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Market niche for Philippine culinary herbs explored

A delightful culinary experience is never complete without a tinge of herbs that add exotic flavor and distinct aromas to dishes. Oftentimes, these foods are associated with those being served in five-star restaurants. Not if you have herbs in your kitchen cabinet.

Today, the demand for culinary herbs and its products is growing with the emergent interest of people in consuming natural/organic products, said Dr. Leonora K. Verzola, assistant manager of the Cordillera Integrated Agricultural Research Center (CIARC) and resource speaker during a seminar, "Prospect of Culinary Herbs in the Philippines" organized by the Bureau of Agricultural Research (BAR) on 25 March 2008.

Growing culinary herb has its own niche in the market, according to Dr. Verzola. Although comparatively small at present, the organic section of the market is favoring the demand for culinary herbs. The trend towards a greater variety of ethnic cuisine also offers the prospect for developing a market niche.

Culinary herbs, as defined by Dr. Verzola, are fresh or dried leaves used as food flavoring. Among the popular commercially grown and available herbs in the country are basil, cilantro, parsley, chives, mint, dill, fennel, and tang-o. Other herbs include lemon balm, tarragon, sage, rosemary, oregano, and thyme.

Dr. Verzola said that these herbs are used and consumed as fresh cuts, live plants, or dried. Part of diversifying herbs products and as a strategy to optimize its full market potential, culinary herbs are also made available through value-adding. Among the value-added products developed so far are herbal teas, jellies, sauces, herbed vinegars, and wreaths.

Currently, the production sites for culinary herbs are located in the Cordillera Administrative Region (CAR) which has a favorable and conducive weather to grow these herbs. There are four production sites in CAR that grow culinary herbs on a commercial-scale: La Trinidad, Tuba, Tublay, and Itogon.

Verzola explained that the cultural management practices for growing culinary herbs vary but essentially, they are easy to grow because they are tolerant to a wide range of soil and growing conditions. However, she emphasized that most herbs cannot stand continuous rains, hence, must be grown under protected

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BAR, ICRISAT to hold dryland agri RD&E confab

The Department of Agriculture-Bureau of Agricultural Research, together with the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), will host the National Dryland Agriculture RD&E Conference on 17-18 April 2008 at the Oxford Hotel, Clark Special Economic Zone, Pampanga.

With the theme "Energizing research, development and extension for sustainable dryland agriculture in the Philippines," the conference will be conducted to assess the contemporary situation of dryland agriculture in the Philippines and Asia. From the assessment, groundwork for the establishment of a Philippine Dryland Research Institute (PhilDRI) will be prepared together with the development of a national dryland agriculture RD&E agenda.

The Philippines has an estimated three million hectares of dryland, distributed in Northern Luzon, Central Visayas, and Southern Mindanao. About five million households, most of whom suffer extreme poverty, inhabit the drylands.

Taking into account the extreme drought experienced in the Ilocos Region in 2007, the occurrence of recurrent droughts and environmental

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IN THIS ISSUE...

Lack of reliable data in agriculture sector daunts agricultural productivity - Balisacan

Lack of reliable and comprehensive data on the agriculture and fisheries sector has been a problem of researchers and policymakers leading to failure of programs and projects to address the main issue—agricultural productivity.

Thus, Dr. Arsenio Balisacan, director of the SEAMEO Regional Center for Graduate Study and Research in Agriculture (SEARCA), emphasized in his opening remarks during a two-day planning workshop for a BAR-PhilRice-SEARCA collaborative project titled "Productivity Growth in Philippine Agriculture" on February 29-March 1, 2008. SEARCA hosted the event.

Balisacan lamented the poor performance of the agriculture sector in the past decades and the need for better programs and strategies to help revive the sector to levels that are at par with the country's Southeast Asian neighbors.

Participants in the activity included experts from the government, academe, and various research centers in the Philippines.

The objectives of the project are: 1) determine the nature, sources, and causes of productivity growth in agriculture and fisheries; 2) use new methodologies as social scientists and economists try to understand the sector; and 3) tap the expertise of local and foreign experts, who have a vast experience in productivity analysis using the latest, if not state-of-the-art statistic and econometric tools.

Dr. Roehlano M. Briones, manager of the project, gave the overview of the activity and the expected outputs of the workshop. He presented a short background, latest developments in the project, purpose of the workshop, and mechanics for guidance of the participants.

Meanwhile, Dr. Romeo Teruel, director of the University Research Center – University of St. La Salle-Bacolod, presented an extensive review of literature on productivity growth analysis and the various methodologies that would be used by the component studies of the project.

SEARCA

Dr. Arsenio Balisacan opens the planning workshop for the BAR-PhilRice-SEARCA project.

The study leaders of the commodity presented the cross-cutting issues, the study background, methodology, sources of data, problems encountered, and status of implementation. The presentation was followed by an open discussion to obtain feedback from the group and suggestions to address the problems.

The commodity studies were presented by Dr. Minda C. Mangabat (rice and corn), Dr. Flordeliza Lantican (high-value crops), Dr. Corazon Aragon (traditional export crops), Dr. Liborio Cabanilla (livestock and poultry), and Dr. Yolanda Tan-Garcia (aquaculture).

For the cross-cutting studies: Dr. Agnes Rola (environment and natural resources), Dr. Sergio Francisco (R&D and Extension), Dr. Gilbert Llanto (infrastructure) Dr. Ramon Clarete (transaction cost), Dr. Leonardo Lanzona Jr., (human capital), and Ms. Rosemarie Edillon (social capital and institutions).

The second day was devoted to discussion and finalizing of work plan, brainstorming, and other matters concerning the project.

