

The SEARCA DIARY



A PUBLICATION OF THE SOUTHEAST ASIAN REGIONAL CENTER
FOR GRADUATE STUDY AND RESEARCH IN AGRICULTURE

VOL.41 NO.3 SEP 2012



SUSTAINING LIFE

Whatever happens in a watershed affects its health and the people who depend on it. Therefore, to protect watersheds for nature and people is to sustain life, both now and in the future.

Photo by: Joel Forte

Regional training-workshop tackles watershed governance

Climate change presents new challenges not just to the continuum of ecosystems in the watershed and to the people who depend on their resources, but also to the form of watershed governance, which is often fragmented, uncoordinated, and insensitive to the rights and well-being of people affected, particularly the poor and the powerless.

To address this concern, 23 government and academic executives from eight Southeast Asian countries converged and participated in SEARCA's Seventh Executive Forum on Natural Resource Management held on 6-10 August 2012 at the Center's headquarters in Los Baños, Laguna, Philippines. They represented the forestry, water, natural resources, and environmental management sectors in Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand, and Vietnam.

SEARCA organized the forum in collaboration with the Regional Community Forestry Training Center (RECOFTC) for Asia and the Pacific, ASEAN Social Forestry Network (ASFN), and The Nature Conservancy (TNC).

[Regional training-workshop/ to page 2](#)

WHAT'S INSIDE

- 03 SEARCA Director reappointed
- 03 RUA officials to draw up strategic plan to upgrade university
- 04 PhilRice, SEARCA study Phl gov't agri insurance program
- 04 SEARCA underscores role of rural advisory services
- 04 SEARCA assesses Phl vegetable gardening program's impact on malnutrition
- 05 SEARCA, IRRI renew accord
- 05 SEARCA Director attends 3rd Singapore Global Dialogue
- 06 30 agri product developers participate in technology commercialization training
- 06 SEARCA holds forum on global dev't in food, agribusiness for policymakers
- 07 DA managers, technical staff brush up on WTO, project M&E
- 08 Snapshots
- 09 Project beneficiaries attend native chicken production training
- 10 3 Filipino scientists appointed SEARCA Senior Fellows
- 10 3 Southeast Asians get travel grants
- 10 Off the Press: Book on human ecology over time and space
- 11 SEAMOLEC conducts web conference training for SEARCA staff
- 11 Relief mission in flooded Los Baños community carried out
- 12 Alumni Notes
- 13 Thesis Abstracts
- 14 FNU explores prospects for collaboration with SEARCA
- 15 SEARCA joins Food Security Center workshop in Costa Rica
- 15 SEARCA, DA-BAR discuss with QUT prospects for joint KM capacity dev't program
- 16 Climate change champions needed in environmental advocacy – SEARCA Director



The Watershed Governance Forum participants together with the resource speakers and organizers.

The forum had the theme “Watershed Governance in a Context of Climate Change: Tenure and Policy Reform Processes” and opened with a colloquium on “Climate Change and Watershed Governance,” which was open to the public.

Speakers at the colloquium were Dr. Antonio G.M. La Viña, Dean of Ateneo School of Government, and Dr. Rex Victor O. Cruz, Chancellor of University of the Philippines Los Baños. They both discussed key concepts on watershed and its services and climate change. They also gave an overview of the major issues and significant initiatives for improving the management and governance of watersheds with a global perspective.

They emphasized that the biophysical characteristics of a watershed are connected not just to the ecosystem services it provides, but more so, to human well-being. They emphasized the linkages between biophysical characteristics and livelihood, and their implications to food security and the need for such linkages to inform policy. They also discussed underlying conceptual shifts that have driven contemporary watershed governance discourses. The colloquium introduced the themes and substantive issues that were covered in the forum.

Dr. Ana Doris Capistrano, Advisor, ASEAN-Swiss Partnership on Social Forestry and Climate Change and technical coordinator of the forum, emphasized the complexity of watershed governance.

“Managing watersheds for ecological protection, conservation, agricultural production, poverty alleviation and other developmental and social objectives is difficult already in itself – but when we bring together a mix of different resources, with different dynamics and politics associated with them then it becomes even more complicated,” Dr. Capistrano said.

She added that further complications lay in managing the trade-offs across different stakeholder groups and interests at present and in the future, as well as the issues, risks, and unpredictability associated with climate change.

Dr. Capistrano surmised that “these combined uncertainties call for stakeholders to understand each other and rely on each other’s perspectives, resources, insights, and creativity for thinking in the future.”

Mr. Toon de Bruyn and Ms. Celina Yong, both of RECOFTC; Dr. Herlina Hartanto, Learning and Application Senior Manager, Indonesia Forest Program, TNC; and Dr. Capistrano, all served as resource persons and facilitators. They

advocated a participatory learning process and encouraged the participants to share their experiences in order to process their situations to gain a better understanding as well as enhanced self-confidence and networking ability.

Participants shared their experiences through country presentations. In the discussions, they challenged the current knowledge, insights, and assumptions and sought to build deeper understanding of the key concepts, issues, and challenges in watershed governance.

The forum also featured a field visit to the Mulawin-Dampalit Microwatershed in the Mt. Makiling Forest Reserve wherein the participants interacted with upland farmers who are members of the *Samahang Magsasaka sa Mataas na Lupa ng Lalakay sa Bundok Makiling, Inc.* (or Farmers’ Association in the Uplands of Lalakay, Mt. Makiling, Inc.) based in Los Baños. This activity provided a concrete case to which they can apply the theories and concepts learned. (MCTMalenab)



CRUZ



LA VIÑA



Mr. Toon de Bruyn (left, standing) of RECOFTC discusses the concept of governance.



CAPISTRANO

THE SEARCA DIARY

Web: www.searca.org/web/newsletter
 E-mail: post@agri.searca.org
 Mail: SEARCA, College, Los Baños, Laguna 4031 Philippines
 Tel: +63 49 536 2365 to 67 loc. 419
 Fax: +63 49 536 7097

Production Team

Editor: Leah Lyn D. Domingo
 Editorial Advisers: Gil C. Saguiguit, Jr.
 Adoracion T. Robles
 Graphic Designer: Edwin Robert A. Cortes

SEARCA Director reappointed



SAGUIGUIT

Dr. Gil C. Saguiguit, Jr., SEARCA Director, has been recently reappointed to a second three-year term effective 14 July 2012 and will continue to lead SEARCA to its 10th Five-Year Development Plan.

He was unanimously endorsed by representatives of 11 member countries of the Southeast Asian Ministers of Education Organization (SEAMEO) to Bro. Armin A. Luistro, Secretary of Education of the Philippines, who in turn confirmed Dr. Saguiguit's nomination and strongly endorsed

his appointment to the SEAMEO Council. The official appointment was signed by H.E. Pehin Abu Bakar Apong, Minister of Education of Brunei Darussalam and incumbent SEAMEO Council President.

Dr. Saguiguit was cited for his efforts in focusing SEARCA's programs on emergent and crosscutting concerns in agriculture of developing countries in Southeast Asia, thus increasing the Center's visibility and relevance to the region. Coupled with this are the many linkages and collaborations with

national and international development agencies and donor organizations that have proliferated under his leadership.

Dr. Saguiguit has also ensured that the Center's services and programs benefit the Philippines through SEARCA's technical assistance to national agencies including the Department of Education (DepEd), Commission on Higher Education (CHED), Department of Agriculture (DA), Department of Agrarian Reform (DAR), and Department of Environment and Natural Resources (DENR). Of late, he launched an Institutional Development Assistance Program aimed at developing capacities of agricultural universities in Lao PDR, Cambodia, Myanmar, and the Philippines, including the University of the Philippines Los Baños (UPLB) and UP Visayas.

Dr. Saguiguit's judicious management of SEARCA's financial resources, contributing to the Center's financial stability, was also lauded by the SEARCA Governing Board.

Dr. Saguiguit holds many distinctions including those from foreign governments. The latest that attests to his exemplary development work is the *Chevalier de l'Ordre du Mérite Agricole* (Knight of the Order of Agricultural Merit) awarded by a decree of the Minister of Agriculture, Food, Fisheries, Rural Affairs and Regional Development of the Republic of France. He has received similar awards from Vietnam, Canada, and the Philippines.

