Continuation...

CPAR in Ifugao brings Phl...from page 10

work for us – that is, they harvest our bananas because we are too old to do that," she said, adding "Another thing, they do it themselves because they want to make sure that it would cause no damage to the bananas but still they buy our produce at the same rate. They don't charge for the labor."

Japan-grade bananas

Prior to the implementation of CPAR in Alfonso Lista, farmers were already into banana production.

However, there was a pressing need for the growers to level up their knowledge in terms of quality improvement to meet the growing demands for bananas not only locally, but also internationally.

According to one of the project leaders, Peter Adawe, an agricultural technologist in the municipal local government unit of Alfonso Lista, every year there is a gradual increase in the production of bananas due to the commodity's demand especially to nearby provinces like Isabela, Pangasinan, and Baguio City.

"CPAR has provided a good experience for banana growers in our municipality to learn and unlearn production strategies that will benefit the farmers and consumers alike," Adawe shared, adding that the zero-chemical policy that the farmers learned and mastered over the years has been the main reason why

marketing organizations became attracted to this project.

A social enterprise called the Alter Trade Corp. (ATC) is a marketing arm of people's organizations involved in providing livelihood programs, addressing hunger incidence, helping alleviate poverty and uplifting the lives of marginal communities.

ATC recognized this campaign for safe food through the CPAR project. Since then, they have been providing marketing assistance to SABAPA, building linkages with markets in Japan particularly in Osaka and Tokyo.

Balangon variety is a subarashii banana

Balangon is a native variety of green banana, and is Alter Trade's most widely produced and widest selling product. Other groups call it "bongolan" or wild Cavendish. This variety used to be grown by indigenous people because it is easily cultivated and grows unattended in the mountainous, forested regions of the Philippines.

For many years, Alter Trade has been exporting *Balangon* bananas to Japan (which is also ATC's largest *Balangon* market).

The association's data on marketed bananas showed that as of February 2014, the volume of production of all 23 farmers reaches 5.81 metric tons (5,812.21 kgs). To date, the Ifugao province contributed 11 percent of the *Balangon* banana for export, yet the demand continues to rise.

The SABAPA plans to expand the project by converting more idle lands into productive agribusiness areas, sharing knowledge and training other farmers in banana production.

Roy Gammad, a 67-year old farmer who is also an active member of the SABAPA, is more than eager to share how he personally succeeds through this project. "It gave me a sense of fulfillment as a farmer. All farmers want their produce to be recognized by our fellow citizens. But to be recognized in other countries, that's more than enough," he shared.

As the demand for organic food grows rapidly in Japan, and where food safety is of utmost concern (that even their law says that the country of origin of all products have to be listed and labels must come with very specific information such as chemicals used), and considering that the Philippines has already set a standard for the export quality of *Balangon*, plus small farmers can actually produce them, this might be a worthy opportunity for farmerassociations like SABAPA to take a good shot in the global market. ### (Daryl Lou A. Battad)



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CPAR in Ifugao brings PhI bananas to Japan

fugao province has been known to be an advocate of organic farming. Amazingly, this endeavor opened doors for farmers to showcase their produce in the international arena. And when a country like Japan – whose standards when it comes to 'safe foods' are very strict – nods at organically-grown bananas in the Philippines, it sure is something to take pride of, especially by farmer-growers themselves.

This is exactly what the Santa Maria Banana Producers Association (SABAPA) in Alfonso Lista, Ifugao felt when they began exporting their produce to Tokyo and Osaka, Japan.

It all started with CPAR. SABAPA was created as a farmer organization in 2010.

The farmer organization got involved in a Community-based Participatory Action Research (CPAR) project proposed by the local government unit of Alfonso Lista in collaboration with the Bureau of Agricultural Research (BAR).

The SABAPA started with 23 farmer members. A year after, the association was registered with the Department of Labor and Employment (DOLE), enabling the group to rightfully enjoy various technical assistance and opportunities from the government as part of the project's sustainability measure.

The project titled,
"Community-based Participatory
Action Research on Banana
Production and Processing in Alfonso
Lista, Ifugao", generally aims to



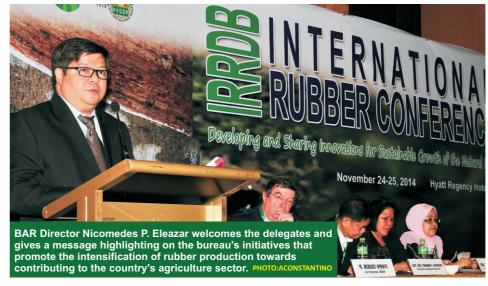
'Balangon' banana variety

increase productivity among farmers in Alfonso Lista, Ifugao through the introduction of new banana production and processing technologies.

To achieve this goal, the farmers underwent training on farm management and organic production technologies during which they learned the use of tissue-cultured banana plantlets, recommended planting distances, clean cultivation through periodic weeding,

turn to page 10

Phl hosts int'l conference on rubber



ith nearly 300 participants from 15 member-countries of the International Rubber Research and Development Board (IRRDB),

the Philippines hosted the "2014 IRRDB International Rubber Conference and Annual Meetings" on 24-28 November 2014 at Hyatt Regency Hotel, Manila. With the theme, "Developing and Sharing Innovations for Sustainable Growth of the Natural Rubber Industry," the event highlighted various

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Eleazar visits BAR-supported projects at BIARC



ureau of Agricultural Research (BAR) Director Nicomedes P. Eleazar, together with selected staff, visited BAR-supported projects implemented by the Bicol Integrated Agricultural Research Center (BIARC), Department of Agriculture-Regional Field Office (DA-RFO) V. He was greeted by BIARC staff members led by its research manager, Dr. Luz R. Marcelino.

production is one of the supported projects of BAR at BIARC. PHOTO:RDELAC

During the visit, Dr. Eleazar mentioned and commended the efforts of BIARC particularly its initiative in conducting research initiatives that are not only significant to the R&D sector, but have impacts on the lives of the farmers and the farming community. The

bureau chief also suggested that they continue to improve their technologies on mushroom and the rimas ice cream, which according to Dr. Marcelino is reaching the mainstream market given that she's now being interviewed by various media outfit on this "only in Bicol, rimas ice cream". Dr. Eleazar cited the importance of product packaging and labeling in further carrying the product to the market.