Dr. Briones presented a synthesis of the workshop – issues, concerns, recommendations, and suggestions discussed, particularly on how each study would measure total factor productivity (TFP), which addresses effects in total output and not by inputs (such as land, labor, and capital) or economies of scale (increasing land area, thus, minimizing operating costs).

The goal of the project is to see to it that all commodity studies complement each other, to draw a picture of the agriculture and fisheries sector as a whole and that, later on, cross-cutting issues could also harmonize with commodity components of the entire project.

Cooperating agencies are hoping to help revitalize the agriculture and fisheries sector by providing researchers and policymakers with inputs for developing more accurate and solid programs that will eventually lead to greater productivity growth in the country. *(Jude Ray P. Laguna)*

BAR Chronicle
The official monthly publication of DA-BAR

BAR Chronicle is the monthly publication of the Bureau of Agricultural Research (BAR) of the Department of Agriculture (DA), which is mandated to ensure that all agricultural researches are coordinated and undertaken for maximum utility to agriculture. This publication provides regular updates on 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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MAQUINO

Fresh *kalamansi* fruits ready for processing.

Citrus production in Zamboanga is a booming business

"Consider it as our major contribution to help our farmers in Siay, Zamboanga Sibugay for their business venture."

Thus stressed Mayor Julius S. Acosta when DA-BAR staff visited his office during a consultation-meeting for the Community-based Participatory Action Research (CPAR) and orientation-briefing for e-Pinoy FARMS.

During the visit, Mayor Acosta shared his municipal development plan, particularly on the citrus development and freshwater prawn (*ulang*) production. He pointed out that efforts are now focused on these two commodities because these are supported by government and non-government organizations that would like to achieve food sufficiency and sustainability.

"The entry of CPAR in the municipality will further assist the farmers and fisherfolk to have the latest technologies," he said.

In addition, he mentioned that they are now into the massive production of citrus fruits following the citrus production technology provided by the Department of Agriculture – Region IX and private operators. Integrated into the production system is the development of value-added products such as juice and puree for other community members to venture into business. These will be supported by strict compliance with quality standards and protocols on good agricultural practice of the commodities.

Based on this, Mayor Acosta assured DA-BAR of continuous production of citrus for its community and market that requires the needed supply. Encouragingly, the citrus is now being eyed as a major commercial business commodity, expanding as far as adjacent municipality and nearby provinces of Zamboanga Peninsula.

In a related story, the town's freshwater prawn is now getting recognized with assured market in Taiwan, Malaysia, and Singapore. This will make Siay, Zamboanga Sibugay, as the primary producer of the commodity because of the technical services and assistance provided by the Bureau of Fisheries and Aquatic Resources – Region IX and the DA-Western Mindanao Integrated Agricultural Research Center, respectively. (*Marlowe U. Aquino, PhD*)

Polyculture technology to boost fisheries industry

JFERNANDEZ

Bangus or Milkfish **Siganid or Rabbitfish species**

A technology demonstration and piloting of polyculture management are being initiated and implemented by the Bureau of Fisheries and Aquatic Resources (BFAR) at its regional offices in Ilocos, MIMAROPA (Region 4B), and Central Mindanao to boost the country's fisheries industry.

The polyculture technology is a combination of milkfish and rabbitfish or *siganid* to increase the production and income of fisherfolk in a confined environment using floating net cages.

The technology, which started in the mid-1990s, aims to incorporate and fine-tune stocking density and feeding management practices. Originally for milkfish production, it has been expanded to include other fishes that blend within the production management system.

The idea of having the polyculture system in seacage was conceived from the private seacage operators as observed extensively in Region 11. Following the concept and acquired knowledge on the existing technology of polyculture in ponds at different stocking densities and ratios of milkfish and *siganid*, its application is now applied in seacage.

Currently, there is a stable supply of wild fingerlings of *kitong/kitang* from private nurseries and an abundant supply of *bangus* fingerlings of good quality.

With the initiatives from BFAR 11 technical staff monitoring and observing the results from the various projects existing at the mariculture park, further studies are being conducted to evaluate the combination of milkfish and rabbitfish. The ratio is 3:1 (three pieces milkfish to one piece rabitfish) and 3:2 in terms of stocking ratio, step-by-step procedure, and feeding management.

The net benefit is 119 percent or an economic return of Php 106,368.90 from a total cost production of Php 468, 218.00.

If proven successful, the technology will be expanded through the Community-based Participatory Action Research (CPAR) for fisheries and eventually for technology commercialization.

The technology is best applied in open waters near mariculture parks or municipal waters wherein most of the management work is done by members of the fishing community.

BFAR offices and the local government units are keen on seeing the technology on a commercial scale.

Other innovative activities and fish product development are on standby as soon as production is guaranteed and supply is stable and sustained.

For better fishery production and increased profit in a collective effort by key players and stakeholders the CPAR Fisheries determines its feasibility and viability within a community-based approach.

The polyculture technology is now widely utilized and applied by fish operators in southern Mindanao region and other areas with similar conditions as required by the biophysical requirements of the technology. (*Marlowe U. Aquino, PhD*)

Source:
Fernandez J.S. 2008. Polyculture of Milkfish (*Chanos chanos*) and Rabbitfish (*Siganus guttatus*) in Seacage. DA-BFAR Region XI, Davao City.

DA conducts consultative forum for Nat'l Food Summit set in April

With the theme "Pagkain Sa Bawat Mesa, Negosyo Sa Sakahan – Laban Sa Kahirapan," a National Consultative Forum on Food Summit was held on 11 March 2008 at SEAMEO INNOTECH along Commonwealth Avenue, in Diliman, Quezon City.

The activity was hosted by the National Agricultural and Fishery Council (NAFC) of the Department of Agriculture (DA).

Dr. Segfredo R. Serrano, DA undersecretary for Policy, Planning, Research and Regulation, introduced the overview of the forum in his welcome remarks. He stressed specific actions that could be made to improve the agriculture and fisheries sector while addressing the needs of intended beneficiaries.

