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EQUIPPING THE YOUTH

The youth of today are the world's future. As education is a great social leveller—paving the way for growth and new opportunities, to invest in building education institutions is to put resources where it will count the most.

Photo by: Somsamay Homphothichak

SEARCA spearheads institutional development assistance to Savannakhet University

SEARCA will lead institutional development assistance efforts to help a newly established university in Savannakhet Province, Lao PDR to become one of the leading providers of agricultural education in the country.

A team from SEARCA and the University of the Philippines Los Baños (UPLB) conducted a reconnaissance visit to Savannakhet University (SKU) on 5-8 February 2011 to obtain a situationer on the university and make an initial assessment of its facilities, capabilities, curriculum, and qualifications of its faculty and staff.

The SKU was established in March 2009 as the country's fourth university. Information gathered during the visit will serve as inputs to the umbrella capacity-building program that will be developed for SKU.

Members of the reconnaissance team are Dr. Gil C. Saguiguit, Jr., SEARCA Director; Dr. Luis Rey I. Velasco, UPLB Chancellor and Country Representative of the Philippines and Chair of SEARCA's Governing Board; Dr. Oscar B. Zamora,

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WHAT'S INSIDE

SEARCA implements FAO-funded study on agribusiness in Asia

The Food and Agriculture Organization-Rural Infrastructure and Agro-Industries Division (FAO-AGS) has commissioned SEARCA to carry out an appraisal of the institutional mandates for agribusiness support in Asia. The purpose of the appraisal is to identify and characterize the organizational models being introduced by the Ministries of Agriculture in Asia, specifically in East, South, and Southeast Asia, to provide services to agribusiness and agro-industries. The results of the appraisal would provide sound basis for improving the FAO technical support and guidance to the Ministries.

The appraisal shall be undertaken in two phases. Phase I involves a scoping survey to identify existing organizational structures with mandate related to agribusiness in East, South and Southeast Asia. Phase II comprises in-depth country cases for several countries to analyze the innovative organizational structures for agribusiness in terms of their mandates, functions, scope of services, institutional comparative advantage, and strengths and weaknesses.

The study aligns well with SEARCA's mandate of institution building in agriculture and rural development and with its thrust of agricultural competitiveness. SEARCA will tap its existing networks and linkages in Southeast Asia as well as South and East Asia to facilitate the conduct of the study. (BMBurgos)

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Dean of UPLB Graduate School, and Dr. Editha C. Cedicol, Manager of SEARCA's Graduate Scholarship Department.

The visit was an initial response to the urgent need for capacity-building assistance expressed by Dr. Sitha Khemmarath, SKU Vice President for Academic Affairs and Country Representative of Lao PDR to the SEARCA Governing Board.

Dr. Bounpong Keorodum, Acting President of SKU, expressed that the University has been mandated to respond to the human resource development needs of the provinces of Savannakhet, Khammouane, and Bolikhamxay. He said the task is very challenging and interventions from the government as well as regional organizations like SEARCA are most welcome. He added that SKU is seeking assistance in curriculum development as well as capacity building in instruction, research, and extension through skills training and graduate education.

In response, Dr. Saguiguit said SEARCA has the concurrence of its Governing Board to continue to assist developing universities in the region within the Center's capabilities and resources as well as in sourcing funds for institutional development. He added that SEARCA's mandate is to build capacities in teaching and research through its graduate scholarship, training, and knowledge management programs and that any activity in the umbrella capacity-building program for SKU will be anchored on agriculture and rural development. He said the strong support of the local and national governments of Lao PDR is also vital to the success of this institutional assistance program for SKU.

As SKU is located in the central part of the country, Dr. Khemmarath said it is strategically situated to cater to the demand for human resources needed to boost economic development of the three provinces located at the East-West Economic Corridor. The East-West Economic Corridor is an economic development program embodied in the master "connectivity" plan approved by the Association of Southeast Asian Nations (ASEAN) that would link Danang in Vietnam to Mawlamyine in Myanmar through Laos and Thailand to achieve the envisioned ASEAN single market by 2015.

During the visit, the team also had the opportunity to meet Dr. Khampheui Phanthachone, Vice Governor of Savannakhet Province and brief him about SEARCA's mission to Lao PDR. Dr. Phanthachone expressed his pleasure that SKU took a giant leap to strengthen its cooperation with the UPLB and SEARCA, and eventually bring expertise into the province. He gave his commitment to support the institutional development efforts of SEARCA.

While in Vientiane, the team also paid a courtesy call on Mrs. Sengdeuane Lachanthaboun, Deputy Minister of Education, who also pledged strong support to the proposed project.

Since 1969, SEARCA has been assisting the SEAMEO member countries, including Lao PDR, in the development of high quality human resources in agriculture and related fields. To date, 34 SEARCA graduate scholarships and seven scholarships for academic bridging programs, a non-degree preparatory program for the master's degree, have been awarded to Laotians. (ECCedicol)

(From left) Dr. Sitha Khemmarath, Vice President for Academic Affairs, SKU; Dr. Bounpong Keorodum, Acting President, SKU; Dr. Oscar B. Zamora, Dean, UPLB Graduate School; Dr. Gil C. Saguiguit, Jr., SEARCA Director; and Dr. Luis Rey I. Velasco, UPLB Chancellor, discuss the capacity building program for SKU.

THE SEARCA DIARY

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SEARCA, AECOM Asia collaborate on ADB project in Indonesian river basin

SEARCA has been tapped by AECOM Asia Co. Ltd., a consulting firm commissioned by the Asian Development Bank (ADB), to provide professional technical services on climate change for the ADB project entitled *TA7189-INO: Institutional Strengthening for Integrated Water Resources Management in the 6 Cis River Basin (CRB) Territory (Package E)*. The project aims to strengthen the institutional capacity of the national, provincial, and municipal governments of Indonesia in accordance with its Water Law of 2004. By providing the technical assistance, the project seeks to increase the ability of the stakeholders to successfully and efficiently manage the water resources to cope with climate change impact in the CRB.

Dr. Juan M. Pulhin (foreground), Associate Professor, College of Forestry and Natural Resources, University of the Philippines Los Baños and SEARCA consultant for the ADB project, participates in the project kick-off meeting on 24-28 January 2011 in Indonesia.

SEARCA has engaged Dr. Juan M. Pulhin to serve as the International Consultant for Agriculture and Climate Change Adaptation. Dr. Pulhin is one of the four Filipino scientists who were part of the Intergovernmental Panel on Climate Change (IPCC) 1 and Professor and Scientist II at the College of Forestry and Natural Resources, University of the Philippines Los Baños.

The project conducted a kick-off meeting on 24-28 January 2011 in Indonesia. Participants included Dr. Pulhin; Dr. Bessie M. Burgos, Manager, and Ms. Nancy M. Landicho, Project Development Specialist, both of the Project Development and Management Department; as well as officials of ADB and the Ministry of Environment, Indonesia and various stakeholders.

SEARCA's participation in the project involves nine major activities. These include: reviewing relevant Indonesia's national documents on climate change and compiling information on adaptation policies and measures for water resources and agriculture; assessing the technical and institutional capacities to address climate change adaptation in CRB and develop a capacity-building action plan with a focus on policymakers, the private sector, and other stakeholders at the provincial level; liaising with government representatives to collect baseline data on agriculture and climate change issues, and existing adaptation measures in CRB; and assessing the significance of key climate change risks for agriculture in CRB relative to other uncertainties, such as projections of population and economic growth.

The project will also assess current vulnerabilities of farming communities and agro-ecosystems in CRB to climate variability and change based on consultations with representatives of national and provincial governments, local communities, nongovernment organizations (NGOs), and other specialists. This assessment will focus on economic losses to agriculture from climate-related disasters; traditional coping strategies; and opportunities and priorities for intervention by donors and policymakers. Future vulnerability and impact assessment for the agriculture sector in CRB, including GIS mapping outputs, will also be undertaken.

To be implemented over three years, from January 2010 to June 2013, the project will also identify pilot activities that can benefit from international adaptation funds. After holding consultations to vet the pilot activity design, the pilot activities on agricultural adaptation will be implemented with due consideration for environmental safeguards, national, and provincial regulations, and other compliance requirements. Information dissemination and capacity strengthening activities will also be conducted.

