Stakeholders' consultation...from page 8

micro-nutrients in order to accelerate adaptation and integration of new technologies into the farming systems of upland and rainfed lowland areas in Samar, Leyte and Biliran, 2) develop GIS-based soil fertility maps of upland and rainfed lowland areas in Samar, Leyte and Biliran, 3) scale–up best-bet options (soil, crop, and water management), including improved cultivars to enhance productivity by 20 percent within five years of selected crops in upland and lowland areas of Region 8, and 4) build capacity of farmers (farmer-facilitators), researchers, and extensionists in the sustainable management of natural resources and build farm enterprises in enhancing profitability of the upland and rainfed farmers.

Finally, the project titled "Enhancing Upland Crop Productions and Water use Efficiency through Balanced Nutrient, Soil, Crop, and Water Management" came from the Mindanao group. The project seeks to: 1) improve the livelihoods of the poor in the upland crop-livestock production systems by increasing 30 percent productivity, 2) enrich watershed and soil fertility management by adopting a science-led holistic approach in rejuvenating degraded upland areas, 3) showcase a successful model that would roll out in the region/country by mapping soil nutrient deficiencies, and 4) reduce agriculture's greenhouse gas emissions and increase carbon sequestration.

Mr. Edmund J. Sana, special technical assistant of the DA-National Rice Program, voiced out his concerns regarding budgetary matters to be downloaded for the project. He recommended that the proposed projects be aligned with each other in terms and methodologies.

Dr. Gina P. Nilo, chief of Laboratory Services Division of the Bureau of Soils and Water Management, agreed and advised the implementing agencies and institutions to apply uniformity in their methodologies so that the inputs and outputs of these projects will become comparable with each other. ### ***(Leila Denisse E. Padilla)***

Region 1 revolutionizes...from page 9

projects; knobs located right below the monitor enable the viewer to select which information they want to read about.

Apart from the objective of sharing knowledge on product data, farming techniques and pest information to farmers, the project also focuses on encouraging educational visits from nearby high schools and universities. To do this, the proponents, led by Dr. Aida D. Solsoloy, installed an interactive exhibit that shows common parasites in animals domesticated for production. It involves a touchpad that allows the viewer to see more information about the common parasite for livestock and poultry. Sliding the touchpad towards the specific parasite drawn on the headboard corresponds to a dedicated video clip about the specifics of the parasite.

To date, the exhibit is housed inside the DMMMSU compound as per the project. However, due to the inaccessibility of the area, Dr. Solsoloy and the DA-Regional Field Unit 2 management decided to transfer the entire exhibit to the DA regional office for maximum exposure and improved accessibility. Soon, this techno demo project will be released and opened to the public, extending agriculture information across provinces and unbounded by profession and age. ###
(Zuellen B. Reynoso)

Dr. Cruz of ILIARC (left) explains to Ms. Lapitan of BAR (right) what the diorama is all about.

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National Review pushes for market development of adlai

Intended to review adlai project accomplishments for 2012, finalize the plans for 2013 project implementation, and refine the adlai agenda and program activities, the Department of Agriculture-Bureau of Agricultural Research (DA-BAR) in partnership with the DA-High Value Crops Development Program (HVCDP) organized a "National Adlai Review and Planning Workshop" held on 21-24 February 2013 at Summer Place Hotel, Baguio City.

Focal persons and representatives from DA-regional field units, state universities and colleges, and MASIPAG Inc. (*Magsasaka at Siyentipiko para sa Pag-unlad ng Agrikultura*), a farmer-led network working towards the sustainable use and management of biodiversity, shared the results and accomplishments of their respective adlai projects for 2012.

Various initiatives have already been done in view of the Adlai R&D program. As evidenced by the fruitful achievements and positive outcomes presented during the review, adlai indeed is one of the promising alternative non-rice staples that can help the country achieve its target to become food self-sufficient. Many farmers especially in the upland areas have shown great interest in cultivating adlai as their staple crop. However, some become hesitant due to the lack of an established market for adlai.

Serving as a transition from Phase 1 to Phase 2, the activity also became a venue for the conduct of a planning workshop to discuss on the adlai implementation protocol and future plans for the succeeding phase of the project. With Phase 1 focused on the production aspect, Phase 2 centers on the commercialization aspect of adlai. Subsequent to the conduct of location-specific adaptability yield trials (AYT) in the country, sites in Regions 2, 4A, 5, 9, 10, and MASIPAG are now in Phase 2 which involve activities that will further promote and encourage the growing, consumption, and utilization of the crop throughout the country. These include intensification of product development, promotional and value-adding activities.

Ms. Jennifer Remoquillo, director of HVCDP, acknowledged the good potential of adlai in generating jobs and in increasing income among farmers. Still, she reiterated the importance of marketing in further promoting adlai initiatives

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Focal persons and representatives from each implementing region present the outcomes of their 2012 adlai projects. PHOTOS:ABRION

IN THIS ISSUE...

Areas planted with soybean increased; Tarlac governor pledges 1,000 hectares

Participants and resource speakers during the "National Review and Planning Workshop on Soybeans R&D Project". PHOTO:MEAQUINO

As of December 2012, there are 1,685 hectares planted with soybean, producing 99,808.5 kilograms, and distributing 61,955.3 kilograms of seeds to farmers. These were just among the consolidated accomplishments of various soybean project implementers presented during the "National Review and Planning Workshop on Soybeans R&D Project" held on 24-28 February 2013 in Baguio City.

Soybean program has so far reached its goals. This is visualized through the commitment and growing interest of the private sectors/ stakeholders on food and feed business of soybean, establishing public-private partnership.

Tarlac Governor Victor Yap challenged the Tarlac College of Agriculture (TCA) and farmers to plant soybeans in 1,000 hectares of land in Tarlac for production and product development to increase farmers' income.

Dr. Nicomedes P. Eleazar, director of the Bureau of Agricultural Research (BAR), stressed the importance of public-private partnership and encouraged regional partners to replicate what the Makabagong Gabay sa Kalusugan (MGSK) Health Products Company has done, particularly in soybean processing and product development. MGSK is a successful NGO-partner of the Department of Agriculture. BAR supported its product development on soy coffee, *taho*, *tokwa* (tofu), soymilk, soy sauce, soy coffee, polvoron, and vegetable noodles, among others.

In response, High Value Crops Development Program (HVCDP) Director Jennifer Remoquillo commended the efforts exerted by project implementers of not putting government funds to waste. HVCDP and BAR provided funding support for its implementation from January 2011 to December 2012.

Notable accomplishments of the program were enumerated during the five-day activity. Under the project, the Bureau of Soils and Water Management (BSWM) has already packaged a book containing the results of the study titled, "*Land Resource Evaluation of Strategic Production Areas for Soybean Development"* covering 10 regions in the Philippines.