DA Assistant Secretary Salvador S. Salacup presented the area-wide consultation outputs with regard to the pre-summit activities and consultations in Luzon A (CAR, Regions 1, 2, and 3), Luzon B (Regions 4-A, 4-B and 5), Mindanao A (Regions 9, 10, and CARAGA), Mindanao B (Regions 11, 12, and ARMM), and Visayas (Regions 6, 7, and 8) held from 19 February to 5 March 2008.

The consultative forum was conducted in preparation for the National Food Summit tentatively set on the fourth of April at the Manila Hotel. As quoted by Usec. Serrano in his welcome remarks, Pres. Gloria Macapagal-Arroyo stated that "this summit will serve as a stepping stone to a more vibrant, more productive agriculture and fisheries sector."

Dubbed as experts' consultation meeting, the activity aims to gather multi-sectoral initiatives to address food security issues and concerns, identify strategic interventions needed, and draw up operational framework to translate common agenda into action which shall be culminated in the upcoming food summit.

Participants include leaders of national farmer/fisherfolk organizations, heads of national industry/professional associations and industry champions, national sectoral committees and regional agricultural and fishery council chairs, members of the DA Secretary's Technical Advisory Group (STAG), experts from the academe, and international experts.

An intensive workshop proper was also held focusing on irrigation, postharvest and other infrastructure, credit and insurance, market access, research, development and extension (RDE), environmental concerns, and policy support.

The RDE Group had Dr. Emil Javier as its facilitator and Bureau of Agricultural Research Director Nicomedes P. Eleazar and Agricultural Training Institute Director Asterio P. Saliot as members.

DA Secretary Arthur C. Yap, who graced the afternoon activity, said the National Food Summit will be held in a bid to sustain the growth momentum of the farm sector in the medium term by harmonizing the food sufficiency or security initiatives of the national government with those of local government units and private-sector stakeholders. *(Christmas B. de Guzman)*

photos by CDEGUZMAN

Dir. Nicomedes P. Eleazar of BAR facilitates the discussion in the RDE Group.

Director Eleazar attends with technical staff, Joell H. Lales of PU and Mariko M. Ramos of PDD.

Secretary Yap gives his feedback and insights in the afternoon session.

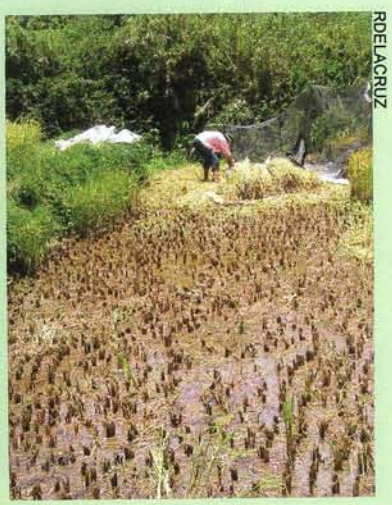
BAR, ICRISAT...*from page 1*

degradation owing to climate change can aggravate the conditions of these poor communities.

Through the conference, the needed momentum for the development of dryland agriculture will be accelerated. Dryland agriculture contributes to about 40 percent of the total food production in the Philippines. However the bulk of RD&E efforts has been focused only on favorable and irrigated lowland areas.

Once established, PhilDRI will serve as the country's institution to fight against the adverse effects of drought and climate change. Likewise, PhilDRI will contribute substantially to poverty alleviation by mobilizing science and technology to improve the livelihoods of poor communities in the dryland.

Expected to attend the dryland conference are at least 100 participants from ICRISAT, DA and its attached agencies and bureaus, DA regional field units, state universities and colleges, and provincial governors of the identified dryland areas in the country. *(Ellaine Grace L. Nagpala)*



RDELACRUZ

Nationwide ICT assessment for A/F R&D conducted


RDELACRUZ

The information and communication technology (ICT) capacity and development of the Bureau of Agricultural Research (BAR), together with the different member-agencies of the Agriculture and Fisheries Research and Development Information System (AFRDIS) from the Department of Agriculture (DA) units and selected state universities and colleges were recently evaluated.

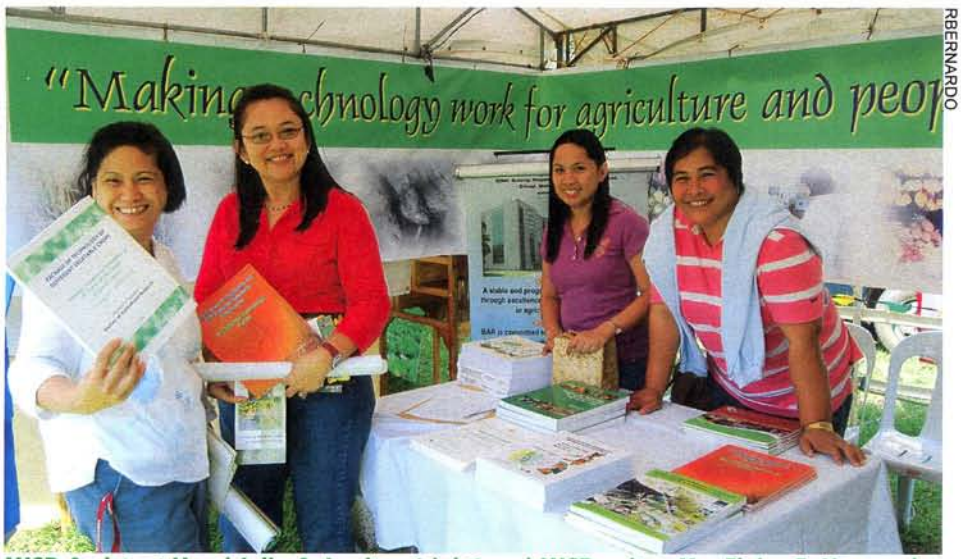
The assessment is in preparation of DA's plan to unify all efforts on ICT.

