

# The SEARCA DIARY



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## INTERCONNECTED

The truth about watersheds is that we all live downstream from one community and upstream from another community. Fortunately, individual affirmative actions can make a difference in the health of watersheds.

Photo by Zaw Zaw Tun

## Critical watersheds in Phl to benefit from Japan-funded climate resilience project

MANILA, Philippines—“What you have is a knowledge building process; what you will gather, integrate it and share it, especially among your stakeholders in the communities.” This was the message of Commissioner Heherson T. Alvarez of the Climate Change Commission of the Philippines during the formal launching of the project titled *Technical Assistance (TA) on Climate Resilience and Green Growth in Critical Watersheds*.

The project is funded by the Japan Fund for Poverty Reduction (JFPR) through the Asian Development Bank (ADB) with the CCC as the implementing agency for the Philippine government. It seeks to demonstrate climate-resilient and green growth options for Philippine communities in the watersheds of Lower Marikina, Camarines Sur, and Davao Oriental. Priority is given to these watersheds because they are an important source of water supply for both upstream and downstream communities.

At the project launch held on 6 August 2014 at the SEAMEO Regional Center for Educational Innovation and Technology (INNOTECH) in Quezon City,

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## Critical watersheds/ from page 1

Dr. Ancha Srinivasan, ADB Principal Climate Change Specialist, said ADB is seriously concerned with the effects of climate change in developing countries, especially the Philippines. He acknowledged the government of Japan for funding the project. He also said the project will be inclusive and participatory, with the local government units (LGUs) at the forefront of integrating climate change concerns into the local development plans as well as implementing adaptation and mitigation projects towards green growth.

In his welcome remarks, Dr. Gil C. Saguiguit, Jr., SEARCA Director, said the new project builds on the gains of SEARCA's collaboration with CCC and ADB on the completed project titled *Demonstrating an Eco-town Framework in the Upper Marikina River Basin Protected Landscape*.

"We now hope to cascade the lessons and accomplishments of this project to the Lower Marikina area and expand it to Davao Oriental and Camarines Sur," Dr. Saguiguit said.

The Lower Marikina watershed covers Cainta, Marikina, and Quezon City, while the Camarines Sur watershed comprises Milaor, Naga City, and San Fernando. The Davao Oriental watershed includes Baganga, Boston, and Cateel.

LGUs in the Philippines are tasked as "the frontline agencies in the formulation, planning, and implementation of climate change action plans in their respective areas." This is consistent with the provisions of the country's Local Government Code, the Climate Change Strategy Framework, and the National Climate Change Action Plan.

The new project will strengthen the institutional and technical capacity of the LGUs to effectively integrate climate change concerns into their local development plans, which can lead to environmental sustainability, job creation, and long-term economic growth.



Dr. Ancha Srinivasan (at rostrum), ADB Principal Climate Change Specialist, talks about some of the salient features of the project and what it hopes to achieve.



Representatives of the LGUs of selected municipalities involved in the project sign a "Commitment to Protect Critical Watersheds and Promote Green Growth" during the project launch.

The project launch was also venue for the stakeholders in the watersheds of Marikina, Davao Oriental, and Camarines Sur—the LGUs, CCC, ADB, SEARCA, CTI Japan, ERGONS, Woodfields, and other development partners, including the media—to join in a ceremonial signing to profess their "Commitment to Protect Critical Watersheds and Promote Green Growth."

In particular, they committed to "protect the ecosystem and promote inclusive green growth" and to mainstream in the operations of their respective institutions the needed climate change adaptation and mitigation and disaster risk reduction management interventions to ensure sustainable development and the protection and safety of the people.

"We hope that this participatory and consultative process will give you ownership and a common appreciation of this project as we carry out its activities on the ground," Dr. Saguiguit told the LGU representatives at the project launch.

The project's key activities include baseline setting, assessment studies and geographic

information systems (GIS) spatial mapping, environment and natural resources accounting, institutional capacity assessment and capacity building, greenhouse gas (GHG) assessment and emission reduction strategic planning, gender mainstreaming, green growth and climate resilience mainstreaming in local spatial and development plans, and knowledge management (including knowledge and technology transfer).

The project is expected to produce the following: climate change vulnerability maps of areas, population, physical and natural assets; GHG emission levels and emission reduction strategies and programs; gender responsive climate change adaptation and disaster risk reduction management plan; institutional capacity development plan including hands-on capability building of LGU partner staff; programs and project prioritization; pilot demonstration project per LGU; and knowledge products including geospatial database, planning guidelines, documented good practices on climate change adaptation, disaster risk reduction and management, green growth and GHG emission reduction. (LLDDomingo/AAAntonio)

### THE SEARCA DIARY

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## 44 Southeast Asians get SEARCA graduate scholarship

For academic year 2014-2015, SEARCA awarded 40 full master's and PhD scholarships and four PhD research scholarships to nationals of Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Thailand, Timor-Leste, and Vietnam. They will pursue graduate programs in agriculture, forestry, and related sciences.

Of the full scholarship recipients, 28 will study at the University of the Philippines Los Baños (UPLB), four each at Chiang Mai University (CMU), Thailand and Universiti Putra Malaysia (UPM), two at Kasetsart University (KU), Thailand, and one each at Institut Pertanian Bogor (IPB), Indonesia and Khon Kaen University (KKU), Thailand. In addition, all the new PhD research scholars are enrolled at UPLB.

SEARCA provides full support for 19 of the new scholars, while seven are supported by the German Academic Exchange Service (DAAD) and 14 by the International Development Research Centre (IDRC) of Canada under its Upland Agriculture and Food Security Fellowships.

The DAAD has been a long-time partner of SEARCA in human resource development in Southeast Asia. Meanwhile, the IDRC-SEARCA scholarship project, started in March 2012, aims to produce a critical mass of highly trained human resources to serve as catalysts for developing sustainable agriculture programs for upland communities that are generally vulnerable to food insecurity.

The new full scholars, their study posts and degree programs are as follows:

### Indonesia (2)

- Ms. Anjar Ruspita Sari, UPM/MS, food technology
- Ms. Deasy Fitriati, IPB/MS, postharvest technology

### Lao PDR (12)

- Mr. Bounthiem Bouasavanh, CMU/MS, animal science
- Ms. Chanhmany Souphannavong, CMU/MS, animal science
- Mr. Douangta Bouaphavong, KU/MS, tropical forestry
- Mr. Keopaserth Sourinphoumy, KU/MS, irrigation engineering
- Mr. Nouvang, UPLB/MS, agronomy
- Ms. Oudtanivanh Luangduangsitthideth, CMU/



Dr. Maria Cristeta N. Cuaresma (second from left), SEARCA Program Head for Graduate Education and Institutional Development, orients new IDRC-SEARCA scholars on the policies and guidelines in the administration of SEARCA scholarships in a meeting held at SEARCA on 4 September 2014.

- MS, agricultural systems management
- Ms. Sengsavang Sisouraj, UPLB/MS, agricultural economics
- Mr. Sisavanh Xayavong, KKU/MS, agriculture
- Mr. Somboun Xaychantha, UPLB/MS, environmental science
- Mr. Vua Xionsiyee, CMU/MS, agronomy
- Mr. Xayly, UPLB/MS, agricultural economics
- Mr. Yoth Vanhnasin, UPLB/MS, natural resource conservation

### Malaysia (1)

- Ms. Izzati Adilah binti Azmir, UPM/PhD, aquaculture genetics and reproduction

### Myanmar (11)

- Ms. Ei Ei Aung, UPLB/PhD, plant pathology
- Ms. Moh Moh Aye, UPLB/PhD, entomology
- Ms. Pan Ei Phyu, UPLB/PhD, agronomy
- Mr. Saw Hto Lwe Htoo, UPLB/PhD, horticulture
- Mr. Soe Khaing, UPLB/PhD, agricultural economics
- Ms. Su Latt Phyu, UPLB/PhD, plant breeding
- Mr. Win Thein, UPLB/PhD, environmental science
- Ms. Yin Yin Thant, UPLB/PhD, soil science
- Ms. Khim Mar Linn, UPLB/MS, agricultural economics
- Ms. Khine Myat Swe, UPLB/MS, agricultural economics
- Mr. Zaw Zaw Htet, UPLB/MS, agricultural economics

44 Southeast Asians/ to page 4

## CIRDAP and SEARCA sign accord



The Bangladesh-based Centre on Integrated Rural Development for Asia and the Pacific (CIRDAP) and SEARCA have agreed to cooperate on education, training, and research initiatives. This was formalized in a Memorandum of Understanding signed by Dr. Gil C. Saguiguit, Jr., SEARCA Director, and Dr. Cecep Effendi, CIRDAP Director General, on 2 July 2014 at SEARCA.