Activities included pre-mapping and interpretation, ground trothing, and mapping and

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

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Spreading the word about rimas as a Pinoy crop

Before *rimas* ice cream even hits the market, the public should learn first what it is-what it looks like and how it actually tastes. According to Dr. Roberto Coronel of the University of the Philippines Los Baños, *rimas* or breadfruit (*Artocarpus altilis*) is just one of the 300 important species of edible fruits in the Philippines that is important but, unfortunately, underutilized. These potential fruit crops need to be properly introduced to the public.

Breadfruit is native to New Guinea and was introduced in the Philippines during prehistoric times. It is often mistaken for breadnut (*Artocarpus camansi*) which is a close relative of the breadfruit.

Coronel, in his book "Important and Underutilized Edible Fruits of the Philippines," mentioned that in places where it abounds, immature rimas are often cooked as a vegetable while the mature fruit is boiled and eaten like bread, with sugar and grated coconut. Those who have tasted cooked *rimas* will say that it is starchy and tastes like a cross between potato and bread.

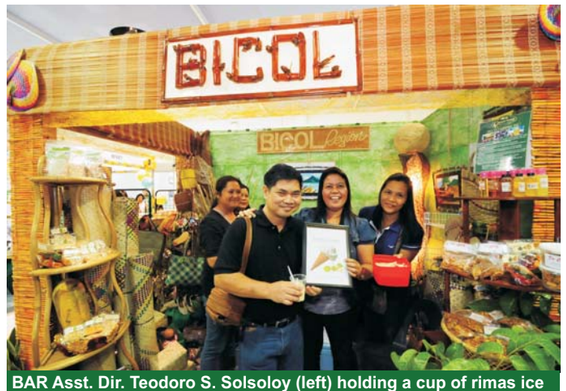
Rimas is a carbohydrate- and energy-rich crop and has low levels of protein and fat, and a moderate glycemic index. This is the reason why *rimas* is being pushed and endorsed by DA as a potential alternative food staple to rice. The National Tropical Botanical Garden (NTBG) cited that breadfruit is also a good source of dietary fiber, potassium, calcium, and magnesium with small amounts of thiamin, riboflavin, niacin, and iron.

The Siram Rimas Ice Cream advertisement of BIARC which was on display at the Bicol booth during the 8th Agri & Fisheries Tech Forum held in 2012 at SM Megamall. PHOTO:DDELEON

Tapping R&D to explore *rimas'* multiple uses

"BAR, as the tasked focal agency to lead the Breadfruit R&D Program, is looking into the potential of this underutilized crop. Through this program, we are exploring other applications because researches show that it can have multiple uses. This is in line with the effort of the government to address national food and nutritional security," BAR Director Nicomedes P. Eleazar pointed out.

The program was launched last year under the auspices of Agriculture Secretary Proceso J. Alcala himself. From then on, BAR, together with HVCDP, has conducted activities to support the program that include benchmark database setting, identification of needed R&D interventions, and development of action plans to promote awareness and utilization of the crop. In support to this program, BAR is providing funding to R&D projects on rimas. Aside from the BIARC project led by Marcelino, the bureau is also supporting the implementation of two more *rimas* R&D projects: 1) Determination of the Incidence Field and Postharvest Pests and Diseases of Rimas or Breadfruit and Documentation of its Crop Production and Management Practices Adopted by Farmers implemented by the University of Southern Mindanao; and 2) Survey, Characterization, Evaluation and Maintenance of Breadfruit from Nursery to Bearing Stage in Region XI, both of which are being implemented by the Southern Mindanao Integrated Agricultural Research Center (SMIARC)-RFU XI.



BAR Asst. Dir. Teodoro S. Solsoloy (left) holding a cup of rimas ice cream which he sampled at the booth. With him are BIARC Manager Luz Marcelino (2nd from left) and staff. PHOTO:ACONSTANTINO

A Roadmap for Breadfruit was also crafted in support to the implementation of the program with allotted budget of P36 M to come from BAR and HVCDP. The components of the roadmap include: 1) identification of planting materials in 16 regions for sustainable production; 2) enhancing farmers' capability to propagate breadfruit; 3) development of postharvest technologies; and 4) establishment of 37 nurseries in the regions. ###

For information about the project, please contact Ms. Luz Marcelino, manager, Bicol Integrated Agricultural Research Center (BIARC) at mobile no. 0917-620-0269 or email: luzcelinomar@yahoo.com

BREADFRUIT

not your usual ice cream flavor

Story by Rita T. dela Cruz

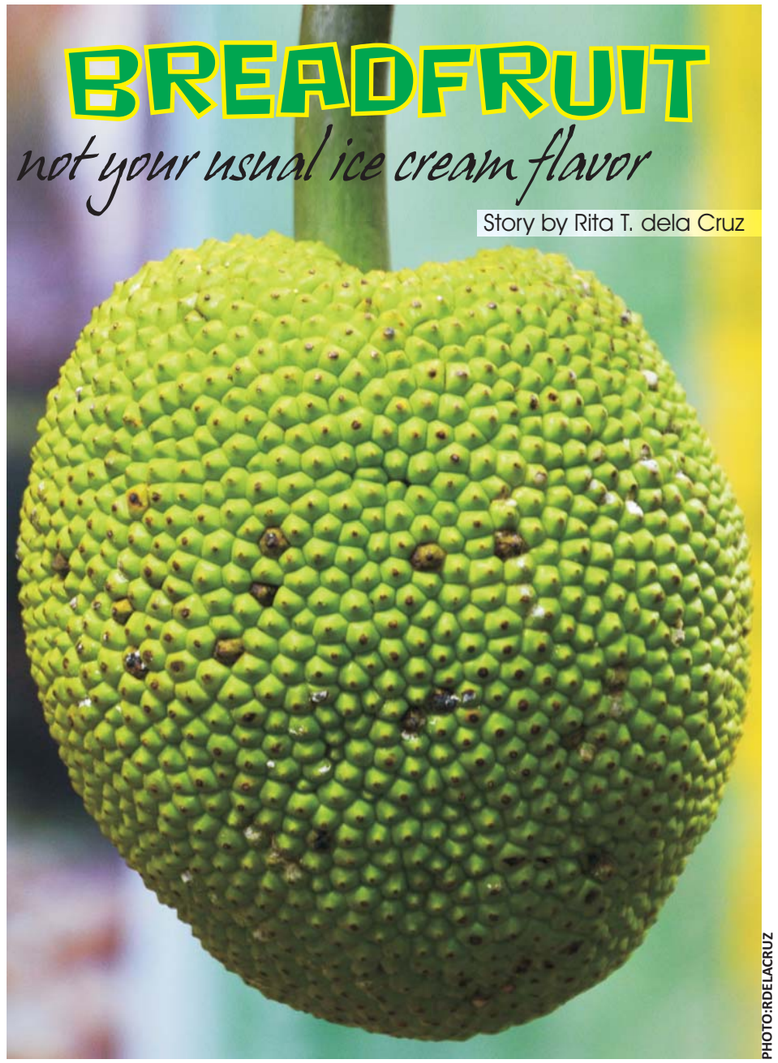


PHOTO:RDELACRUZ

For most people, breadfruit or *rimas* may be an unheard-of crop, what's more, making it the main ingredient for the most favorite dessert in the world - ice cream. The thought may not easily strike one as tempting or heavenly like strawberry or *ubi* ice cream, but breadfruit ice cream, if given a try, could also give these fruit-based ice creams a run for their money.