Among the projects visited by Dr. Eleazar were: 1) oyster mushroom (*Pleurotus ostreatus*) production, 2) rapid propagation of taro and rimas through tissue culture techniques, 3) development

and promotion of adlay (seed production project), 4) adaptability trial on malunggay, 5) organic native chicken production, and 6) techno-demo showcasing different herbs, spices, and medicinal

During the visit, Mr. Pedro R. Oliver, national focal person for mushroom production in Bicol, explained to Dr. Eleazar the process of preparing the mushroom spawn bags and showed some ready-to-harvest oyster mushrooms to the group. The director also toured the plant genetics

room, tissue culture laboratory, and other R&D facilities at BIARC.

The visit of Dr. Eleazar to BIARC was part of the 4th Quarter Research Managers' Meeting, an institutionalized activity of BAR to regularly meet R&D managers all over the country, both for agriculture and fisheries, as an avenue for discussions of the progress of research and development (R&D) programs being implemented by the DA-RFOs and the Bureau of Fisheries and Aquatic Resources (BFAR) regional offices. ### (Rita T. dela Cruz)



Initiatives to conserve native animals intensified

joint endeavor of the Bureau of Animal Industry (BAI) and the Bureau of Agricultural Research (BAR) to conserve the Philippine native swine was the creation of the Philippine Native Animal Development (PNAD) Program. It was created under the Department of Agriculture through the issuance of Administrative Order No.15, Series of 2010 primarily to develop policies and initiatives for sustainable conservation, production, and marketing of native animals.

BAR is part of the Technical Working Group that is tasked to lead and coordinate the R&D component, while the conservation, utilization and genetic improvement lie within the purview of BAI.

In partnership with the University of the Philippines Los Baños (UPLB) Conservation and **Development Specialists Foundation** (CDSF), Inc., BAR conducted a project monitoring and video documentation activities on the agency's native swine funded projects in Tiaong, Quezon; Naga City; and Prieto Diaz and Juban, Sorsogon.

The purpose of the activities was to assess the progress of the projects and to engage native swine raisers in a series of dialogues and discussions in terms of swine production management and identify best practices in relation to the government's conservation efforts.

Meanwhile, the video documentation will be used for the project's upcoming field works and presentations during LGU trainings/seminars.

Ms. Evelyn Juanillo, PNAD focal person of BAR, together with Ms. Ma Joy Malabayabas of CDSF, and the production team of Mag-Agri Tayo of the People's Television (PTV) 4, spearheaded the project documentation.

Part of the activity was a visit to BAI's National Swine and Poultry Research and Development Center (NSPRDC) in Tiaong, Quezon wherein Dr. Rene Santiago, center chief and project leader, was interviewed. Dr. Santiago explained their conservation efforts and discussed the harmonization of the program with other agencies such as those with the DA-Regional Field Offices (RFOs), research institutions, and state universities and colleges (SUCs). He also toured the team inside the center. As of October 2014, NSPRDC'S native swine inventory reached 206.

While in Quezon, the team visited the native swine project of Mr. Arman Saniano in Brgy. Lusacan, Tiaong, who has been a farmercooperator for five years. Since he became a project beneficiary, he was able to sell around 200 heads. He presently tends 50 animals.

Mr. Edwin Mendoza, also from Brgy. Lusacan, joined the program only in 2013. He enthusiastically shared to the group that after a year of operation,

he was able to dispose 25 heads already with only two mortalities. He currently maintains 40 heads (from the original 4 heads-1 boar and 3 breeders).

The group also met with Ms. Tess Bandin of Naga City, who said the project provided her a boar and three breeders. In just a few months, she was able to double the number of swine and is expecting another round of increase since some are already in their gestation period.

Engr. Eduardo Destura of Brgy. Quibolog, Prieto Diaz, Sorsogon is managing 31 heads in his farm and intends to manage a lechunan business in the future.

Meanwhile, Mr. Paul Jores of Juban, Sorsogon sold eight heads already and maintains another 15 in his backyard.

To date, BAR has funded and supported 10 projects on the production and development of native swine in the country. Of these, six projects are currently being implemented by the BAI-NSPRDC, while the remaining four are in collaboration with SUCs. ### (Patrick Raymund A. Lesaca)

Advocates escalate support...from page 13

Host City Mayor Rodrigo R. Duterte closed the event and thanked key officials of the department and other stakeholders for choosing Davao City as the venue of this year's congress.

The Bureau of Agricultural Research (BAR), as the mandated focal agency for the R&D component of NOAP, participated in the congress. A contingent composed of technical staff members from BAR, OA project proponents from selected SUCs (Benguet State University and University of the Philippines Los Baños) and partner-institutions (DA-Quezon Agricultural Experimental Station and Philippine Agriculture Resource Research Foundation, Inc.) participated in the congress. ### (Patrick Raymund A. Lesaca)

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Creating new market for native animals underscored in PNAD Summit

Ithough there is already a wide market for commercial pig, chicken, and others—our native animals are present and there is a need to utilize their potentials as well. Thus, the hub of the talk of Agriculture Undersecretary for Livestock Jose Reaño in his inspirational message delivered during the 2nd Philippine Native Animal Development (PNAD) Summit in Lapasan, Cagayan de Oro City.

Usec. Reaño added that the PNAD program is not made to replace the commercial breeds but to create new market for Philippine native animals. He noted that the research institutions must take into consideration the conduct of studies on native pigs as this could provide new market opportunities.

With the theme, "Equipping Veterinarians and Animal Scientists for ASEAN 2015", the summit was held back-to-back with the 51st Philippine Society of Animal Science Scientific Seminar and Annual Convention.

Organized by the Philippine Society of Animal Science (PSAS) and Bureau of Animal Industry (BAI), the event was attended by participants from the different academic communities.

Dr. Dave Catbagan, DA assistant secretary for Livestock, delivered a message proudly mentioning that the Philippines is already exporting beef to Brunei being a Foot and Mouth Disease (FMD)-free country. The implication is huge as this means that the country can also export pork, chevon, carabeef, etc. "We have a big opportunity. Our challenge is to fight the inputs which can reduce our production cost so as to compete with the ASEAN," he said.