Bandung and Jakarta will be the focus of the two-phased project. Phase I of the project involves the preparation of the action in order to mainstream climate change concerns and issues into Water Resource Management in the CRB, while Phase II involves the implementation of climate change mitigation and adaptation pilots such as clean development mechanism and sustainable agriculture schemes. (JLBCarigma with report from SGLQuinones)

SEARCA, EEPSEA to collaborate on climate change project

Southeast Asia is highly vulnerable to climate change due to its geographic location, poor population, and high dependence on agriculture and natural resources. Studies show that local government units in countries like Cambodia, the Philippines, and Vietnam need to enhance their capacity to adapt to climate change.

To help build local capacities in these countries, the Economy and Environment Program for Southeast Asia (EEPSEA) funded a three-year project entitled *Building Capacity to Adapt to Climate Change for Selected Southeast Asia Countries: Vulnerability Assessment and Economic Analysis of Adaptation*. SEARCA is the collaborating institution for the Philippine component of the project. The other collaborators are Hue College of Economics, Vietnam and Royal University of Phnom Penh, Cambodia.

At a meeting held at SEARCA on 2 February 2011, Dr. Mercedita A. Sombilla (center), Manager of SEARCA's Research and Development Department, brainstorms on the Philippine component with (from left) Ms. Maria Emilinda Mendoza, Ms. Jaimie Kim Bayani, Ms. Carmen Nyhria Rogel, and Mr. Moises Dorado.

The provinces of Kampong Speu, Cambodia; Laguna, Philippines; and Thua Thien Hue, Vietnam were selected as project sites. Within the project, three thematic studies will be conducted, namely: (1) Vulnerability Measurement and Mapping, (2) Gender Ethnographies of Vulnerability, and (3) Economic Analysis of Adaptation.

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SEARCA, DA-BAR train agri-based product innovators in market research

Participants of the training pose for a souvenir photo with Dr. Nicomedes Eleazar (sixth from right, second row), Executive Director, Bureau of Agricultural Research, Department of Agriculture (DA-BAR), Philippines.

Makers of agri-based products tend to focus on the innovation aspect of product development and often overlook the need to make the product appealing to the target market. To address this common stumbling block, SEARCA and the Philippine Department of Agriculture-Bureau of Agricultural Research (DA-BAR) organized a training course entitled *Market Study and Formulation of Marketing Strategies for Commercializable Agri-based Technologies/ Products,* which was held at SEARCA on 28-30 March 2011.

Participants were 28 product developers and technology generators from DA Regional Field Units I, II, IV-A, IV-B, and V; DA-BAR; DA-Quezon Agricultural Experiment Station (DA-QAES), Bureau of Fisheries and Aquatic Resources (BFAR) Regional Field Units II, IV-A, and VI; Pampanga Agricultural College, Southern Luzon State University, and BAPAMIN Enterprises, all in the Philippines.

In welcoming the participants, Dr. Gil C. Saguiguit, Jr., SEARCA Director, said the training is a supplementary activity of the project on *Capacity-building and Comparative Study on Technology Management in Southeast Asia* that is jointly implemented by SEARCA and DA-BAR. He added that DA-BAR and SEARCA have been working together for a good number of years now in strengthening the agricultural sector, mainly through the development of the capacity of the DA personnel from the national, regional, and field units in managing technology transfer and commercialization projects in support of the DA's National Technology Commercialization Program (NTCP).

The NTCP has gained grounds in making technologies work for farmers, fisher folk, and entrepreneurs. Nevertheless, DA-BAR continues its partnership with SEARCA to address the clamor from the DA network for continuous upgrading of their knowledge of technology management practices in Southeast Asian countries in order to benchmark knowledge and practices of technology management in the Philippines.

The training was aimed at helping the participants develop appropriate marketing strategies for agri-based products and technologies by analyzing the market environment. Upon completion of the course, the participants are expected to have greater appreciation of marketing factors, including consumer behavior, product innovation, and formulation of effective marketing schemes.

The resource persons were mostly from the Department of Agribusiness Management, College of Economics and Management, University of the Philippines Los Baños. They tackled topics such as competitor analysis, market segments and buying behavior, market research methods, demand forecasting, product quality improvement and product safety, product presentation, pricing strategies, product distribution and promotion, cluster marketing, and supply chain management.

"We hope that through this training, a better understanding of the market environment will lead to the development of both technology- and market-driven agri-based products that would benefit the agriculture sector and the consuming public as a whole," Dr. Saguiguit said. (LLDDomingo)

SEARCA, Asia BioBusiness organize international seminar-workshop on agri-biotech risk communication

SEARCA hosted a *Seminar-Workshop on Strategic Communication on Agricultural Biotechnology Using Risk Communication Methodology* held on 17-18 February 2011, which it jointly organized with Asia BioBusiness Pte. Ltd. based in Singapore.

The seminar-workshop was conducted in response to a recommendation of the 2010 Asia Pacific Economic Cooperation (APEC) High Level Policy Dialogue on Agricultural Biotechnology held in Sapporo, Japan, which underscored the importance of and need for strategic communication to enable biotechnology acceptance.

The seminar-workshop thus aimed to address the distinctive needs and concerns of the many stakeholders involved in biotechnology through science-based communication that customizes messages for each stakeholder group. The workshop design intended to mine the diverse mix of participants of their experiences and enhance their knowledge and skills in stakeholder-targeted communication.

More than 40 senior staff of government agencies and universities in the Philippines, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Vietnam, and Peru who have influence in the crafting of policies and programs on agricultural biotechnology, participated in the workshop.

International experts served as resource persons, including Dr. Andrew Powell, Chief Executive Officer of Asia BioBusiness; Dr. Paul Teng, Dean of Graduate Programs, National Institute of Education, Nanyang Technological University, Singapore; and Dr. Mariechel Navarro, Manager, Global Knowledge Center on Crop Biotechnology, International Service for the Acquisition of Agri-biotech Applications (ISAAA).

SEARCA Director Gil C. Saguiguit, Jr. said the seminar-workshop added to SEARCA's intense efforts in communicating biotechnology to the public, through the Biotechnology Information Center (BIC), a project of SEARCA and ISAAA. For the past 10 years, BIC has been providing Southeast Asia with highly credible, sound, and factual biotechnology information that is accessible to various stakeholders.

Asia BioBusiness has been organizing the APEC High Level Policy Dialogue on Agricultural Biotechnology in the past four years. The policy dialogue is aimed at addressing "the regulatory policy bottlenecks affecting the commercialization of agricultural biotechnology in APEC member economies and the public perception issues associated with technology." (LLDDomingo)

SEARCA, IFAD jointly organize workshop series on knowledge sharing in Asia

SEARCA and the International Fund for Agricultural Development (IFAD) jointly conducted a three-part *Knowledge Sharing in Asia Workshop* on 9-19 March 2011 at SEARCA.

The topics of the workshop series were *Participatory Techniques in the Field* (9-12 March), *Writing to Share Knowledge Effectively* (14-16 March), and *Knowledge Sharing for Your Work: Techniques and Tools* (17-19 March).

The workshop series is part of 1.5-year program called "Knowledge Sharing in Asia" jointly conducted by IFAD and the Food and Agriculture Organization on the United Nations (FAO) to equip IFAD project staff and those of partner institutions with skills and tools needed to ensure that knowledge, experiences, and lessons learned are adequately captured and shared.

In his welcome remarks at the opening program of the workshop series, Dr. Gil C. Saguiguit, Jr., SEARCA Director, said the Center shares IFAD's and FAO's recognition of knowledge management (KM) as an important endeavor in addressing the Millennium Development Goals.

"While donors channel large amounts of funds to development year in and year out, KM ensures that we do not need to keep reinventing the wheel in our efforts to improve human welfare. Rather, KM makes it possible for us to learn the successes and lesson of the past and present development initiatives in various contexts," said Dr. Saguiguit.