CIRDAP is a regional intergovernmental and autonomous organization established in 1979 on the initiative of Asia-Pacific countries and the Food and Agriculture Organization of the United Nations (FAO) with support from other UN bodies and donors. The initial membership of six countries has grown to 15 countries (i.e., Afghanistan, Bangladesh, Fiji, India, Indonesia, Iran, Lao

Dr. Gil C. Saguiguit, Jr. (second from right), SEARCA Director, and Dr. Cecep Effendi (second from left), CIRDAP Director General, shake hands after signing the Memorandum of Understanding (MOU). Looking on are Dr. Virginia R. Cardenas, SEARCA Deputy Director for Administration, and Dr. Vasanthi Rajendran, Director for ICD and Training of CIRDAP, who signed the MOU as witnesses.

PDR, Malaysia, Myanmar, Nepal, Pakistan, the Philippines, Sri Lanka, Thailand, Vietnam), seven of which are also served by SEARCA. Operating through designated contact ministries and link institutions in member countries, CIRDAP plays a supporting and reinforcing role in enhancing the effectiveness of integrated rural development programs in Asia and the Pacific.

SEARCA and CIRDAP have agreed to collaborate in developing joint programs, projects, and other related activities in capacity building and research. They also committed to exchange materials, publications, and information. (LLDDomingo)

## RELC, SEARCA team up for scholars' English training

For the first time, SEARCA collaborated with the SEAMEO Regional Language Centre (RELC) in the conduct of an English Training Course for new SEARCA scholars.

RELC is a leading language teacher education center based in Singapore. Set up in 1968, RELC has an established reputation in providing quality education—from short teacher training courses with focused themes to postgraduate diploma and master's degree courses. Like SEARCA, RELC is a regional center of the Southeast Asian Ministers of Education Organization (SEAMEO).

Held at SEARCA on 29 July-1 August 2014, the training course aimed to enhance the SEARCA scholars' English communication skills i. e., (listening and speaking). It also intended to build

oral communication confidence before the start of their respective study programs.

Participants were 26 SEARCA scholars from Indonesia, Lao PDR, Myanmar, Thailand, Timor-Leste, and Vietnam.

At the opening of the course, Dr. Saguiguit welcomed the new SEARCA scholars as well as the lecturers from RELC, namely: Dr. Fung Cheung Kam See and Ms. Elsa Yow.

He told the scholars that “the long-term plan is to make this a standard feature of our scholarships and a prerequisite to your formal degree program. What we will learn from this pilot offering will be used to adjust or fine tune it further for succeeding batches.” (JSLaranas)



SEARCA scholars work in small groups during a workshop session in the English communication course organized by SEARCA with RELC.

## SEARCA manages Phl Carabao Center scholarships

SEARCA and the Philippine Carabao Center (PCC) have agreed to implement a scholarship project that will benefit qualified PCC staff to pursue graduate programs in biotechnology, bio-informatics, genomics, breeding, and related courses at reputable universities in the Philippines, USA, Canada, and Australia. The goal is to upgrade the technical capacity of PCC in livestock research and biotechnology application.

An attached agency of the Department of Agriculture, PCC leads the national research and development efforts on livestock biotechnology. It also leads the country's Carabao Development Program, which aims to conserve water buffalos and maximize economic gains for buffalo-based village enterprises.

Graduate programs in the social sciences related to planning, policy and development studies and knowledge management may also be pursued under the scholarship project.

The maximum scholarship duration for a master's program is four semesters (2 years) and six semesters (3 years) for a doctoral program. Administration and management of scholarships in agriculture and related fields for Southeast Asians has been one of SEARCA's services to agencies, institutions, and organizations concerned with agricultural and rural development in the region. (JSLaranas)

## 44 Southeast Asians/ from page 3

### Philippines (2)

- Mr. Jurhamid C. Imlan, UPM/PhD, animal production
- Ms. Veneranda A. Magpantay, UPLB/PhD, genetics

### Thailand (3)

- Ms. On-uma Thonglor, UPLB/PhD, statistics
- Ms. Rujirat Wongchandaeng, UPLB/PhD, soil science
- Mr. Tinnaprach Wongchittham, UPLB/MS, extension education

### Timor-Leste (5)

- Mr. Guilhermino Da Cruz, UPLB/PhD, agricultural economics
- Mr. Cristovao Dos Reis, UPM/PhD, agricultural economics
- Mr. Jose Nelson Salsinha, UPLB/PhD, agricultural education
- Mr. Carlos Amaral, UPLB/MS, agricultural economics
- Mr. Delfim Da Costa, UPLB/MS, environmental science

### Vietnam (4)

- Mr. Trinh Quang Thoai, UPLB/PhD, agricultural economics
- Mr. Nguyen Duc Truong, UPLB/PhD, animal science
- Ms. Tran Duyen Nhat Lam, UPLB/MS, agricultural economics
- Ms. Vu Thi Hai, UPLB/MS, agricultural economics

On the other hand, two of the UPLB PhD students who received the SEARCA PhD research scholarship are Indonesians. They are Ms. Hari Sulistiyowati (botany) and Mr. Bimo Budi Santoso (agricultural chemistry). The other two are Mr. Joseph Angelus F. Palomar (forestry) and Ms. Rowena S.T. Gaddi (forestry), both Filipinos.

Since 2005, SEARCA has been awarding PhD research scholarship grants to support PhD students whose dissertations are along the Center's priority thrusts to enable them to complete their research and doctoral program. Along with the research funds, the scholarship entitles them to use the resources and facilities at SEARCA. It also requires them to produce quality research papers for publication.

So far, SEARCA has awarded a total of 1,558 graduate scholarship grants since academic year 1968/1969. (LLDDomingo with reports from JSLaranas)

## German-funded food value chain course conducted

A short course on *Food Supply Chains and Logistics* was conducted by SEARCA and the University of the Philippines Los Baños-College of Economics and Management (UPLB-CEM) for students of the latter's Agricultural Economics Program.

Held on 21-25 July 2014, course was funded by the Food Security Center (FSC), a global project of the University of Hohenheim (UHOH) for which SEARCA serves as Strategic Partner in Southeast Asia. The resource speakers were Dr. Reiner Doluschitz and Dr. Christa Hoffmann, both of the UHOH Institute of Farm Management. Dr. Doluschitz is also the Vice Director of FSC, which is part of the German Academic Exchange Service (DAAD) program "EXCEED."

At the opening of the course, Dr. Gil C. Saguiguit, Jr., SEARCA Director, asserted that "food security is a pathway to inclusive and sustainable agricultural and rural development in the region, which is the overriding focus of the Center's new Five-Year Plan." With food security as a common interest of SEARCA and FSC, he said the Center looks forward to more collaborative activities with FSC.

Students under the Agricultural Economics Program of UPLB-CEM participated in the course,



Participants of the FSC short course with (seated, from left) Dr. Virginia R. Cardenas, SEARCA Deputy Director for Administration; Dr. Christa Hoffmann and Dr. Reiner Doluschitz of UHOH; Dr. Isabelita M. Pabuayon, Dean of the UPLB College of Economics and Management (CEM); Dr. Gil C. Saguiguit, Jr., SEARCA Director; Dr. Maria Cristeta N. Cuaresma, SEARCA Program Head for Graduate Education and Institutional Development; and Dr. Zenaida M. Sumalde and Ms. Karen P. Quillooy, both UPLB-CEM faculty members.

which aimed to expose learners to the different facets of food supply chains, including quality management i. e., (assurance and safety), use of information and communication technology (ICT) for tracking and tracing, and comprehensive sustainability measurements.

The course included a field visit to Soro-soro Ibaba Development Cooperative (SIDC) in Batangas City, Philippines. SIDC is a multi-awarded cooperative involved in various enterprises, including contract growing, organic farming, feed and rice milling, savings and loans,

coop mart operation, aquaculture, hog farming and related ventures, cable TV and Internet services, purified water refilling and gas stations, and resort management, among others.

