

BAR director Dr. Nicomedes P. Eleazar welcomed the participants. "BAR has been supporting R&D initiatives that promote the production of high value crops nationwide. The bureau sees the economic potentials of these agricultural crops as a means to increase farmers' income, create livelihood opportunities and contribute to national agricultural development" he underscored. He also mentioned the recently added high value commodities, *adlai* (Job's Tear), soybeans, sweet sorghum, peanuts, beekeeping, and rimas (breadfruit).

Joel H. Lales, OIC of Planning and Program Development Division (PPDD) of BAR, presented the 2011-2016 Research and Development Agenda and Programs (RDEAP) in support to the DA-HVCDP. His presentation focused on the researchable areas on the identified HVCDP priority commodities. These commodities were classified under industrial crops, vegetables, fruits, and staple crops and legumes.

For DA-HVCDP, a representative, Arianne Aldeza of the HVCDP-Project Management Office, discussed and explained in details the HVCDP and updates on the program. She hoped that for the coming years, high value crops will be incorporated in the proposals being submitted to BAR and added that garlic is now being considered also, as priority commodity. She noted that, HVCDP is on the process of drafting the garlic roadmap. The program is likewise aiming to export the identified high value crops in Asian countries.

As one of the banner programs of DA, HVCDP is continuously supporting projects that promote the production, processing, marketing, and distribution of high value crops.

The project review was divided into two simultaneous sessions. Session one was composed of various high value crops projects including shallots, *marang*, *sapinit*, *makapuno*, mango, among others. Session two was all about the development and promotion of *adlai* as an alternative staple food. As per instruction, the presenters discussed the project overview, highlights of the results/accomplishments, and action plan for the remaining activities.

A panel of evaluators was invited to critique on the projects presented. The panel of evaluators was composed of Dr. Luis Rey Velasco, Dr. Edralina Serrano, Mr. Elmer Enicola of UPLB; Dr. Teotimo Aganon of the Central Luzon State University (CLSU); Ms. Rose Mary Aquino of the DA-Cagayan Valley Integrated Agricultural Research Center (CVIARC); Ms. Arianne Aldeza of DA-HVCDP; Mr. Roberto G. Villa, Ms. Virginia L. Agcopra, and Ms. Josefina M. Lantican— technical advisers of BAR.

The project review was conducted to ensure that the projects are being appropriately implemented and are in accordance with the approved guidelines. This is one of the monitoring and evaluation strategies of BAR to make sure that projects are being manage effectively and efficiently.

Significant issues, concerns, and accomplishments within the project duration, were also discussed and were given appropriate recommendations for further improvement. ### ***(Diana Rose A. de Leon)***

BAR continues its *adlai* mission

Orientation on adlai at the Day Care Center of Brgy. Labueg in Kapangan. PHOTO: ZREYNOSO

Committed to promote *adlai* (*Coix lacryma-jobi* L.) as food staple crop, the Bureau of Agricultural Research (BAR) continues to comb through the farther parts of the country to find farmers utilizing *adlai* in the hope to uncover traditional cultivation techniques of the crop.

Adlai is also known as "Job's Tears" that comes from the same family as wheat, rice, and corn. Believing to have sprouted first in East Asia and Southeast Asia, *adlai* in the Philippines now comes into focus, as it is being considered as a staple food along with other potential crops that will answer the need to attain food security and help uplift the lives of Filipino farmers through generating additional income.

Staff members from BAR, headed by *adlai* coordinator, Apolonia A. Mendoza of the Project Monitoring and Evaluation Division (PMED) visited the peaks of Benguet to survey and monitor existing Adlai cultivation and management practices, specifically in Benguet State University (BSU), La Trinidad and Brgy. Labueg, Kapangan.

Apart from gathering information on the extent of their knowledge on *adlai* in these locations, the four-day trip was materialized to further enlighten the researchers, residents, and local government units (LGUs) on the benefits of growing *adlai* and its major role in securing food stability in the country by 2013.