Dr. Jorge Chavez-Tafur (second from right, standing), Editor in Chief of *Farming Matters*, facilitates one of the small-group workshops during the Knowledge Sharing in Asia Workshop series held on 9-19 March 2011 at SEARCA.

The main objective of the workshop is to show that systematization, which facilitates description, analysis, and documentation of the processes and results of a development project can be done by the field staff themselves and would not require an external consultant.

The Training Unit of SEARCA's Knowledge Management Department spearheaded the conduct of the workshop series.

Altogether, the three workshops had 46 participants from Cambodia (4), Lao PDR (1), Fiji (1), the Philippines (31), Thailand (2), Tonga (2), and Vietnam (5).

The participants had hands-on experience in recognizing relevant information, identifying available information, and collecting information from different sources in the context of the selected case; describing their work by identifying activities; analyzing available information, identifying

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6 Philippine LGUs get training in GIS applications to climate change

Staff of local government units in six Philippine provinces comprise the participants of the *Hands-on Training on Practical Applications of Free and Open Source Software for Geospatial (FOSS4G) to Climate Change* conducted on 27-28 January 2011 at SEARCA.

A training course entitled *Hands-on Training on Practical Applications of Free and Open Source Software for Geospatial (FOSS4G) to Climate Change* for staff of local government units (LGUs) in six Philippine provinces was conducted on 27-28 January 2011 at SEARCA as part of the European Union (EU)-funded Focused-Food Production Assistance to Vulnerable Sectors (FPAVAS) project.

Participants were 18 junior-level staff handling geographic information system (GIS) at LGUs of the six EU-FPAVAS province-beneficiaries, namely: Camarines Norte, Camarines Sur, Misamis Occidental, Misamis Oriental, Occidental Mindoro, and Oriental Mindoro.

The training course equipped participants with basic understanding of GIS and its application to climate change.

Mr. Edwin Abucay, Assistant Professor at the College of Human Ecology, University of the Philippines Los Baños (CHE-UPLB) and EU-FPAVAS GIS Specialist, served as resource person. He emphasized that the use of GIS has great potential, especially in identifying the vulnerabilities of a certain area because it allows users to capture and analyze data using spatially explicit locations.

The training course consisted of four modules. The first module covered the basic concepts and components of GIS, while the second module dealt with the process of starting a GIS project. Hands-on exercises on map transformation as well as GIS data editing, acquisition, and processing comprised the third and fourth modules. In the hands-on exercises, participants utilized global positioning system (GPS) coordinates generated from the climate change survey to validate climatic vulnerabilities identified by respondents vis-à-vis the area's elevation, slope, and other parameters.

Mr. Lope B. Santos, Project Development Specialist, SEARCA Project Development and Management Department, said the training is part of the project's effort to capacitate the provinces in adapting to and mitigating the

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SEARCA conducts SFRT seminar in Vietnam

SEARCA conducted the third Vietnam Seed Fund for Research and Training (SFRT) Program Seminar at Nong Lam University, Ho Chi Minh City on 23 March 2011. Organized in collaboration with NLU, the seminar featured three SFRT-funded research projects implemented by Vietnamese researchers.

One ongoing and two completed studies were presented during the seminar. These are:

- "Developing Community-Based Farmer Groups with Same Preference in Agricultural Innovation Adoption towards One Must and Five Reductions in Increasing Rice Production Efficiency and Farmers' Welfare in Co Do District, Can Tho City, Mekong Delta" by Ms. Truong Thi Ngoc Chi, Head, Socio-Economics and Extension Department, Cuu Long Rice Research Institute;
- "*Pangasius* Quality Management and Market Access of Small-scale Farmers in the Mekong River Delta, Vietnam" by Dr. Le Nguyen Doan Khoi, School of Economics and Business Administration, Can Tho University; and
- "Integration of GIS and AHP Techniques for Land Use Sustainability Analysis in Di Linh District, Upstream Dong Nai Watershed, Vietnam" by Dr. Nguyen Kim Loi, Director, Research Center for Climate Change (RCCC), NLU.

The speakers are the Seed Fund for Research and Training grantees (from left): Ms. Truong Thi Ngoc Chi of Cuu Long Rice Research Institute, Dr. Le Nguyen Doan Khoi of Can Tho University, and Dr. Nguyen Kim Loi of Nong Lam University, all of Vietnam.

NLU faculty members, researchers, and graduate students attended the seminar.

Aside from being a venue for informing the public on the status and results of research and development efforts undertaken in Vietnam, the seminar was also provided an opportunity to encourage more submissions to the SFRT Program so that more innovative projects can be funded.

SEARCA's SFRT program provides grants of up to US$15,000 to selected research and training project proposals along either of the Center's priority themes, namely: natural resource management and agricultural competitiveness.

In her closing remarks, Dr. Mercedita A. Sombilla, SEARCA's Manager for Research and Development, informed the attendees of other SEARCA programs and activities, including graduate scholarships, research fellowships, travel grants, and the D. L. Umali Achievement Award in Agricultural Development. (RCDikitanan)

3 UP faculty members awarded SEARCA Professorial Chair

The SEARCA Professorial Chair has been awarded to faculty members of the University of the Philippines Diliman (UPD) and UP Mindanao (UPMin) for school year 2010/2011.

The awardees and the titles of their seminars are:

Dr. Ramon L. Clarete

• Dr. Ramon L. Clarete, Professor, School of Economics, UPD, "Investing in Structured Trade of Farm Products: Case of Yellow Corn in the Philippines"

Dr. Crispin Emmanuel D. Diaz

• Dr. Crispin Emmanuel D. Diaz, Associate Professor, School of Urban and Regional Planning, UPD, "Exploring the Funding and Management of the Construction and Maintenance of Rural Roads through Public-Private Partnerships"

Dr. Larry N. Digal

• Dr. Larry N. Digal, Associate Professor, College of Science and Mathematics, UPMin, "Small-scale Producers in High Value Banana: Issues and Challenges

All three professorial chair holders are expected to deliver their lectures at the weekly SEARCA Agriculture and Development Seminar Series.

The SEARCA Professorial Chair Program aims to give due recognition to the experts among UP academic staff in specific fields of discipline under the broad themes of agricultural competitiveness and natural resource management. Awardees have a minimum rank of Assistant Professor, have proven excellence in academic or research work in their chosen field of specialization within the abovesaid priority thrusts. Awardees receive a lump sum of Php100,000.

As of January 2011, 248 SEARCA professorial chair awards have been granted to the different autonomous campuses of the UP System. (LLDDomingo)

New Cambodian Representative to SEARCA Governing Board appointed

Dr. Ngo Bunthan

Dr. Ngo Bunthan, Rector of the Royal University of Agriculture (RUA), Cambodia, has been appointed as the new Country Representative of Cambodia in the SEARCA Governing Board effective 14 January 2011. He will serve for a term of three years.

Dr. Bunthan succeeded Dr. Chan Nareth as Rector of RUA and Cambodia's Representative in the SEARCA Governing Board.

SEARCA hosts forum on Taal Lake basin management

SEARCA hosted an environmental forum on the *Current Challenges in Lake Basin Management in the Philippines: Focus on Taal Volcano Protected Landscape* held on 26 January 2011.

Organized by the University of the Philippines Los Baños (UPLB) School of Environmental Science and Management (SESAM), the forum intended to provide relevant analyses on how watershed management can be enhanced by considering urgent concerns related to climate change impacts.

Its esteemed speakers, all participants of the Balik Scientist Program of the Philippine Department of Science and Technology (DOST), and their topics are:

Dr. Josefino C. Comiso, Senior Scientist, National Aeronautics and Space Administration (NASA), USA - *Recent Developments in Climate Change and Its Implications to Lake Basin Management*

Dr. Catalino A. Blanche, National Program Leader, Division of Environmental Systems, US Department of Agriculture (USDA) - *Managing Impacts of Climate Change to Enhance Bio-energy and Crop Production: Prospects for the Philippine Watersheds*

Dr. Terencio I. Sarigumba, Technology Development Leader, Georgia Pacific Company, USA - *Taal Lake and Watershed, Focus on Forestry*

Particular to Taal Lake basin was Dr. Sarigumba's discussion of pressing issues regarding natural resource management, including the apparent increase in the number of fish pens which contribute to lake water pollution. He emphasized that there is lack of knowledge on the carrying capacity of the lake. Among his recommendations to improve the management of the lake and ensure its sustainable use is to put a limit to the number of fish pens in the lake. This was challenged by an attendee who represented the fish cage operators in the area, emphasizing that they were given permission to operate their fish pens and that their livelihood is dependent on their access to the lake.