Speaking on behalf of the participants, Mr. Guilhermino Da Cruz, Timorese, said the course was very enlightening as it gave them a glimpse of how an organized agricultural supply chain should look like. He said he looks forward to applying what he learned for the benefit of his country. (JSLaranas)

## Capacity dev't program for state universities explored

Commissioner Ruperto S. Sangalang of the Commission on Higher Education (CHED), Philippines met with Dr. Gil C. Saguiguit, Jr., SEARCA Director, and Dr. Maria Cristeta N. Cuaresma, SEARCA Program Head for Graduate Education and Institutional Development, to explore how SEARCA can assist in capacity development of state universities and colleges (SUCs) and other higher education institutions (HEIs) in the country to improve their competitiveness in light of the ASEAN regional integration in 2015.

CHED is an agency attached to the Office of the President of the Philippines. Created in

1994, CHED is mandated to "promote relevant and quality higher education—i.e., higher education institutions and programs that are at par with international standards and graduates and professionals are highly competent and recognized in the international arena." Dr. Sangalang is the CHED Commissioner in charge of agriculture.

Dr. Sangalang said he is concerned that only the University of the Philippines Los Baños (UPLB) appeared in the list of the top universities of agriculture in Southeast Asia although he could identify the top 10 SUCs in agriculture that can be further supported to be strong in research and

publications. He then broached the possibility of tapping SEARCA to implement a CHED program that comprises scholarships for regular master's and doctoral degree programs as well as research and non-degree scholarships or training (e.g., sandwich programs, internships, study tours in universities overseas). The program is envisaged to run for five years, with a scheme that will assist only three universities in the first year, plus two universities in the second year, and so on.

Such a program, Dr. Sangalang said, may cover the building in each participating university of a research center that will focus on their respective comparative advantage, specializing on the primary commodity in their locality.

Dr. Saguiguit said SEARCA had collaborated with Philippine Department of Agriculture (DA) on a similar program that aimed to develop agriculture professionals and executives. He proposed that the CHED program be patterned after said DA capacity development program with 25 percent graduate scholarships and 75 percent non-degree training activities. (LLDDomingo)



Dr. Ruperto S. Sangalang (right), CHED Commissioner, with Dr. Gil C. Saguiguit, Jr. (center), SEARCA Director, and Dr. Maria Cristeta N. Cuaresma (right), SEARCA Program Head for GEID, during his visit to SEARCA on 5 September 2014.

## Proposals for ASRF support evaluated

The shortlisted proposals for the ASEAN Social Forestry Network (ASFN) Strategic Response Fund (ASRF) were evaluated by the ASRF Program Steering Committee (PSC).

The ASRF is one of the new initiatives of the ASEAN-Swiss Partnership on Social Forestry and Climate Change (ASFCC)-Phase 2 in support of ASFN.

The PSC comprises representatives of selected ASEAN Member States (AMS), SEARCA Director, ASFCC Regional Advisor, SDC representative, ASFN Secretariat, and ASEAN Secretariat representative. Chaired by Dr. Doris Capistrano, ASFCC Regional Advisor, the PSC was created to provide more specific guidance and direction in the design and implementation of the ASRF.

Currently funded by the Swiss Agency for Development and Cooperation (SDC) with some counterpart resources from SEARCA, the ASRF intends to enable the AMS Focal Points to quickly respond to emerging issues and challenges and articulate policy recommendations and directions on social forestry as it relates to climate change, food security, and poverty alleviation.

The approved proposals seek to enhance community-based watershed management through research, provide avenues for learning on social forestry, strengthen the Sub-National Community Forestry Program, and conduct case studies on community approaches on climate change adaptation. They were among proposals from Cambodia, Lao PDR,



Ms. Sagita Arhidani, Head of the ASFN, gives her comments during the evaluation of proposals.

Malaysia, Philippines, Thailand, and Vietnam obtained under the ASRF First Call for Proposals.

During the meeting held on 14 September 2014 at SEARCA, the PSC suggested refinements to the Call for Proposals guidelines to further coach future proponents on the type of projects that can be supported by the ASRF and on the essential content of the proposals. The PSC also acknowledged the need to observe the principles of flexibility and adaptability as well as simplicity, cost-effectiveness, transparency, and timeliness.

The ASRF Program Management Office, lodged under SEARCA's Research and Development Department, is tasked, among other things, to facilitate calls for proposals, compliance, and technical reviews. (MAABatas)



Dr. Virginia R. Cardenas (fifth from right), SEARCA Deputy Director for Administration, welcomes the ASRF Steering Committee members on behalf of the SEARCA Director.

## 2011 Umali Awardee named National Scientist

President Benigno S. Aquino III conferred the Order of National Scientist on Dr. Ramon C. Barba, recipient of the 2011 Dioscoro L. Umali Achievement Award in Agricultural Development, and three other Filipino scientists who have done trailblazing work in various fields of science and technology, making significant contributions to the country's development and to humankind as a whole. The ceremony was held on 12 August 2014 in Malacañang.

Dr. Barba was cited for his distinguished achievements in the field of plant physiology, particularly his mango flower induction technology that resulted in year-round availability of mango fruits and his micropropagation of important crop species.

It is for the same innovation that revolutionized mango production and his pioneering work on micropropagation of banana, sugarcane, calamansi, and other crops that Dr. Barba won the Umali Award conferred by SEARCA, Dioscoro L. Umali Foundation, Inc. (DLUF), and the National Academy of Science and Technology (NAST) of the Philippines.

He shared his life's research and development work in his Umali Lecture titled "Revolutionizing Agricultural Science and Farming Technology: Chemical Flower Induction of Mango." The lecture has been published by SEARCA and is available for free.

Named in honor of the late National Scientist Dioscoro L. Umali, the first Director of SEARCA and a renowned development practitioner, the award recognizes exemplary Southeast Asians whose exceptional work have provided significant positive impact in agricultural development and the quality of life in rural communities in the region. Dr. Barba is the first Filipino to receive the award and the third of four recipients in Southeast Asia. (LLDDomingo)



Ramon C. Barba

## SEARCA joins ICAFS 2014 as knowledge partner

SINGAPORE—As SEARCA embarks on its Tenth Five-Year Plan, it intensifies its effort to address the issue of food and nutrition security in Southeast Asia. It is in this context that SEARCA supported as knowledge partner the *International Conference on Asian Food Security (ICAFS) 2014* held at the Grand Copthorne Waterfront Hotel on 21-22 August 2014.

ICAFS 2014 was organized by the Centre for Non-Traditional Security (NTS) Studies of the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University. Three years ago, SEARCA and NTU NTS, RSIS co-organized the inaugural ICAFS.

Led by Dr. Gil C. Saguiguit, Jr., the SEARCA delegation included Dr. Maria Cristeta N. Cuaresma, Program Head for Graduate Education and Institutional Development; Dr. Bessie M. Burgos, Acting Program Head for Research and Development; and Dr. Maria Celeste H. Cadiz, Program Head for Knowledge Management.

Themed *Towards Asia 2025: Policy and Technology Imperatives*, the conference tackled major issues and drivers of the Asian agri-food sector and offered insights on Asia's response towards the thinking horizon of 2025. ICAFS 2014 covered the following topics: trends and challenges to food security; supply and demand—improving productivity growth and supply chains; market integration, trade, and economic access to food; financing and investing in agricultural innovation and technology; and charting an integrative approach for Asia towards 2025.

Representatives from the SEARCA-initiated Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC) participated in ICAFS 2014 and held a meeting on 23 August 2014. The UC officials who participated in ICAFS 2014 were Dr. Jose V. Camacho, Jr. of the University of the Philippines Los Baños (UPLB); Dr. Masyhuri of Universitas Gadjah Mada (UGM); Dr. Poonpipope Kasemsap, Dr. Wiboon Chongrattanameteekul, and Dr. Somsakdi Tabtimthong, all of Kasetsart University (KU); Dr. Edy Hartulistiyoso of Institut Pertanian Bogor (IPB); and Dr. Machito Mihara and Dr. Suzuki Kojiro of Tokyo University of Agriculture (Tokyo NODAI).

During the side meeting, the UC identified priority research, education, and knowledge management projects within its Umbrella Program on Food and Nutrition Security for Southeast Asia 2014-2019, which the UC members will jointly implement in the next five years. (BMBurgos)



Dr. Gil C. Saguiguit, Jr. (rightmost), SEARCA Director, presides over the UC Special meeting on 23 August 2014.