"We thought at once that *rimas* is a good flavor for ice cream because of its fine texture. It has good consistency with milk. Physically, it looks nice with its pure white flesh just like that of *guyabano*," explained Luz R. Marcelino, manager of the Bicol Integrated Agricultural Research Center (BIARC) of the Department of Agriculture-Regional Field Unit (DA-RFU) 5. Marcelino is also the project leader of the study "Rimas (Breadfruit) Biodiversity Research, Conservation, Propagation and Utilization in the Bicol Region" funded by the Bureau of Agricultural Research (BAR) and DA-High Value Crops Development Program (HVCDP) under the Breadfruit R&D Program.

The breadfruit ice cream that BIARC developed comes in three variants: *rimas* with sweet potato, *rimas* with cheese and chocolate, and *rimas* with langka. In all variants, *rimas* makes the major flavor of the ice cream, taking up 80 percent of the mixture.

Rimas ice cream was one of the featured products at the BIARC booth during the 8th National Agriculture & Fisheries Technology Forum and Product Exhibition held in 9-12 August 2012 at the Megatrade Hall of SM Megamall in Mandaluyong City. Although visitors who tasted the ice cream already expressed their delight and enthusiasm for the product, food technology experts from BIARC are further refining the taste and texture of the product for improved palatability. "We are still trying to improve the coagulation (curdling or thickness) of the ice cream and perhaps enhance the formulation by reducing the sweetness," Marcelino said.

Currently, the group of Marcelino is also developing another variant of the spicy ice cream, *rimas* with *siling labuyo*, a unique blend for a dessert that is expressly designed for the Bicolano taste bud like the famous Bicol express *(sinilihan)*.

According to Marcelino, the *rimas* ice cream has its greatest potential in Masbate. When asked why Masbate, Marcelino explained that it is an area in the Bicol Region that has a hotter climate and hence a demand for cold products making the province the ideal market. Also, Masbate has a thriving livestock industry, and by-products from milk is popular, thus *rimas* ice cream will easily find a niche.

Production-wise, Masbate is also excellent for a breadfruit ice cream industry because it has its own regional carabao breeding center which can develop local dairy carabaos that are needed in ice cream making.

As for its future plans, Marcelino said that BIARC will link with cooperatives or the business sector to market the ice creams that they have developed. Currently, they are looking into a partnership with a potential enterprise, the La Huerta farm, a culinary-oriented business engaged in herbs and spices concoction.

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BAR, SEARCA stage first-ever National Conference on IKM

The IKM National Conference brings together managers, information officers, and technical staff from DA national and regional offices. PHOTOS:ZREYNOSO

The Bureau of Agricultural Research (BAR) and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) conducted the first-ever "National Conference on Agriculture and Fisheries Information and Knowledge Management (IKM)," a culminating activity of the BAR-SEARCA project titled, "Capacity Development on Knowledge Management Project." Held on 6-8 February 2013 in Tagaytay, the conference was participated in by managers, information officers, and technical staff from the national and regional offices of the Department of Agriculture (DA).

Prior to the national conference, BAR and SEARCA conducted several consultative workshops in Luzon, Visayas, and Mindanao which led to the design and development of an IKM Strategic Plan, which consequently, crafted the National Capacity Development Program on Knowledge Management for the Philippine agriculture and fisheries sub-sectors. Also, selected BAR staff attended various IKM conferences abroad and participated in various benchmarking visits to IKM organizations.

Dr. Alexander G. Flor, professor of Information and Communication Studies at the University of the Philippines-Open University, and Knowledge Management for Development (KM4D) advocate, served as the resource person for the conference.

The activity aimed to draft the terms of reference of information and knowledge management staff, propose IKM staffing policies, identify formal/non-formal/informal IKM training requirements, and validate and finalize a capacity development program on IKM.

Dr. Gil C. Saguiguit, director of SEARCA, officially opened the conference with his welcome remarks. He said that "the goal of the conference and of the whole project is to build your capacities in managing, utilizing, and sharing knowledge resources to promote a learning culture that supports agricultural and rural development. This is more relevant in this time when knowledge

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Dr. Nicomedes P. Eleazar underscores the significant role of IKM in the R&D system.

Ms. Diana Rose A. de Leon Information Officer, ACD

Mr. Ryan Joseph M. Abrigo Librarian, ACD

Leila Denisse E. Padilla Information Officer, ACD

Ms. Rita T. dela Cruz Assistant Head, ACD

Mr. Patrick Raymund A. Lesaca Proj. Dev't Officer/Writer, ACD

Ms. Ma. Eloisa H. Aquino Writer, TCD

Ms. Julia A. Lapitan leads the group in re-echoing their experiences during the benchmarking visits.

PHOTOS:ZREYNOSO&ABRION

BAR joins nationwide 2013 NYR Commitment Ceremony

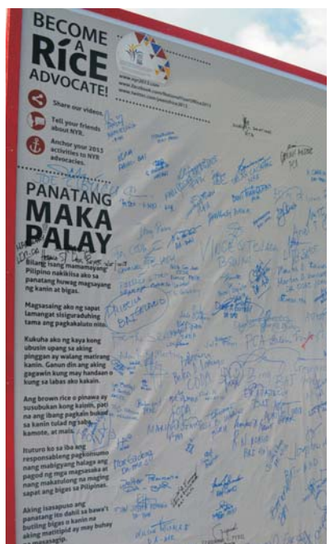
Assistant Director Teodoro S. Solsoloy of the Bureau of Agricultural Research (BAR) led officers and employees of the bureau during the 2013 National Year of Rice (NYR) Commitment Ceremony and the unveiling of the official NYR logo on 11 February 2013 held in front of BAR Building.

The activity was part of the directive issued by Department of Agriculture (DA) Secretary Proceso J. Alcala through a Memorandum Circular directing all heads of the department units, regional field units, staff bureaus, and attached agencies to take active part in the launching by virtue of Presidential Proclamation No. 494 declaring 2013 as the National Year of Rice. The event carries the theme "*Sapat na Bigas, Kaya ng Pinas.*"

The simultaneous launching nationwide led by the Office of the Secretary and other DA offices was also in response to the advocacy of His Excellency President Benigno C. Aquino III calling for the attainment of rice self-sufficiency by 2013.

Highlight of the ceremony included reciting the *Panatang MakaPALAY* by the officers and employees of BAR pledging their commitment not to waste rice. Reciting the pledge will be a regular activity among the DA employees during flag raising ceremony.