Sample products from adlai. PHOTO: ZREYNOSO

La Trinidad

A program was held at the Strawberry Hall of BSU with a handful of participants mostly, municipal agricultural officers (MAOs) from around the province. Although they showed little knowledge on the crop *adlai*, this group demonstrated complete concern and interest in making *adlai* known in their respective areas.

"This commodity means something to us, not only for tourism, but of course the economy and the environment", explained Professor Lorenza Lirio of BSU in her opening remarks.

The program continued with a brief but highly informative presentation on *adlai* shared by Mendoza of BAR, highlighting *adlai* as a "champion crop" to achieve the Department of Agriculture's (DA) Food Staples Self-Sufficiency Program.

Participants asked queries on the crop and they collectively resolved to come together and submit a proposal for further study of *adlai* in their province. More excitement was generated as Lirio obliged to take the group around the BSU *adlai* planting ground, where she showed how the dried stalk of *adlai* can be made into a sturdy intertwined handle for a paper bag, and how the seeds of the wild variety can be used in numerous ornamental accessories such as an ID holder, décor of a photo frame, earrings, and even as beaded drapes.

Kapangan

Representatives from the municipality, the Philippine Councilors League, and farmers came together at the Day Care Center of Brgy. Labueg in Kapangan for the program. Participants of not more than 25 people intently listened to the presentation, with curiosity in their faces.

In the interview, it showed that a few—two individuals in one family—grow the crop in their land. They are using *adlai* simply as a border crop for their main crops because, according to them, it stands firm and high, and for the aesthetics of the *adlai* flower. Others notice *adlai* springing out

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CPAR integrated farming benefits more farmers in Region 1

PHOTO: LPADILLA

IFS does not only increase income but also retain soil nutrition and production sustainability.

Integrated farming system (IFS) is a farming technique that combines crop and livestock production. This farming technique helps farmers in reducing inputs and increasing productivity because crop residues are fed to the animals while their manure is used as fertilizer. This also enables farms to have a convenient and sustainable source of inputs.

Seen as one of the answers to agricultural and economic crises, the Bureau of Agricultural Research (BAR) continues to support IFS projects in different regions through its Community-based Participatory Action Research (CPAR) program.

A team from BAR has recently visited sites for the monitoring of CPAR on IFS and other funded projects in Region 1, specifically in Pangasinan, Ilocos Sur, and Ilocos Norte.

The CPAR-IFS projects visited were: 1) integrated rice-ampalaya (creeping type)-corn + goat production farming system in Umingan, Pangasinan; 2) integrated rice-corn + mango + goat farming systems in San Carlos City, Pangasinan; 3) integrated vegetables-rice-corn + goat farming systems in San Nicolas, Ilocos Norte; and 4) integrated rice-corn-corn + goat farming systems in Sto. Domingo, Ilocos Sur.

Due to recent typhoon occurrences, almost all IFS project sites were affected. The typhoons brought about goat casualties due to colds but these were immediately addressed by the farmers and focal persons through improving their goat housing facilities.

Since the harvest season has passed, no standing crop was found in the areas. However, it was observed that the lands or fields possess good vegetation. This was because most of the inputs were organic.

According to the municipal agricultural officers (MAO), focal persons, and farmers, the overall harvests of rice and corn were good. Meanwhile, the typhoons affected the flowering of mango, which was why re-spraying of flower inducer in late November was scheduled to catch up with the season.

Despite the setbacks caused by intense weather conditions, the IFS projects in Region 1 reflected good outcomes. Among the technologies and interventions done were light trap, sanitation, flower-inducer, organic fertilizer, and pruning.