RUA officials to draw up strategic plan to upgrade university



Dr. Ngo Bunthan, RUA Rector, thanks SEARCA for its institutional development support to his university.

Officials of the Royal University of Agriculture (RUA) in Cambodia began to rethink the future of the university in a "Mentoring Workshop on Strategic Planning" on 20-22 August 2012 at SEARCA.

Six RUA officials participated in the workshop, led by Dr. Ngo Bunthan, Rector and Country Representative of Cambodia to the SEARCA Governing Board. With him were Dr. Mom Seng, Vice Rector for International Relations; Dr. Meas Sothy, Director for Research and Extension; Mr. Chheng Lyna, Deputy Director for Academic Programs; Mr. Lor Lytour, Vice Dean for Graduate School and Assistant to the Rector; and Mr. Venn Vutey, Secretary, University Research Grant Management Committee.

The mentoring workshop was the next step in the SEARCA Institutional Development Assistance to

RUA. The initial step was a reconnaissance visit to RUA in March 2012 led by Dr. Gil C. Saguiguit, Jr., SEARCA Director, in which SEARCA saw a need for long-term adjustments and restructuring of the RUA curriculum to make it responsive to the development needs of Cambodia's agriculture sector.

The mentoring workshop aimed to guide the participants in conducting a strategic planning exercise involving key RUA executives and constituents, which would enable them to produce a strategic plan and undertake curriculum development.

Dr. Federico M. Macaranas, Professor at the Asian Institute of Management, served as the lead resource person and facilitator of the mentoring workshop. Technical assistance was provided by Dr. Luis Rey I. Velasco, Senior Fellow and Institutional Development Consultant of SEARCA

and former Chancellor of the University of the Philippines Los Baños.

At the end of the workshop, Dr. Saguiguit said SEARCA and the resource persons expect that the participants will soon submit the additional inputs needed in crafting the outline of the strategic plan.

To flesh out the plan, RUA will conduct a strategic planning exercise that will involve all key RUA officials and constituents. Dr. Bunthan said that once they complete RUA's strategic plan, it will be presented to the Minister of Agriculture, Forestry, and Fisheries for his endorsement.

Dr. Saguiguit said that as RUA goes through said process, the university may also take advantage of opportunities provided by SEARCA's regular

RUA officials/ to page 14



The Mentoring Workshop participants and organizers with the resource person, Dr. Federico M. Macaranas (third from left) of the Asian Institute of Management.

PhilRice, SEARCA study Phl gov't agri insurance program

Increasing agricultural insurance is urgent because of climate change. This is particularly true for small farm holders who constitute about 90 percent of all Filipino farmers.

The Philippine Rice Research Institute (PhilRice) and SEARCA have thus begun to collaborate on a project entitled "Improving the Agricultural Insurance Program to Enhance Resilience to Climate Change" to find out the impacts of meager crop insurance coverage on farmers who grow rice and corn, the two major crops in the Philippines.

SEARCA will implement the project's corn component, while PhilRice will undertake the project's rice component.

Agricultural insurance helps insulate income and consumption against shocks and make losses more bearable, especially to marginal farmers. An urgent challenge lies on the need to improve agricultural insurance program

to enhance resiliency among farmers, especially with the compounding threats related to climate change.

The project will identify good agricultural practices to complement crop insurance and provide more protection to poor farmers against losses caused by adverse climate, pests, and diseases. Good agricultural practices include matured technologies and crop management as well as climate-resilient varieties.

The collaborative research will also look at the appropriate technologies and management approaches, particularly on the control and regulation of pest and diseases in rice and corn, so that policy may be directed to strengthen agricultural insurance programs.

Two separate studies will be conducted in six provinces among the top producers of rice (Iloilo, Nueva Ecija, and Leyte) and corn (Agusan del Norte, Bukidnon, and Cagayan). It will involve up to 2,000 farmers who are either enrolled in the traditional crop insurance system or in the weather index-based insurance system. (LLDDomingo)

SEARCA underscores role of rural advisory services

Dr. Gil C. Saguiguit, Jr., SEARCA Director, stressed the importance of rural advisory services in promoting agriculture and rural development at the 3rd Global Forum for Rural Advisory Services (GFRAS) Annual Meeting held on 26-28 September 2012 at the Heritage Hotel in Manila, Philippines.

GFRAS is a conglomerate of rural advisory networks in different regions including Asia and the Pacific, South Asia, Africa, Europe, and Latin America. SEARCA serves as the GFRAS sub-regional node for Southeast Asia and has been part of the Asia-Pacific Islands Advisory Services (APIRAS), an associated group of GFRAS, since its inception last year.

In his closing remarks, Dr. Saguiguit said coming together to discuss how GFRAS can make a difference in addressing challenges and emergent concerns in agriculture and rural development is timely as the primacy of

agriculture in the wellbeing of today's society has been recognized anew. He added that this is in line with the mandate of SEARCA in its 11 member countries in Southeast Asia.

Dr. Saguiguit committed to endeavor to see that the activities of SEARCA with its networks will align and be in consonance with the objectives of GFRAS, whose Steering Committee is composed of representatives of major international development organizations and donors including the World Bank, Food and Agriculture Organization of the United Nations (FAO), Swiss Agency for Development and Cooperation, among others.

SEARCA was a co-sponsor of the 3rd GFRAS Annual Meeting held in Manila and it has been invited to participate in next year's meeting at University of Hohenheim, Germany. (LLDDomingo)

SEARCA assesses Phl vegetable gardening program's impact on malnutrition

In July 2012, SEARCA began to implement a six-month project that aims to quantify the impact of the Philippine Department of Agriculture's "Gulayan ng Masa" Program, a component of the government's Accelerated Hunger Mitigation Program (AHMP), which promotes integrated home and school gardens in rural communities through provision of seeds and planting materials and training in AHMP target provinces.



FRANCISCO

Dr. Sergio R. Francisco, Chief Science Research Specialist and Scientist I at the Philippine Rice Research Institute (PhilRice) and SEARCA Visiting Research Fellow, leads the project.

A rapid assessment of the Gulayan ng Masa Program will be conducted in selected provinces categorized according to priority. Priority 1 includes the National Capital Region, Agusan del Sur, Camarines Norte, Lanao del Norte, Maguindanao, Masbate, Mountain Province, Saranggani, Surigao del Norte, Zamboanga del Norte, and Zamboanga Sibugay. Priority 2 covers Abra, Antique, Biliran, Bukidnon, Camarines Sur, Davao Oriental, Lanao del Sur, Kalinga, Marinduque, Misamis Occidental, Negros Orientak, Occidental Mindoro, Oriental Mindoro, Palawan, Romblon, Samar, Sultan Kudarat, Sulu, Surigao del Sur, and Tawi-Tawi.

The program's impact on hunger and malnutrition mitigation and poverty alleviation will be determined using poverty and malnutrition indicators.

It has long been recognized that poverty causes child malnutrition. The project will gather anthropometric data from the children beneficiaries and non-beneficiaries of the Gulayan ng Masa program.

Using anthropometric indicators (i.e., measuring body size and composition) to assess a child's nutritional status is useful because it is "the best proxy measure of human welfare of the poorest, reflecting dietary inadequacies and other health risks" and it is "an appropriate indicator of the success or failure of interventions directed toward the many economic and environmental factors underlying nutrition deprivation".

SEARCA assesses/ to page 5

SEARCA, IRRI renew accord

SEARCA and the International Rice Research Institute (IRRI) have agreed to continue cooperating on research and related activities in the next five years.

This was formalized with the extension of the Memorandum of Understanding (MOU) for Institutional Cooperation between the two institutions signed on 20 July 2012 at the Research and Development Awarding and Closing Ceremonies of the Los Baños Science Community-National Science and Technology Week (LBSC-NSTW) held at SEARCA, Los Baños, Laguna.

Signatories to the Letter of Agreement (LOA) to extend the MOU were Dr. Gil C. Saguiguit, Jr., SEARCA Director, and Dr. V. Bruce J. Tolentino, IRRI Deputy Director General for Communication and Partnerships.