BAR Assistant Director Teodoro S. Solsoloy (right) leads key officials and staff members of the bureau in reciting the *Panatang Makapalay* (Pledge of Rice) with right fists placed at the heart to symbolize their earnest commitment to consume rice responsibly. PHOTOS:ABRION



BAR staff sign on the commitment wall during the celebration of the NYR Commitment Day. PHOTOS:ABRION

Dr. Solsoloy stressed the importance of the activity and encouraged everyone to include other quality nutritious foods such as banana, cassava, white corn, sweet potato, and adlai in their dietary intake. Aside from the conscious effort to promote other staple crops, the NYR proponents are encouraging the consuming public to eat brown (unpolished) rice as part of their diet. Brown rice is more nutritious and has a higher recovery milling rate of 75 percent compared to white rice which has only 65 percent milling rate.

BAR officers likewise led the unveiling of the official NYR logo. This will be displayed throughout the year to show the bureau's support and commitment to the goal of achieving rice-self sufficiency.

On 25 February 2013, BAR joined the celebration of the NYR Commitment Day. The bureau actively participated in the line-up of activities during the event including the signing on the commitment wall to signify support to NYR. ### ***(Patrick Raymund A. Lesaca)***

PHOTOS:DDELEON

imported. A 20-kilogram (kg) vermiculite costs about PhP 1,200.

This is why the Tree Care conducted an experiment to determine the right proportion of vermiculite that should be used. Using garden soil as the growing medium, it was found out that crops grow best using only 1/2 garden soil and 1/6 vermiculite compared to using the garden soil alone. With this result, the growers can save and still maximize the growth potentials of the crops.

Tree Care is making the necessary steps to make vermiculite locally available in the market. They are planning to have a vermiculite exfoliation facility to accommodate the demand.

BAR, seeing the potentials of the technology in promoting food production and proper nutrition to the youth, embarked on a collaborative project with Tree Care titled "Commercialization of Vermiculite-based Low-spaced Soil Less Growing Medium in the Promotion of Urban Gardening for Primary and Secondary Public Schools." The project is piloted in selected primary and secondary public schools within the cities of CALABARZON.

Tree Care is a professional arboricultural company offering services in proper tree care and other plant-related maintenance. It was established in 2002 by forestry and agriculture experts and practitioners of the University of the Philippines Los Baños. ### ***(Diana Rose A. de Leon)***

For more information regarding vermiculite and urban gardening, please contact the Tree Care office at (049) 536-0054 or through their email address:treecare@madecor.com

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1. Tree Care. (2013). Utilization of vermiculite-based low-spaced soil less growing medium in the promotion of urban gardening [PowerPoint slides].

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Ms. Midie Peñalosa-Peñarubia from Tree Care demonstrates the step by step process from plant container preparation to planting using the vermiculite-based medium.

Less soil gardening made possible with vermiculite

Tree Care President Patrick M. Rocamora (inset photo) shares information on urban gardening and proper care and maintenance of vermiculite-based media. PHOTOS:DDELEON

Soilless agriculture is now possible with hydroponics. Using only a mineral nutrient solution, water can now be a medium to grow crops. As the concept of "grow-your-own-food" has become viable in this time and age, the technology is appropriate particularly in an urban setting wherein the lack of space and soil is a problem.

Aside from hydroponics, another technology that introduces the use of minimal amount of soil and space is the vermiculite. The topic was discussed in a seminar sponsored by the Bureau of Agricultural Research (BAR) held on 28 February 2013.

Mr. Patrick M. Rocamora, president of Tree Care and Maintenance Services Foundation, Inc. (Tree Care), served as the resource person discussing the use of vermiculite-based, low-spaced soil less growing medium in the promotion of urban gardening.

Vermiculite is a shiny, light brown colored naturally occurring mineral prominently used in construction, industrial, horticulture, and agriculture. Its dominant characteristic is that when subjected to heat, it can expand as much as 8-30 times its original size, thus, a good raw material for insulation. The major vermiculite mines are located in South Africa, China, Brazil, Zimbabwe, and United States. The premise of Rocamora's presentation is the complementation of the vermiculite with urban gardening.

Urban gardening was born out of the possibilities of growing crops and sustaining food source with limited space available. With emphasis on 3Rs (reuse-reduce-recycle), productive but economical gardening is possible using only container materials available in the locality such as tin cans, plastic tubs, used tires, polyethylene terephthalate (PET) bottles, etc.

Urban gardening is made easier with the help of vermiculite. He pointed out that vermiculite can be utilized in agriculture as soilless culture medium and for faster seed germination. As it is lightweight, odorless, mould resistant, non-irritant, and non-toxic, it is safe and easy to use. He also enumerated the good characteristics of vermiculite that foster the healthy growth of plants such as having a neutral pH (7.0), improves soil aeration, helps in retaining moisture and the added nutrients to feed roots, and possesses useful cation exchange properties.

Rocamora said that any plant which does not take too much space such as vegetables, flowering plants, fruit-bearing (grafted), medicinal plants, herbs and spices can be grown.

Just adding a certain amount of vermiculite, aside from soil, sand, coconut coir, compost, sphagnum moss, and perlite can be utilized as culture media. Vermiculite alone can also be used as a culture medium. However, it is expensive as the vermiculite available in the country is still

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Samples of planting medium composed of 1/6 vermiculite and garden soil. One pack is good for one 1.5 liter PET plastic container. (inset photo) A sample pack of vermiculite PHOTO:DDELEON

RTDs, RIARC managers briefed on BAR's new coordination setup

PHOTO:DBATTAD

To provide a smooth and harmonized coordination of all priority Research and Development (R&D) programs of the Department of Agriculture (DA), the Bureau of Agricultural Research (BAR) convened Regional Technical Directors (RTDs) for R&D, Regional Integrated Agriculture Research and Development Center (RIARC) managers, and BAR key officials and staff for an orientation and briefing on the newly implemented coordination setup of the bureau on 18 February 2013 at BAR.

Dr. Nicomedes P. Eleazar, the bureau's director, said that the shift from region-based to program-based type of coordination will give more focus on the projects that BAR is currently supporting. This will also ensure a smooth facilitation and coordination between BAR and its direct partners, especially the RIARCs.

There are seven major programs/commodities that have been organizationally restructured. These include: 1) Community-based Participatory Action Research (CPAR), 2) Rice Program, 3) Corn and Cassava Program, 4) High Value Crops Development Program (HVCDP), 5) Organic Agriculture Program, 6) Philippine Rainfed Agriculture Research Development and Extension Program (PhiRARDEP), and 7) Climate Change Program.

Teams, composed of four or more members, serve as focal persons and are assigned to each of these programs.

PHOTO:DBATTAD

BAR Director Eleazar emphasizes that the new setup will provide a more improved facilitation and coordination of the different R&D projects being handled by the bureau.