Representing BAR Director Nicomedes P. Eleazar was Ms. Evelyn H. Juanillo, executive assistant from the Office of the Director and PNAD focal person, who presented the "Research, Development, Extension Agenda and Program for Native Animals" highlighting BAR's focus on native animals particularly native pig and native chicken. Ms. Juanillo laid down the researchable areas accompanied by the expected outputs/technologies in breeding, nutrition, production and management, processing and marketing of native chicken. Also discussed were the identified problems in nutrition and marketing in the native pig industry.

BAR is continuously supporting the funding of projects related to native animals RDE especially with the institutionalization of the BAI's PNAD Program.

BAR started supporting the priorities set in the PNAD Roadmap in 2011 to present. To date, BAR has



Ms. Evelyn H. Juanillo, executive assistant from BAR-Office of the Director and PNAD focal person, present on the "Research, Development, Extension Agenda and Program for Native Animals". PHOTO:BCADAYONG

funded 10 projects in support to the PNAD. From these, three projects are completed and seven are ongoing, with five projects on the pipeline. ### (Ma. Eloisa H. Aquino and Bernalin P. Cadayong)

Native pig and goat productions...from page 12

percent in goat population after the introduction of the FLS-IGM. "There are now 20 commercial goat farms, with more than 100 heads and 210 new goat raisers in Tarlac," she explained. "Farmers learned to develop ways to lower mortality thru FLS-IGM technologies like teaching farmers on housing provision, late grazing, stall feeding with leaves with anthelminthic qualities, and strategic deworming. With these technologies, 40 percent decrease in the mortality of goat was realized," she added. Through the FLS-

IGM, better breeds are raised like Anglo Nubian and Boer upgrades at affordable rates, lower in comparison to prices from private entrepreneurs by 30-50 percent (at P3,500 to 4,500/head against P7,500 from private farms). "The conduct of FLS-IGM increased women participation by 32.6 percent. More participation of children and other household members was observed. Goats are preferred more than cattle because they are docile and smaller, easier to handle," she concluded. ### (Rita T. dela Cruz.)

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s part of the 2014
International Rubber
Research and Development
Board (IRRDB) International Rubber
Conference, a study tour was
organized by the Bureau of
Agricultural Research (BAR) to
provide participants greater
appreciation to rubber through
exposure to three rubber-based
manufacturing plants in the
Philippines.

On 26 November 2014, foreign and Filipino delegates joined simultaneous field trips to Mariveles, Bataan; Clark, Pampanga; and Calamba, Laguna. The Bataan group visited Dunlop Slazenger Philippines, Inc., a British-owned company that has been operating in the Philippines for more than 30 years. It is known as a manufacturer of high-quality tennis balls and squash balls often used in sports tournaments held in and out of the country.

Meanwhile, participants of the Pampanga group had the chance to explore the facilities and equipment of Yokohama Tire Philippines, Inc. (YTPI) which began its business operation in the country in Clark, the first tire manufacturing facility of Yokohama Rubber Company, Ltd. in Asia outside of Japan. YTPI carries the Yokohama brand tradition of craftsmanship and modern technologies in the production of reliable and quality tires.

In Calamba, Laguna, the group toured the manufacturing plant of Newpro Industrial Mfg.
Corporation. The company engages in the production of automotive parts whose main products include weatherstrips, mouldings, rubber moulded products, and plastic injection parts.

A participant from the Laguna group, Mr. Danilo Piñera

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ISSAAS Congress Organic Agriculture

BAR, UPLB join Phl delegates in ISSAAS INT'L CONGRESS



ISSAAS Philippine Members pose for a group photo opportunity. Joining them from BAR are: (seated at the middle) Assistant Director Teodoro Solsoloy and Applied Communication Division Head Julia Lapitan; and UPLB Chancellor Fernando Sanchez Jr. (7th from left)

he Bureau of Agricultural Research (BAR) and the University of the Philippines Los Baños (UPLB) were among the members of the Philippine delegation that participated in the annual international congress organized by the International Society for Southeast Asian Agricultural Sciences (ISSAAS) held on 8-10 November 2014 at Tokyo University of Agriculture, Japan.

Coinciding this year's congress was the celebration of the 20th Founding Anniversary of ISSAAS with the theme, "Agricultural Changes in Southeast Asia: Past, Present and Future," focusing on a vision towards agricultural vitality and ecological sustainability through learnings and experiences from the past while keeping track of the current situations and issues faced by the region.

The BAR delegates was headed by Assistant Director Teodoro S. Solsoloy and Ms. Julia A. Lapitan, head of the BAR-Applied Communication Division, while the UPLB was headed by its chancellor, Dr. Fernando C. Sanchez, Jr. and was joined in by Ms. Maria Charito E. Balladares, Ms. Norma G. Medina, Ms. Eliza C. Aquino, Mr. Bryan V. Apacionado, and Mr. Ryan P. Tayobong.

Dr. Solsoloy presented "Agriculture and Fisheries R&D: Shaping the Past, Present, and Future of Agricultural Productivity in the Philippines" during the plenary scientific session. The report discussed an overview

of the performance of Philippine agriculture for the past five decades and its contributions to the growth and progress of the national economy. He enumerated key points of actions that are being done by the Department of Agriculture (DA) giving emphasis on the role of BAR in achieving the overarching goals of DA.

A BAR-funded project titled, "Technology Promotion and Commercialization of Edible Landscaping," was also presented in the congress under the Agro-Engineering category. Edible Landscaping is a new approach on matching together crop production and landscaping. The project is being implemented by UPLB. Presenting the paper, "Past, Present and Future of Edible Landscaping" was Ms. Eliza C. Aquino, project research assistant.

Attending the two-day congress were 350 participants and 240 scientific papers presented under seven categories including plant production and environmental agriculture, agricultural chemistry, aquatic science, forest and forest products science, agro-engineering, animal life science, and agricultural science in society, and economy and boundary agriculture.

ISSAAS was established in 1994 to strengthen cooperation among agricultural scientists in Asia. Among its member-countries are Indonesia, Japan, Malaysia, Thailand, Vietnam,

and Philippines. The ISSAAS Philippine chapter is currently headed by UPLB Chancellor Sanchez. ### (Diana Rose A. de Leon)

Int'l rubber conference...from page 3

of the Isabela State University. responded positively regarding the conduct of the study tour. "I would like to express my utmost gratitude to DA-BAR for organizing this kind of activity and for giving us the opportunity to be exposed to real life rubber manufacturing," he uttered.