The LOA stipulates that “after 10 years of productive partnerships, SEARCA and IRRI have mutual interest in fostering collaboration and agree that there is a need to further extend the MOU under which detailed workplans can be developed and implemented.”

Co-sponsorship and joint implementation of international conferences and scientific fora on



Dr. Gil C. Saguiguit, Jr. (right), SEARCA Director, and Dr. V. Bruce J. Tolentino, IRRI Deputy Director General for Communication and Partnerships, exchange copies of the five-year Letter of Agreement (LOA) to extend the Memorandum of Understanding (MOU) for Institutional Cooperation, which they signed on 20 July 2012 at SEARCA.

mutually agreed upon themes or topics will be increasingly a mode of collaboration between the two institutions.

“While IRRI has the expertise and comparative advantage in basic and applied research, SEARCA is expected to contribute to the policy and development perspective,” Dr. Saguiguit said.

Invariably, one major focus will be rice, which has become a very important commodity with economic, social, and political underpinnings.

The two institutions have been collaborators in research and capacity-building efforts to strengthen agriculture and food security in Southeast Asia for more than a decade now. The partnership included knowledge sharing through exchange of various publications, scientific journals, and other knowledge products; joint support for student research particularly to SEARCA scholars who conduct their research studies on rice; cooperation and participation in research projects; and sharing of facilities and equipment. (LLDDomingo)

SEARCA Director attends 3rd Singapore Global Dialogue

Dr. Gil C. Saguiguit, Jr., SEARCA Director joined economic leaders, policymakers and think tanks from across the globe in the 3rd Singapore Global Dialogue on 21-22 September 2012 at the Shangri-La Hotel, Singapore.

Hosted by the S. Rajaratnam School of International Studies (RSIS), the Singapore Global Dialogue is Asia’s premier platform for government and development organizations, the private sector, and academia for discussing emerging issues facing the global order in a “uniquely Asian perspective.” The themes discussed this year were US-China relations, contemporary global security challenges, and world economic governance.

Dr. Saguiguit believes that the Dialogue can help guide the Center in planning its programs and activities amidst the apparent economic shift towards the Asian region.

He added that the dialogue is an opportunity for SEARCA to scope the region’s needs and identify areas where it could make the most impact in the agriculture and rural sectors.

Dr. Saguiguit also represented SEARCA in the Dialogue held last year wherein he found the discussions on food security issues and its policy implications of particular interest to SEARCA. It has since guided the planning of key regional activities in the Center’s core programs. He said that for SEARCA to be invited to such a strategic global forum means that the Center has become increasingly visible and known for its development work in the region. (EGPandanan)

SEARCA assesses/ from page 4

The project will produce a technical report on the impact of DA’s Gulayan ng Masa Program on the target beneficiaries. It will also identify the constraints faced by the program in delivering the services for a better impact, as well as lessons learned and directions for the improved deliveries

of the program. It will recommend options to further improve the delivery and impact of the program.

“The information regarding the impacts and lessons learned from implementation of the Gulayan ng Masa Program can provide policy-

and decision-makers basis in the formulation and implementation of targeted programs,” Dr. Francisco said.

He added that the methodologies used in the analyses could serve as template in assessing the impact of similar programs. (LLDDomingo)

30 agri product developers participate in technology commercialization training

SEARCA conducted a *Training on Technology Commercialization: Product Development and Packaging within the Context of Enterprise and Inclusive Value Chain Development* for 30 Filipino agricultural product developers on 28 August-1 September 2012.

The training is one of the components of the project entitled *Strengthening the Department of Agriculture's National Technology Commercialization Program (NTCP)* funded by Department of Agriculture-Bureau of Agricultural Research (DA-BAR), Philippines.

Participants came from 12 DA technology commercialization projects reviewed under the NTCP project as well as state universities and colleges, cooperative enterprises, and people's organizations in the Philippines.

The training covered value chain assessment and enterprise business plan formulation.

Participants were also taught how to refine technology commercialization projects through product development, including packaging and labeling.

Two days were spent on field visits to six enterprises in the provinces of Laguna, Quezon, and Cavite to impart experiential knowledge of product development, marketing and enterprise considerations, product quality and safety standards. The enterprises visited and products demonstrated were Pasciolco Agri Ventures, Tiaong, Quezon (coconut food products); Katipunan ng Kooperatibang Magsagatas, Inc. (KKMI), Calauan, Laguna (dairy milk products); Green Wrigglers, Life Oil Philippines Foundation, Bay, Laguna (*Moringga* capsules); San Miguel Yamamura Packaging Corporation (SMYPC) – Rightpak Plant, Canlubang, Calamba City (food-based packaging products); A Taste of Honey RestoBar, Tagaytay City (apiary and honey-based culinary dishes); and Gourmet Farms, Inc., Silang-Tagaytay City (coffee and organic vegetable production). (AGTallada)



Training participants visit A Taste of Honey Resto Bar in Tagaytay City, Philippines to gain insights on product development and packaging.



Gourmet Farms, Inc. in Tagaytay City holds a cooking demonstration for the training participants using organically grown vegetables and mushrooms.

SEARCA holds forum on global dev't in food, agribusiness for policymakers

By 2040, global demand for food and agricultural products will be shaped by changing eating preferences of East Asian countries, foremost of which are China and Japan, thereby opening enormous market opportunities for Filipino farmers.

This was emphasized by Dr. Rolando T. Dy, Executive Director, Center for Food and Agri Business and Dean, School of Management, University of Asia and the Pacific (UA&P) at the SEARCA-organized forum for Philippine Department of Agriculture (DA) top executives and policymakers held on 12 July 2012 in Siargao, Surigao del Norte, Philippines.

The forum was convened under the DA Umbrella Capacity Development Program Strategic Management and Policy for Agriculture Professionals and Executives implemented by SEARCA in partnership with the UA&P, Ateneo de Manila University School of Government, and the University of the Philippines Economics Foundation, all in the Philippines.

"Rising incomes, growing middle class, urbanization, volatile food and commodity prices, as well as climate change are driving market dynamics. Top decision-makers at the DA ought to continually keep abreast of these developments. This is vital to reshaping the country's agribusiness future and also bringing farm incomes to higher levels and expanding rural markets by reducing rural poverty," said Dr. Gil C. Saguiguit Jr., SEARCA Director.



Dr. Rolando T. Dy (standing) explains to top DA executives and policymakers that successful food industry players will be those who anticipate and adapt to a market characterized by intensified competition.

Dr. Maria Celeste H. Cadiz, SEARCA's Program Head for Knowledge Management, said that providing a situationer on the global market environment will enable DA executives to identify opportunities and challenges facing Philippine agriculture, agribusiness in key markets, and competitor countries.

"In the process, they will be more equipped to devise competitive analytics, strategies, and innovative solutions for the country's agribusiness programs to help develop well-grounded decision-makers," she added.

SEARCA holds/ to page 7

DA managers, technical staff brush up on WTO, project M&E



Dr. Ramon L. Clarete (standing), Professor at the UP School of Economics, narrates the history and background of the World Trade Organization to DA technical staff.

SEARCA conducted two training modules for executives and technical staff at the national and regional offices of the Department of Agriculture (DA), Philippines in July and September 2012.

The events were the second and third in a series of three training modules jointly implemented by SEARCA and the UPecon Foundation, Inc., a private, non-stock, non-profit organization affiliated with UPSE. Each module comprises lectures, hands-on exercises, group work, and ample opportunities for interaction among resource persons and participants.

The training module on *Agriculture, Trade and Development* was held on 20-22 July 2012 at Vista Marina Hotel, Subic, Zambales, Philippines. The module was led by faculty members of the University of the Philippines School of Economics (UPSE) and covered how the World Trade Organization (WTO) works.

Participants included 27 technical specialists and an executive from the Office of the DA Secretary, Policy Research Service, Planning Service, Department of Legislative and Liaison Office, Project Development Office, Agricultural

and Fishery Information Service, Bureau of Agricultural Statistics, Audio-Visual and Graphic Section, and Special Concerns. This group is directly involved in policy analysis and drafting of policy papers under the supervision of DA senior officials.

The third and last of the Learning Modules in Economics for Agricultural Development, entitled *Project and Program Monitoring and Evaluation*, was completed by 35 DA executives and technical personnel on 7-9 September 2012 in Tagaytay City, Philippines.