BAR specifically assessed its partners, particularly on their programs, plans and activities related to agriculture and fisheries R&D.

The nationwide assessment started in 4 March and will end on 18 April 2008. As soon as the activity is completed, BAR will consolidate and analyze them and provide necessary recommendations for ICT human resource development, facilities and equipment upgrading, improvement and acquisition, and planning of programs and activities to strengthen and institutionalize the unified information and knowledge management system in the department.

This will also support the DA's Information Technology Round in Agriculture's Communication Thrusts (DA-INTERACT) and BAR's ***e-AgriteK*** that will bring about agriculture and fisheries as a business endeavor. Through these two major programs, DA is assured of a unified system on A/F information and communication technologies with more state-of-the-art facilities and equipment to be globally competitive, service and client-oriented and development of sustainable products. (*Marlowe U. Aquino, PhD*)

UPLB-CA commemorates 99th Foundation Day; BAR sponsors, participates in Agri Trade Fair



RBERNARDO

MISD Assistant Head Julia A. Lapitan (right) and MISD writer, Ma. Eloisa E. Hernandez (second from right) man the BAR booth during the agri-trade fair.

In celebration of the University of the Philippines (UP) Centennial Year, the College of Agriculture (CA) at UP Los Baños commemorated its 99th Foundation Day on 6-9 March 2008. Highlighting the event was the Agri Trade Fair and Techno Demo Exhibit hosted by CA at the Agricultural Systems Cluster (ASC)/ Crop Science Cluster (CSC) Grounds, College, Laguna.

The activity kicked off with the opening of exhibits for the Agri Trade Fair with UP Centennial Commissioner Nelia T. Gonzales leading the ribbon cutting ceremony. She was joined by UP President Emerlinda R. Roman, UPLB Chancellor Luis Rey I. Velasco, UPLB-CA Dean Candida B. Adalla, and other key officials.

An opening program immediately followed the ribbon cutting activity. Dean Adalla welcomed the participants, followed by a message from Dr. Roman and UP Regent Romulo G. Davide.

The four-day activity showcased various technologies and products from various agencies and partner-institutions.

The Bureau of Agricultural Research (BAR) sponsored and participated in the Agri Trade Fair represented by Julia A. Lapitan, assistant head of the Management Information Systems Division (MISD), and staff-members: Ricardo G. Bernardo and Ma. Eloisa E. Hernandez.

BAR showcased various in-house publications, and books and journals of various agencies supported under the bureau's Special Publication Grant (SPG). *(Ma. Eloisa E. Hernandez)*

RBERNARDO

Participants visit BAR's booth during the agri-trade fair in UPLB, College, Laguna.

RDELACRUZ

PCARRD Executive Director Patricio S. Faylon (standing) delivers his message during the opening program. Listening in at the VIP table are: (L-R) CHED Executive Director William C. Medrano, MMSU President Miriam E. Pascua, PADCC President Marriz B. Agbon, ICRISAT Principal Scientist on Sweet Sorghum Belum S. Reddy, and BAR Assistant Director Teodoro S. Solsoloy.

Gov't agencies, private sector hold first confab on sweet sorghum for bioethanol

To harmonize the efforts of various sectors that support sweet sorghum as a profitable and sustainable crop for food, feed, and fuel, the First National Sweet Sorghum RDE Review and Planning Conference was held at the PhilRice-NTA Auditorium, Mariano Marcos State University (MMSU), Batac City, Ilocos Norte on 12-14 March 2008.

The conference which was sponsored by the Department of Agriculture's Bureau of Agricultural Research (DA-BAR) carried the theme, "Synergizing linkages for a commercially viable and sustainable bioethanol industry in the Philippines." The conference was co-sponsored by MMSU, ICRISAT, Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), and Commission on Higher Education (CHED).

The hosts of the conference were MMSU, DA Regional Field Unit I, and other MMSU-based DA agencies such as PhilRice, National Tobacco Administration (NTA), Philippine Carabao Center (PCC), Agricultural Training Institute (ATI), and DA Research Outreach Station I (DA-ROS I).

Early beginnings

As early as 2005, BAR, through its National Technology Commercialization Program (NTCP), has supported the research and development (R&D) and initial production of sweet sorghum in Ilocos region through MMSU.

The project on commercial production of sweet sorghum was conducted in various locations in the country, namely: Regions 1, 2, 3, and CAR, Negros Occidental, Capiz, Bohol, North and South Cotabato, Sultan Kudarat, Bukidnon, Zamboanga, and Davao.

"In 2006, we tapped the International Society for Southeast Asian Agricultural Sciences or ISSAAS led by Dr. Roberto F. Rañola Jr. to conduct a feasibility study on using sweet sorghum as feedstock. The study found that using sweet sorghum as feedstock is comparable if not better than sugarcane for ethanol production. It was concluded prior to the enactment of the Biofuels Law," said BAR Director Nicomedes Eleazar.

During the conference, there were in-depth reports on the different aspects of sweet sorghum from breeding to variety and adaptability trials, incidence of pests and diseases, harvesting and postharvest processing, development of technology protocol, and commercialization. These reports were gleaned from various studies conducted and funded either by DA agencies and field units, state universities and colleges (SUCs), and/or private sector.

Dr. Belum Reddy, principal scientist on sorghum breeding at the International Crops Research Institute for Semi-Arid Tropics (ICRISAT), gave an international perspective on the viability of sweet sorghum for bioethanol. India-based ICRISAT, headed by Dr. William Dar, a Filipino and former DA secretary, was instrumental in introducing sweet sorghum to the Philippines.