## UPOU, SEARCA jointly offer online course on climate risks

The UP Open University (UPOU) and SEARCA have agreed to collaborate in offering the *Fifth Online Course on Responding to Climate Risks in Agriculture and Natural Resource Management (NRM)*.

To be held from 19 July to 11 October 2014, the course is intended for government planners; technical staff at the local, national, and regional levels; researchers; practitioners; and representatives and staff of regional or national nongovernmental organizations. In particular, the course targets those who are about to start active involvement or are relatively new at implementing climate change adaptation initiatives in the agriculture and natural resources sectors.

SEARCA developed this course in cooperation with the World Agroforestry Centre (ICRAF) and the SEAMEO Regional Open Learning Centre (SEAMOLEC).

The lecturers include members of the Intergovernmental Panel for Climate Change (IPCC), namely: Dr. Rodel D. Lasco (Philippines) and Dr. Rizaldo Boer (Indonesia). Dr. Lasco is Senior Scientist and Country Coordinator at ICRAF while Dr. Boer is the Director of the Centre for Climate Risk and Opportunity Management in Southeast Asia Pacific (CCROM-SEAP) at Institut Pertanian Bogor (IPB), in Indonesia. (RBBantayan)

## SEARCA cited for improving Filipino farmers' welfare



SEARCA was cited as an "International R&D Partner" by the Philippine Department of Agriculture-Bureau of Agricultural Research (DA-BAR) on 8 August 2014 during its 27th anniversary celebration held at SM Megamall in Manila, Philippines. DA-BAR recognized SEARCA's "valuable contributions to efforts that strengthen partnership and establish collaborations to introduce technologies that benefit and improve the lives of the Filipino farmers and fisherfolk." Photo shows DA Assistant Secretary Romeo S. Recide (center) presenting the plaque of recognition to Dr. Gil C. Saguiguit, Jr., SEARCA Director as DA-BAR Executive Director Nicomedes P. Eleazar looks on. (LLDDomingo)

## Snapshots



Mr. Max-Johannes Baumann (second from right), Director of the Environment and Rural Development (EnRD) Program of Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, met with Dr. Gil C. Saguiguit, Jr. (third from right), SEARCA Director; Dr. Bessie M. Burgos (second from left), Acting Program Head, and Ms. Carmen Nyhria G. Rogel (leftmost), Program Specialist, both of the Research and Development Department, at SEARCA on 3 September 2014. With Mr. Baumann at the meeting were GIZ EnRD Program Senior Advisor Erlinda F. Dolatre (rightmost) and Communications and PR Adviser Opalyn Agulay (third from left). The meeting affirmed GIZ's sponsorship of the *2nd International Conference on Agricultural and Rural Development in Southeast Asia (ARD2014)* to be held on 12-13 November 2014 in Manila, Philippines. GIZ also agreed to convene a session under the theme "Sustainability and Poverty Reduction" to discuss results of its projects on environment and rural development. GIZ will also contribute to sessions on "Upland Agriculture" and "Regional Food Security System and Investments, to be convened by the World Agroforestry Centre (ICRAF) and SEARCA, respectively.



Dr. Annie S. Wesley (second from right), Senior Program Specialist of the International Development Research Centre (IDRC) of Canada, met with IDRC-SEARCA scholars studying at the University of the Philippines Los Baños. Their scholarships are under the IDRC-funded Southeast Asian Uplands Agriculture Fellowships implemented by SEARCA from 2012 to 2016. On Dr. Wesley's left is Dr. Maria Cristeta N. Cuaresma, SEARCA Program Head for Graduate Education and Institutional Development. Dr. Wesley also had a meeting with Dr. Saguiguit and Dr. Cuaresma to discuss the IDRC-SEARCA scholarship project.



Commissioner Heherson T. Alvarez (left) of the Climate Change Commission of the Philippines and Dr. Saguiguit shared a light moment during the formal launching of the project titled *Technical Assistance (TA) on Climate Resilience and Green Growth in Critical Watersheds* held on 6 August 2014 in Quezon City, Philippines. Both were speakers at the event.



Mrs. Tay Sor Har (second from right), Director of the Singapore-based SEAMEO Regional Language Centre (RELC), presented a token of appreciation to Dr. Saguiguit on 30 July 2014 after discussing potential collaborative activities of the two SEAMEO centers. With them were Dr. Cuaresma (left) and Ms. Charlene Yong (right), RELC Manager of Scholarship and Corporate Enterprise.



Dr. Reiner Doluschitz (second from left) and Dr. Christa Hoffmann (second from right) of the University of Hohenheim in Stuttgart, Germany paid a courtesy call on Dr. Saguiguit (left) on 21 July 2014 before the opening of the short course on *Food Supply Chains and Logistics* wherein they served as resource persons. Dr. Virginia R. Cardenas (not in photo), SEARCA Deputy Director for Administration, and the SEARCA program heads, including Dr. Cuaresma (right) joined Dr. Saguiguit in receiving the German guests.



## Beneficiaries adopt agrarian reform project outputs

The outputs of the *Market-Oriented Agri-Technology and Agri-Extension Services* under the *Agrarian Reform Community Connectivity and Economic Support Services (ARCESS)* in the provinces of Bulacan and Nueva Ecija, which SEARCA implemented for the Department of Agrarian Reform (DAR), Philippines, were accepted by the Agrarian Reform Beneficiary Organizations (ARBOs) in said provinces.

SEARCA provided technical assistance to seven ARBOs in Nueva Ecija and 11 in Bulacan to improve their productivity and jumpstart their entrepreneurial activities. Assistance provided included strategic subsidies in the form of agri-technology as well as agri-extension services, particularly training on the proper use of common service facilities (CSFs) or farm equipment distributed by DAR.

In Nueva Ecija, the ARBOs assisted are Masaganang Buhay Primary Multi-Purpose Cooperative, Barangay Aquino Development Cooperative, Aglipay Producers Cooperative, Talabutab Norte Primary Multi-Purpose Cooperative, Sitio Sapang Kubo Primary Multi-Purpose Cooperative, Tanglaw Buhay Multi-Purpose Cooperative, and Farmer Vegetable Credit Cooperative.

The ARBOs assisted in Bulacan are 3M3BC ARC Irrigators Association, Balikatang

Pamayanan ng Inaon Multipurpose Cooperative, Cabago Irrigators Association Inc., Catmon Multipurpose Cooperative, Catacte Samahang Nayon Multipurpose Cooperative Inc., DRT Mt. Sinai Multipurpose Cooperative, Maronquillo Multipurpose Cooperative Inc., Samahan ng Magsasaka at Maggugulay Multipurpose Cooperative, Land Reform Farmers' Cooperative of Bagong Silang, Maligaya Agricultural Marketing Cooperative, and Samahan ng Magsasaka ng Kaybanban Multipurpose Cooperative.

Each of these ARBOs conducted a special General Assembly in July and August 2014 where they formally acknowledged the four training activities conducted and four technical manuals they received.

### Bulacan ARBOs

SEARCA trained 195 farmer technicians from the Bulacan ARBOs in the System of Use, Maintenance, Operation and Trouble Shooting of CSFs; CSF Business Enterprise Management; Integrated Production Management Systems; and Profitability Analysis of Adopting New Farm Technologies and Practices.

The technical manuals distributed to them are titled *Common Service Facilities Manual*, *CSF Operation and Management Plan*, *Farm Production and Management Plan*, and *Technoguide for Commodities*.

Discussions regarding the SEARCA project team's outputs were facilitated by Dr. Prudenciano U. Gordoncillo, Team Leader; Dr. Cesar B. Quicoy, Farm Management Specialist; Dr. Arnold R. Elepaño, Farm Machineries Specialist; and Dr. Jose Nestor M. Garcia, Crops Specialist, during each ARBO's General Assembly. DAR Bulacan officials and UMIC International also attended to observe the activities.

### Nueva Ecija ARBOs

All told, SEARCA was able to train 177 farmer technicians from the seven ARBOs in Nueva Ecija. The topics of the training courses were System of Use, Maintenance, Operation and Trouble Shooting of CSFs; CSF Business Enterprise Management; Integrated Production Management Systems; and How to Package a Business Proposal.