The training series is conducted by SEARCA, through its Knowledge Management Department-Training Unit, under the DA Umbrella Capacity Development Program on Strategic Management and Policy for Agriculture Professionals and Executives. The program is implemented by SEARCA in partnership with UPecon, the Ateneo School of Government (ASoG), and University of Asia and the Pacific (UA&P) School of Management, all in the Philippines. (NARamos)



On 9 September 2012, 35 DA executives and technical staff completed the series of Learning Modules in Economics for Agricultural Development conducted by SEARCA in partnership with the UPecon.

SEARCA holds/ from page 6

Dr. Dy said that as China streamlines its food and agriculture system, it will shape and redefine global agribusiness, biotechnology, food processing, logistics, and trade and this will be a huge opportunity for Filipino farmers.

He added that Filipino farmers could also take advantage of Japan's demand as its "entire food system, from farm to fork, will be impacted by the shift away from home cooking" so much so that by 2040, more than 70 percent of food in the country may be prepared outside the home.

He pointed out that successful food industry players will be those that anticipate and adapt to a market characterized by intensified competition;

a shift away from ingredients towards brands, retailers and restaurants; far greater diversity of consumer tastes; and continuous technical innovation.

Moreover, he said East Asia will be a leading global player in science-based functional foods. East Asia's future elderly, raised more Western-minded than previous generations, will be a key market for these enhanced foods. Commodity growers can support these diets by growing crops that provide specific health benefits.

Dr. Dy stressed that radical new technologies to produce, protect, preserve, test, deliver, and prepare food will proliferate, and that competition to serve highly differentiated markets will be fierce.

Snapshots



Dr. Khin Mar Cho (third from right), Director, International Programs and Specialist in International Agriculture, Food and Nutrition; Dr. Ronnie Coffman (second from right), International Professor and Director of International Programs at College of Agriculture and Life Sciences; and Dr. K. Vijayaraghavan (rightmost), Coordinator for South Asia, all of Cornell University, visited SEARCA on 6 September to explore opportunities for collaboration on capacity building and institutional development of Myanmar's Yezin Agricultural University (YAU) and Ministry of Agriculture and Irrigation. They were received by (from left) Ms. Zacyl R. Jalotjot, Program Specialist, Graduate Scholarship; Dr. Bessie M. Burgos, Program Head for Project Development and Management; Dr. Luis Rey I. Velasco, Senior Fellow and Institutional Development Consultant; Dr. Rogelio V. Cuyno, Institutional Development Assistance to YAU Project Leader; and Dr. Gil C. Saguiguit, Jr., SEARCA Director. Dr. Maria Celeste H. Cadiz (not in photo), Program Head for Knowledge Management, was also present at the meeting.



SEARCA hosted *Syensaya* 2012 Research and Development (R&D) Awarding and Closing Ceremonies held on 20 July 2012, with Dr. Arsenio M. Balisacan, Philippine Secretary of Socioeconomic Planning and Director-General of the National Economic and Development Authority (NEDA) and former SEARCA Director, as the keynote speaker. This year's *Syensaya*, the annual National Science and Technology Week celebration of the Los Baños Science Community Foundation, Inc. (LBSCFI), was held on 18-20 July. It also featured a science discovery exhibit and a techno forum on health, environment, and livelihood. LBSCFI fosters the spirit of sharing resources and expertise among its 23 member-agencies, including SEARCA.



Dr. Emil Q. Javier (left), President, National Academy of Science and Technology, receives a certificate and token of appreciation from SEARCA, represented by Dr. Maria Celeste H. Cadiz, Program Head for Knowledge Management, after delivering a seminar entitled *Philippine Agriculture (PA) 2020: A Strategic Plan for Poverty Reduction, Food Security, Competitiveness, Sustainability and Justice and Peace* at the SEARCA Agriculture and Development Seminar Series on 28 August 2012.



Dr. Alexander G. Flor (rightmost), Team Leader cum Knowledge Management Expert, presents the Information and Knowledge Management (IKM) Strategic Plan for the Agriculture Sector to Dr. Gil C. Saguiguit, Jr., (seventh from right), SEARCA Director, and key SEARCA officers and staff on 25 September 2012. The IKM Strategic Plan will serve as the basis in the design of a Capacity Development Program for the Philippine agriculture and fisheries KM sub-sector. The program will be finalized and launched through a national conference in November 2012. This is one of the deliverables of the project entitled Capacity Development Program on KM, which is funded by the Department of Agriculture-Bureau of Agricultural Research (DA-BAR), Philippines.



Dr. Nur Masripatin, Director for Standardization and Environment, Ministry of Forestry, Indonesia and Coordinator of the ASEAN Regional Knowledge Network on Forest and Climate Change (ARKN-FCC), gave a seminar entitled *REDD Plus and Safeguards: State of UNFCCC (United Nations Framework Convention on Climate Change) Negotiations and Relevance to ASEAN* at SEARCA on 20 July 2012. REDD Plus is short for "Reduced Emissions from Deforestation and Forest Degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries." Before her seminar, she was given a briefing on the Center's programs and activities. The preliminary outputs of the project on *Strengthening ASEAN Mechanism for Reducing Emissions from Deforestation and Forest Degradation (REDD Plus)* implemented by SEARCA for the ASEAN were also presented to her by Dr. Guillermo A. Mendoza, SEARCA REDD Plus Specialist.



Three officials from the Ministry of Agriculture and Forests of the Royal Government of Bhutan visited SEARCA on 8 August 2012 as part of their study tour in the Philippines. They are (from second to the left) Mr. Sangay Chophel, Planning Officer; Mr. Riuzin Dorji, Senior Planning Officer; and Mr. Sherub Wangchuk, Planning Officer. With them in the photo are Dr. Gil C. Saguiguit, Jr. (third from right), SEARCA Director; Dr. Editha C. Cedicol (rightmost), Program Head for Graduate Scholarship; Dr. Bessie M. Burgos (leftmost), Program Head for Project Development and Management; and Dr. Mariliza V. Ticsay (second from right), Unit Head, Knowledge Resources Unit.

Project beneficiaries attend native chicken production training

A training on native chicken production was recently conducted by SEARCA for 88 residents of Misamis Occidental, Philippines, site of the Ridge to Reef Biodiversity Project implemented by the WorldFish Center in partnership with SEARCA.

SEARCA coordinates the project's capacity building activities, which is critical in ensuring the continuity of biodiversity conservation efforts through enhanced capabilities and technical know-how of the beneficiaries and other stakeholders.

Participants were trained in two batches, the majority of whom belong to various women's groups of the project's native chicken livelihood development. They were from Oroquieta City and the towns of Don Victoriano, Tudela, Sinacaban, Jimenez, Aloran, and Panaon. Members of the Misamis Occidental Mangrove Management Association (MOMMAI) also attended the training.

The training aimed to introduce native chicken production, not only as an alternative or supplemental livelihood activity for the fishers and farmers, but also as a science-based rural enterprise.

Dr. Synan S. Baguio, Supervising Science Research Specialist and Assistant Director of the Livestock Research Division of the under the Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD), served as the resource person.

He underscored the importance of changing the mindset of the beneficiaries to encourage them to think beyond subsistence, and explained that native chicken production can provide cash for the daily needs of their families.

Moreover, Dr. Baguio emphasized the importance of maintaining the pure breed of native chickens. He said pure breeds are more adapted to the local environment and, therefore, more resilient to diseases. This makes native chicken production less costly and more sustainable than growing imported hybrids.

Dr. Baguio also told the participants that when the standard characteristics of the pure line specific to the Misamis region are established, they should strive to associate this with their own cultural pride. He stressed that they can claim the Misamis pure line breed as their own, similar to the Darag native chickens of the Visayas.

The short course covered science- and technology-based native chicken production as an enterprise, technology options for breeding, selection and hatchery management, feeding and range management technology options, health care and disease prevention and control for free-range chickens, and pricing and marketing of native chickens. (CBBinondo)



Twenty-one bio-business practice students from Tokyo University of Agriculture (TUA) visited SEARCA on 23 August 2012 as part of their exposure trip to learn about tropical agriculture and Philippine bio-business. They are the 22nd batch of TUA students to visit SEARCA. Dr. Koji Kihara and Dr. Yukio Shibuya, Associate Professors at TUA, accompanied the students. They were briefed on SEARCA's programs and activities, particularly on the Center's R&D projects related to bio-business.