Highly competent crop

Mariz B. Agbon, president of the Philippine Agricultural Development and Commercial Corporation (PADCC), represented Agriculture Secretary Arthur C. Yap as the guest of honor and speaker for the event.

In his speech, Agbon said that DA, through PADCC, has received a number of inquiries and met various investors, both local and foreign, who are interested in investing in sweet sorghum as a feedstock for the production of bioethanol.

"We consider this conference as part of our continuing initiatives to nurture our infant sweet sorghum industry, and thus be a major contributor in our National Biofuels Program's goal of achieving energy independence, and in alleviating rural poverty," he stressed.

He further said that the conference is a fitting exercise to build a stable science-based foundation to transforming sweet sorghum, "not only as a profitable feedstock for bioethanol that will benefit big investors but the small farmers and their families as well as those who will plant sweet sorghum as source of their livelihood, income, and food."

While he stressed that DA is impartial in promoting all biofuel feedstock to investors, he said the department is noting the high competence of sweet sorghum in many aspects.

"For instance, among the three bioethanol feedstocks included in the DA Biofuel Feedstock Program, sweet sorghum is the only crop with two parts that can be utilized as raw materials for the production of anhydrous ethanol. First, is the stalk wherein the juice is extracted; and second, the grain where the starch serves as raw material," he said.

Agbon noted that "Another advantage of sweet sorghum is that, it is the highest yielding bioethanol feedstock in terms of stalk yield of up to 150 metric tons per hectare annually, and sorghum grains of up to 9 MT per hectare per year. These yield levels, of course, may vary depending on location."

He particularly encouraged BAR to continue supporting the establishment of more technology demonstration farms to promote the appropriate technologies for planting sweet sorghum in the Philippines. He said that PADCC has been monitoring 25 ongoing biofuel projects in the country, with an estimated total land requirement of 969,800 hectares. "The total rated capacity of bioethanol projects currently in process is about 569 million liters," he said.

Synergizing efforts

The conference, which was also attended by farmers and local government units (LGUs), had a formal launching of sweet sorghum as viable feedstock for bioethanol production.

Dr. Heraldo L. Layaoen, vice-president of MMSU and a pioneer in the research and development of sweet sorghum in the country, led the field visits of the various sweet sorghum plantation sites in Batac. He demonstrated how the plant's juice is extracted and processed into bioethanol.

"The grains of sweet sorghum can be used as food, feed, and beverage, while the leaves can be used for fodder. Likewise, the stem contains high amount of sugar which can be extracted by simple milling and eventually fermented into bioethanol," said Dr. Layaoen.

A workshop was held as part of the conference wherein significant strategies and priorities for an integrated sweet sorghum research, development, and extension (RD&E) were identified by the participants. One of the purposes of the conference was to develop a national framework for sweet sorghum RD&E in the context of the Philippine biofuel industry. *(Miko Jazmine J. Mojica)*

stalks of sweet sorghum

ribbon cutting ceremony

sweet sorghum grains

drinking sweet sorghum juice

photos by RDELACRUZ

juice from sweet sorghum

Launching of bioethanol from sweet sorghum

BAR strengthens PhilAgriNet

The Bureau of Agricultural Research (BAR), being the lead institution in strengthening, consolidating, and developing the agriculture and fisheries R&D system, strengthens the role of the Philippine Agricultural Libraries and Information Services Network (PhilAgriNet) in the Philippines.

PhilAgriNet, created in 2003, is a consortium of agricultural libraries and information centers established to promote and enhance agricultural information and knowledge sharing. This covers areas on forestry, fisheries, natural resources, and other agriculture-related subjects.

Guided by its mission to provide agricultural knowledge sources generated from private and public institutions engaged in agricultural research in the Philippines, PhilAgriNet develops a central database sustained by data inputs from members.

BAR Director Nicomedes P. Eleazar serves as the Chairman of PhilAgriNet, leading the Bureau on the overall coordination for PhilAgriNet activities. BAR also hosts the central database with a sectoral database of agricultural information sources from the state universities and colleges maintained by the UPLB Main Library. The database contains all published and unpublished technical publications on agriculture regardless of language, dialect, or format.

Joining BAR are the libraries of UPLB, Benguet State University (BSU), Central Luzon State University (CLSU), Isabela State University (ISU), Don Mariano Marcos Memorial State University (DMMMSU), UPLB-College of Economics and Management Library-UPLB (UPLB-CEM), International Rice Research Institute (IRRI), Visayas State University (formerly LSU), Philippine Council for Agriculture, Forestry and Natural Resources Research and Development (PCARRD), Philippine Rice Research Institute (PhilRice), National Institute of Molecular Biology and Biotechnology (UPLB-BIOTECH), Postharvest Horticulture Training and Research Center (UPLB-PHTRC), Cavite State University (CaVSU), Agricultural Librarians Association of the Philippines (ALAP), and SEAMEO Regional Center for Graduate Study and Research in Agriculture (SEARCA).

To improve and strengthen the operation of PhilAgriNet, several recommendations were identified by Management Information Systems Division (MISD) Assistant Head Julia A. Lapitan who represented BAR Director Nicomedes P. Eleazar during the seminar-workshop, "Enhancing the Capacity of Information Professionals for Effective Agricultural Information Management, Sharing, and Dissemination" held at Benguet State University (BSU), La Trinidad, Benguet.

The recommendations were: 1) expansion of opportunities and innovations in data computerization; 2) expansion by encouraging other agencies and SCUs to become members; 3) development of new strategy to strengthen members (at least two general assemblies per year); and 4) maximization of uses of information exchange. *(Ma. Eloisa E. Hernandez)*

Market niche...*from page 1*

RDELACRUZ

Dr. Leonora K. Verzola, assistant manager of CIARC and resource speaker during the seminar, explains how *cilantro* is harvested.

culture such as growing through a greenhouse or open field culture.