They received technical manuals titled *CSF Use, Maintenance, Operation and Trouble Shooting Manual*, *CSF Business Management Plan*, *Farm Production and Management Plan*, and *Rice and Vegetable Technoguide*.

Prof. Jimmy Williams, Project Team Leader for ARCESS Nueva Ecija, facilitated the discussion regarding the SEARCA project team's outputs during each ARBO's General Assembly. DAR Nueva Ecija officials were also in attendance. (Reports from SGLQuiñones/MBAImanza)

## SEARCA wraps up DAR ARCESS projects

In implementing the *Market-Oriented Agri-Technology and Agri-Extension Services* under the *Agrarian Reform Community Connectivity and Economic Support Services (ARCESS)* for the Department of Agrarian Reform (DAR) of the Philippines, SEARCA provided technical assistance to selected Agrarian Reform Beneficiary Organizations (ARBOs) in the provinces of Nueva Ecija and Bulacan from July 2013 to September 2014.

One of the main objectives of the ARCESS project is to improve the productivity of agrarian reform beneficiaries by providing strategic subsidies to ARBOs in the form of agri-technology and agri-extension services.

To conclude the project in Nueva Ecija, a graduation ceremony was held on 26 September 2014 at De

Luxe Restaurant in Cabanatuan City. SEARCA was able to train 177 farmer technicians and board members from the seven ARBOs in the province. Highlights of the ceremony included special presentations by each ARBO, the awarding of certificates of completion, and turnover of technical manuals and brochures to the ARBOs.

On the other hand, the graduation ceremony of 195 farmer technicians from the 11 ARBOs in Bulacan was held on 29 September 2014 at the Valenzuela Pavillon in Baliuag, Bulacan.

SEARCA's assistance to DAR is in line with its mandate to strengthen institutional capacities toward inclusive and sustainable agricultural and rural development (ISARD) in Southeast Asia. (Reports from SGLQuiñones/MBAImanza)



Farmer technicians from participating Nueva Ecija ARBOs pose with the SEARCA project team and DAR officials after the graduation ceremony.



DAR officials together with ARCESS Bulacan consultants and SEARCA representatives, award certificates of completion to graduates from Maligaya Agricultural Marketing Cooperative in Bulacan.

## 1st public dialogue on Bt eggplant in PhI held

PANGASINAN, Philippines—The first public dialogue on the development of Bt eggplant and its benefits was convened by SEARCA and the International Service for the Acquisition of Agri-biotech Applications (ISAAA) at the Pangasinan State University campus in Sta. Maria, this province.

Bt eggplant was developed through biotechnology to combat the fruit and shoot borer (FSB) which is considered a bane among eggplant farmers. Bt eggplant is also known as FSB-resistant eggplant.

Held on 3 September 2014, the public dialogue was intended to serve as a venue for objective discussion and sharing of knowledge on the development and science behind Bt eggplant, food safety concerns surrounding its development, and its potential socio-economic impact. A panel of experts shared their insights on said concerns.

Farmers and local officials from the Pangasinan towns of San Jacinto, Asingan, Rosales, San Manuel, and Sta. Maria as well as representatives from the academe and other stakeholders attended the dialogue.

According to Dr. Randy Hautea, ISAAA Director and Global Coordinator, Pangasinan was chosen as the venue of the first public dialogue on Bt eggplant in the country because the province is the largest eggplant-producing area in the country. The town of Sta. Maria was specifically chosen because of its historical association to Bt eggplant.



(From left) Ms. Merle Palacpac of the Department of Agriculture-Bureau of Plant Industry, Dr. Lourdes Taylo of the UPLB-Institute of Plant Breeding, Dr. Desiree Hautea, and Dr. Randy Hautea of ISAAA answer questions during the open forum.



Dr. Desiree Hautea (at rostrum), Bt Eggplant Project Leader in UPLB, discusses the science, safety, and benefits of the crop.

The FSB-resistant (FSBR) eggplant contains a protein that, when eaten by the destructive insect, causes it to lose appetite and eventually die.

While Bt eggplant proponents have continuously stressed that this protein is only lethal to FSB and does not affect humans, farm animals or other insects, critics of the project have opposed its development and distribution due to safety and ethical concerns, among others.

The FSBR project is being undertaken in the Philippines through SEARCA, ISAAA, the Department of Agriculture, Agricultural Biotechnology Support Project II, University of the Philippines Los Baños-Institute of Plant Breeding, Indian Maharashtra Hybrid Seeds Company Limited, Cornell University, and the United States Agency for International Development (USAID). (SMMercado)

## Support for ASEAN integration, community building are priority, says AF Director

Ms. Elaine Tan, ASEAN Foundation (AF) Executive Director, shared AF's priority on projects that support the ASEAN integration and community building process.

Ms. Tan met Dr. Bessie M. Burgos and Dr. Maria Celeste H. Cadiz, who head SEARCA's Research and Development Department and Knowledge Management Department, respectively, when they paid a courtesy call on her on 2 July 2014.

Ms. Tan said AF works closely with and articulates the priorities of the different sectoral bodies and

technical working groups of ASEAN, each with its specific work plan until 2015. AF also puts high importance in getting civil society organizations involved in ASEAN affairs, for example, through ASEAN Corporate Social Responsibility networks that link private sector with community development.

In light of AF and SEARCA's shared mandate of capacity building for ASEAN and focus on supporting the thrusts of the ASEAN Member States (AMS) and Secretariat (ASEC), Dr. Cadiz and Dr. Burgos recommend that SEARCA further pursue partnership with AF in developing and implementing relevant programs for ASEAN. They also see merit in SEARCA exploring small areas of cooperation with AF, such as in offering webinars as an avenue for sharing AF's experience in development practice to SEARCA's publics. (MCHCadiz)



Ms. Elaine Tan (center), ASEAN Foundation (AF) Executive Director, with SEARCA program heads Dr. Bessie M. Burgos (right) and Dr. Maria Celeste H. Cadiz.

## Climate change-related work presented in AFCC partners' dialogue

JAKARTA, Indonesia—SEARCA presented its accomplishments and outputs in research and development, technical assistance, capacity building, and knowledge management from 2006 to 2014 in a meeting of the Steering Committee of the ASEAN Multisectoral Framework on Climate Change (AFCC): Focus on Agriculture and Forestry for Food Security.

SEARCA's presentation at the meeting held on 2 July 2014 at the Jakarta-based ASEAN Secretariat (ASEC) introduced SEARCA as the first SEAMEO center established in 1966, the emphases of its Tenth Five-Year Plan (FY 2014/2015-2018/2019), and a 32-page list of its projects, activities, and knowledge resources on CCAM in agriculture and natural resource management in Southeast Asia since 2006.

Dr. Maria Celeste H. Cadiz and Dr. Bessie M. Burgos, who respectively lead SEARCA's programs on Knowledge Management and on Research and Development, made the presentation along with other international organizations and ASEAN missions at a partners' dialogue within the AFCC Steering Committee Meeting at the invitation of the Agriculture, Industry and Natural Resources Division, ASEAN Economic Community Department (AINRD-AECD) of the ASEC.

The AFCC Steering Committee Chair noted and the body concurred on SEARCA's wealth of knowledge resources on climate change adaptation and mitigation (CCAM) in agriculture and natural resource management.

On SEARCA's part, Dr. Cadiz affirmed SEARCA's interest to support and strengthen ties with the AFCC aligned with its thrusts and needs in light of the ASEAN Economic Community 2015 initiatives.

Other organizations present at the partners' dialogue included the EU and Japan missions to ASEAN; USAID Mekong Adaptation and Resilience to Climate Change (ARCC) Program; Southeast Asian Fisheries Development Center (SEAFDEC); Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific (UN-FAO/RAP); GIZ/ASEAN-German Program on Response to Climate Change (GAP-CC); and ASEAN-Swiss Partnership on Social Forestry and Climate Change (ASFCC). (MCHCadiz)

## SEARCA joins IPCC AR5 outreach event

MANILA, Philippines—SEARCA joined some 200 representatives from government agencies, nongovernmental organizations (NGOs), academe, research institutions, business sector, and media in the Philippine leg of a series of activities organized by the Intergovernmental Panel on Climate Change (IPCC) to increase awareness and understanding of its 5th Assessment Report (AR5). Jointly organized by IPCC and the Climate Change Commission (CCC) of the Philippines, the outreach event was held at Dusit Thani Manila Hotel on 8-9 July 2014.