The forum is intended to enhance environmental awareness of the UPLB community and encourage concrete actions for the environment, a commitment shared by both SEARCA and UPLB.

Dr. Terencio I. Sarigumba says there is a need for more knowledge on the carrying capacity of Taal Lake.

"I think that the environmental forum is a very good venue to bring together experts in various topics in environmental science who have practiced both inside and outside the country and researchers, faculty, staff and students in UPLB for a dynamic exchange of information, ideas, and arguments to better sharpen our understanding of relevant issues… and from that, to frame research questions… that will lead us to more approaches and the application of useful inputs," said Ms. Aisa O. Manlosa, a SEARCA scholar pursuing her MS in Environmental Science at UPLB. (LLDDomingo)

Small-scale fisheries key to livelihood, food security in the Philippines

Strategic management of small-scale fisheries, a self-sustaining and producing sector, could be the Philippines' vehicle to development.

This was the central message of Mr. Len R. Garces, Regional Portfolio Coordinator and Research Fellow, Philippine Country Office of WorldFish Center, in his seminar entitled *Role of Small-scale Fisheries in Food Security and Livelihood in the Philippines* delivered at SEARCA's Agriculture and Development Seminar Series on 8 February 2011.

Mr. Garces asserted that small-scale fisheries can be the country's entry point to eradicating poverty and hunger.

It is estimated that 80-95% of the fish catch of small-scale fisheries are marketed locally, hence its importance in feeding the people in the rural areas and nearby cities and provinces. With increasing human population, this sector is challenged to sustainably produce fish in quantities that will meet the country's fish consumption levels by 2020. Moreover, small-scale fisheries is a major source of livelihood in coastal communities, with an estimated 1.37 million operators not including the ancillary services such as fish processing and trading, as well as a big contributor to the country's economy.

Nevertheless, small-scale fisheries is often underestimated because it is hard to measure, and, according to the Food and Agriculture Organization of the United Nations (UN-FAO), it is a dynamic and evolving sector. Because of this, municipal fishers remain in the most impoverished sectors. Moreover, small-scale capture fisheries are environmentally diverse and fishing is carried out using many different fishing methods and under an array of varying organizational set-up.

Mr. Len R. Garces of WorldFish Center says small-scale fisheries can be the entry point to eradicating poverty and hunger in the Philippines.

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Snapshots

Ms. Jenny A. Panopio (right), Special Projects Coordinator and Network Administrator of SEARCA's Biotechnology Information Center (BIC), informs Ms. Kelly Gast, Assistant Controller, Monsanto Company, about the activities of the BIC. A recipient of the 2010 Eisenhower Fellowship, Ms. Gast visited SEARCA during her travel to the Philippines to promote the exchange of information, ideas, and perspectives in the interest of understanding, peace, and prosperity.

Ms. Pakiavathy Psubramania (right) talks about the conference and housing facilities of the SEAMEO Regional Center for Science and Mathematics (RECSAM) in Penang, Malaysia during the briefing at SEARCA. Ms. Psubramania and Ms. Mahabuyan Yaacob (left) are RECSAM staff in charge of arrangements for conventions and housekeeping. They visited SEARCA under the SEAMEO Staff Exchange Program.

Dr. Gil C. Saguiguit, Jr. (left), SEARCA Director, receives Mr. Alfredo E. Pascual, President-elect of the University of the Philippines (UP), at SEARCA on 20 January 2011. Mr. Pascual was the guest of honor at a forum organized by the University Student Council of UP Los Baños and co-sponsored by SEARCA. Mr. Pascual assumed the UP presidency in February 2011.

Philippine Education Secretary Armin A. Luistro (leftmost) poses with the SEARCA delegation led by Dr. Saguiguit (center) to the 46th SEAMEO Council Conference held on 26-29 January 2011 in Jerudong, Brunei Darussalam. Others in the photo are (from left to right): Ms. Maria Obdulia B. Jolejole, Head, Facilities Management Unit; Mr. Maciste B. Alegre, General Services Assistant and a recipient of the 2010/2011 SEAMEO Service Award; and Mr. Eduardo D. Rodriguez, Jr., Management Information System Assistant.

Summer Outing

"In Pursuit of Happiness." Temples of Ayutthaya, Thailand, March 2011

"Eat, Pray, Laugh… Hic!" San Isidro Labrador Church, Lazi, Siquijor, Philippines, February 2011

"Eat, Pray, Laugh!" Terrazas de Punta Fuego, Batangas, Philippines, February 2011

"Intercultural Experience." Spring Hotel, Ho Chi Minh City, Vietnam, March 2011.

"SEARCAlikasan." Hundred Islands, Pangasinan, Philippines, February 2011

"Intercultural Experience." Reunification Palace,Ho Chi Minh City, Vietnam, March 2011

"Come and Make Summer Uniquely Refreshing." Caramoan Islands, Philippines, April 2011

"FMU goes to Bohol – A Journey as a Whole!" Blood Compact Site, Tagbilaran City, Bohol, Philippines, March 2011

"Summer Escape to Adventure and Recreation in Cagayan de Oro, Ayos!" Makahambos Cave, Cagayan de Oro, Philippines, April 2011

Alegre receives SEAMEO Service Award

Mr. Maciste "Nonoy" B. Alegre, SEARCA General Services Assistant, was the recipient of the 2010/2011 SEAMEO Service Award. He and other awardees from 14 other SEAMEO centers were recognized during the 46th SEAMEO Council Conference, which was held back-to-back with the Sixth ASEAN Meeting of Ministers of Education (ASED) on 26-29 January 2011 at Empire Hotel and Country Club in Jerudong, Brunei Darussalam.

Established by the SEAMEO Council in 2003, the accolade is bestowed on outstanding staff members from the SEAMEO regional units who exemplify excellence and commitment to the success of their respective organizations. Each SEAMEO unit selects the recipient of the annual award from among its staff based on a standard set of criteria.

Brunei Darussalam Minister of Education His Excellency Pehin Orang Kaya Seri Kerna Dato Seri Setia Hj Abu Bakar Hj Apong presents a plaque of appreciation to Mr. Maciste B. Alegre, SEARCA General Services Assistant, for being one of the 2010/2011 SEAMEO Service Awardees during the 46th SEAMEO Council Conference held on 27 January 2011 in Jerudong, Brunei Darussalam.

According to Mr. Alegre, being nominated for the awards was already an accomplishment in itself. When he found out that he was chosen as a SEAMEO Service Awardee, his bliss was beyond words. Mr. Alegre's creativity and versatility are the outstanding qualities that sealed the deal for him. He is a very dependable person, willing to work beyond the call of duty. And this is no surprise considering that Mr. Alegre said he looks at additional tasks not as additional load but as a challenge.

This year's awardee from SEARCA believes that this tribute affirms that SEAMEO looks beyond ranks and positions in the hierarchy when considering Mr. Alegre started his career at SEARCA 24 years ago as a Print Technician and later served as Illustrator of the former Communications and Publications Unit.

He is the eighth SEARCA staff to receive the SEAMEO Service Award. Past recipients of the award are Ms. Mina G. Talatala, Records and Archives Assistant (2009/2010); Ms. Alicia D. Revilla (2008/2009), Information Systems Specialist; Mr. Eugene Philip S. Boone, Grounds and Building Supervisor (2007/2008); Ms. Susan V. Fernandez, Head, Management Services Unit (2006/2007); Dr. Editha C. Cedicol, Manager for Graduate Scholarship (2005/2006); and Ms. Lily L. Tallafer, then Senior Executive Assistant (current Special Projects Coordinator-Networks and Linkages (2004/2005). (JSLaranas)

SEARCA staff attend forum on KM tools for the public sector

Five SEARCA officers and staff attended a forum on *Knowledge Management Tools for the Public Sector* held on 9 February 2011 at Bangko Sentral ng Pilipinas, Manila as part of the Quarterly Forum Series of the Knowledge Management Association of the Philippines (KMAP).