Intercropping system is also practical for growing culinary herbs: parsley + lettuce, lettuce + fennel, basil + tomatoes, or brocolli + coriander.

Since the harvest and storage differ depending on the type of herb, Dr. Verzola cautioned interested growers that, fresh herb production could be labor intensive.

"For example, cilantro, one of the most expensive culinary herbs we have in the market (100-300 pesos during off season) must be uprooted, removed of its lower leaves, and then carefully packed," she explained.

Speaking from their experience in CAR, Dr. Verzola mentioned that culinary herbs are being marketed through several means. Either they sell their products directly to traders/farmgate, vend them to wholesalers at the Baguio hangar market then to traders or retail consumers, sell them to retailers then to consumers, or trade them directly to consumers.

Culinary herbs command high price during off-season or when the availability is scarce in conventional market outlets. Meanwhile, continuous and sustained production is needed for institutional buyers and organic/natural food stores.

The seminar is fourth in the series this year which is regularly being organized by BAR through its Management Information and Systems Division (MISD). The seminar is conducted to serve as a venue for the exchange of information and knowledge, trends, challenges, and opportunities that beset the agriculture and fisheries R&D sector. *(Rita T. dela Cruz).*

RDELACRUZ

Participants inquire on how to cultivate culinary herbs in their backyards.

BAR Seminar Series highlights *Jatropha* as source of biodiesel

The Bureau of Agricultural Research (BAR) conducted its third seminar series for 2008 on the topic *"Issues and Concerns of Jatropha As Source of Biodiesel"* at the 4th Floor, RDMIC Building, Visayas Avenue, Diliman, Quezon City on 18 March 2008.

The BAR Seminar Series serves as a venue for exchange of information and knowledge, trends, challenges, and opportunities in the agriculture and fisheries R&D sector.

In behalf of BAR Director Nicomedes P. Eleazar, Assistant Director Teodoro S. Solsoloy welcomed the participants. In his speech, he highlighted the importance and advantage of jatropha as a source of biodiesel in the country. He also noted DA's role in this endeavor through its Biodiesel Program.

The Biodiesel Program is one of the country's alternative fuel programs being promoted for energy independence. The program is expected to reduce the Philippines' dependence on imported oil, increase economic activity in the country, boost employment, and contribute to improving air quality by reducing toxic vehicular emissions in the air.

To ensure sustainability of the biodiesel program, the government is presently studying other feedstocks such as *Jatropha curcas* or (*tuba-tuba*) as a potential source for local biodiesel production.

Dr. Virgilio Villancio, program leader of the UPLB Jatropha Program, served as the resource person for the seminar. He discussed the Alternative Fuels Program, which focuses on jatropha or *tubang-bakod* to achieve energy independence and fuel diversification while meeting environmental challenges through the utilization of alternative fuels.

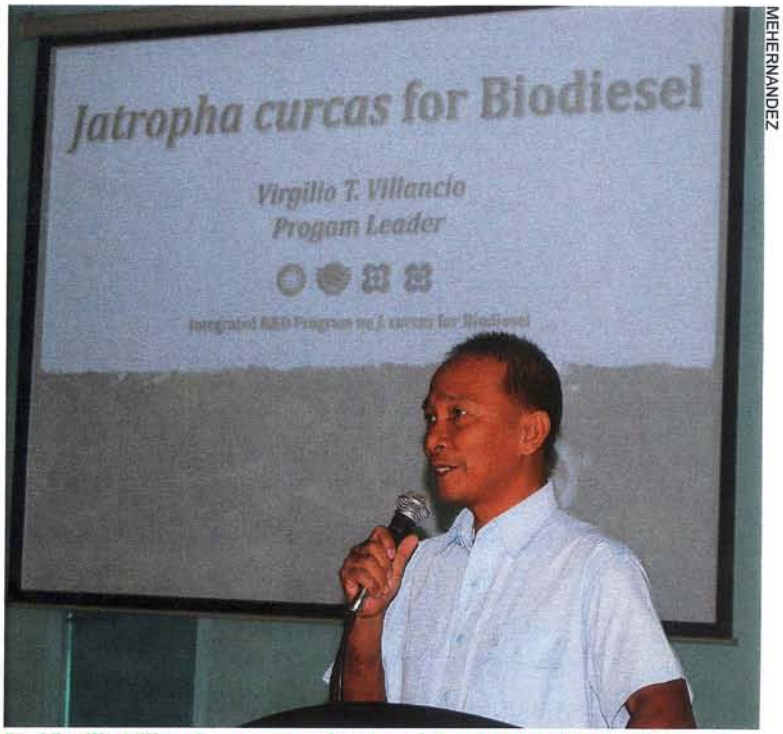
According to Dr. Villancio, a mega-nursery farm covering 1,500 hectares, has been established. These include provenance testing, seed production, model farm, tissue culture, varietal improvement, seed technology, and R&D.

By 2009 to 2011, jatropha production is expected to achieve one million metric tons to be able to produce biodiesel for domestic and export market. As of June 2007, there are 571,074 jatropha seedlings distributed at the state universities and colleges in the country.

Production of jatropha as a biodiesel source is expected to have impact on biodiversity, watershed function, income, employment, food, feed, fuel complementarities, and energy independence, among other things.

Participating agencies in the seminar include Philippine Agricultural Development and Commercial Corporation (PADCC), Philippine Coconut Authority (PCA), Bureau of Soils and Water Management (BSWM), National Tobacco Administration (NTA), Bureau of Plant Industry (BPI), Bureau of Agriculture and Fisheries Products Standards (BAFPS), Fertilizer and Pesticide Authority (FPA), DA-Project Development Service (PDS), Field Operations Service (FOS), and the GMA Corn Program.