Mr. Joell H. Lales, head of the Planning and Project Development Division (PPDD), presented the rationale of the bureau's new functional setup. He emphasized that such changes should be immediately relayed to implementing agencies as they are the bureau's direct partners in all R&D activities at the local level. He also added that such functional integrations deliver focus, thus efficiency. Mr. Lales also introduced the designated focal teams for each program.

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Areas planted with soybean...from page 2

delineation for the organic soybeans producing areas. The Technical

Agri attaché meets BAR,ATI for future S&T collab


Ms. Digna L. Sandoval (BAR)


Dr. Josyline C. Javelosa (US)


Dir. Asterio P. Saliot (ATI)

PHOTOS:JSANCHEZ

The Bureau of Agricultural Research (BAR) is keeping an eye on a role under Philippines-United States Science and Technology (S&T) Cooperation, an agreement that aims to strengthen scientific, technological, institutional capabilities, and to broaden and expand relations between S&T communities in areas that include agriculture.

In its early stage, the agreement, which was signed on 8 June 2012, has already acquired a great deal of support from both countries, particularly, the Philippine Department of Agriculture. One initiative being put into action is the orientation of the agricultural sector on its advantages and limitations.

By focusing on cooperation in S&T, BAR has been supportive to the 2020 vision for Food, Agriculture and Environment which is in sync with that of the bureau which is to achieve a better life for Filipinos through excellence in agriculture and fisheries R&D.

Recently, Washington-based Agriculture Attaché Dr. Josyline C. Javelosa requested a consultation meeting with BAR and the Agricultural Training Institute (ATI) to stir up exchange of information and provide the needed stimulus to promote cooperation in areas of mutual benefit. The meeting solicited inputs from both agencies in search of key deliverables that can be implemented through this bilateral cooperation. The Institutional Development Division (IDD) is spearheading BAR's participation in this concern. It was held on 12 February 2013 at the bureau's conference hall.

On behalf of Director Eleazar, IDD Head Digna L. Sandoval presented and briefly discussed the major thematic programs of the bureau. She said that BAR is privileged to have Dr. Javelosa and ATI Director Asterio P. Saliot as sources of valuable information; and considered the meeting as an avenue to strengthen the ties between the DA agencies.

Dr. Javelosa asked the group to identify critical areas in the agreement that are aligned with the programs of BAR for which technical expertise may be obtained from the United States. "Through this agreement, the US Department of Agriculture can routinely send their technical experts and provide training to Filipino farmers and fisherfolk," she added.

Planning and Project Development Division (PPDD) technical staff Ms. Cynthia Remedios V. de Guia mentioned that one area which may be pursued through this cooperation is on climate change, particularly on short-term adaptation strategies while PPDD technical staff Mr. Patrick L. Cabrera added that the country may need the expertise in biotechnology.

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Dir. Saliot and Dr. Javelosa receive publications from BAR.
PHOTO:JSANCHEZ

PHOTO:ELACAMBRA

CSU key officials and faculty members from different campuses together with Dr. Teodoro Solsoloy, guests, and resource persons of the forum.

The assistant director also gave copies of BAR publications, namely: "Climate Change Research, Development and Extension Agenda and Program for Agriculture" and "BAR Research and Development Extension Agenda and Programs (RDEAP) for 2011-2016" as reference materials.

Dr. Lina M. Garan, chief executive officer of the CSU Sanchez-Mira campus, also showed to Dr. Solsoloy the BAR-funded Tissue Culture Laboratory during his visit. The laboratory is a facility that helps hasten the production of planting materials and can potentially be a good source of income for the campus. ### ***(Wilson G. Viloria II)***


PHOTO:ELACAMBRA

Dr. Lina Garan (left), chief executive officer of Sanchez-Mira Campus showing to Dr. Solsoloy the Tissue Culture Laboratory funded by the bureau.

BAR heightens CapDev...from page 10

in disseminating information but also in transfering and re-using knowledge to its stakeholders. CapDev, in this context, is seen as a triggering mechanism that would enable maximum knowledge sharing of research results throughout the agri-fishery spectrum.

Knowledge sharing through CapDev must therefore be institutionalized in all levels of research hierarchy. The research institutions, scientific communities, and research administrators, including BAR must play a proactive role in this process of development. To complement one another in exploring researchable areas and finding scientific truth will provide an effective blueprint for knowledge transfer.

The KM Program of BAR, which is now in the developmental stage, will substantiate this move to equip and capacitate researchers in the call for a progressive Philippine agriculture. CapDev therefore must be enhanced and be given a proactive stance across all levels of government and the agriculture sector. ### ***(Patrick Raymund A. Lesaca)***

CSU now ready to rise again in R&D

Dr. Teodoro S. Solsoloy, assistant director of BAR, gives a lecture on climate change and presents its R&D programs and activities. PHOTO:ELACAMBRA

One of the prestigious universities in the country and described as a sleeping giant in Research and Development (R&D), the Cagayan State University (CSU) is now ready to rise up and regain its lost glory, said President Romeo R. Quilang during the "Research and Extension Forum and Workshop" held in Tuguegarao City. He added that for the past years, the university focused mainly on renovation and upgrading of their buildings and facilities and on academics keeping off track the R&D function.

President Quilang, known to be research-oriented and assertive in pushing for RDE, has urged his faculty and staff members to craft more project proposals and engage in research activities to promote the development of the university and the whole Cagayan Valley region.

Also present in the event was Dr. Teodoro S. Solsoloy, assistant director of the Bureau of Agricultural Research (BAR) who presented the bureaus' Research and Development and Extension Agenda and Program (RDEAP) and Climate Change Program.

BAR is extending its assistance and funding support to its various R&D partners including state universities and colleges (SUCs) such as the CSU. Its R&D thrusts are in line with the overall goal of the Deparment of Agriculture which is anchored on: food security, increased productivity and profitability, poverty eradication and people empowerment, sustainable agricultural development, and global competitiveness.

"With this development, we are on the right track!" Dr. Quilang concluded. CSU looks at BAR and other agencies like a great ladder, instrumental in rising up and venturing into the world of research.

Optimizing his presence at CSU, Dr. Solsoloy also visited four of its campuses (Andrews, Carig, Aparri, and Sanchez-Mira) and lectured on the topic, "The Science of Climate Change and Its Effects to Agriculture" and "DA-BAR R&D Programs." The two topics will help the CSU researchers in proposing R&D projects to BAR.