The discussion was led by Dr. Serafin D. Talisayon, Director for Research and Development, Center for Conscious Living Foundation, Inc., and Vice Chairperson of KMAP. Dr. Talisayon is recognized as the "Father of Knowledge Management in the Philippines."

KMAP is the premier Knowledge Management Society of the Philippines. It is dedicated to the advocacy and practice of knowledge management for the purpose of attaining competitive edge for the Philippines. An institutional member of KMAP, SEARCA collaborates with the Association in its efforts on KM for development.

The SEARCA delegation was composed of Dr. Maria Celeste H. Cadiz, Manager, Knowledge Management Department (KMD); Dr. Mariliza V. Ticsay, Head; Ms. Regine Joy P. Evangelista, Information and Communication Associate; and Ms. Angela Mae S. Minas, Knowledge Management Assistant, all of Knowledge Resources Unit (KRU); and Ms. Jenny A. Panopio, Special Projects Coordinator and Biotechnology Information Center (BIC) Network Administrator. (AMSMiñas)

SEARCA's Knowledge Management Department, represented by (from left) Ms. Angela Mae S. Minas, Dr. Mariliza V. Ticsay, Dr. Maria Celeste H. Cadiz, and Ms. Regine Joy P. Evangelista, join the Quarterly Forum Series of the Knowledge Management Association of the Philippines held on 9 February 2011 in Manila.

Smallholder vegetable farmers to benefit from increased supermarket purchases

Market trends show that more and more people will opt to buy from supermarkets than wet markets in the future. This will have an impact on farmers, especially small-scale farmers, who would need to comply with certain requirements to get direct access to this market.

This change in the institutional market segmentation should be no threat, but rather an opportunity for smallholder farmers, said Dr. Sylvia B. Concepcion, Dean of the University of the Philippines Mindanao School of Management.

In her study on vegetables from southern Philippines, Dr. Concepcion identified the current institutional market segments by following the farm-market-consumer routes of vegetable produce in major urban centers in the whole country. She presented her findings at SEARCA's Agriculture and Development Seminar Series (ADSS) held on 1 March 2011.

In the traditional vegetable supply chain, farmers sell produce by the truckload to wholesalers, who then sell to the wet market retailers and consumers.

In the traditional vegetable supply chain, the farmer sells the produce to wholesalers and traders, who then sell to the wet market retailers and consumers. This is the way it has been done in the Philippines for generations. However, Dr. Concepcion's study showed that there has been a shift in the supply chain as farmers are now selling directly to consolidators, who then sell to supermarkets, hotels, and restaurants. Dr. Concepcion called this "the modern supply chain," which has more stringent product quality requirements.

The study analyzed the impact of the new market chain on smallholder farmers by dividing the vegetable market into distinct groups of buyers with different needs, characteristics, and behaviors. Dr. Concepcion said the modern supply chain caters to what she called the "plush" (e.g., upscale hotels, resorts, restaurants, supermarkets) and the "business and budget" (e.g., business hotels, mid-priced resorts and restaurants, supermarket chains) market segments.

Other market segments are the "traditional middle" (i.e., wholesalers and consolidators) and the "wet market retailers" which cater to middle and lower income consumers. These market segments constitute the traditional vegetable supply chain and usually source products from small-scale vegetable producers.

To be able to penetrate into the plush and the business and budget market segments, small-scale producers need to be assisted. Collaborative marketing groups are also needed, especially if large quantities are required. Dr. Concepcion said many small farmers working together can make an impact.

The study also showed that challenges for small producers entering the upscale markets included the need for legal identities and documents like official receipts. Dr. Concepcion said short-term credit facilities should be set up for farmers. They should also be provided with technical information in growing specialty vegetables. She emphasized that farmers need to be able to commit to the market and establish long-term relationships.

Dr. Concepcion delivered her lecture as a holder of the SEARCA Professorial Chair, a recognition awarded by SEARCA to selected academic staff of the UP System in disciplines under the broad themes of natural resource management and agricultural competitiveness. (RJPEvangelista)

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2 SEARCA discussion papers off the press

The first two issues of SEARCA's Agriculture and Development Discussion Paper Series (DPS) for the 2010-2011 fiscal year are off the press and available for free download at the SEARCA website. The papers are authored by recipients of SEARCA's Seed Fund for Research and Training (SFRT) as part of their final research reports.

The authors of *Impacts of Cyclone Nargis on Livelihood, Food Security, and the Agriculture Sector in Myanmar* (DPS 2010-1) are Dr. Khin Oo and Dr. Theingi Myint of Myanmar's Yezin Agricultural University. Dr. Oo served as the Principal Researcher while Dr. Myint was Associate Researcher in the study they conducted. The paper presented the results of a survey in Bogayalay, Ayeyarwady Division, the area worst affected by Nargis, conducted a year after the cyclone hit the country. The authors also provided policy recommendations for disaster recovery and relief as well as disaster risk management.

Meanwhile, *Integration of GIS and AHP Techniques for Analyzing Land Use Suitability in Di Linh District, Upstream Dong Nai Watershed, Vietnam* (DPS 2010-2) is a study by Dr. Nguyen Kim Loi and his associate researchers at Nong Lam University, Ho Chi Minh City, Vietnam investigated the effectiveness of applying both the Geographic Information System (GIS) and analytical hierarchy process (AHP) approaches in analyzing the change in land use cover and land use suitability for three tree species: *Pinus kesya, Pinus merkusi,* and *Acacia auriculiformis.* The study also gave recommendations for future land use studies and policy implications for natural resources management.

As part of its knowledge management initiatives towards the promotion of a learning culture, the Center publishes the DPS to disseminate information on current trends or researches and to inspire discussion between the author and other stakeholders.

Thesis Abstracts

COMMUNITY DYNAMICS IN NATURAL RESOURCE GOVERNANCE: BUILDING ADAPTIVE MANAGEMENT CAPACITY TOWARDS ECOLOGICAL SUSTAINABILITY

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The research aimed to analyze community dynamics and collective action for sustainable natural resource governance in decentralized Indonesia. The study was an ethno-methodology research in which in-depth interview and participant observation were used for data collection. Data analysis was done by examining the distribution of narratives provided by the respondents, and by conducting a thematic analysis in which emerging themes were used to produce a complex and coherent narrative of the discourse found within the case study site. The research aims to explore the various practices of natural resource governance and the complex social relations which influence collective action for the sustainable governance of natural resources.

Natural resource governance in modern Indonesia is marked by the tension between the centralized policy strategy of the Suharto period and the reactive strategy of Post-Suharto decentralization. To some extent, decentralization led to devolution of power and opportunities for local resource users to make consequential decisions over the natural resources upon which they depend. Nonetheless, this approach rested upon the capacity of communities to reach a consensus untainted by local politics, commercial imperatives, and traditional power structures. Moreover, decentralization had not given the majority to strategic and structural decision-making power.

Empirical findings from Tongke Tongke's mangroves in Sinjai, South Sulawesi suggest that social institutions and local rules came into play and the people honored to protect the resource on behalf of the community. These social institutions took the form of neighborly ties, collective identity, reciprocity, and social and ecological responsibilities. Tongke Tongke's mangroves were not accessed for free but governed by local and informal rules to maintain its benefits for the good of the community. The community, through the elders, was determining access and making decisions about management. Community members acted in a way that benefited the overall good even when they were avowing individual rights. The thesis argued that individuals evolved behavior which commensurate with their responsibilities, leading to innovative power structures which were more locally sensitive and environmentally appropriate. The case study in the village of Tongke Tongke within the Regency of Sinjai suggested a rebuttal of Hardin's *Tragedy of the Commons*. In line with Ostrom's theory, the commons is governed by local and often informal rules which induce behavior that are in line with a collaborative mentality to maintain its benefits for the good of the community. Nonetheless, as suggested by Bookchin and argued in the thesis, collective natural resource governance is also about individuals who comply and resist in shaping civic collaboration and ecological sustainability.