Engr. Judyann Guevarra, technical staff member of the Technology Commercialization Unit (TCU), served as the event's master of ceremony. *(Ma. Eloisa E. Hernandez)*



MEHERNANDEZ

Dr. Virgilio Villancio, program leader of the UPLB Jatropha Program, duscusses the potential of *Jatropha curcas* as source of biodiesel.

www.lincsgas.com/global-climate-change.asp

Why climate change should change the way we look at human development

by Miko Jazmine J. Mojica

The Philippines' landing in rank number 90 among 177 countries indexed for Human Development by the United Nations Development Programme (UNDP)-commissioned report is telltale that the country lags behind in terms of showing progress in human capital development—but this is only the tip of the iceberg.

The Human Development Report (HDR) 2007-2008 recently launched at the Renaissance Hotel, Makati City noted that while human progress is necessary and often seen as the means to haul out humanity from poverty, this is threatened by the seemingly rapid manifestation of a greater challenge to humankind's existence: climate change.

The HDR presented an in-depth analysis of the effects of climate change to human development and how it will create irreversible damages that could last for centuries if the collective efforts of both developed and developing countries are not harnessed to prevent it. The essence of the report is summarized here in five points:

Climate change is the defining human development issue of our generation

"Climate change provides a potent reminder of the one thing that we share in common. It is called planet Earth. All nations and all people share the same atmosphere. And we only have one."

There are three dimensions of development measured by the Human Development Index (HDI) in order to rank countries, namely: life expectancy, literacy and level of education, and purchasing power parity or income. But, while we see development as the realization of man's full potential along with the freedom to make choices of our own, climate change is in the offing to wash away those aspirations.

The HDR stated that the "increased exposure to drought, to more intense storms, to floods, and environmental stress are holding back the efforts of the world's poor to build a better life for themselves and their children."

Climate change is hampering efforts to deliver the MDG promise

The Millennium Development Goals (MDGs) were adopted by 189 nations to cut extreme poverty in half by 2015. However, the report said that climate change will undermine international efforts to combat poverty if the developed nations especially do not keep their promise of aid and act on the mitigation of climate change. "The world lacks neither the financial resources nor the technological capabilities to act. If we fail to prevent climate change it will be because we were unable to foster the political will to cooperate. Such an outcome would represent not just a failure of political imagination and leadership, but a moral failure on a scale unparalleled in history."

Global warming is evidence that we are overloading the carrying capacity of the Earth's atmosphere

According to the HDR, the amount of greenhouse gases that trap heat in the Earth's atmosphere are accumulating at an unprecedented rate. "Current concentrations have reached 380 parts per million (ppm) of carbon dioxide equivalent (CO_2e) exceeding the natural range of the past 650,000 years. In the course of the 21st Century, average global temperatures could increase by more than 5°C."

The HDR said the good news is that if the world acts now it will be possible to keep the temperature increase within the 2°C threshold above pre-industrial levels. But still, it said that achieving this will require a high level of leadership and international cooperation.

The world's poor will suffer the earliest and most damaging impacts

"If all of the world's people generated greenhouse gases at the same rate as some developed countries, we would need nine planets." The reality that this report unearthed is that rich nations and their citizens account for the overwhelming bulk of the greenhouse gases locked in the Earth's atmosphere—but the poor countries and their citizens will pay the highest price for climate change. "In rich countries, coping with climate change to date has largely been a matter of adjusting thermostats,

next page

Why climate...*from page 10*

dealing with longer, hotter summers, and observing seasonal shifts. By contrast, when global warming changes weather patterns in the Horn of Africa, it means that crops fail and people go hungry." The HDR said that whatever the future risks facing cities in the rich world, the wrath of climate change linked to storms and floods are burdened in rural communities and in sprawling urban slums across the developing world today.

Climate change is a threat that comes with an opportunity

Even the cruelest tragedy of our time provides us with opportunity to come together and forge a collective response to "a crisis that threatens to halt progress." The report called on the development of a clear, credible, and long-term multilateral framework that charts a course for avoiding dangerous climate change. The HDR commends how political momentum is gathering pace since debate over climate skepticism is over. But although the report lauds how global mitigation efforts are being enhanced, it regrets how the gap between scientific evidence and political response remains large.

A mechanism for finance and technology transfer that could help in the rapid disbursement of low-carbon technologies is recommended by the HDR. Moreover, translating the targets of mitigation and adaptation into policies is politically more challenging yet imperative. The HDR recommends putting a price on carbon emissions through taxation. It also emphasized that the governments have a critical role to play in setting regulatory standards and in supporting low-carbon research, development, and deployment.

Why do we have to act now and act fast? The HDR quips, "Our children and their children's grandchildren have the right to hold us to a high standard of accountability when their future—and maybe their survival—is hanging in the balance. They too deserve something more than a generation of political leaders who look at the greatest challenge humankind has ever faced and then sit on their hands."

Source:
Human Development Report 2007-2008, Fighting Climate Change: Human Solidarity in a Divided World
http://hdr.undp.org/en/media/hdr_20072008_summary_english.pdf

Palace issues EO 710 to adopt FSTP as a national program

BAR ALBUM

To enable the poor farmers to free themselves from hunger and poverty by growing multiple crops and livestock in a corn-based farm and to increase their incomes, Malacañang issued Executive Order (EO) 710 adopting the Corn-based Farmer-Scientists Research, Development and Extension Training Program (FSTP) as a national program.

FSTP is an agricultural RDE strategy that primarily aims to adopt the scientific methods of farming to change and improve the knowledge, skills, and attitudes of farmers in a corn-based production system.