### IPCC assessment reports

Established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) in 1988, the IPCC is the leading international scientific body tasked to review and assess the most recent scientific, technical, and socioeconomic information produced globally that are relevant to the understanding of climate change.

Since 1990, the IPCC has been producing assessment reports on climate change prepared by three working groups focused on three key aspects, respectively: the physical science of climate change; impacts, adaptation, and vulnerability; and mitigation strategies.

### IPCC AR5

The respective reports of Working Groups I, II, and III for the AR5 alone were written based on the contributions of 831 coordinating lead authors, lead authors, and review editors. The IPCC likewise enlisted the help of thousands of experts who were carefully selected based on their publications and works on climate change.

The authors presented the key findings of the IPCC AR5 on climate change adaptation, mitigation, and disaster risk reduction. They also discussed the implications for policymaking.

Prof. Jean-Pascal van Ypersele, IPCC Vice-Chair, said AR5 contains five key messages:

- Climate change is unequivocal.
- Climate change is occurring as a result of human activities.
- Climate change is already having significant impacts on species and ecosystems, human health, well-being and security, food security



Prof. Christopher Field, Co-Chair of the IPCC Working Group II (center) with Ms. Pilipinas M. Luis (left) and Rosario B. Bantayan, both of SEARCA.

and food production systems such that there is a need to reduce the severity of these impacts.

- There is a need to step up actions to reduce greenhouse gas emissions.
- There are available solutions, however, climate change mitigation is a global problem that requires international cooperation.

### Parallel events

The outreach event also featured a Science Dialogue and a Policy Dialogue held as parallel sessions.

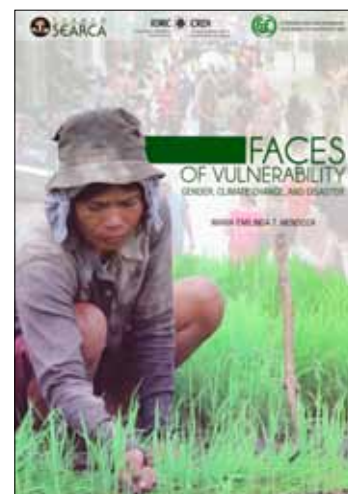
In the Science Dialogue, Prof. van Ypersele discussed the procedures for the preparation, review, acceptance, adoption, approval, and publication of IPCC Reports. The procedures include the scoping and nomination process and selection of authors, preparation of drafts by the writing teams, review by experts and governments and finally, the approval, adoption and acceptance process in plenary sessions.

SEARCA joins IPCC AR5/ to page 12

## SEARCA monographs on climate change off the press

SEARCA published two monographs on the results of the Philippine component of the International Development Research Centre (IDRC)-funded project titled *Building Capacity to Adapt to Climate Change in Southeast Asia*. The three-year project was implemented by SEARCA and the Economy and Environment Program for Southeast Asia (EEPSEA).

*Climate Change Vulnerability Mapping of Selected Municipalities in Laguna, Philippines* details the vulnerabilities of 12 municipalities in Laguna in terms of gender, geographic location, ethnicity, and socio-cultural, demographic, and political economic variables. These were presented as maps that show the relative vulnerability of the communities based on their exposure, sensitivity, and adaptive capacity to climate change-related risks and hazards. The authors are Engr. Vicente G. Ballaran Jr., Ms. Maria Emilinda T. Mendoza, Ms. Jaime Kim Bayani-Arias, and Ms. Rowena A. Dorado, all of the University of the Philippines Los Baños, and Dr. Bessie M. Burgos of SEARCA.



Meanwhile, *Faces of Vulnerability: Gender, Climate Change, and Disaster* highlights the social and gender dimension of the study. It documents how climate change and other related hazards affect men and differently. It also discusses the important role of women in climate

change adaptation. The author is Ms. Maria Emilinda T. Mendoza, Assistant Professor at the UPLB-College of Human Ecology. She was the study leader for the social component, including gender, and the country project leader (Philippine component).

## SEARCA co-publishes Filipino edition of children's book on rice

MANILA, Philippines—The Filipino edition of the picture book titled *The Adventures of Gabby Ghas* was co-published by Asia Rice Foundation (ARF), SEARCA, and the country's Department of Agriculture-Bureau of Agricultural Research (DA-BAR) and National Academy of Science and Technology (NAST).

The book was launched on 26 September 2014 at the Department of Agriculture-Agricultural Training Institute in Quezon City.

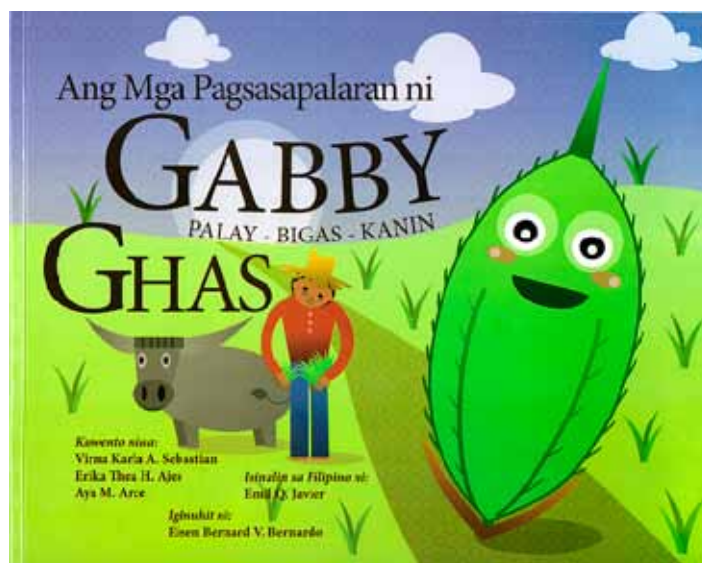
Also launched with the Filipino edition are the Bicolano and Ilocano versions of the book which ARF published in cooperation with Philippine government entities.

Originally written and published in English in 2009, the book creatively describes how rice is produced and processed before it reaches its consumers. Gabby Ghas is a spirited rice grain searching for his place in the world. As he moves to find his purpose, he encounters rice seedlings,

weeds, insects, and other creatures. When he ends up on a family's dinner table, Gabby Ghas realizes that his destiny is to provide nourishment for people.

The story was the winning entry of Virna Karla Sebastian, Erika Thea Ajes, and Aya Arce in the Short Story Writing Contest organized by ARF in collaboration with the Alpha Phi Omega Service Sorority and the Department of Education in 2006.

It aims to promote the appreciation of rice and rice farmers among young people.



The Visayan edition of the book, which came out in 2012, was also co-published by ARF, SEARCA, and DA-BAR along with the Philippine Rice Research Institute (PhilRice). (LLDDomingo)

## SEARCA joins IPCC AR5/ from page 11

At this parallel session, local climate experts led by Dr. Lasco presented the initial draft of the Philippine Climate Change Assessment (PhilCCA). PhilCCA is an initiative of the CCC together with its National Panel of Technical Experts and the Oscar M. Lopez (OML) Center for Climate Change Adaptation and Disaster Risk Management Foundation Inc. to come up with an assessment report (similar to the three working

groups of IPCC) on "Climate Science, Adaptation and Mitigation Studies in the Philippines."

Secretary Mary Ann Lucille L. Sering, CCC Vice-Chair, led the policy dialogue's panel of experts. The other panel members are Ms. Thelma Cinco of the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA) and Dr. Katherine Mach, Co-Director of Science for the IPCC Working Group II Technical Support Unit. Presented during this session were climate scenarios in the Philippines, including the

impacts as well as current policies and initiatives to address change, particularly climate change adaptation and disaster risk reduction.

SEARCA was represented in the event by Ms. Carmen Nyhria G. Rogel and Mr. Henry M. Custodio, both Program Specialists for Research and Development; Ms. Rosario B. Bantayan, Program Specialist for Knowledge Management; and Ms. Pilipinas M. Luis, Research Assistant. (PMLuis)

# Indigenous peoples learn sustainable almaciga resin tapping

A project that was conducted to help prevent the extinction of almaciga trees in the Philippines trained 144 indigenous peoples (IPs) in Palawan and Sierra Madre to improve their resin harvesting methods.

As a result of the project, which SEARCA supported under its Seed Fund for Research and Training (SFRT), the almaciga trees in said localities are expected to increase in number.