In addition, barriers and enablers for sustainable natural resource governance need to emerge from local contexts; they could not emerge as a consequence of top down devolution alone. Moreover, no preparation of local communities could be made to assume the unintentional consequences of complex power relations. In line with Etzioni's theory, empirical findings suggest that real power relationships in real resource management contexts can undermine the possibility of democratic and equitable consensus making. Nonetheless, the thesis argued that social reciprocity, identity validation and symbolic capital can motivate resource users to behave in line with a collaborative mentality for mangrove protection.

DETERMINANTS IN THE CHOICE OF CONTRACT ARRANGEMENTS IN SWINE PRODUCTION IN HUNG YEN PROVINCE, VIETNAM

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The study determined the factors that influenced the swine farmers' decision to enter into a contract arrangement with buyers and input suppliers using multinomial logit and probit analyses. It also compared production and marketing costs, price received, and profit between swine farmers who entered into contract arrangements and independent swine farmers in Hung Yen Province, Vietnam.

The results revealed that the significant factors that affected the farmers' decision to enter into contract arrangements in swine production were the farmer's age and educational attainment, the proportion of time spent in swine raising, the number of swine head raised, the distance of the farm to the Vietnam Bank for Agriculture and Rural Development, the distance of the farm to commercial input suppliers, and the distance of the farm to veterinary shops.

Results of the Analysis of Variance (ANOVA) showed that the mean production and marketing costs, price received, and profit between swine farmers who entered into contract arrangements and the independent swine farmers in the study area were significantly different.

Policy recommendations that will encourage smallholder participation in contract farming include provision of credit assistance to independent smallholders, conduct of training courses on improved swine production practices, and assistance in the preparation of production-market.

SEEDLING TOLERANCE OF MANGO (*MANGIFERA INDICA* L.) VARIETIES TO HIGH SOIL ALUMINUM LEVELS

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The performance of mango varieties 'Carabao', 'Pico', 'Pahutan,' and 'Kachamitha' were evaluated at three levels of aluminum (Al), namely: 0, 250, and 500 μM $AlCl_3$ under two soil types: Lipa clay loam and Maligaya clay loam. Lipa clay loam has a pH of 6.9 and Maligaya clay loam has a pH of 5.0.

The application of 500 μM $AlCl_3$ reduced total root length, root length density, and specific root length of mango seedlings. Leaf fresh weight, leaf dry weight, and stem dry weight were also lessened. The decrease in total root length, root length density, and specific root length of mango seedling in acidic Maligaya clay loam was consistent with the detrimental effect of induced soil acidity. Among the mango varieties, 'Carabao' had the highest specific root length and shoot root ratio while 'Kachamitha' had the greatest stem diameter, higher root volume, and root dry weight.

The exchangeable soil Al was detectable only in Maligaya clay loam, which had a lower pH of 4.7. When 500 μM $AlCl_3$ was applied, the soil pH decreased from 6.5 to 6.3. The highest accumulation of Al and iron (Fe) in the leaves was observed in 500 μM $AlCl_3$ while Al, Fe, and

manganese (Mn) concentrations in the roots did not vary among Al levels. In contrast, leaf Al, Fe, and Mn concentrations did not differ between two soil types. More Al and Fe were deposited in the roots of seedlings grown in Maligaya clay loam. The different response in terms of nutrient concentration in leaves and roots between natural and induced acidic soils may be due to their variation in soil pH, 4.7 in the former and 6.3 in the latter.

'Kachamitha' was superior in root growth compared to the others. Since the lowest Al concentration in the roots and highest in the leaves which reflects the varietal tolerance to soil Al toxicity was also observed in 'Kachamitha', it can be concluded that 'Kachamitha' is the best mango variety that can be grown successfully in acidic soil condition.

EMPOWERMENT MECHANISM AND ORGANIZATIONAL PERFORMANCE OF COMMUNITY FISHERIES IN BANTEAY MEANCHEY PROVINCE, CAMBODIA

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Community-based fisheries management is a tactical strategy towards a successful fisheries resource conservation and management. In line with this, empowerment plays a key role in community fisheries. Hence, the research was conducted to determine the empowerment mechanism implemented and its effect on the organizational performance of community fisheries.

A total of 86 respondents were selected using simple random sampling from Phneat Kohpongsat in Banteay Meanchey Province, Cambodia. The data were analyzed, compiled, and interpreted by using descriptive and inferential statistics.

Results showed that only some respondents understood with limited knowledge empowerment. The empowerment strategy used in community fisheries was community organizing as part of national fisheries management plans and policy reforms. The training provided was not adequate. Less than half of the respondent claimed that community fisheries had network linkage with other organizations and institutions. Almost all of the respondents had positive perception on community fisheries empowerment.

The factors affecting empowerment in community fisheries were occupation, length of organizational membership, knowledge of the Community Fisheries Development Office (CFDO) vision, knowledge of protective legislation, resource provision, community organizing, training, and linkage. Meanwhile, the factors affecting organizational performance were gender, length of organizational membership, knowledge of the CFDO vision, knowledge of protective legislations, the role of Community Fisheries Development Unit/CFDO, resource provision, frequency of meeting, community fisheries establishment period, current status of community fisheries, training, linkage/ networking and linkage ability of community fisheries. There was no significant relationship between community fisheries empowerment and organizational performance.

PARASITIZATION OF THREE SPECIES OF MANGO LEAFHOPPERS BY HALICTOPHAGUS SP. (STREPSIPTERA: HALICTOPHAGIDAE) IN THE PHILIPPINES

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The presence of mango leafhoppers stylopized by *Halictophagus* sp. on two cultivars was investigated. The density of *Idioscopus clypealis* was the highest among the three leafhopper species on mango. Aside from the reported *I. clypealis, Halictophagus* sp. also parasitized *I. niveosparsus* and *Bakera nigrobilineata.* The mean weekly parasitization rates reached 16.6% on *I. clypealis*, 16.6% on *I. niveosparsus* and 2.85% on *B. nigrobilineata,* based on extrusions. The lowest year-long parasitization rate was observed on *B. nigrobilineata.* The parasitization rate was not influenced by density of *I. clypealis* but positively influenced by temperature. The density of the hosts and environmental factors did not influence the parasitization rate on both *I. niveosparsus* and *B. nigrobilineata.* The stylopized hosts' sex ratio was (female to male) 1:1.35 in *I. clypealis* and 1:0.85 in *I. niveosparsus*. The sex ratio of *Halictophagus* sp. was 1:1.09 on *I. clypealis.*

Hundreds of globular eggs hatched by batch inside an ovisac into C-Shape or shrimp-like triungulins. The free-living elongated sub-oval or tubular triungulins emerged singly from the female cephalothorax and infected leafhopper nymph hosts, then molted into apodous larval instars inside the new hosts. Super-parasitization occurred with maximum three parasitoids per host. Dark, hard C-shape and soft white larvae were found inside the parasitized hoppers. The anterior region of male pupa and of the adult female extruded through the intersegmental membrane of the abdomen of the host. The adult free-living adult male and the neotenic female showed extremely sexual dimorphism.

Male extrusions affected the length of the whole body, abdomen, forewing, hindwing and the width of the hindwing of the adult male *I. clypealis*. The parasitization of *Halictophagus* sp. also reduced the size of the seminal vesicles in male *I. clypealis*.

SHARED FUNCTION MODALITY IN THE DELIVERY OF COMMUNITY DEVELOPMENT SERVICES IN A DECENTRALIZED AGRICULTURAL TECHNOLOGY TRANSFER AND SERVICE CENTER (ATSC) IN KHUKHAN DISTRICT, SISAKET PROVINCE, THAILAND

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The study assessed shared function modality in the delivery of community development services in a decentralized ATSC and the factors associated with its implementation. The study was conducted in four selected sub-districts in Khukhan district, Sisaket province, Thailand. A total of 187 respondents were purposively selected representing five groups of respondents, namely: Department of Agricultural Extension (DOAE) extension agents, Tambon Administrative Organization (TAO) personnel, *kasetakorns* (ATSC farmer-beneficiary), ATSC steering committees, and Sisaket Provincial Agricultural Extension Office (PAEO) personnel. Data were gathered through interviews, self-administered questionnaire, focus group discussions, and secondary sources. Spearman's Rank Order Correlation was used to determine the relationship between the independent, intervening and dependent variables. Multiple linear regression analysis was used to identify the factors affecting the delivery of community development services in a decentralized ATSC.