Prior to the implementation of the EO, FSTP is already a successful program benefiting more than 8,000 farmers who are now producing 4-6 tons/ha of corn and other crops by applying newly developed technologies.

The strategy was piloted in Argao, Cebu, in 1994 under the project title, "Development and Establishment of an Integrated Corn-based Farming System for a Sustainable Agricultural Program, in Northern Argao, Cebu: The Farmer-Scientists Training Program" with funding support from the Department of Agriculture-Bureau of Agricultural Research (DA-BAR).

Dr. Romulo G. Davide professor emeritus of the University of the Philippines Los Baños (UPLB), led the project which expanded in the provinces of Cebu, Siquijor, Negros Oriental, Leyte, Occidental Mindoro, and Compostela Valley Province.

According to Dr. Davide, the project has succeeded beyond expectation demonstrating how small marginalized farmers can be empowered with enough scientific knowledge in farming to produce more than their subsistence level.

With the issuance of EO 710, Davide is optimistic that more poor farmers will benefit from adopting FSTP as a national program enabling them to uplift their standard of living.

As stated in the EO, FSTP as a national program will be jointly implemented by DA, Department of Agrarian Reform, Department of Environment and Natural Resources, Department of Science and Technology, Department of Interior and Local Government, UPLB, and other concerned agencies.

DA takes the lead in the implementation of FSTP. In particular, the Agricultural Training Institute (ATI) will institutionalize FSTP as one of its extension approaches to ensure its successful implementation down to its intended beneficiaries, and BAR will facilitate the transfer of farming technologies developed by R&D agencies to the FSTP beneficiaries.

In support of FSTP as a national program, BAR is currently funding a two-year project, "Farmers-Scientists Training Program: A Community Research and Development on Technology Transfer and Adoption in Corn-Based Production System" which is being implemented in two towns in Region 8 (Samar and Leyte).

The project, which is in line with Agriculture Secretary Arthur C. Yap's renewed programs on making business from agriculture, is being implemented by UPLB in collaboration with the local government unit.

The adoption of FSTP as a national program is part of the government's development plan of enhancing the economy's global competitiveness and alleviating hunger and poverty. This is also consistent with the Medium Term Philippine Development Plan 2004-2010 in particular, developing at least two million hectares of new agribusiness lands.
(Rita T. dela Cruz)

Visayas region promotes new technologies on agri and fisheries

Twelve technologies on agriculture and fisheries were identified to have potential impact on the lives of farmers and fisherfolk were presented at a technology forum held in Ormoc City, Leyte on 4 March 2008.

The Bureau of Agricultural Research (BAR) has been holding regular technology forums on agriculture and fisheries at the national and regional levels in partnership with the University of the Philippines - Public Administration Research and Extension Service Foundation, Inc., National College of Public Governance and Administration (UP-NCPAG), and Center for Local and Regional Governance (CLRG).

The technology forum for the Visayas cluster was part of a series of technology forums conducted yearly to consolidate and promote appropriate technologies that are envisioned by BAR's National Technology Commercialization Program (NTCP) to close the gap between research and development and technology transfer to benefit farmers and fishefolk.

The technologies presented included the use of cassava, sweet potato, jackfruit, citrus (calamansi), seaweeds, seafood, and waste fats and oils to create value-added products, prolong shelf life, and make innovative products that can create a demand in the local and international markets. Cost-efficient and locally developed machineries such as an abaca stripper and rice thresher were also presented.

About 150 participants composed of farmers, fisherfolk, researchers, scientists, representatives of the private sector, and members of the academe, local government units (LGUs), and non-government organizations attended the event hosted by DA's Regional Field Unit 8 in coordination with the Bureau of Fisheries and Aquatic Resources (BFAR) and the Visayas State University (VSU). *(Miko Jazmine J. Mojica)*

WHO'S NEW AT BAR ?

EGNAGPALA

Christmas B. de Guzman | Rodolfo F. Fernandez | Ma. Trinidad P. Bosano

As 2008 rolls to its third month, three new staff members were added into the growing family of the Bureau of Agricultural Research (BAR) in the pursuit of service.

Her name directly suggests that she was born on the 25th day of December. A native of Lumban, Laguna, **Christmas B. de Guzman**, 22, is the newest writer of the Applied Communication Section-Management Information Systems Division (ACS-MISD). She graduated BS Development Communication (major in Science Communication) at the University of the Philippines Los Baños (UPLB). This talented lass is a member of the UP Painters Club and her hobbies include sketching and drawing. She has a great interest in wildlife and biodiversity, and one day dreams of becoming a wildlife biologist. When asked about her working principle, she said that she wishes to work and interact with different individuals and enter into new situations with creative and resourceful attitudes.

An agricultural engineer by profession, **Mr. Rodolfo F. Fernandez**, 51, is another product of UPLB and used to work for the bureau since its inception in 1988. He was assigned at the Information Systems Division before he moved to the Department of Environment and Natural Resources (DENR) in 1992. He stayed with DENR for three years, after which he worked for several offices. Now, he is back at the bureau and is assigned at the Research Coordination Division as a coordinator for Regions 2 and 3. *Budi*, as he is fondly called by everyone, hails from Pangasinan and currently resides in Marikina City. He has the passion both for music and sports. His motto in life is to aim high and strive to hit the mark.

Ma. Trinidad P. Bosano or simply Trina, 40, describes herself as hardworking and patient, hence her motto, "Do your best in everything, look at your best and work hard." An AB Behavioral Science graduate at the University of Sto. Tomas (UST), her hobbies include playing badminton and writing. She shares that she wrote a manuscript on romance, which is yet to be published. Before landing at BAR, she worked at the Far East Bank for 10 years. She is now assigned as an accounting staff member at the bureau's Finance Unit. *(Ellaine Grace L. Nagpala)*

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