According to the Philippine Center for Postharvest Development and Mechanization, 70 percent of the country's total natural rubber production is attributed to the manufacturing of tires and construction works, whereas the remaining 30 percent goes to consumer products such as gloves, medical wares, sports wares, shoes, and balls, among others. ### (Anne Camille B. Brion)

Senate Committee on Agriculture Chairperson Senator Cynthia Villar and DA Secretary Proceso Alcala grace the 11th National Organic Agriculture Congress. PHOTOS:AJACALAN/DA-AFIE ed by Agriculture Secretary Proceso J. Alcala, more than 2,000 organic agriculture (OA) advocates, practitioners, experts, and stakeholders throughout the country including other DA officials and heads of its

This year's theme, "Empowering the Filipino Family through Organic Agriculture", is in support to the United Nations declaration of 2014 as the International Year of Family Farming which acknowledges the significance of Filipino family farmers in alleviating poverty and promoting healthy and sustainable food supply for the country.

implementing agencies, gathered

together for the 11th National Organic

Agriculture Congress (NOAC) held

Convention Center in Davao City.

on 11-13 November 2014 at the SMX

In a message, Secretary Alcala expressed his support to organic agriculture but mentioned that the Department is not brushing aside the importance of conventional farming. "Kung gusto mo ng conventional (addressing the farmers), sige ipagpatuloy mo, ngunit nandito ako upang isulong ang organikong pamamaraan ng pagsasaka sa Pilipinas." He also urged the active support and participation of all stakeholders for the judicious implementation of the OA program. "We need to cooperate with each other. Para po maisulong natin ang organic farming sa ating bansa,' which according to him, is gaining positive momentum.

ADVOCATES ESCALATE SUPPORT TO REGANIC AGRICULTURE PROGRAM

Another organic farming advocate, Senator Cynthia A. Villar, also the chairperson of the Senate Committee on Agriculture and Food, attended the event. In her keynote address, she mentioned that there is future in organic agriculture and continued to stress on its importance in the environment, soil fertility, and healthy life style. "Organic agriculture is thriving around the country as shown by the various activities and interventions of the DA and other implementing agencies. People have

realized the various social and environmental benefits that can be derived from organic agriculture and the NOAP should be actively carried out to serve as catalyst for agricultural growth in terms of sustainability, competitiveness, and food security," said Senator Villar. She also emphasized on the importance of smallscale Filipino farm families and their role in agri-fishery development. She said that small family farmers can feed the world and the country's future is in their hands since close to 70 percent of food produced globally are coming from small farmers. "It was also estimated that around 1.5 billion people or family farmers are engaged in 500 million small farms worldwide and this is the reason why the UN has declared 2014 as the International Year of Family Farming," she added. In conclusion, the senator cited that the benefits of OA are long term and it is complementary to the hunger mitigation and poverty alleviation initiatives of the government.

Meanwhile, in an inspirational message delivered by Representative Roman T. Romulo, chairperson of the House Committee on Higher Education, he rallied everyone to support the importance of education particularly in mainstreaming agricultural courses to the educational system. He cited, for instance, that there are 112 state universities and colleges (SUCs), but only a handful is offering agricultural courses and the enrollees are declining. "It is high time to prioritize agriculture and impart the value of it to the students. NOAC is seen as an effective medium for agri-fishery development," he said.

Other highlights of the congress were series of presentations, awarding of the 2014 National Organic Agriculture Achievers Award, and turnover ceremony for the outgoing and incoming members of the National Organic Agriculture Board (NOAB).

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NATIVE PIG AND GOAT PRODUCTIONS

featured in BAR Seminar Series

o continue providing relevant research results with livelihood component to the public, the Bureau of Agricultural Research (BAR) through its Applied Communication Division (ACD), led the conduct of a seminar series on 20 November 2014 featuring three topics on native pig for organic production, artificial insemination of goats, and integrated goat management.

The topic, "Potential of Native Pigs for Organic Production", discussed by Dr. Virgie N. Callo-Etis, professor and researcher at the University of Rizal System, is a result of a BAR-funded project that is aimed at evaluating the potential of native pigs in the production of organic meats. The study also hoped to develop a pig farm that can showcase the service –and- business of organic meat production. As presented, Dr. Etis cited the three components of the project which include looking into the: 1) growth performance of native pigs on adlibitum and restricted feeding, 2) growth performance of native pigs fed with different levels of Trichantera gigantean, and 3) establishment of feed resource base for native pigs.

On the growth performance, Dr. Etis said that "native pigs can be grown more efficiently with greater return on investment using 20 percent levels of restriction" in feeding. On the effect of using *Trichantera* (madre de agua) as part of the organic feeding of native pig, she explained that, "as partial replacement of the commercial diets, Trichantera did not exert significant effect on the growth performance of native pigs in terms of biweekly weights and weight gains either as total weight gains or average daily gains. On the other hand, the increasing levels of Trichantera replacement significantly improved the feed conversion efficiency and the reducing feed cost per kilogram weight gain was highly significant." She recommended that a feed resource be established for native pigs since the production will be highly dependent on commercial rations leading to a high production cost or making it unfit for organic meat production. "The feed

resource should have at least feed crops both for energy and protein needs of native pigs," Dr. Etis concluded.

The topic on "Artificial Insemination for Goats" was discussed by Dr. Jonathan N. Nayga, director of the Cagayan Valley Small Ruminants Research Center-Isabela State University. His topic focused on the potentials and benefits of raising goats through Artificial Insemination (AI) as a breeding tool. Dr. Nayga mentioned that goat raising is regarded as "sunrise industry" but its potential as a livelihood, particularly in rural areas, has not been fully tapped given that it is still dominated by backvard raisers. He mentioned various problems related to breeding goats, among them include: no breeding plan, inbreeding, poor health management, poor nutrition, absence of breeder, premature breeding, and buck to doe ratio.

breeding method that requires no contact between the buck and the doe. The semen from the buck are collected, processed and stored. The does are bred when signs of estrus (period of sexual heat in a female) have been observed. Semen is introduced into the doe's reproductive organ using instruments. Dr. Nayga also enumerated the various advantages of AI. "It is one of the fastest methods to improve the genetic quality of the herd: and it reduces cost, especially for the need to maintain buck in the farm. He added that in AI, breeding activity can be done one at a time and production management can be uniform.