Results showed that DOAE extension agents and TAO personnel had high performance level in implementing the ATSC services. Both had low perceived and actual roles and responsibilities in the implementation of the agricultural data survey, and the farmer group formation and development.

Thesis Abstracts to page 14

SEARCA assists DepEd in School-based Food and Nutrition Program

Children in public schools across the Philippines will soon have the chance to plant their own gardens at school when the Department of Education (DepEd), Philippines starts its anti-malnutrition program called *School-based Food and Nutrition Program*, which is developed in partnership with SEARCA and the University of the Philippines in Los Baños (UPLB).

The program intends to teach school children at the primary and secondary levels to set up vegetable gardens that include tomato, carrot, eggplant, okra, cabbage, lettuce, string beans, calamansi, and some herbs and root crops.

Reports indicated that there are many children from poor families who go to school on empty stomachs, and that hunger adversely affects their learning as well as physical and mental growth. Such inadequate intake of food invariably leads to malnutrition among children.

The DepEd recognizes that if malnutrition concerns are not addressed, it may not be able to raise the standards of education in the country no matter how the government tries to address resource gaps.

The SFNP targets two set of beneficiaries: the children and their parents. The program is envisaged to serve as an incentive for parents to send their children to school knowing that they will gain access to nutritious food and also bring home food for household consumption.

Present at the School-based Food and Nutrition meeting on 22 February 2011 are (clockwise) Dr. Bessie M. Burgos, Manager for Project and Development, and Dr. Maria Celeste H. Cadiz, Manager for Knowledge Management, both of SEARCA; Dr. Sue Liza C. Saguiguit, Dean, College of Human Ecology (CHE), and Dr. Oscar B. Zamora, Dean of Graduate School, both of UPLB; Dr. Gil C. Saguiguit, Jr., SEARCA Director; Dr. Maria Corazon C. Dumlao, Officer in Charge and Assistant Director, Health and Nutrition Center, Dr Juan R. Araojo, Jr., Officer in Charge, Nutrition Division, and Ms. Teresita R. Virgo, Administrative Officer-Designate, School Health and Nutrition Center, all of DepEd; and Prof. Angelina R. Bustos, Assistant Professor, Institute of Human Nutrition and Food, UPLB-CHE.

At the same time, the school children would have enriched diets and learn the value of good nutrition.

Specifically, the program's goals are three-fold: (1) improve food diversity and availability to meet nutrition deficiencies and enhance community food security; (2) increase the relevance and quality of education through learning activities in food production and nutrition; and (3) reduce food expenses, create savings, and provide an alternative income source for families to address poverty on a long-term basis.

On 22 February 2011, SEARCA hosted a meeting of DepEd, UPLB, and SEARCA officials who discussed details of the program.

Present at the meeting on *School-based Food and Nutrition Program* were Dr. Gil C. Saguiguit, Jr., SEARCA Director; Dr. Bessie M. Burgos, Manager for Project and Development, and Dr. Maria Celeste H. Cadiz, Manager for Knowledge Management; and Ms. Adoracion T. Robles, Technical Assistant to the Director, all of SEARCA; Dr. Sue Liza C. Saguiguit, Dean, and Prof. Angelina R. Bustos, Assistant Professor, Institute of Human Nutrition and Food, both of the UPLB College of Human Ecology, and Dr. Oscar B. Zamora, Dean of UPLB Graduate School; and Dr. Maria Corazon C. Dumlao, Officer in Charge and Assistant Director, Health and Nutrition Center; Dr Juan R. Araojo, Jr., Officer in Charge, Nutrition Division; and Ms. Teresita R. Virgo, Administrative Officer-Designate, School Health and Nutrition Center, all of DepEd.

SEARCA, EEPSEA/ from page 3

In the project kick-off meeting held at SEARCA on 2 February 2011, Dr. Mercedita A. Sombilla, SEARCA's Manager for Research and Development, met with members of the project team to brainstorm on the Philippine component of the project.

The other project team members are Mr. Moises Dorado and Ms. Maria Emilinda Mendoza, both Assistant Professors, Institute of Agricultural Engineering, College of Engineering and Agro-Technology; and Ms. Jaimie Kim Bayani, Assistant Professor, College of Economics and Management, all of the University of the Philippines Los Baños. (RCDikitanan)

SEARCA, IFAD/ from page 5

what is most relevant, and recognizing the causes behind the results observed; drawing conclusions that will help generate new knowledge; and presenting the results.

Experts who facilitated the workshop included Dr. Jorge Chavez-Tafur, Editor in Chief, *Farming Matters*; Dr. Pamela Custodio, Assistant Professor and Head, Department of Development Journalism, College of Development Communication, University of the Philippines (UP) Los Baños; Dr. Alexander Flor, Professor of Information and Communication Studies, UP Open University; and Ms. Lucie Lamoureux, Lead Facilitator of the KM4Dev community and co-founder and Senior Editor of *The Knowledge Management for Development Journal*. (LLDDomingo)

6 Philippines LGUs/ from page 5

adverse effects of climate change. By integrating scientific tools such as GIS in the planning process, LGUs can come up with science-based decisions in land use planning and climate change adaptation, particularly in the agriculture sector.

In her remarks at the closing program, Dr. Maria Victoria Espaldon, Dean of the UPLB School of Environmental Science and Management and EU-FPAVAS Climate Change Specialist, expressed hope that the participants will continuously use gains from the training when they return to their respective provinces. She emphasized that constant practice is important in GIS. (RMMDedicatoria)

Alumni Notes

CASAS APPOINTED CMU DEAN OF FORESTRY


Dr. Jupiter V. Casas

Dr. Jupiter V. Casas was appointed Dean of the College of Forestry, Central Mindanao State University effective 10 January 2011. A graduate alumnus of SEARCA, Dr. Casas completed his PhD in forest resource management at the University of the Philippines Los Baños in 2009 under SEARCA's Graduate Scholarship Program. He obtained his MS in tropical forestry from the Wageningen Agricultural University in The Netherlands in 1996.

Dr. Casas joined CMU as Instructor in June 1991 and was Associate Professor 2 and Chair of various departments of CMU at the time of his appointment as Dean. Concurrently, he is also serving as Executive Director of Mindanao Integrated Management Foundation (MINMAF), Inc. As a social forestry expert, Dr. Casas is actively involved in providing technical assistance to community-based forest resource management projects in the province of Mindanao, Southern Philippines. (MTBFerino)

BUOT NAMED OUTSTANDING BOTANIST

Dr. Inocencio E. Buot, Jr. a Filipino SEARCA alumnus, was named outstanding botanist for his significant contributions to Philippine botany. The award was conferred by the University of the Philippines Los Baños (UPLB) during the centennial anniversary of botany in the university in December 2010.

Dr. Buot is a professor of ecology and systematics of the UPLB Institute of Biological Sciences and concurrent Dean, Faculty of Management and Development Studies, UP Open University.

Dr. Buot has devoted a big part of his professional life to local biodiversity and conservation work. For this, in 2007, Dr. Dale Kloppenburg, a world renowned American botanist and *Hoya* plant specialist, named a new *Hoya* species in honor of Dr. Buot. Called *Hoya boutii,* the plant was discovered in Mt. Banahaw, a mountain in the Sierra Madre mountain range in northern Philippines. It belongs to plant genus *Hoya* and is endemic to southern Asia, Australia, and Polynesia.