It is then clear that IFS does not only increase income but also retain soil nutrition and production sustainability. If wisely sustained and immediately expanded, IFS can be called as an answer to famine and poverty. ### ***(Leila Denisse E. Padilla)***

BAR spearheads *..from page 5*

beekeeping held in Canada. Learnings shared were on the importance of well-managed cooperative, regular consultations with farmers (provincial government), value-adding for profitability, and support system from the government. "Philippines should encourage more farmers and businessmen on beekeeping," Dr. Gascon stressed.

The second day of the activity was devoted to the preparation and packaging of proposals on beekeeping based on the activities of the drafted roadmap. BAR staff together with beekeeping experts from the private sector provided inputs and technical assistance to the participants.

During the plenary session, project proponents presented their respective proposals wherein Virginia L. Agcopra, BAR-TCD technical adviser and Arianne Aldeza of DA-HVCDP served as panel of reactors. ### ***(Ma. Eloisa H. Aquino)***

Multisectoral initiatives highlights Climate Change Consciousness Week celebration

In the observance of the "National Climate Change Consciousness Week," which is being celebrated every November 19-25 pursuant to Proclamation No. 1667, the Climate Change Commission (CCC) organized a two-day event featuring plenary sessions, exhibits, workshops and conference on 21-22 November 2011 at SMX Convention Center, Pasay City. The event titled, 'Creating Convergence on Climate Change,' promoted awareness on climate change mitigation and adaptation opportunities towards climate-smart development, and provided venue for convergence opportunities and initiatives to all concerned public and private organizations.

The Department of Agriculture (DA), together with its bureaus, the Bureau of Agricultural Research (BAR) and the Bureau of Soils and Water Management (BSWM) participated in the activity by setting up booth exhibit highlighting DA's initiatives on climate change mitigation and adaptation.

Agriculture is one of the most vulnerable sectors identified with regards on the impacts of climate change. Hence, BAR included Climate Change R&D Program as one its priorities. The program aims to contribute to the country's effort to combat the impacts of climate change to the agriculture and fisheries sectors through research and development.

PHOTO: DDELEON

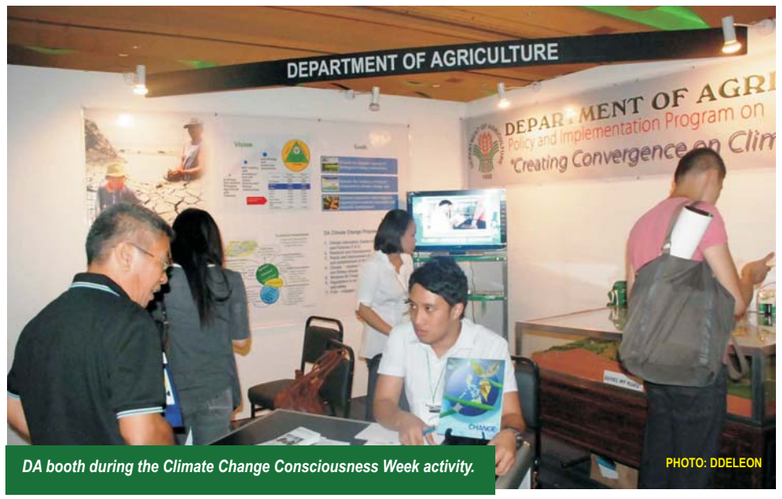
Gracing the event was Senator Loren Legarda, chair of the Oversight Committee on Climate Change.

Gracing the event was Senator Loren Legarda, chair of the Oversight Committee on Climate Change. In her speech, she underscored the importance of the country's disaster resilience through disaster risk reduction and climate change adaptation-related activities. "While climate change is a global phenomenon, we have greater reasons to be alarmed, to work double time in reducing disaster risks, and to fast track our climate adaptation efforts. But this herculean task should not be carried alone by the national government. The government and the people must work together" she said.

Other activities during the event were the children and youth workshop on climate change, consultation series of community based vulnerability assessment tools, workshop on climate change with media and public information officer of government agencies, integration of climate change in land use planning, advocacy concert and among others.