Dr. Nayga explained AI as a

The final topic, "Adaptation of Farmer's Livestock School on Integrated Goat Management (FLS-IGM)", was presented by Dr. Asuncion G. Beltran, professor and dean at the Institute of Veterinary Medicine, Tarlac College of Agriculture. FLS-IGM is a 28-week discovery-based scientific approach to agricultural extension adapting the Farmer Field School methodology. According to Dr. Beltran, it is the first field school in the country that tackles integrated goat management, looking at goat worm







Top to bottom: Dr. Virgie N. Callo-Etis of URS, Dr. Jonathan N. Nayga of ISU, and Dr. Asuncion G. Beltran of TCA serve as resource persons for the month's seminar series with topics on native pig and goat productions. PHOTOS:RDELACRUZ

management on a holistic perspective, including feeding, breeding, husbandry, economics, and allied enterprise management.

Dr. Beltran reported that there was a marked increase of 15

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Achieving resilience, equity, and integration highlights 2nd Int'l ARD Conference

he Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), in collaboration with various government and nongovernment agencies in the country, held the 2nd International Conference on Agricultural and Rural Development (ARD) in Southeast Asia on 12-13 November 2014 in Makati Shangri-La, Manila, Philippines. The Bureau of Agricultural Research (BAR), as the mandated research coordinating arm for agriculture and fisheries of the department, participated and served as one of the sponsors of the event.

Themed "Strengthening Resilience, Equity and Integration in ASEAN Food and Agriculture Systems", the conference aimed at providing a venue for ARD experts and stakeholders to share and discuss issues and relevant matters that exist within and beyond the Southeast Asian region, including climate change, unbalanced economic growth, and the scheduled ASEAN Economic Integration in 2015.

According to Dr. Cielito Habito, conference technical adviser and coordinator, who gave the conference overview and the background paper, achieving resilience, equity, and integration across the Southeast Asian region requires initiatives and interventions on the agricultural and rural development challenges being faced by the region. With this, he focused on six thematic areas: 1) productivity improvement; 2) inclusive value chains; 3) sustainability and poverty reduction; 4) food security and food safety; 5) institutions and governance; and 6) regional cooperation and integration. These themes also served as bases for the parallel sessions that when properly addressed, will have implications for the region particularly in achieving resilience, equity, and integration.

Resource persons and convenors came from the local and international agriculture R&D



agencies. They presented papers and studies in the four parallel sessions, each consisting of six sessions in view of the conference's theme. Convenors included some of BAR's R&D partners such as the University of the Philippines Los Baños (UPLB), Center for Agriculture and Rural Development - Mutually Reinforcing Institutions, Philippine Cooperative Center, and **UPLB-Institute of Cooperatives and** Bio-Enterprise Development, WorldFish, World Agroforestry Center (ICRAF) Philippines, International Rice Research Institute, University of Asia and the Pacific, Central Bicol State University of Agriculture, FAO Philippines, National Academy of Science and Technology, and Centre for Agricultural Bioscience International.

The conference also featured two plenary sessions: 1) "Resilience, Equity, and Regional Integration in SEA Agriculture" by Mr. Tin Hhut Oo, chairman of the National Economic and Social Advisory Council, Myanmar; Dr. Hermanto Siregar, vice rector of the Bogor Agriculture University; and Dr. Suthad Serboonsarng, member of the Board of Directors of the Cambodia Development Research Institute; and 2) "In Ouest of a Food-secure ASEAN"—a panel discussion with D.L. Umali Achievement Award in Agricultural Development recipients: Dr. Vo Tong Xuan (Vietnam), Dr. Charan Chantalakhana (Thailand), Dr. Ramon Barba (Philippines), and Prof. Dr. Ir. Sjarifudin Baharsjah (Indonesia).

Dr. Gil C. Saguiguit, Jr., SEARCA director, officially opened the conference with the presentation of the "Socioeconomic Planning of the Philippines" while Secretary Arsenio M. Balicasan delivered the keynote address on behalf of President Benigno Simeon Aquino III.

Opening of exhibit and launching of ARD-related books also highlighted the event. BAR participated in both activities with its booth featuring BAR thrusts and programs and the launching of the book "Productivity Growth in Philippine Agriculture" which was published by SEARCA in cooperation with BAR and the Philippine Rice Research Institute.

The event was attended by ARD experts from the academe and various research institutions, government policymakers, local government executives and officials, private sector practitioners, representatives of civil society organizations, farmer leaders and farmers, and other interested stakeholders from Southeast Asia and beyond.

Concluding the event was the Overall Synthesis of Dr. Habito and the handing-over of key policy recommendations for decision makers, and closing message of Mr. Vili Fuavao, FAO deputy regional representative for Asia and the Pacific, FAO Regional Office for Asia and the Pacific. ### (Mara Shyn M. Valdeabella)



ack to back with Davao Trade Expo, the Davao City Chamber of Commerce Inc., in cooperation with Bioversity International and Banana Asia Pacific Network (BAPNET), spearheaded the International Banana Symposium held on 18-22 November 2014 at SMX Convention Center, SM Lanang, Davao City. BAR participated in the event as one of the sponsors and exhibitors. Also, the bureau sent a delegation headed by Ms. Digna Sandoval, head of the BAR-Institutional Development Division (IDD). Other delegates came from various government institutions, local government units, state universities and colleges, and private organizations.

Organizers and sponsors expressed their deepest support for the event like Dr. Agustin Molina, senior scientist and regional coordinator of the Bioversity International; Mr. Alexander Valoria, president of Pilipino Banana Growers and Exporters Association (PBGEA); Ms. Eusebia delos Reyes, president of Mindanao Banana Farmers and Exporters Association (MBFEA); and Mr. Antonio dela Cruz, president of Davao City Chamber of Commerce and Industry Inc.

Providing the inspirational messages were Dr. Dietmar Stoian, programme leader of Bioversity International; and Davao City Mayor Rodrigo Duterte who also served as the activity's guest of honor.

The international event comprised plenary lectures from

international renowned banana scientists who conducted paper and poster presentations covering topics on market opportunities, technological advances, climate change and its impact, banana breeding, corporate social responsibility, precision farming, banana processing, and global Good Agricultural Practices (GAP) and other certification.