Dr. Buot is one of the few UP faculty members conferred the UP Scientist title. In 2010, he was also recognized with a UPLB Centennial Professorial Chair award. He delivered his professorial chair lecture at SEARCA in October 2010, where he presented his thoughts on the role of UPLB in crafting a sustainable management and conservation strategy for mangrove ecosystems in the Philippines. His presentation highlighted the following: (1) the proposed establishment of a UPLB Estuary Research and Training Center (ERTC) for the sustained provision of mangrove ecosystem services; (2) the establishment of mangrove corridors in the Philippines to aid the ERTC in realizing its objectives; (3) the role of local government units and the local community in implementing the strategies to be developed by the Center; and (4) the importance of socio-cultural and politico-economic aspects of ecosystems management.

Acknowledging the contributions of SEARCA to his professional advancement, Dr. Buot said, "…without SEARCA's support I could not have pursued my career in botany at UPLB… That's why I always acknowledge SEARCA in all my successes."

Dr. Buot completed his MS in botany at UPLB through SEARCA's Graduate Scholarship Program. He obtained the PhD in ecology from University of Chiba, Japan in 1998. He is currently the Vice President (Luzon Chapter) of the SEARCA Fellows Association of the Philippines (SFAP), an association of Filipino SEARCA alumni.

The Graduate Scholarship Program is one of the core activities that SEARCA undertakes to address its mandate of developing the capacities of institutions in Southeast Asia working for agricultural and rural development. So far, SEARCA has enabled 1,121 Southeast Asians to successfully complete their MS and PhD programs. Many of them now hold leadership positions in their home countries. (MTBFerino)

Alumni Notes/ to page 16

Small-scale fisheries/ from page 7

According to Mr. Garces, failures and limitations in governance and management seem to be the core of the issues and problems faced by small-scale fishers. These problems include the depletion of and increasing conflict over resources, postharvest losses, environmental degradation leading to decreasing biodiversity, and external drivers like climate change.

The WorldFish Center proposed management strategies that aim to deal with the abovementioned problems and improve the state of municipal fisheries in the country. These included sustaining and improving the current regulations and policies, preserving and protecting the fisheries ecosystems and biodiversity, establishing appropriate infrastructures, and developing new approaches like the Ecosystem Approach to Fisheries (EAF).

Worldfish Center also suggests continued capacity-building of local government units and the adoption and implementation of scaled-up fisheries management schemes.

The importance of communication to develop the fisheries sector was also emphasized. WorldFish Center proposes the implementation of a comprehensive education program, improvement of information systems, and the transformation of research results into usable formats.

Mr. Garces said small-scale fisheries, if managed properly, would improve the lives of and decrease the rate of poverty among fishing households, and increase the contribution of fisheries to the local and national economy.

Mr. Garces has been with WorldFish since 1990 and has 20 years of extensive fisheries and aquaculture research experience in Southeast Asia. (RJPEvangelista)

Thesis Abstracts/ from page 13

In the case of the *kasetakorns*, they had low level of participation and low degree of empowerment in the implementation of a decentralized ATSC. The *kasetakorns* perceived the ATSC services as good in responsiveness.

Under the shared function modality, the DOAE extension agents' competency of linkages is a key element in the implementation of ATSC tasks. Competency of TAO personnel in ATSC implementation was also found to be strongly associated with task performance in decentralized ATSC. In the delivery of community development services, the *kasetakorns*' satisfaction with ATSC benefits was considerably important to ATSC responsiveness and people participation in a decentralized ATSC. Perceived ATSC accomplishment was also found to have the largest effect on the *kasetakorns*' degree of empowerment in ATSC implementation.

SEARCA joins NAST, ISAAA in sharing 2010 global adoption of biotech crops

(From left) Mr. Philip Shull, Agricultural Counselor, U.S. Department of Agriculture; Mr. Isidro Acosta, farmer from Naguilian, Isabela, Philippines; Dr. Clive James, Chair of the Board and founder of ISAAA; and Dr. Gil C. Saguiguit, Jr., SEARCA Director, all recognized the benefits of biotechnology in agriculture during the "Global Perspective of Commercialized Biotech/GM Crops: 2010" seminar. (Photo courtesy of ISAAA)

Dr. Gil C. Saguiguit, Jr., SEARCA Director, commended the recent findings on global adoption of biotech/genetically modified (GM) crops and underscored biotechnology's importance in agricultural development and its contribution to food productivity and poverty alleviation at a seminar on *Global Perspective of Commercialized Biotech/GM Crops: 2010* held on 11 March 2011 at Dusit Thani Hotel, Makati City, Philippines, where he delivered the closing message.

The seminar was part of a series of country launches for a new publication titled *Global Status of Biotech/GM Crops for 2010*. First held in Brazil, the book launching was also done in African and Asian countries, including Japan, South Korea, India, Thailand, Vietnam, Indonesia, and Bangladesh. The Philippine launch was jointly organized by the National Academy of Science and Technology (NAST), Philippines, the International Service for the Acquisition of Agri-biotech Applications (ISAAA), and SEARCA.

Dr. Clive James, founder and chairman of ISAAA, reported that global adoption of biotech crops has reached a billion hectares between 1996 and 2010, equivalent to an 87-fold increase. He noted that such rate of increase in adoption makes biotech crops the fastest-adopted technology in the history of modern agriculture.

The seminar was attended by representatives from government, academe, media, private sector, farmer groups, and local and international nongovernment organizations (NGOs).

Among those present were Mr. Philip A. Shull, Agricultural Counselor of the United States Department of Agriculture; Dr. Randy A. Hautea, Southeast Asia Center Director and Global Coordinator, ISAAA; Dr. Ricardo M. Lantican and Lourdes J. Cruz, National Scientists; and Dr. Ruben L. Villareal, Academician and representative of NAST.

"SEARCA's decade-old ties with ISAAA have been anchored on a common interest and belief in biotechnology as an instrument to enhance agricultural productivity," said Dr. Saguiguit. He added that the best approach in bringing biotechnology to key stakeholders, which are farmers and the public-at-large in developing countries, is to lay down the factual evidence about biotech like an open book.

Meanwhile, Dr. Villareal said biotech crops adoption is expected to expand as more important crops in developing countries are given R&D attention.

Mr. Isidro Acosta, a farmer from Naguilian, Isabela, northern Philippines, shared how biotechnology has made his life better. He was among the first farmers to plant *Bt* corn in Isabela. He said adoption of Bt corn increased his yield from three metric tons per hectare to seven metric tons, consequently increasing his income.

Dr. Saguiguit said such accounts of farmers underscore the importance of giving farmers options on the technologies that they can choose to adopt. He added that as farmers choose technologies that would be beneficial to them, withholding biotech from their options would be an injustice.

The Philippines is the first country in Southeast Asia to approve the propagation of a biotech crop since the commercialization of *Bt* corn in 2003. It is also the first Southeast Asian country to be included in the mega countries adopting biotech crops. With more than 500,000 hectares planted to biotech corn by about 270,000 small farmers in 2010, the Philippines ranked 13th among 29 countries adopting Bt corn worldwide. (JAPanopio and SMMercado)

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MOJICA CONDUCTS STUDY ON ANTIOXIDANTS IN COFFEE

A recent study conducted by a Dr. Ruel M. Mojica, a Filipino SEARCA graduate alumnus, reveals that roasting coffee beans at varying degrees yielded a significant effect on the phenolic content and antioxidant activity of commercially-viable varieties of Philippine coffee.

Dr. Mojica (PhD, agricultural engineering, UPLB), currently Assistant Professor of the Department of Agricultural and Food Engineering of Cavite State University (CvSU), Philippines, is conducting a study entitled "Influence of Roasting on the Phenolic Content and Antioxidant Activity of the Philippine Coffee." The study is part of the UP-Natural Sciences Research Institute and the Philippine Department of Agriculture-Bureau of Agricultural Research (UP-NSRI/DA-BAR) his postdoctoral research fellowship. His findings were published by DA-BAR and are expected to benefit the local coffee makers in producing better coffee blends while considering the health of coffee consumers.

Dr. Mojica served as chair of his Department at CvSU in 2003-2005 and in 2009-2010. He is also Affiliate Instructor at the Institute of Food Science and Assistant Professor at Graduate School, both at CvSU. He has earned numerous awards for technical paper and poster presentations. (MTBFerino)