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Dr. Solsoloy receives a Certificate of Commendation from CSU Vice President for Research Development, Extension and Training (RDET), Dr. Dominador Tamayao (2nd from left). PHOTO:ELACAMBRA

Dr. Solsoloy hands over BAR publications to Dr. Tamayao. PHOTO:ELACAMBRA

BAR intensifies support to yellow onion, soon to export in Japan

Philippine delegation with Hannan Seika Co., Ltd. Officers (L-R): Ms. Digna Sandoval (BAR); Dr. Teruko Haga (Japanese expert); Chairman Toshikazu Sasano (Hannan Seika); President Naruo Sasano (Hannan Seika); and Ms. Fe Amor Ilagan (NOGROCOMA)

PHOTO:BAR

The Bureau of Agricultural Research (BAR), under the leadership of Director Nicomedes P. Eleazar, supports the funding of a research initiative on yellow onion (*Allium cepa*) in the country. The project will be implemented by the National Onion Growers Cooperative Marketing Association, Inc. (NOGROCOMA). Given this opportunity, the Philippines is already set to re-open its export opportunities for the 'Yellow Granex' in Japan. Yellow onions are white inside with yellow-brown layers of papery skin on the outside.

In 2011, BAR supported the project titled *"Enhancing the Productivity of Yellow Onion (Allium cepa L.) Towards Commercialization for the Export Market"* under one of its banner programs, the National Technology Commercialization Program (NTCP). The project aims to enhance the production efficiency in onion through appropriate production technologies to come up with higher yield and quality produce for the export market.

"Through the NTCP, we ensure that mature technologies are effectively transferred for adoption and utilization by our farmers and fisherfolk. We are pleased to support this initiative by NOGROCOMA to enhance productivity and to establish market for onions locally and abroad, thereby increasing the profit of our onion growers," said Dir. Eleazar.

Since 2009, BAR and NOGROCOMA have forged ties to uplift and better the lives of the onion growers in the country. "In the last 23 years, NOGROCOMA was fortunate enough to get funding assistance from BAR particularly in developing and testing new production technologies that are cost-efficient in terms of the usage of inputs without compromising the yield," revealed Ms. Dulce I. Gozon, Chairperson of the Board and Chief Executive Officer of NOGROCOMA.

Under the project, 60 farmers have been selected as farmer cooperators in two project sites, namely: Bongabon, Nueva Vizcaya and Bayambang, Pangasinan. According to Ms. Fe Amor Ilagan of NOGROCOMA, as cooperators, farmers will be provided with all the production inputs as well as technical assistance and other logistics. The land area for planting and the labor will be provided by the cooperators. The farmers will be closely monitored from planting to harvesting during the project implementation. Likewise, capability building activities including trainings will be conducted to capacitate the farmers on the latest onion technologies.

Recently, Ms. Gozon, together with Ms. Digna L. Sandoval, assistant head of BAR-Technology Commercialization Division (TCD), Ms. Ilagan, and Dr. Teruko Haga, Japanese expert, visited Osaka, Japan to explore the possibility of re-opening the export-market for 'Yellow Granex'. The visit bore fruit as the Philippines will be initially shipping 'Yellow Granex' in March for trial. This is also due to the 30 years of good networking relationship between NOGROCOMA and Hannan Seika Co., Ltd. and the trust earned over the years.

The technologies generated by BAR-NOGROCOMA project complements to the preferred size by Japan market which is 7-10 centimeters in diameter that is being produced by local farmers in the two project sites.

NOGROCOMA already presented the positive result of the business meeting during the National Onion Action Team (NOAT) meeting which was attended by representatives from government agencies, private sector, and onion growers. The news generated interest and commitment among various stakeholders in the onion industry.

To date, NOGROCOMA is preparing the necessary requirements for export. ### ***(Ma. Eloisa H. Aquino and Digna L. Sandoval)***

Stakeholders' consultation on Bhoochetana piloting conducted

Stakeholders from Luzon, Visayas, and Mindanao convene to discuss the piloting of India's program in the Philippines. PHOTO:LPADILLA

Dr. Suhas P. Wani, assistant research program director of ICRISAT, talks about the Bhoochetana Program. PHOTO:LPADILLA

The Department of Agriculture-Bureau of Agricultural Research (DA-BAR) conducted a consultation meeting with stakeholders from the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), DA-National Rice Program, DA-High Value Crops Development Program (HVCDP), and involved regional partners, to discuss the proposed piloting of the Bhoochetana program in the country and its zonal pre-implementation plans.

BAR invited Dr. Suhas P. Wani, assistant research program director of ICRISAT, to talk about the Bhoochetana concept. "In the rainfed areas, even with the primary scarcity of water, its potential is being held back because of inappropriate crop and land management options adopted by farmers," explained Dr. Wani.

With the goal of touching the lives of 3.6 million families in Karnataka, India by increasing the productivity of crops in the state by 20 percent in four years, the Government of Karnataka and ICRISAT launched the Bhoochetana mission program on 23 May 2009.

The key interventions they have employed were: 1) innovative scaling-up model, 2) science-led interventions, 3) diagnostic science tools, 4) systematic change by working with all actors, 5) new extension approach, 6) end to end solutions, 7) enabling policies and institutions, 8) input delivery systems, and 9) transparent monitoring and evaluation mechanisms. Through the mission program, the 30 districts of Karnataka attained an average of 30 percent increase in the productivity of their staples while keeping the soils healthy and sustainable.

Participating during the pre-implementation plans were: (from Luzon) Southern Tagalog Integrated Agricultural Research Center (STIARC), Southern Luzon State University (SLSU); (from Visayas) Eastern Visayas Integrated Agricultural Research Center (EVIARC), Visayas State University (VSU); and (from Mindanao) Zamboanga Peninsula Integrated Agricultural Research Center (ZAMPIARC), Western Mindanao State University (WMSU).

Participants from Luzon proposed the project titled "Strengthening Community Cooperation and Water Management for Sustainable Rainfed Farming in Quezon Province, Philippines." It seeks to: 1) profile the socio-agro-ecological environment of the farm, 2) identify and introduce interventions that will increase farm productivity by at least 20 percent in yield in the next two years, 3) organize and capacitate the farmers in the sustainable management of resources through community cooperation and skills development, 4) establish institutional service facilities as project support inputs, and 5) establish linkages with other government agencies, non-government organizations, and peoples organizations ensuring procurement and availability of inputs for project implementation.

The group from Visayas presented the project titled "Enhancing the Productivity of Rainfed Agriculure in Region 8." The project aims to: 1) identify the limiting soil macro- and

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to other farmers, groups and individuals. Hence, she discussed on the need for the adlai roadmap to take on the value chain analysis approach which would include not only research and development, but also the processing and marketing for adlai. "This approach would help in identifying the gaps, issues, and concerns within the whole value chain," Dir. Remoquillo said.

BAR Director Nicomedes P. Eleazar noted that even if various adlai products have been developed, there is still a need to continuously improve its development and packaging to make them more competitive in the market. According to him, this can be realized with the inclusion of other DA-attached agencies such as the Philippine Center for Postharvest Development and Mechanization (PhilMech) and the Agribusiness Marketing Assistance Service (AMAS).

PhilMech is tasked to provide support on processing facilities particularly on the design and development of mechanization technologies for adlai while AMAS will be tapped for the establishment of market for the said crop.