Two BAR-funded projects that are being implemented by Bioversity International led by Dr. Molina, were also featured in the symposium through poster presentations. These are: 1) Mitigating Banana Fusarium Wilt Tropical Race 4 through a Farmerparticipatory Approach of Developing Disease Management Strategies; and 2) Enhancing Capacities of Farmers, Extension Agents and Local Researchers towards the Effective Management of Foc (Fusarium oxysporum f. sp. cubense) for Smallscale Cavendish Banana Sector.

The projects focus on how to prevent the further spread of Fusarium Tropical Race 4 (TR 4), a broad ranging and extremely virulent strain that greatly affects the commercial farmers in banana growing countries like the Philippines by reducing the risks. Further, the following projects aim to generate scientific knowledge in order to effectively combat Fusarium wilt. ### (Liza Angelica D. Barral)

PhI hosts int'l conference...from page 1

innovations and breakthroughs on natural rubber to further boost its growth as well as strategies and plans among member-countries to sustain the industry.

Together with the IRRDB, the conference was organized by the Philippine Department of Agriculture (DA) through the Bureau of Agricultural Research (BAR) and the High Value Crops Development Program (HVCDP).

Welcoming the international delegation was Dr. Nicomedes P. Eleazar, director of BAR while HVCDP Director Jennifer Remoquillo officially opened the conference with a message speaking in behalf of Philippine Agriculture Secretary Proceso J. Alcala.

Rep. Ann K. Hofer of the 2nd District of Zamboanga Sibugay gave an inspirational message for the event. As a legislator, Rep. Hofer is instrumental in boosting the Philippine rubber industry. She filed House Bill No. 2435 creating the Philippine Rubber Research Institute in 2007 and was signed into law in 2010 through Republic Act 100891.

The keynote address was delivered by Datuk Dr. Salmiah Ahmad, director general of the Malaysian Rubber Board (MRB) and chair of IRRDB. Her message highlighted on the importance of natural rubber as an important agricultural commodity that is used in the manufacture of various products. She also cited significant advances in rubber R&D for the last 50 years particularly in the areas of plant breeding, latex harvesting technology and introduction of technically specified rubber. Along with this, she mentioned how IRRDB provided the platform in sharing of experiences, exchanging ideas, and establishing mutual cooperation leading to the effective transfer of technology among its membercountries.

Part of the opening program was the presentation of







TRAINING-SEMINAR ON SOYBE creates soaring stories from adop

raining-seminars are conducted not only to inform the participants, but more importantly, to equip them with the necessary skills. For the "Training-Seminar on Soybean Production Technology and Utilization for Food", the 79 participants from the municipalities of Narra, Aborlan, and Puerto Princesa in Palawan, got more than what they came for.

"Sa simula ay para lamang siyang karaniwang training-seminar, na kung saan mapupuno kami ng impormasyon at madalas ay pipilitin naming labanan ang aming antok. Ngunit higit pa pala ito sa aming inaasahan. Hindi lamang ito puro lectures. Ang aming mga interest at tiyan ay nagkaroon ng maraming laman," shared Ms. Basilia Gapos, president of the Rural Improvement Organization of Narra, a group composed of women members.

Mr. Fulgencio Gadiano, Jr., adviser to the 4H Club of Brgy. Burirao of Narra and instructor at Western Philippines University, agreed on what Ms. Gapos shared. He said that his students were merely expecting a series of listen-write type lectures, instead they had actual product demonstrations enabling them to prepare and taste food products from soybean.

The participants from Aborlan, headed by Mr. Armin Molleno, were composed of farmers and housewives. At first they were hesitant in trying the soybean-based meals but later, they were enlightened and were encouraged to pursue soybean production and eventually to process them for additional income.

"My participation to this activity made me realize about how versatile the soybean is. With just

about two kilos of clean beans, several product lines can be created thus, provide a wider scope to generate income," shared another participant. She is an old housewife with a bedridden husband and unemployed children. Soybean, according to her, is a low maintenance crop yet it provides simple-to-prepare, healthy foods.

Meanwhile, participants from Puerto Princesa are members of the Tribal People and Christian Association of Puerto Princesa from Brgy. Babuyan, Brgy. Mauyon, and Brgy. Lukbuan, who



BAR Team with Mr. Allan Lalap (2nd from left) and Ms. Mila Cacal (left) show finished products that were cooked using soybean.

participated during the last day of the training-seminar.

Given that the groups were able to prepare six dishes from the two kilos of soybeans that were provided to them, the return on investment (ROI) resulted to more than a hundred percent. This made them realize how profitable soybean is.

The training-seminar, coordinated by the Bureau of Agricultural Research (BAR) and the DA-Regional Field Office IVB (MIMAROPA), is in line with the efforts and initiatives of the government to promote the production, processing,

and utilization of soybean in the Philippines.

Leading the activity was a team composed of Mr. Elmer E. Enicola, vice-chairperson of the Soybean Technical Working Group; Mr. Allan F. Lalap of DA-RFO IVB (MIMAROPA); and Ms. Jennilyn J. Castañeto and Mr. Wilbert Newton T. Pollisco of the **BAR-Technology Commercialization**

Mr. Enicola discussed soybean as a versatile crop as well as the food products that can be readily processed from soybean. Seeds with inoculants were also distributed to all the participants. Likewise, Engr. Elmer T. Ferry, agricultural center chief III of DA-Palawan Agricultural Experiment Station shared that through the activity, efforts on the expansion of soybean in their province, including its use as food and processing, is intensified.

Ms. Castañeto led the cooking demonstration showcasing the knowhows of preparing sumptuous, nutritious, and affordable meals for households using soybean and its byproduct as primary ingredient in their food meals. Recipes that were prepared include shanghai, soynuts, tofu salad, cinnamon-raisin cookies, okoy, edamame and macaroons, burger patties, soy-watermelon-banana smoothies, and soymilk.