Mr. Van-Allen S. Limbaco, SEARCA's Transport Services Assistant, was in Bangkok, Thailand on 24-28 July 2012 for a staff exchange visit to the SEAMEO Secretariat (SEAMES) where he was given an orientation on SEAMES' travel services procedures. While in Bangkok, he also visited the SEAMEO Regional Center for Higher Education and Development (RIHED) and SEAMEO Regional Centre for Archaeology and Fine Arts (SPAFA).



Participants of the training held in Tudela, Misamis Occidental.

3 Filipino scientists appointed SEARCA Senior Fellows

Three eminent Filipino scientists have recently joined the growing pool of national and international scientists who have joined the prestigious SEARCA Senior Fellows Program.

They are Dr. William G. Padolina, former Deputy Director General-Operations and Support Services of the International Rice Research Institute (IRRI) and former Philippine Secretary of Science and Technology; Dr. Rafael D. Guerrero III, Academician, National Academy of Science and Technology (NAST) and former Executive Director of the Philippine Council for Aquatic and Marine Research and Development (PCAMRD); and Dr. Concepcion Lizada, Professor Emeritus in Food Science at the University of the Philippines Diliman (UPD).

SEARCA's Senior Fellows Program strengthens the Center's ability to respond to contemporary and important concerns in agriculture and rural development. It is honorific in that only internationally respected scientists, researchers, and academics may be appointed as SEARCA Senior Fellows.

SEARCA Senior Fellows provide gratis advice and guidance in the conceptualization of programs as

well as technical inputs in project development and implementation. They also assist in establishing linkages and negotiating proposals with potential donors and partners.

Continuing SEARCA Senior Fellows are Dr. Percy E. Sajise, Honorary Research Fellow at Bioversity International and Adjunct Professor, School of Environmental Science and Management, UP Los Baños (UPLB); Dr. Paul S. Teng, Dean, Office of Graduate Studies and Professional Learning, National Institute of Education, Singapore; and Dr. Luis Rey I. Velasco, former UPLB Chancellor and Associate Professor, Institute of Entomology, UPLB College of Agriculture.

Dr. Arsenio M. Balisacan, Socioeconomic Planning Secretary of the Philippines and Director-General of the National Economic and Development Authority (NEDA), also served as SEARCA Senior Fellow after his second term as SEARCA Director.

The Senior Fellows Program complements the expertise that resides within the Center's professional staff pool as well as its Adjunct Fellows and Visiting Research Fellows Programs. (LLDDomingo)

3 Southeast Asians get travel grants

The SEARCA Travel Grants Program helped an Indonesian, a Filipino, and a Vietnamese to present their scientific papers in three separate conferences held in China, Thailand, and India between July and September 2012.

Dr. Zeily Nurachman, Associate Professor, Biochemistry Division, Faculty of Math and Natural Sciences, Institut Teknologi Bandung, Indonesia, presented his paper entitled "The Potential of Tropical Marine Diatom for Producing Natural Oils" at the *First International World Congress of Marine Algae* held in Dalian, China on 20-23 September 2012.

Mr. Laurence Anthony Go, Master of Arts in Economics student, University of the Philippines School of Economics, Philippines, presented his paper entitled "Vulnerability of Poverty: Who are the Poor of the Future? A Multinomial Logit Analysis of Vulnerability and Its Determinants" at the *Second Asian Population Association Conference* held in Bangkok, Thailand on 26- 29 August 2012.

Dr. Nguyen Kim Loi, Head, Department of Applied Geomatics, Director, Research Center for Climate Change and Associate Dean for Research and International Relations, Nong Lam University, Vietnam, presented two papers entitled "Assessing Water Discharge in Be River Basin, Vietnam Using SWAT Model" and "Assessing Climate Change Impacts and Adaptation in Central Vietnam Using SWAT and Community-based Approach: Case study in Vu Gia Watershed, Quang Nam Province" at the *International Soil and Water Assessment Tool (SWAT) Conference and Workshop* held in New Delhi, India on 16-20 July 2012.

The SEARCA Travel Grant aims to provide opportunities to Southeast Asian nationals with limited funds to participate and present papers in scientific conferences or fora, locally or internationally in order to discuss with other scientists and scholars developments in their respective disciplines.

It is one of the strategies that SEARCA undertakes to help build the capacity of academic and research institutions in Southeast Asia, especially those in agricultural and rural development.

Applications are evaluated on a quarterly basis. For proposed travel in January-March 2013, the deadline of application is on 7 December 2012.

More information on this program is available at www.searca.org/web/research/travelgrants/. (LLDDomingo)

Off the Press: Book on human ecology over time and space



Ecology, Environment, and Sustainable Development: Reflections Spanning Five Decades, a travelogue authored by Dr. Percy E. Sajise, an internationally recognized ecologist and environmentalist, was launched at SEARCA on 6 August 2012.

Co-published by SEARCA and the University of the Philippines Los Baños through its School of Environmental Science and Management (SESAM) and College of Human Ecology (CHE), the book brings together the discipline of ecology and the perspective of human ecology in analyzing environmental problems over time and space in the landscape of the Philippines, Southeast and East Asia.

"This book tells about what it takes to pursue sustainable development in the management of natural resources. It is also asking, "Do we have enough time?" It contains

suggestions on what changes must happen starting with ourselves and reverberating and rippling outwards in institution building to help reverse environmental deterioration especially as we face new challenges," Dr. Sajise said during the book launch.

His book highlights significant lessons learned from the analysis of various case studies and recounts experiences of the author in his travels as well as interdisciplinary research and development engagements. His experience spans 50 years across communities, farms, and forests as well as universities and research institutions worldwide.

Off the Press/ to page 14

SEAMOLEC conducts web conference training for SEARCA staff

A training on how to use SEAMEO's web conference system was conducted by the Southeast Asian Ministers of Education Organization (SEAMEO) Regional Open Learning Center (SEAMOLEC) for selected SEARCA staff members on 10-12 September 2012.

Mr. Abubakar Alatas, Information Technology Content Officer, and Mr. Yusmar Hadi Saputra, Public Relations and Marketing Officer, both of SEAMOLEC, implemented the three-day training, which was simultaneously conducted by other SEAMOLEC staff in other SEAMEO centers across Southeast Asia.

The training aimed to facilitate online meetings among SEAMEO centers and the Secretariat. Specifically, it explored *BigBlueButton*, an open-source web conference application that can provide opportunities for increased and effective communication and collaboration among the SEAMEO centers.

Twenty SEARCA program heads, unit heads, and staff members participated in the training. They were from the Management Services Unit, Library and Archives, Human Resource Management Unit, Knowledge Management Department, Graduate Scholarship Department, Research and Development Department, Project Development and Management Department, Biotechnology Information Center, and Office of the Director.

Also present during the opening program were Mr. Rolan Mallare, Network Administrator, and Ms. Aury Anne Atienza-Santos, Information Management Senior Associate, both of the SEAMEO Regional Center for Educational Innovation and Technology (INNOTECH).

In line with the training, Mr. Abubakar and Mr. Hadi also appraised SEARCA's existing information and communication infrastructure to assess



Mr. Abubakar Alatas (rightmost), SEAMOLEC Information Technology Content Officer, coaches Mr. Elmer G. Pandanan (left, foreground), Executive Secretary, on how to use the BigBlueButton application.

its capacity to use the web conference system. They also took blueprints and photographs of SEARCA's building, offices, and facilities to enable them to create the three-dimensional SEAMEO Virtual Museum and Learning Institute, a "web-based application that showcases the national heritage of Southeast Asian countries, delivers educational open courseware, and broadcasts the SEAMEO educational web-based TV channel."

Meanwhile, SEARCA noted the possibility of using the web conference system in delivering its online courses and training programs.