The CCC is the sole policy-making body of the government which was tasked to coordinate, monitor, and evaluate action plans of the government related to climate change. President Benigno Simeon C. Aquino III serves as the chairperson of CCC.

Joining the event were representatives from various government agencies, civil society, business groups, and international organizations which were bonded by a common goal of gearing up the public on the imminent onslaught of climate change. ### ***(Diana Rose A. de Leon)***



DA booth during the Climate Change Consciousness Week activity.

PHOTO: DDELEON

While climate change is a global phenomenon, we have greater reasons to be alarmed, to work double time in reducing disaster risks, and to fast track our climate adaptation efforts. But this herculean task should not be carried alone by the national government. The government and the people must work together. - Legarda

CPAR reaches far-flung municipality of Senator Ninoy Aquino

Farmer proudly standing by the site of his budding rubber tree in Sen. Ninoy Aquino, Sultan Kudarat. PHOTO: AGUMAPAC

To get to the municipality, the roads leading to Ninoy Aquino are unpaved, rough, muddy, with cemented roads added sparsely somewhere in between towns. Located within the mountains of Sultan Kudarat, Ninoy Aquino appears to be caught in between periods.

A team from the Bureau of Agricultural Research (BAR), visited the municipality of Senator Ninoy Aquino, Sultan Kudarat specifically barangays Bugso and Kuden for the monitoring and evaluation of BAR-funded projects on 23 November 2011.

To get to the municipality, the roads leading to Ninoy Aquino are unpaved, rough, muddy, with cemented roads added sparsely somewhere in between towns. Located within the mountains of Sultan Kudarat, Ninoy Aquino appears to be caught in between periods. There are houses that boast steel perimeters with the occasional satellite dish and electric cables thrown in, and yet from the vantage point of an outsider, a vast majority of the municipality's inhabitants are settled within simple yet sturdy houses made of wood, no electricity, and vast land area where they make their living off of.

Although certain areas bear witness to the occasional landside incidents and *kaingin*, the significant and honest detail that jumps out is that very little area appears "untapped." Suffice to say, a number of rubber trees line the roads, with coffee thrown in spaces between. A slew of rubber varieties are evident and in Ninoy Aquino, it appears that the two aforementioned crops are coming to fruition, including livestock that appears to thrive in said area.

The Community-based Participatory Action Research (CPAR), one of the flagship programs of BAR, is designed to develop and implement a new approach to Research and Development Extension with the aim of empowering the community's production management system.

Coupled with the participatory rural appraisal's observation that major farming systems in the locale were coffee, upland rice, and peanut/corn monocropping, and the continuous monocropping system of the commodities contributing to soil erosion, leading to the low soil fertility in the area, CPAR project with the following major components were recommended: rubber-based integrated farming systems, coffee-based integrated farming systems, and product processing and development. The project was implemented in cooperation with the local government unit, including the chosen Bugso-Kuden CPAR Farmers Association.

Rubber and coffee was reported to have the potentials and promising production performance as agro-climatic condition is favorable to their growth. Furthermore, establishing permanent crops in the area may help soil and water conservation system. In addition, cash cropping systems should help provide farmers with income while waiting for plantation crops to be fully productive and to sustain the operation of the farm. Given that, the rubber-based farming system was introduced in Ninoy Aquino.

The project hopes to document the profitability and sustainability of plantation crops and other cash crops, and to introduce soil conservation management practices in the upland rolling areas. The rollover scheme with CPAR's chosen cooperators include trainings on peanut/upland rice/corn production (values reorientation; backyard goat production; product processing and development). The material inputs for the establishment were to be provided through counter parting scheme between the implementing agencies and all the labor inputs will be the counterpart of the farmer partners.

In the trip made by the BAR team, various farmers bore witness to the success of CPAR, despite certain issues and problems. Certain problems that were encountered by some cooperators included the mortality of the goats given to beneficiaries, peanut production failure due to pests, rubber seedlings that failed to grow or showed signs of weakness. In the case of one cooperator, the failure of his rubber tree plantation was due to landslide wherein he had to have said seedling immediately replaced.