To date, soybean production areas in the country has increased owing to a number of farming communities/peoples organizations that adopted the technology; the involvement of various peoples' organizations and indigenous people; and the established strong collaboration among various agencies. ### (Ma. Eloisa H. Aquino and Wilbert Newton T. Pollisco)

BAR builds **PGR** for traditional TOMATO, EGGPLANT, and PEPPER

Solanaceous crops:

research.

pepper, eggplant,

the Principal Investigator (PI) of this

encountered, and how these can be

target number of collections of the

loss of traditional varieties may be

from traditional to hybrid varieties

agricultural lands are slowly being

converted to industrial or residential

Dr. Myung-Chul

Phase II. Dr. Lee also

suggested looking at the

and effects of climate change.

Researchers also observed that

reported the problems in attaining the

three Solanaceous crops, particularly

tomato varieties. This alarming rapid

due to the shift of farmers' preference

addressed in Phase II. The study

major results, challenges

The presentation highlighted

ven before the ill effects of super typhoon, storm surge, and flooding can potentially destroy important food crops like tomato, eggplant, and pepper, the Bureau of Agricultural Research (BAR) has already started building its Noah's Ark – a shared R&D initiative to rescue these traditional varieties.

The collaborative project titled "Strengthening Plant Genetic Resources Management Systems: Conserving the Diversity of **Priority Vegetables** (Solanaceous crops) Germplasm of the Philippines" was crafted through the efforts of the Philippines' Department of Agriculture (DA) through Undersecretary for Special Concerns Bernadette Fatima Romulo-Puyat and BAR Director Nicomedes P. Eleazar; and Korea's Asian Food and Agriculture Cooperation Initiative – Rural Development Agency (AFACI-RDA). The two-year project started from March 2012 to September 2014.

The Rural Development Authority (RDA) of Korea evaluated the project. The Phase I of the study aimed at strengthening the management system for plant genetic resources conservation, exploration, collection, characterization, evaluation, distribution, monitoring and documentation for sustainable use. Ms. Digna L. Sandoval, head of the BAR-Institutional Development Division, is

Dr. Myung-Chul Lee, RDA scientist; and Ms. Digna L. Sandoval head of BAR-Institutional Development Division, and Philippin principal investigator for the R&D on plant genetic resources

possibility of acquiring support for the enhancement of the National Plant Genetic Resources Laboratory seed storage facility.

AFACI is a cooperation among Asian member-countries that promotes sustainable agricultural green growth and contributes to consistent economic development in the Asian region through technological cooperation in agriculture and food sectors. ### (Jacob Anderson C. Sanchez)

CPAR in Ifugao brings Phl...from page 1

desuckering, removal of the male bud, propping of banana plants, trimming of leaves and care for banana bunches, bunch covering, harvesting, and even marketing.

The trainings not only focused on banana production, but also included organic foliar formulation, and preparation of botanical pesticides from indigenous plants.

The project then linked with the Cooperative for Rural Development (CORDEV), a Nueva Vizcaya-based multipurpose cooperative that provides a wide range of product development and marketing strategies.

Along with the project team from the LGU-Alfonso Lista, CORDEV assisted the farmer-cooperators in field validation, plantation establishment, and farm care and maintenance, and even harvest.

A 76-year old farmer cooperator, Erma Habiling, shared how CORDEV has been of big help especially to her and her husband as they are already old and have difficulty in harvesting

"The CORDEV people were actually doing the laborious

turn to page 16

the "IRRDB BC Sekhar Award for Research Excellence" which was awarded to Dr. Kamarudin Ab Malek, chief executive officer and vice chairman of the Tun Abdul Razak Research Centre (TARRC), based in United Kingdom. Dr. Kamarudin specializes in the use of rubber in engineering applications, particularly in the seismic rubber bearings for earthquake protection of structures and in the use of rubber for offshore applications, and has written more than 60 papers in these areas.

A book titled, "Efficient Weed Management to Enhance Rubber Production" authored by Dr. Chee Yan Kuan and Dr. Chung Gait Fee, also highlighted the event.

Also present during the event were Datuk Dr. Abdul Aziz Kadir, secretary general of IRRDB; Mr. Hubert Omont, vice chair of IRRDB: Dr. James Jacob. vice chairman of the Rubber Research Institute, India; and Dr. Teodoro S. Solsoloy, assistant director of BAR.

There were 53 papers presented during the two-day conference, including 3 invitational lectures and 50 technical papers from India, Thailand, Malaysia, Philippines, Singapore, Indonesia, China, Cambodia, and France. The Philippines, as this year's host country, brought the largest delegation with 190 participants and 10 technical paper presentations covering various topics.

On the third day, participants were toured in three rubber manufacturing plants in Pampanga, Bataan, and Laguna. Meanwhile, the last two days of the event included meetings of **IRRDB** Committee of Directors and CEO; and IRRDB Board.

The "2015 IRRDB International Rubber Conference and Annual Meetings" is slated to happen in Vietnam. ### (Rita T. dela Cruz)



Banana researches and NTCP products featured in Davao expo

n its aim to showcase the frontline industries and the emerging agribusiness technologies, equipment, products and services of Davao region as well as to establish market linkage among entrepreneurs and other interested partners, the Davao City Chamber of Commerce Inc., in cooperation with Bioversity International and Banana Asia Pacific Network (BAPNET), conducted the 16th Davao Trade Expo on 19-22 November 2014 at SMX Convention Center, SM Lanang, Davao City.

Carrying the theme, "From Local Agriculture to Global Competitiveness", the event was graced by Mayor Rodrigo Duterte of Davao City, who also spearheaded the ribbon-cutting ceremony and viewing of exhibits.

The Bureau of Agricultural Research (BAR) participated in the event as one of the sponsors and exhibitors.

In line with the International Banana Symposium, BAR featured in the exhibit two of its supported research projects implemented by Bioversity International. The two studies are on mitigating banana Fusarium wilt or Foc "Tropical Race 4", a broad ranging and an extremely

virulent strain of Race 4 which has caused immense production losses for commercial farmers in many banana growing countries like Asia.

Products funded under the National Technology Commercialization Program, a banner program of BAR, were also featured in the booth exhibit, among them were on beekeeping, sapinit, adlay, sweet sorghum, and soybean.

For effective information dissemination, Information Education and Communication (IEC) materials were distributed to the participants who were mostly from private institutions, farmers, businessmen, and students. Video episodes of Magagri Tayo featuring Bioversity's banana Fusarium project was also played in the exhibit for free viewing.