Endorsed by SEAMOLEC during the SEAMEO Center Directors' Meeting held on 15-19 July 2012 in Bangkok, Thailand, the web conference system is expected to facilitate the coordination and implementation of the SEAMEO College, which is expected to open in 2013. (EGPandanan)

Relief mission in flooded Los Baños community carried out

One hundred eighty-nine families from Barangay Malinta, Los Baños, Laguna currently living in tent houses received mats and blankets donated by SEARCA during a relief mission on 4 September 2012. They are among those whose residences have been flooded by Southwest monsoon rains in August 2012.

The relief mission was carried out by a SEARCA team led by Ms. Ma. Margaritha B. Romero, Head of SEARCA's Human Resource Management Unit, in coordination with Ms. Luzviminda Alvarez, Officer in Charge of the Los Baños Municipal Social Welfare and Development Office (MSWDO). They were assisted by Ms. Edna Tandang of the MSWDO and Ms. Carmen Jumawid, a Barangay Nutrition staff member.



A SEARCA team led by Ms. Ma. Margaritha B. Romero, Head of SEARCA's Human Resource Management Unit, distributed blankets and mats to flood victims in Los Baños.

Mr. Rolando Erroba, Barangay Captain of Malinta, expressed his gratitude to SEARCA for extending the much needed help to his community.

The following week, relief goods donated by SEARCA staff members were turned over to the Office of the Municipal Mayor for distribution

during the celebration of the 397th Foundation Day of Los Baños on 17 September 2012.

The relief mission was carried out by SEARCA in view of its strong sense of social and civic responsibility to its host community and its environs. (EGPandanan)

Alumni Notes

LUSTRIA GIVES POINTERS ON GETTING PUBLISHED IN PEER-REVIEWED JOURNALS



LUSTRIA

Dr. Mia Liza A. Lustria, (MS development communication, 1996) Associate Professor, Florida State University (FSU), conducted a seminar for SEARCA scholars entitled

Publish or Perish: How to Get Published in Peer-Reviewed Journals on 19 July 2012.

The talk was a practical take on academic publishing drawn largely from her own experiences trying to get published in international peer-reviewed journals, including her successes and challenges.

Dr. Lustria emphasized that choosing the right journal to submit to is critical to the publication process and can inform how researchers should present their research even in the early stages of writing. In addition to understanding the scope and focus of the journal, it is also important to assess the journal's reputation and impact as well as its reach and accessibility, particularly to scholars who are most likely to do similar research.

She said it is also important to consider the peer review process espoused by the journal and the average turn-around time from submission to acceptance and eventual publication. She pointed out that peer review is crucial to publishing high quality, relevant, and credible research.

Dr. Lustria also gave useful tips on how to address reviewers' comments and refine manuscripts by sharing examples from her own work, including manuscripts that had initially been rejected but later published. She also relayed different ways researchers can maximize their chances of getting published and increase their productivity, including: (1) editing the manuscript carefully with an eye to improve both the substance and presentation, (2) finding good writing partners; (3) doing collaborative research; and (4) finding a good mentor, among others.

"What you really need to aim for is to produce high quality work that will be recognized by other experts in your field and that will be highly cited," Dr. Lustria stressed.

Dr. Lustria is now a tenured faculty at the FSU School of Library and Information Studies and has a courtesy appointment with the FSU College of Medicine. She has a successful record of peer-

reviewed publications and external grant funding in health informatics and health communication and has also published in and reviewed for a number of high-impact journals in the same fields. (JSLaranas)

PARASO RECOGNIZED AS OUTSTANDING YOUNG SCIENTIST IN THE PHILIPPINES

Dr. Michelle V. Paraso (PhD environmental science, 2011) was recognized by the National Academy of Science and Technology (NAST), Philippines as one of the 10 Outstanding Young Scientist (OYS) for 2012 in a ceremony held on 12 July 2012 at the Manila Hotel.



The plaque of recognition was presented to Dr. Michelle Grace V. Paraso (right) by Dr. Emil Q. Javier, President of the National Academy of Science and Technology (NAST), Philippines.

The NAST is the Philippines' premier recognition and advisory body on science and technology (S&T). It awards the OYS to deserving Filipino scientists who are not more than 40 years old and have made a significant impact in S&T.

Dr. Paraso was cited for her contributions to the field of environmental science, particularly her researches on animal health and their impact on identified environmental issues in the province of Laguna. These include her research on the effects of environmental pollutants on fish health in Laguna de Bay, part of which was conducted as her PhD dissertation as a SEARCA scholar. These researches paved the way for targeted interventions.

The OYS award came with a plaque of recognition, certificate and cash prize. The OYS awardees are also entitled to a research grant of up to PhP 500,000. (JSLaranas)

BINH PUBLISHES STUDY ON SEAHORSE AQUACULTURE



BINH

Mr. Mac Nhu Binh (MS fisheries, 2010), Lecturer at Hue University of Agriculture and Forestry, Vietnam, published his study conducted at the Southeast Asian Fisheries Development Center-Aquaculture Department (SEAFDEC/AQD),

Tigbauan, Iloilo, Philippines as part of his MS thesis. The article, entitled "Optimum Level of Fish Liver Oil as Enrichment for *Artemia* Fed to the Tiger Tail Seahorse (*Hippocampus comes*) for Reproduction and Juvenile Survival," appears in the international journal *Aquaculture, Aquarium, Conservation & Legislation (AACL Bioflux)*, Vol. 5, No. 4. It was co-authored by Dr. Augusto E. Serrano, Jr. of the University of the Philippines Visayas (UPV).

Since the tiger tail seahorse is a high-value species, with more than 169 countries engaged in its culture and trade, Mr. Binh noted that to maintain good quality broodstock for seahorse hatcheries, suitable nutritional requirements should be supplied.

His study involved bioencapsulating fish liver oil (FLO) in *Artemia* or brine shrimp, which were then fed to the seahorse broodstock. Results showed that bioencapsulating FLO in *Artemia* significantly increased its saturated fatty acid content (in the form of myristic acid) and its total highly unsaturated fatty acid content (particularly Docosahexaenoic acid [DHA] and arachidonic acid), which all play vital roles in the health of seahorses and other marine animals.

He also found that feeding seahorse broodstock with FLO-enriched *Artemia* can improve their reproductive performance. It significantly increased the brood size, shortened interbrooding period, and improved juvenile survival. The best concentration of FLO was 6.2% (range of 6-7%), which was estimated using the quadratic model and the time of total mortality as the response parameter.

Mr. Binh is a recipient of SEARCA's full scholarship for both his MS in fisheries at UPV and his ongoing PhD program in environmental science at UP Los Baños. (JSLaranas)

Thesis Abstracts

HOUSEHOLD AND COMMUNITY PRACTICES LEVEL TOWARDS ATTAINING FOOD SECURITY IN LONG DISTRICT, LUANG NAMTHA PROVINCE, LAO PDR



Anongsack Chanthavong
Laotian
MS in Community
Development
University of the Philippines
Los Baños

The study determined the practices of the households and the communities in attaining food security in Long District, Luang Namtha, Lao PDR. Respondents were 122 randomly selected farmers from six villages in Long District. One focus group discussion was conducted in each village to validate the results of the survey and gather data on community activities. Key informant interviews with six village officials and two district officials were also conducted. Descriptive and inferential statistics were used in the data analyses.

The respondents were male adults, married, unschooled and farmers like their spouses, who resettled and lived in their village for more than 20 years, and have small families and low income. The majority had streams/rivers near their village, fertile black soil, non-timber forest products, pigs and chickens, manual farm tools, unregistered lands, cellular phones, motorcycles, and potable water. However, the majority had no irrigation system and electricity.

To attain food security at the household level, the respondents planted upland rice using the native varieties and manual tools, raised swine and poultry in traditional way, refused to lend money, and practiced husband-and-wife equal sharing of farming and household tasks. At the community level, livelihood programs were scarce but the respondents benefitted from food distribution programs.

Based on food availability, access, and utilization, the study found that the six villages were all food-secure, foremost of which was Chamai.

Results showed that household practices geared toward food security were related to the respondents' sex, educational attainment, length of stay in the area, and total household income. Similarly, community practices were correlated with the respondents' age, sex, educational attainment, length of stay in the area, household size, and total household income. Food security was found to be related to the variety of wetland rice planted, quantity of upland rice planted, method of raising pigs, and method of raising poultry.