## Important tree species

Almaciga (*Agathis philippinensis*) is one of the few conifer timber species endemic to the Philippines. It grows in almost all mountainous forests in the country, including those in the provinces of Quezon, Zambales, Palawan, Cagayan, Abra, Kalinga, Apayao, Nueva Vizcaya, Samar, Zamboanga, and Davao. It can grow up to a height of 60 m and a trunk diameter of 3 m.

Almaciga is highly valued for its resin—the world-renowned Manila copal—which is used in manufacturing varnish, lacquer, soap, paint, printing ink, linoleum, shoe polish, floor wax, plastic, water proofing materials, and other products. Locals in the forest communities use almaciga in torches and as incense, fuelwood, caulking substance, and smudge for mosquitoes.

Moreover, almaciga resin is an important dollar earner among the country's non-timber forest products. From 2000 to 2009, an average of 202,400 kg of Manila copal, valued at US\$188,900, was exported to France, Germany, Japan, Spain, China, and Switzerland.

Almaciga logging is currently banned by the Philippine government, but the tree species is rapidly vanishing even if left undisturbed. In recent years, there were reports of dying trees because of heartwood rotting and destructive and excessive tapping of the resin.

## Capacitating indigenous peoples

The SEARCA-funded project is titled “Enhancing the Adaptive Capacity of the Indigenous Peoples by Promoting Sustainable and Community-based Resin Tapping of Almaciga (*Agathis philippinensis* Warb.) in Selected Certificate of Ancestral Domain Title (CADT) Areas in Palawan and Sierra Madre.”

Forester Arsenio B. Ella and Forester Florena B. Samiano, both of the Forest Products Research and Development Institute (FPRDI) of the Philippines, constituted the study team.

Through the project, indigenous peoples learned about climate change, its impact on forest



Almaciga



A man collects resin from almaciga.

ecosystems and forest-based groups, and how to adapt to it. The project conducted “techno-transfer,” demonstration, and training on the proper methods of tapping almaciga resin. The training courses were held in Brookes Point and Aborlan in Palawan and in Dinapigue, Isabela and San Luis, Aurora in the Sierra Madre.

The training led to the participants' increased understanding of the proper method of tapping almaciga resin as well as their vital role in protecting and conserving the forests

An impact assessment on the adoption of the FPRDI almaciga resin tapping technologies was also carried out.

## Proposed interventions

Recommendations of the project are directed at the Department of Environment and Natural Resources (DENR), the country's primary government agency tasked to formulate and implement policies, guidelines, rules, and regulations relating to environmental management.

The project recommends the following for the consideration of DENR:

- Include almaciga propagation and plantation in its National Greening Program to ensure the sustainability of the almaciga resin industry.

- Survey and monitor existing almaciga trees and ensure that proper resin tapping method is practiced.
- Build farm-to-market-roads to harness the full potential of the almaciga industry.
- Train the indigenous peoples on how to manufacture almaciga resin products like varnishes, lacquer, and soap to enable them to fully benefit from resin production.
- Encourage the National Commission on Indigenous Peoples to integrate the sustainable management plans for harvesting almaciga resin into the preparation of the Ancestral Domain Sustainable Development and Protection Plan.

## Supporting promising research

SEARCA instituted the SFRT to provide start-up funds to researchers and scientists who can make significant contributions to the development of Southeast Asia but have limited funds to carry out their projects.

The SFRT is also intended to expand the Center's reach in terms of research, capacity building, and contribution to the body of knowledge on inclusive and sustainable agricultural and rural development (ISARD) in the region. (ABElla/FBSamian/PMLuis)

## Southeast Asian education leaders identify post-2015 priorities

VIENTIANE, Lao PDR—Education ministers and high-level education officials who constitute the Southeast Asian Ministers of Education Organization (SEAMEO) Council named seven priority areas that will be the focus of cooperation in SEAMEO in the next 20 years during a ministerial dialogue hosted by Lao PDR. The meeting took place on 13 September 2014 at the Landmark Mekong Riverside Hotel here.

Dubbed as “Strategic Dialogue of Education Ministers,” the meeting that was attended by 32 high-level education officials including education ministers and vice ministers yielded a truly dynamic and forward-looking exchange of ideas on the current trends and challenges confronting education and human resource development in the region, especially in the lead towards the ASEAN Community in 2015 and beyond.

The dialogue resulted in a joint statement of the education ministers outlining seven areas of focus: (1) promoting early childhood care and education; (2) addressing barriers to inclusion and access to basic learning opportunities; (3) preparing school leaders, teachers, and students towards resiliency in emergencies; (4) promoting technical and vocational education and training among learners and their parents; (5) reforming teacher education and making teaching profession a first choice; (6) harmonizing higher education and research; and (7) adopting a truly 21st century curriculum.

Key triggers in the dialogue included the realities and persistent concerns in education, the drivers of change, the links between economic growth and education policy, and the shifting demands on education and development, among



The dialogue was attended by (seated, from left) H.E. Dr. Khin Sann Yee, Union Minister for Education, Myanmar; H.E. Dulce de Jesus Soares, Vice Minister for Pre-school and Basic Education, Ministry of Education, Timor-Leste; H.E. Bro. Armin A. Luistro, Secretary of Education, Philippines; Dato' Prof. Dr. Asma Ismail, Director General, Ministry of Education, Malaysia; Mr. Hawazi Daipi, Senior Parliamentary Secretary, Ministry of Education, Singapore; H.E. Prof. Dr. Pham Vu Luan, Minister of Education and Training, Vietnam; H.E. Dr. Phankham Viphavanh, Deputy Prime Minister and Minister of Education and Sports, Lao PDR; Dr. Witaya Jeradechakul, Director, SEAMEO Secretariat; H.E. Pehin Abu Bakar Apong, Minister of Education, Brunei Darussalam; H.E. Hang Chuon Naron, Minister of Education, Cambodia; and Prof. Dr. Ainun Na'im, Secretary General, Ministry of Education and Culture, Indonesia. Standing are other members of country delegations, observers, and meeting secretariat and consultant. (Photo courtesy of SEAMEO Secretariat)

others. The education ministers also reviewed the progress made by the SEAMEO member countries in education, training, and human resource development in the past decade.

H.E. Dr. Phankham Viphavanh, Lao Minister of Education and Sports, and H.E. Prof. Dr. Pham Vu Luan, Vietnam's Minister of Education and Training and SEAMEO Council President, presided over the opening of the high-level dialogue. Later in the day, H.E. Br. Armin A. Luistro, Philippine Education Secretary, and H.E. Pehin Abu Bakar Apong, Brunei Education Minister, took turns in leading the discussions among their peers.

Building on the results of the SEAMEO Study on Post-2015 Education Scenarios and Post-education for All (EFA) Agenda which utilized foresight and perspectives of the futures, the SEAMEO education ministers called for an education system that is proactive and future-oriented, and yet rooted in the values and traditions of the region. These desired characteristics alongside the seven Post-2015 education priorities will guide the program planning and implementation of SEAMEO from 2015 to 2035. The joint statement will also be shared to the SEAMEO network and other stakeholders, including international organizations and partners.

Of the 11 SEAMEO member countries, only Thailand was not represented in the the Strategic Dialogue of Education Ministers. Invited observers who attended the Dialogue were the ASEAN Secretariat, UNESCO Asia and Pacific Regional Bureau for Education, and the Asian Development Bank.

The ministerial dialogue was organized under the framework of the SEAMEO College, a flagship project of SEAMEO which introduces a platform for high-level discussions on forward-looking issues and concerns that are targeted at preparing Southeast Asia for the challenges of the future, and support the ASEAN community. The project is supported by the Asian Development Bank through the Japan Fund for Poverty Reduction, and executed by the SEAMEO Secretariat and the SEAMEO regional centers. SEAMEO INNOTECH led the organization of the Strategic Dialogue of Education Ministers, which is one of the four modules under the project. The other modules are meant to address case studies on good practices, education innovations for school heads and education practitioners, and a regional forum for youth leaders. (Report from SEAMEO Secretariat)

## SEAMEO-Australia Education Links Award accepting entries

Nationals of the 11 member countries of the Southeast Asian Ministers of Education Organization (SEAMEO) may now apply for the SEAMEO-Australia Education Links Award 2014, which recognizes and rewards innovative projects or proposals that showcase education cooperation between Australia and Southeast Asia.