Majority of the participants were interested on beekeeping, specifically the location of existing apiaries/beekeeping sites within the region. Also, some farmers were curious in exploring the possibility of sapinit production in the highland areas of Davao. Availability of adlay and soybean seeds was also asked by the visitors. ### (Liza Angelica D. Barral)





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BAR HOLDS GPB for gender responsive R&D



n compliance to Memorandum Circular (MC) No. 2014-04 routed by **L** the Philippine Commission on Women (PCW) advising all government offices to prepare and submit their Gender and Development (GAD) FY 2016 Plans and Budgets and FY 2014 Accomplishment Reports, the Bureau of Agricultural Research (BAR) organized a "GAD Plan and Budget (GPB) Workshop" on 18-21 November 2014 in Antipolo City.

The MC was given in line with the preparation of 2016 National Budget Call by the Department of Budget and Management (DBM) and in response to the intensified Philippine government campaign to close gender disparity in the country through mainstreaming gender perspective in government policies, plans, programs, activities and projects.

According to PCW-NEDA-DBM Joint Circular No. 2012-01 or "Guidelines for the Preparation of Annual GAD Plans and Budgets and Accomplishment Reports to Implement the Magna Carta of Women (MCW)", at least five percent of total government agency budget appropriations authorized under the annual General Appropriations Act (GAA) shall be allocated to support activities on GAD.

Hence, as a testament of its commitment to make its plans, programs and projects gender-responsive, the

bureau has been conducting series of gender-related activities and now, a workshop on GBP.

In his message, BAR Director Nicomedes P. Eleazar signified his support on gender mainstreaming as an initiative of the bureau. He stressed on the significance of recognizing gender as an integral part towards achieving inclusive development especially in the agriculture and fisheries sector wherein gender disparity and issues are highly visible and should be addressed. He also revealed to the group the possibility of conducting an evaluation study on the impact of women in agriculture.

Ms. Lorenza Umali, former deputy director of PCW and BAR GAD consultant, served as the guest lecturer and facilitator of the workshop. She discussed important provisions on MCW, PCW-NEDA-DBM Joint Circular No. 2012-01, Commission of Audit Circular No. 2014-001, and other related matters that will guide the bureau on crafting its GPB. According to MC No. 2014-04, the GPB shall be formulated within the context of the agency's mandates. Yet, the agencies should also take into consideration including relevant provisions of MCW, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Women's Empowerment, Development and

Gender Equality (Women's EDGE), and other gender- or women-focused laws and plans of the government on crafting its GPB.



For the workshop proper, BAR staff accomplished the bureau's 2014 GAD accomplishment report, and drafted and refined the 2015 and 2016 GAD plan and budget. Proper attribution to the GAD budget was discussed to the group and how to properly fill out the GBP template. ### (Diana Rose A. de Leon)

s part of the continuing efforts of the Bureau of Agricultural Research (BAR) to strengthen the Intellectual Property (IP) management for agriculture and fisheries R&D, the bureau, in coordination with the Intellectual Property Office of the Philippines, convened BAR staff members for the "Training on Copyright and Related Rights" on 6 November 2014 at Hillcreek Gardens, Cavite.

The training was conducted specifically for BAR staff members who are involved in the production of knowledge products and other copyrightable materials including publications, articles, photographs, information systems, software and digital technologies, and the arts which are all within the scope of their work at BAR. Among the staff who attended were writers, photographers, IT staff, and project coordinators who are directly involved in the process of producing their copyrightable works and products.

BAR, as the lead coordinating agency for agriculture and fisheries R&D, strengthens the importance of protecting the works of researchers and scientists. Furthermore, BAR has been extensively disseminating information, research results, and new technologies developed by researchers and scientists through IEC materials and reports. It is in this light that the bureau sees the importance and relevance of the activity.

BAR Director Nicomedes P. Eleazar gave his message to the participants. "As the number of researches and technologies being funded by the bureau continues to grow, BAR ensures that we extend our services to our clients. More than providing IP protection to their works through registration with the Intellectual Property Philippines, we also seek to ensure the quality of the kind of work output that they are producing," he said.

Attv. Louie Andrew C. Calvario of the Office of the Director General, Intellectual Property Office Philippines, served as the resource person discussing on the principles of copyright and related rights.

According to Atty. Calvario, unlike other intellectual property rights, copyright does not have to be

Staff members of BAR trained on **COPYRIGHT**



registered. It exists from the moment of creation, as long as the work created is original. He stressed the idea/expression dichotomy: "only the expression of idea is protected, and not the idea itself."

He also discussed the works that are protected under copyright as mandated by the IP Law, as well as the concept of derivative works. He informed the group that the work of the government does not have a copyright. However, prior approval from the concerned government agency must be obtained first if it will be used for profit.

As discussed, there are two types of rights under the copyright: economic rights (right of remuneration) and moral rights (personal protection). The economic rights is transferrable but the moral rights will always remain with the author. "Here in the Philippines, copyright exists during the lifespan of the author plus 50 years after his death, or the death of his youngest co-owner," explained Atty. Calvario.

The limitations of the copyright are outlined in the fair use principle. These include the purpose and character of use, nature of copyrighted work, amount of substantiality of the portion used in relastion to the copyrighted work as a whole, and effect of the use upon the potential market for or value of the copyrighted work.

To test the knowledge gained from the initial discussions, Atty. Calvario gave hypothetical copyright cases. BAR staff shared their insights and analyze the merits of each case.

Mr. Anthony B. Obligado, head of the BAR-Technology Commercialization Division officially concluded the activity with a message. He said, "May this exercise strengthen our protection to the inventors and researchers for their notable achievements and contributions to proudly Philippine made products, ideas, and concepts. And lastly, may our products as well as technologies generated be equally protected."

The training resulted in a deeper understanding and appreciation on IPR specifically the scope of copyright and other related rights. This enabled the participants to enforce and use them effectively and efficiently in their respective functions at BAR.

Prior to this training, BAR, through its Intellectual Property Office headed by Dr. Andrea B. Agillon, a Patent Agent Qualifying Exam (PAQE) passer, has conducted series of IPR Awareness Training Seminar and Patent Search and Documentation for BAR staff during the past months. BAR assists not only the project implementers of BAR-funded projects, but also other public and private entities that seek assistance in their IP applications. ### (Ma. Eloisa H. Aquino)