In light of these concerns, however, are still positive notes that were observed by the BAR team, including testimonials from its cooperators. From barangay Bugso, a cooperator remarked how thankful he was for having been one of the recipients of one hectare's worth of rubber seedlings. He never even thought of the possibility of receiving said seedlings at no cost, and remarked even further that he considers the project a huge blessing. Another commented that in his continued interest in the project, he would encourage his wife to attend any other future training that can be provided, particularly one that involves peanuts. Added by another cooperator is that in spite the problems encountered, the benefits they have garnered from this project outweighs the aforementioned concerns. Aside from receiving the needed materials such as seedlings, goat, and fertilizer at no cost, they are humbled by the mere considerations that the Department of Agriculture–Central Mindanao Integrated Agricultural Research Center (DA-CEMIARC) asked of them in return: "*Alagaan namin ang project na ito, na mabalik din namin ang isang goat and 420 seedlings of coffee.*" ("We'll take care of this project, and hopefully return the goat and 420 seedlings of coffee"). Another remarked: "*Maganda ang project kasi nakatanim na kami ng rubber. We received rubber seedlings, goat, fertilizer…counterpart na namin ang coffee seedlings kase madami naman kaming kape.*" (The project is good since we have already planted rubber. We received rubber seedlings, goat, fertilizer…the coffee seedling is now our partner since we are already growing coffee.")

BAR team with the municipal local government representatives and cooperators from Brgy. Bugso PHOTO: AGUMAPAC

Additional good news for this project is that the municipal local government of Ninoy Aquino has identified 10 adoptors for the farming technologies introduced—adoptors that hail apparently from neighboring barangays, Buenaflor and Daligdig (it should be noted that these adoptors are adopting merely the technologies introduced and are not recipients of the materials used to implement the project).

It is truly encouraging to find that the cooperators of the first "CPAR on Upland Diversified Farming System" to reach the municipality of Senator Ninoy Aquino is well and thriving despite its problems.

Next year, the BAR team looks forward to seeing even lesser "untapped" areas and resources for this municipality, including even more heartening production and results from its unrelenting cooperators. ### ***(Maria Ana A. Gumapac)***

BAR continues..from page 11

of nowhere, near lakes and rivers, and in backyards. Some take out the crop, treating it as weed, while others leave it unattended. Ultimately, the participants know of *adlai* because they see it sprouting nearby, but because they are not aware of its potential and uses as food crop, they pay no attention to it.

"*Kinakain laging mga manok, kaya hindi namin tinatanggal.*" ("Chickens love to feed on it, so we don't remove it."), shared one farmer during the group session.

The mission continues

Currently, with funding support from BAR, adaptability trials of *adlai* are being conducted in Regions 2, 4A, 5, and 10 with the hope of providing more information to farmer cooperators on appropriate management and postharvest handling processes of the crop.

Information has also been gathered on the indigenous people (IP) belonging to the Subanen Tribe in Zamboanga, where it was discovered that they have been growing *adlai* as their ancestors have, using it as staple food supply, perhaps as important as rice in the lowland. Given the available information and data gathered so far, *adlai* grows sporadically in the mountains of Benguet, but the IPs are not yet adept of its usefulness.

"Our existing information on *adlai* is just the tip of the iceberg but BAR is committed to surveying the entire country on the possible traditional use of this "champion crop" and provide more information on appropriate management practices," said BAR Director Nicomedes P. Eleazar. Committed to ensure that all agricultural research is coordinated and undertaken for their maximum use to the agriculture sector the bureau's mission on exploring and promoting *adlai* will continue on, even after 2013 when we have finally reached self-sufficiency in rice, the bureau chief concluded. ### ***(Zuellen B. Reynoso)***