The study found that sufficiency of income and level of sufficiency of crop production were

significantly related to access to livelihood programs. In general, food security was significantly related to all the community practices.

SOCIAL VULNERABILITY AND WILLINGNESS TO PAY FOR ADAPTATION TO CLIMATE CHANGE AND VARIABILITY OF FARMING HOUSEHOLDS IN DUMANGAS, ILOILO, PHILIPPINES



Gay D. Defiesta
Filipino
PhD in Agricultural Economics
University of the Philippines
Los Baños

The study analyzed the social vulnerability and willingness to pay for adaptation to climate change and variability of 520 farming households in Dumangas, Iloilo, Philippines in 2011. It sought to understand the nature and causes of vulnerability of farming households, determine the adaptation measures that they employ, and estimate their willingness to pay to reduce this vulnerability. Social vulnerability was analyzed using an index composed of exposure, adaptive capacity, and sensitivity to climate change impacts. Willingness to pay for autonomous and planned adaptation were estimated using defensive expenditure and contingent valuation methods, respectively.

Sample farming households were found to be moderately vulnerable to climate change and variability. Vulnerability was mainly caused by exposure to floods and typhoons as well as lack of financial, physical and information resources.

The study found that social vulnerability, autonomous adaptation, and willingness to pay for climate change adaptation were closely related. Regardless of their vulnerability level, most farming households autonomously adapted to climate change and variability. The majority of households that employed more than one adaptation measure had low vulnerability levels to climate change; they also had higher stated and revealed willingness to pay for adaptation than those with higher vulnerability.

Farmers perceived the fast-onset climate variables (i.e., floods, typhoons, prolonged droughts) as more risky than the creeping climate change variables exemplified by increasing temperature and sea levels. They believe that their adaptive capacity to climate change will be enhanced by climate-resilient livelihoods and scientific knowledge on adaptation.

To reduce vulnerability among farming communities, the study recommends that the government implement planned adaptation programs that are acceptable and relevant

to these communities. Farming households should be encouraged and enabled to employ as many autonomous adaptation measures that are not only affordable and appropriate to their respective conditions, but also supportive of the planned adaptation program. The government should provide information on the types and costs of autonomous adaptation methods that are appropriate for specific farmer groups. Farmers also need training on these adaptation measures. Scientific knowledge on adaptation should be augmented by financial resources through training on and support for alternative climate-resilient livelihoods.

GENETIC VARIABILITY FOR GRAIN YIELD AND SOME GRAIN QUALITY CHARACTERS AND GENETIC CORRELATION AMONG THESE TRAITS IN WHITE AND YELLOW MAIZE (*ZEA MAYS* L.) POPULATIONS



Nyo Mar Htwe
Myanmar
PhD in Plant Breeding
University of the Philippines
Los Baños

Genetic variabilities for grain yield and other agronomic traits were determined in white (IPB Var6) and yellow (IPB Var13) maize populations using 100 half sib generated by nested genetic design or Design I and 100 S_1 families.

Significant genetic variabilities were observed for all traits in both sets of families in each population. However, in the Design I materials wherein it was possible to separately estimate additive and dominance variabilities, it was only the dominance variability that was significant for grain yield in both populations. This means that it may not be possible to improve these populations by half-sib selection.

Grain nutritional quality traits were also analyzed in some of the generated half-sib and S_1 families, namely: total starch, amylose, amylopectin, and lysine contents in the white variety and total carotenoid and beta carotene in the yellow population. Additive and dominance variabilities were highly significant in all the grain quality traits studied in both sets of families in each population.

Genetic (additive) correlations were also determined between the grain quality traits and grain yield in the Design I materials and were found not significant. This non-significance of additive genetic variability in the half-sib families could be the reason for the non-significant genetic correlation. It is recommended that more maize populations be studied to confirm this lack of genetic relationship between grain yield and quality traits.

FNU explores prospects for collaboration with SEARCA

Dr. Ganesh Chand, Vice Chancellor of Fiji National University (FNU), met with Dr. Gil C. Saguiguit, Jr., SEARCA Director, during his visit to the Center on 4 July 2012 to explore possible areas of collaboration between SEARCA and his institution. He was accompanied by Dr. Ravindra C. Joshi, a Visiting Professor at FNU and Senior Adviser on Agriculture Development at the Ministry of Agriculture and Livestock in the Solomon Islands.

Dr. Chand said they are interested in human resource development in key areas in agriculture, forestry, fisheries, and related fields. He added that there are many opportunities for consulting projects in his country but they need partners and experts in tendering bids.

Although Fiji is not affiliated with the Southeast Asian Ministers of Education Organization (SEAMEO), SEARCA's mother organization, Dr. Saguiguit said the Center could still help bring Southeast Asian expertise to Fiji and the Pacific Islands through development initiatives that are related to agriculture, which may include capacity building in the form of scholarships or institutional development assistance, and research in common areas of interest, among others.

Dr. Saguiguit added that FNU could also join upcoming conferences and other scientific meetings organized by SEARCA.



Dr. Ganesh Chand (right), Vice Chancellor of Fiji National University (FNU), meets with Dr. Gil C. Saguiguit, Jr., SEARCA Director, during his visit to the Center on 4 July 2012.

"This is very encouraging because these are the kinds of windows of collaboration that we are thinking of," Dr. Chand said.

Other SEARCA officers present during the meeting were Dr. Editha C. Cedicol, Program Head for Graduate Scholarship; Dr. Maria Celeste H. Cadiz, Manager for Knowledge Management; and Dr. Bessie M. Burgos, Program Head for Project Development and Management. (LLDDomingo)

RUA officials/ from page 3

programs. He said the Center will allocate graduate scholarship slots specifically for RUA faculty and staff. He added that they are also welcome to participate in SEARCA training courses that are in line with their plan to build up the university's capacity.

SEARCA's assistance to RUA is part of the Center's efforts to focus its capacity building and institution development programs on the needs of strategic agricultural universities in member-countries of the Southeast Asian Ministers of Education Organization (SEAMEO). The initiative in RUA follows the institutional development assistance given by SEARCA to Savannakhet University, Lao PDR and precedes a similar activity in Yezin Agricultural University, Myanmar. (LLDDomingo)

Off the Press/ from page 10

The book will be useful for students, professionals, and practitioners of environmental science, natural resource managers, as well as development workers and advocates of sustainable development.

A former SEARCA Director (1994-1999) and now a SEARCA Senior Fellow, Dr. Sajise is also an Adjunct Professor at the UPLB-SESAM, where he had devoted most of his professional life.

He served as Regional Director of Bioversity International's Office for Asia, Pacific and Oceania in 2000-2008 and is currently an Honorary Research Fellow of Bioversity International and a member of the World Academy of Arts and Science. He is also a member of the advisory body of the Center for Biodiversity and Indigenous Knowledge based in Yunnan, China.

Dr. Sajise was also recently appointed as a member of the Advisory Group to the Secretariat of the Commission on Genetic Resources for Food and Agriculture of the Food and Agriculture Organization of the United Nations (FAO). The Advisory Group plays a key part in the preparation of the State of the World's Biodiversity for Food and Agriculture. (LLDDomingo)

SEARCA, DA-BAR/ from page 15

while Ms. Lapitan presented the DA-BAR Research and Development Program.

Ms. Helen Macpherson, Acting Manager, Library and Research Services, Department of Agriculture, Fisheries, and Forestry (DAFF), Queensland, talked about the different KM systems of DAFF Queensland. She also discussed KM in agriculture in Australia involving DAFF Australia, Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), Commonwealth Scientific and Industrial Research Organisation (CSIRO), and other state governments of Australia.

The DA-BAR and SEARCA officers also visited QUT's Centre for Tropical Crops and Biocommodities. Dr. James Dale, Director and Distinguished Professor, highlighted QUT's researches on banana biotechnology, sugarcane biomass utilization, biorefining and biofuels development, and tobacco as source of protein for use in the manufacture of vaccines and cell culture.

The information gathered from the institutional visit and RTD will be used in the design of the KM Capacity Development Program for the Philippine agricultural research sub-sector. (BMBurgos)



Dr. Burgos (center) and Ms. Lapitan (right) meet with Dr. James Dale during the visit to the Centre for Tropical Crops and Biocommodities, QUT on 27 July 2012.