The bureau chief furthered that "complementation among adlai implementers is key towards the faster commercialization of adlai." He encouraged each and everyone to work hand in hand for the successful realization of the project, eventually leading to the wide promotion of adlai nationwide. ### ***(Anne Camille B. Brion)***

Workshop participants identify the plans and work on the implementation protocol for the succeeding phase of their respective adlai activities. PHOTOS:ABRION

RTDs, RIARC managers...from page 5

The focal persons from BAR presented the updates and R&D directions of each program, highlighting the accomplishments, strategies, and interventions in support to the Food Staples Sufficiency Program of DA, significant areas and focus to be addressed in attaining the program goals of DA.

BAR, as the national coordinating body for R&D in agriculture and fisheries, ensures harmony in the facilitation of all programs through this new setup.

The program-based approach aims to strengthen the ownership and mutual accountability of the assigned focal persons and to facilitate coordination among partner agencies, increasing coherence and alignment to the DA programs' goals and objectives. ### ***(Daryl Lou A. Battad)***

Agri attaché meets BAR...from page 6

The group also witnessed the presentation of Dir. Saliot about the major programs and activities of ATI. He shared that they are now conducting trainings on agri-tourism in a farm owned by indigenous people in Malaybalay, Bukidnon. Today, it has attracted a number of German organic farming aficionados who are interested to learn from these indigenous practices.

Ms. Sandoval said that BAR, through IDD, provides funds to support those who need funding assistance for capacity enhancement conducted in the country and overseas. Dir. Saliot also said that they have funds, but are limited for travels to federal states of the US.

On another related topic, Dr. Javelosa announced that the guidelines for exporting banana to the US have already been released. Varieties covered are *lakatan*, *latundan*, and organic banana. Other commodities with export potentials to the US are being explored and to which DA agencies like BAR may be of assistance include: asparagus, mangosteen, avocados, cacao, moringa, and organic rice in vacuum-sealed packaging. ### ***(Jacob Anderson C. Sanchez)***

Agri-Fisheries IKM vision,mission articulated

PHOTO:ABRION

In fulfilling its mandate to provide leadership in enhancing, consolidating, and unifying the national and regional agriculture and fisheries research and development (R&D) programs, the Bureau of Agricultural Research (BAR) deals with vast types of knowledge.

As an institution that generates information and knowledge, there is a need to adequately manage them by strengthening its knowledge-sharing capabilities and learning processes. Hence, the need for an Information Knowledge Management (IKM) strategy that will serve as an overall guiding framework for BAR.

Part of crafting an effective IKM strategy is the articulation of effective vision, mission, and goal that will embody not only the organizational identity but will also communicate specific directions and objectives that are set to achieve.

The IKM vision is articulated as: "A better life for Filipinos through excellence in agriculture and fisheries research and development, the results of which are shared and reused extensively". This is an expansion of the original vision of BAR with emphasis on the research results that need to be shared and reused for the stakeholders' benefits. The bureau's task is specific to the effective delivery and transmission of relevant information and knowledge that will be useful in uplifting the lives of the farmers and fisherfolk from production to marketing. To ensure this, relevant information must efficiently reach the intended users.

As a learning organization that puts emphasis on knowledge management (KM), the bureau presupposes the need not only for a technology-driven agriculture and fisheries sector but also knowledge-based. Hence, the articulated mission for IKM is: "To attain food security and reduce poverty through technology-driven, knowledge-based agriculture and fisheries sector."

The specificities of the vision and mission are reflected on the IKM goal statement which provides the directions, evaluating plans and guiding actions for the organizations. It is articulated as: "To contribute to the attainment of food security and poverty reduction by 2017 through extensive, effective and efficient sharing and reuse of agriculture and fisheries information and knowledge resources."

The articulation of the mission, vision, and goal was part of the key deliverables and essential inputs and basis in designing the KM Capacity Development Program for the Philippine agriculture and fishery R&D sector, which was consumated during the "National Conference on Agriculture and Fisheries Information and Knowledge Management," held on 6-8 February 2013 in Tagaytay.

The bureau believes in the importance of effectively managing knowledge and the need to responsibly cascade them to users which is necessary in the realization of BAR's corporate goals and R&D agenda. ###

(Rita T. dela Cruz)

Dr. Alexander G. Flor, KM expert, provides valuable inputs in crafting a comprehensive IKM mission and vision. PHOTO:ZREYNOSO

PHOTOS:ZREYNOSO

Region 1 revolutionizes techno demo culture

In this age of technology revolution, gone are the days of poorly handwritten information exhibit materials. The Manila papers and heavily adorned life-sized dioramas have been swapped for lightweight and compact display items, without sacrificing the content and design idea. We might think that this is the pinnacle of the exhibit and demonstration part of product development, but it isn't. Region 1 has brought it to a higher level.

A team from the Bureau of Agricultural Research (BAR) headed by its Applied Communications Division (ACD) head Ms. Julia A. Lapitan visited an ongoing project in the province of La Union on 19–22 February 2013. In collaboration with the Ilocos Integrated Agricultural Research Center (ILIARC), the "Institutional Development Support for the Technology Showcasing Project (TSP) of ILIARC" set in motion August of 2010 is now fully completed and ready for viewing.

The exhibit hall, situated near Don Mariano Marcos Memorial State University (DMMMSU), is a 120-square meter covered area that has been newly renovated as covered in the project budget. The phrase "*Dap-ayan ti Sirib*" welcomes the guests upon entrance of the hall; it means "a convergence of interactive minds, or a learning center for relevant information and technologies manifested as dioramas and wall maps".

The team was welcomed and toured by project member Dr. Luciana T. Cruz, who is also a science research specialist at ILIARC.

Basically containing two types of demo materials-dioramas and interactive information counters-the exhibit hall is an overflowing basin of agriculture information waiting to be absorbed.

Surrounding the entire area of the exhibit are geographical maps of each province in the region, highlighting the commodities produced in each area.