SEARCA joins Food Security Center workshop in Costa Rica

SEARCA was represented by Dr. Editha C. Cedicol, Program Head for Graduate Scholarship, at the Food Security Center (FSC) Annual Planning Workshop held at the Universidad de Costa Rica (UCR) in San Jose, Costa Rica on 4-7 September 2012.

Participants of the meeting include FSC Regional Coordinators and representatives of the six FSC strategic partners, namely: Kasetsart University, SEARCA, UCR, Centro Agronomo Tropical de Investigacion y Enseñanza (CATIE), Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), and Sokoine University of Agriculture (SUA).

The FSC Annual Planning Workshop provides the venue for presentation of accomplishments, sharing of experiences and challenges, and presentation of plans for the next year.

Ms. Julia Schwarzenberger, Program Coordinator of the German Academic Exchange Service (DAAD), remarked during the opening program that “knowledge is the key to overcoming poverty” and that the key role of universities in development cooperation is to develop educational strategies to integrate teaching, research, and extension towards achieving the mission of eradicating hunger and malnutrition. She lauded FSC for putting the idea of DAAD’s EXCEED-Higher Education Excellence in Development Cooperation program into practice.

For his part, Dr. Manfred Zeller, FSC Director, expressed his appreciation to all partners for actively pursuing the interdisciplinary approach and for their strong collaboration in implementing the FSC programs.

Dr. Alice Perez, Vice Rector of UCR, said she looks forward to a long-term collaboration with the University of Hohenheim and other partners in the FSC. She added that she was confident that very important activities on food security will be held in 2013.

During the workshop, the participants revisited the idea of establishing a Global Consortium on Food Security Initiatives as suggested by the FSC workshop group during the International Conference on Asian Food Security (ICAFS) co-organized by SEARCA and S. Rajaratnam School of International Studies (RSIS) and expressed their interest to pursue the creation of such consortium.

The workshop also featured a visit to CATIE in Cartago, about 25 km east of UCR in San Jose, where they saw CATIE’s cacao and other plant collections, botanic garden, and coffee farm.

Ms. Schwarzenberger presented the EXCEED program at the expert meeting on priorities for national and global agenda on food security under climate change, which was held at the UCR Faculty of Agronomy and capped this year’s workshop. (ECCedicol)



Dr. Editha C. Cedicol (second from right, second row), SEARCA’s Program Head for Graduate Scholarship, represented SEARCA in the Food Security Center Annual Planning Workshop held on 4-7 September 2012 in San Jose, Costa Rica.

SEARCA, DA-BAR discuss with QUT prospects for joint KM capacity dev’t program

In July 2012, SEARCA organized an institutional visit and roundtable discussion (RTD) at the Queensland University of Technology (QUT) for the Department of Agriculture-Bureau of Agricultural Research (DA-BAR).

These activities were undertaken as part of the DA-BAR-funded project entitled “Capacity Building Program on Knowledge Management (KM)” implemented by SEARCA. The project primarily aims to strengthen national capacities of agricultural and fisheries information stakeholders on KM with emphasis on knowledge capture, sharing and reuse, and knowledge products design and development.

The DA-BAR delegates were Ms. Julia A. Lapitan, Head, Applied Communications Division; Ms. Rita T. dela Cruz, Assistant Head, Applied Communications Division; and Ms. Ma. Eloisa H. Aquino, Technology Commercialization Division. SEARCA was represented by Dr. Bessie M. Burgos, Program Head for Project Development and Management. They visited QUT to scan for



The DA-BAR and SEARCA delegates pose with the resource persons from Brisbane after the roundtable discussion on KM best practices on 27 July 2012. From left: Ms. Eloisa H. Aquino and Ms. Julia A. Lapitan of DA-BAR; Ms. Gayle O’Brien of Trade and Investment, Queensland; Professor Michael Rosemann of QUT Information Systems School; Mr. Brendan Richardson of Trade and Investment, Queensland; Dr. Bessie M. Burgos of SEARCA, Ms. Helen Macpherson of the Department of Agriculture, Fisheries and Forestry, Queensland; Mr. Sean Bohannon and Mr. Adriano Brescia of Trade and Investment, Queensland; Ms. Johana Marroquin Castillo of QUT; and Ms. Rita dela Cruz of DA-BAR.

possible opportunities, partners, and KM training providers in the agriculture and fisheries sectors. They also sought to identify KM best practices and success stories.

Their visit and the RTD were facilitated by Mr. Nelson Salangang, International Projects Unit Manager, and Ms. Johana Marroquin Castillo,

International Development Associate, both of QUT.

The RTD was attended by key industry players in KM in the Australian agriculture and fisheries sectors. Dr. Burgos discussed the KM project overview and explained the purpose of the visit,

[SEARCA, DA-BAR/ to page 14](#)

Climate change champions needed in environmental advocacy – SEARCA Director

“Climate change is now considered one of the greatest challenges in the global pursuit of a sustainable future,” said Dr. Gil C. Saguiguit, Jr., SEARCA Director, at the opening of the training-workshop on *Environmental Leadership in Climate Change Adaptation (ELCCA)*, which was held on 24-28 July 2012 at SEARCA.

“Advocacy is important at the grassroots where programs and projects that help communities cope with the risks associated with climate change need to be in place,” he added.

SEARCA and the Department of Agriculture-Bureau of Agricultural Research (DA-BAR), Philippines jointly organized the training-workshop, which is customized for local executives, development planners, technical advisors and researchers who are in positions of influence who need to hone their skills in policy advocacy and action planning to help ease the adverse impacts of climate change.

The training-workshop aimed to enhance a cadre of Filipinos who could play strategic roles in their respective fields toward instituting policies and leading initiatives that primarily focus on climate change adaptation.

“The main objective is to develop local-level champions who can push for the development and implementation of policies and initiatives,” Dr. Saguiguit said.

He said SEARCA organized the training-workshop to “address the growing need to widen awareness and spark collective action at the local level towards developing initiatives that can strengthen the nation’s capacity to cope with the risks presented by climate change.”



Philippine Climate Change Commissioner Naderev M. Saño talks about the potential impacts of climate change.

Based on science concepts, the training-workshop broadened the participants’ understanding of climate change and its impact on agriculture, fisheries and natural resources. It featured science-based strategies and techniques in managing the risks brought by climate change.

Resource persons for the learning event included Commissioner Naderev M. Saño of the National Climate Change Commission, Philippines; Dr. Maria Victoria O. Espaldon, Professor of Environmental Science and Vice Chancellor for Research and Extension of the University of the Philippines Los Baños (UPLB); Dr. Maria Teresa V. Destura, Assistant Provincial Agriculturist, Province of Sorsogon, Philippines; Dr. Laura David, Professor, UP Marine Science Institute; Dr. Lucille de Guzman, University Researcher, UPLB College of Agriculture Crop Science Cluster; and Dr. Rico Ancog, Assistant Professor, UPLB School of Environmental Science and Management.

The resource persons shared achievements in localizing action plans, identified constraints in climate change adaptation, and discussed

climate risk management. They talked about how prepared the Philippines is in addressing the challenges and how sound action plans are implemented.

Through lecture-discussions, workshops, and case study presentations, participants learned the concepts and principles of leadership in environment and climate change adaptation and mitigation. The training-workshop also covered the experiences of different regions and localities in climate risk management and how different climate-related events are handled.

All these were tackled to enable participants to deal with the challenges in mainstreaming climate change issues in national and local development plans and programs. The discussions also emphasized leadership skills in negotiation, fund raising, knowledge management, and networking.

At the end of the training-workshop, the participants presented their commitment plans to mainstream climate change adaptation and mitigation in development planning. (LLDDomingo)



Philippine Climate Change Commissioner Naderev M. Saño (leftmost, front row); Dr. Gil C. Saguiguit, Jr. (center, front row), SEARCA Director; Dr. Maria Victoria O. Espaldon (third from left, front row), UPLB Vice Chancellor for Research and Extension and Technical Coordinator of the training-workshop; and Dr. Bessie M. Burgos (rightmost), SEARCA Program Head for Project Development and Management, with the training participants and resource persons.