Dioramas set in the middle of the exhibit depict indigenous crops like *kamoteng kahoy, tugui* and *kamangeg,* as well as sceneries of farm lands being tended to by farmers. Product information kiosks on specific commodities are distributed around the area. Its screens contain vital information about the development of certain

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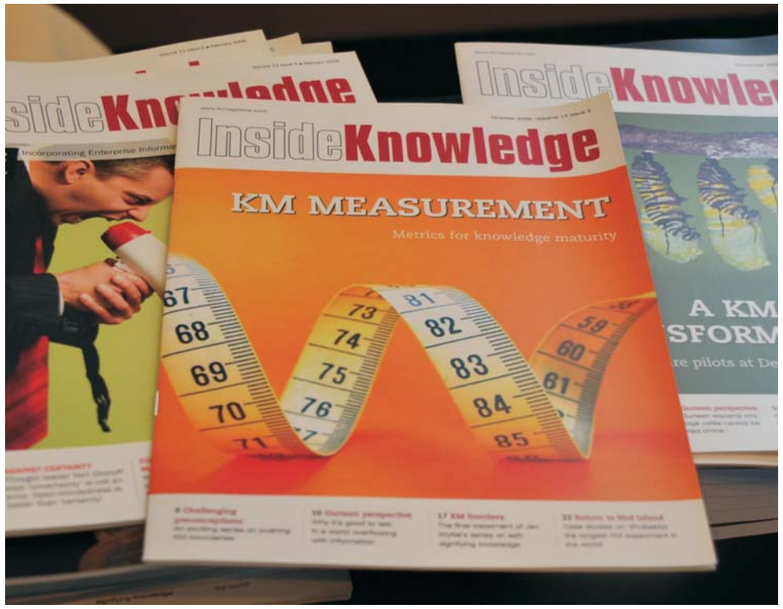
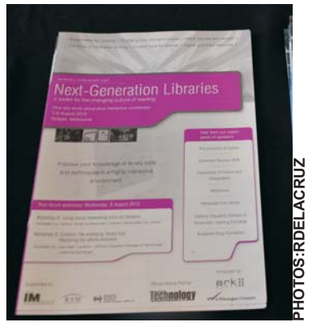
Walls highlighting the products of each province (above photo) and a diorama showing farmers harvesting vegetable crops (below photo) can be found in the techno demo area.

PHOTOS:ZREYNOSO

BAR heightens CapDev approach to research sustainability





PHOTOS:RDELACRUZ

The Accra Agenda for 2008 declared that "without robust capacity – strong institutions, systems and local expertise – developing countries cannot fully own and manage their development process. Capacity development is the responsibility of developing countries."

The culminating activity of the "National Conference on Agriculture and Fisheries Information and Knowledge Management" spearheaded by the Bureau Agricultural Research (BAR), in partnership with the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), led to the realization of the three-pronged desired outputs: 1) agricultural and fisheries information and knowledge management strategic framework inclusive of vision and mission statements, strategic thrusts, and program components, 2) strategic plan on agricultural and fisheries Information and Knowledge Management (IKM), and 3) Capacity Development Program for the Philippine agricultural and fisheries IKM sub-sector.

The conference was premised on the state of Philippine agriculture and fisheries quality and quantity of researches generated. The country's R&D network is already in-place; however, researches conducted and those newly generated knowledge-based assets have not been fully managed and adequately distributed in terms of knowledge capture, sharing and re-use. Thus, the conference was conducted to strengthen the capabilities of the participants on knowledge sharing, re-use and knowledge products design and development through capacity development.

Capacity Development (CapDev) as defined by the Food and Agriculture Organization (FAO) is "the ability of people, organizations and society as a whole to manage their affairs successfully. It is the process of unleashing, strengthening and maintaining such capacity." This definition is based on the work of the Organization for Economic Co-operation and Development (OECD) of FAO.

FAO's template on CapDev seems to be an effective stroke in realizing the potential of the individual toward a stronger appreciation of one's domain. It must be articulated in the strategies, plans and programs of the national government particularly by BAR in its quest to serve as the central coordinating agency for R&D. The bureau further adheres to the concept that the real and lasting change is driven by stronger and sustained capacities for agricultural development leading to food security and sustainability.

Lessons learned during the conference brought the participants, composing of managers and information officers from the national and regional offices of the Department of Agriculture, to further appreciate the importance of Knowledge Management (KM), which is one of the strategic approaches of BAR in its quest to be an effective institution not only

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"Bee My Valentine" seminar features bee farming and cosmetic production

A timely seminar and in celebration of heart's day, the Agricultural Training Institute (ATI), in collaboration with the Spread Organic Agriculture in the Philippines (SOAP) and the Bureau of Agricultural Research (BAR), organized a free seminar on bee farming and cosmetic production with a famous by-line "Bee My Valentine." The seminar was held on 14 February 2013 at the Serrano Hall, Agricultural Training Institute, Diliman, Quezon City. Mr. Darwin M. Sarabia of ATI and Ms. Sandra F. Celi of SOAP served as the masters of ceremony.

Mr. Rico P. Omoyon of the Milea Bee Farm gave a comprehensive presentation on "Bee Farming," discussing the various types of bees, bee colony, and importance of bees to people and the environment. Omoyon also provided tips on how to look for a good location for bee farm and discussed the benefits of producing by-products from bees including supplements and cosmetic products. The resource speaker explained that bee pollen contains the essential nutrients that can increase stamina and alertness, boost mental capacity, burn and metabolize fats, help prevent fatigue, prevent prostate cancer, and improve digestion. Omoyon also brought samples of his supplements like *trigona* pollen and bee pollen, as well as displays of different types of bees.

Representatives from Midea Cosmetics demonstrated on how to make cosmetic products from honey and propolis including hand cream and lip balm.

Mr. Rico Omoyon of Milea Bee Farm explains how to utilize the materials for beekeeping. PHOTO:LBARRAL

During the afternoon session, some of the attendees tried the cosmetic products by participating in the make-up demo.

According to Ms. Celi, who is also a social entrepreneur, their group is planning to bring the seminar series into the regions and to continue the collaborative efforts with BAR and ATI. ### ***(Liza Angelica D. Barral)***

BAR, SEARCA stage...from page 3

has become an indispensable asset for the agriculture sector."

Dr. Nicomedes P. Eleazar, director of BAR, gave an inspiring message to the group. He said that, "believing that IKM is an integral part of the R&D system, this capacity building development program will be instrumental in realizing our vision of a better life for Filipinos. We want to fully utilize significant research results and fruitful outcomes to further improve the sector through improved capabilities on knowledge sharing, reuse, and knowledge products design and development."

The second and third day of the conference were composed of hands-on workshops to level off the information bandwagon on IKM guided by the World Café process. The World Café is a conversational design process used to develop deeper network patterns in a particular system. In the case of IKM, World Café is the methodology deployed to gather collective intelligence in the basic understanding of the roles of national, regional, and local at differing levels. Used during the second day of the conference, the groups were able to come up with the responsibilities of KM officers in all levels.

Results of the benchmarking travels of selected BAR staff who attended international conferences abroad were presented and re-echoed during the last day of the conference.

During the duration of the KM project, participants were sent to learn the status and good practices of KM among some of the best KM institutions and organizations in Asia and Europe. Led by Ms. Julia A. Lapitan, head of BAR's Applied Communications Division (ACD), staff members shared their experiences on the breadth and depth of KM and its broad influence in the agriculture and fisheries sector in the countries that they have visited, encouraging more of such activities in the future.

Concluding the three-day conference, participants gathered clear understanding of the concept of IKM; the contributions that each individual provide; and the importance of the role of KM officers in storing, handling, and disseminating information in ensuring a better life for Filipinos through excellence in agriculture and fisheries R&D. ### ***(Zuellen B. Reynoso)***