The award is a joint initiative of SEAMEO and the Government of Australia to promote education links between SEAMEO and Southeast Asia and beyond.

Eligible entries could be capacity development for teachers, support for development of curriculum and educational materials, research consortium,

advocacy and networking, media collaboration or community-based development work, among others.

Entries may showcase education-related initiatives, either ongoing or proposed, in Southeast Asia and with participation of Australia and one or more Southeast Asian countries. However, proposals should not be activities that may be supported by the Australian Government's “Australia Awards” such as scholarships or research in Australia.

The winning entry will have showcased the positive results of the development or implementation of an idea, tool, model or initiative that is dynamic and involves various individuals

and sectors in helping improve education cooperation between Australia and Southeast Asia or within Southeast Asia

The award is open to individuals, groups or organizations, except those who are employees of SEAMEO centers, the SEAMEO Secretariat, and their families. Applications must be received by the SEAMEO Secretariat via post or email not later than 6 March, 2015.

The winner will get AUD\$10,000 to support activities related to the winning innovative idea or project. The winner will also be provided support for travel to the awards ceremony at the 48th SEAMEO Council Conference in April 2015 in Thailand. (LLDDomingo)

## Thesis Abstracts

### ANALYSIS OF THE LYCHEE INDUSTRY COMPETITIVENESS AND GOOD AGRICULTURAL PRACTICE (VIETGAP) IN BAC GIANG PROVINCE, VIETNAM



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MS in Agricultural Economics  
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Los Baños

The study analyzed the lychee industry competitiveness and adoption of Good Agricultural Practice (VietGAP) in Bac Giang province, Vietnam. Results showed that 56 percent of VietGAP farmers were applying eight or more of the prescribed practices; the rest were considered low adopters. The practices that farmers highly adopted were related to soil and water, harvesting, storage and transport, chemical application, waste management, and fertilizer application. Other practices—such as choice of varieties, pruning, recording, complaint, and safety for workers—had lower adopters. No farmer adopted the internal audit requirement.

Factors that significantly influenced the probability of high adoption of VietGAP were farm size, net profit, accessibility to VietGAP information, and membership in lychee farmers' group. The estimated Resource Cost Ratios from the Policy Analysis Matrix (PAM) showed that Luc Ngan district, where VietGAP was adopted, had greater comparative and competitive advantages than Luc Nam district where no farmers adopted VietGAP. Lychee production with high adoption of VietGAP also had higher comparative and competitive advantages than that with low adoption of VietGAP. Results of the sensitivity analysis showed that the world price of lychee, lychee yield, and official exchange rate had positive effect on the lychee industry competitiveness while the labor costs, input prices, and interest on capital had negative effect.

The study recommended improving the VietGAP program implementation and the input distribution system; providing processing support, insurance fund, greater access to capital, and better equipment and tools for lychee production; and encouraging membership to lychee farmers' group.

### ANALYSIS OF THE ANTHROPOGENIC-BASED DISTURBANCES AMONG THE INDIGENOUS GOBY POPULATION IN MANDULOG RIVER SYSTEM, NORTHERN MINDANAO, PHILIPPINES



Sonnie Abragan Vendra  
Filipino  
PhD in Environmental Science  
University of the Philippines  
Los Baños

The biology and ecology of indigenous freshwater gobies may be affected by changes in the water quality of rivers caused by water pollution. A study was thus conducted in the upstream, midstream, and downstream parts of Mandulog River System in Iligan City, Northern Mindanao, Philippines for one year to determine the species composition, abundance, morpho-meristic characteristics, sexual dimorphism, body proportionality, gonadosomatic index (GSI) estimates, water quality, climatic conditions, and human-related activities.

Total number of individuals of all goby species was 1590, with 895 (56.28%) and 695 (47.72%) gobies collected during dry and wet seasons, respectively. There were 141 (15.75%), 559 (62.45%) and 195 (21.78%) individuals of all goby species recorded in the upstream, midstream, and downstream parts of the river, respectively, during dry season, while 147 (21.15%), 372 (53.52%), and 176 (25.32%) were recorded during wet season.

The study found 10 goby species in three families, namely: *Belobranchus belobranchus* (4.78%),

*Giuris margaritacea* (10.25%), *Oxyeleotris lineolata* (31.76%), *Awaous melanocephalus* (13.46%), *A. ocellaris* (12.14%), *Glossogobius celebius* (8.99%), *G. giuris* (8.68%), *Periophthalmus barbarus* (3.52%), *Sicyopterus lagocephalus* (5.28%), and *Rhyacichthys aspro* (1.13%).

Generally, the morphometric and meristic attributes did not differ significantly for each goby species. Only four out of 10 species exhibited sexual dimorphism, namely: *G. celebius*, *P. barbarus*, *O. lineolata*, and *G. margaritacea*. Body proportionality measures were highly correlated to all species, which connote a well-proportioned body structure. A decreasing trend of gonadosomatic index was observed in species found in the upstream towards downstream parts, which in turn, may indicate a slight sensitivity to water pollution. *R. aspro*, which can only be found in the upstream and midstream, may be the only species that is sensitive to water pollution, although the water quality of Mandulog River is still within the Department of Environment and Natural Resources (DENR) standards that could support the goby population.

The study revealed that the current domestic (i.e., toilet use, kitchen wastes, laundry, bathing), agricultural (application of pesticides and fertilizers), and quarry and small-scale mining activities done within the river and its periphery did not pose any serious threats to goby population in terms of the level of pollution generated. However, it is imperative that the river be protected from overexploitation and pollution impacts for the economic and ecological benefits, particularly in providing sustainable fishery resources for present and future generations. The increasing level of awareness based on the knowledge, perception, and attitude of the residents towards the riverine and terrestrial resources may empower and mobilize them through a concerted and holistic effort on biodiversity conservation and sustainable development programs of the local government units and other institutions.

## 1st SEAMEO Youth Leadership Forum set

The Southeast Asian Ministers of Education Organization (SEAMEO) believes that it is important to engage young people in steering the course of Southeast Asia's future development. It is in this context that the SEAMEO Regional Centre for Archaeology and Fine Arts (SEAMEO SPAFA) is organizing the 1st SEAMEO Youth Leadership Forum to be held on 1-4 October 2014 at the Holiday Inn Bangkok, Thailand.

The international forum will cover the three inter-woven and complementary themes of "Developing Future Leaders of Southeast Asia,"

"Effective Professional Values and Skills," and "Managing the Development of a Changing World" through lectures, workshops, group discussions, and site visits.

Expected to represent their countries at the forum are 33 young leaders from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Vietnam.

The World Bank estimates that there are 1.5 billion youth ages 15-24 in the world today, the

highest number ever in history. As of 2010, about 110 million of the world's youth live in Southeast Asia. This so-called "youth bulge" presents opportunities for Southeast Asian countries to maximize their human capital in pursuing social and economic development goals.

SEAMEO, being the lead organization in developing Southeast Asia's human capital, has a critical role in ensuring that the region's youth are equipped with the skills, knowledge, and attitude needed to become leaders of the next generations. (Report from SEAMEO Secretariat)

# SEARCA-IRRI study examines vulnerability of rice production to climate change

Rice is the most important food crop in the Philippines. It is the staple food item in the diet of about 80 percent of the Filipinos, and the value of its annual production is close to Php 2 billion.

The International Rice Research Institute (IRRI) reported that of the 5.4 million ha of arable land in the country, 81 percent (4.4 million ha) is devoted to rice production, which provides livelihood to more than two million households, along with millions of farm laborers and tens of thousands of dealers and traders. This is why the Philippine rice sector has always been the center of the government's agricultural policies, which focus on promoting rice self-sufficiency and increasing farmers' income while making rice prices affordable to consumers.

## Bane of climate variability

Even so, rice production in the Philippines faces a number of constraints, including growing population, declining land area, high cost of inputs, and poor drainage and inadequate irrigation facilities.

Moreover, due to the Philippines' location, the rice sector is highly vulnerable to climate change, which severely affects crop production. Successive heavy rains cause severe drainage problems in paddy fields, resulting in a significant reduction in rice yield and quality.

The vulnerability of rice production to climate change and climate variability is therefore an important concern that needs to be addressed. With this in mind, SEARCA collaborated with IRRI in implementing a study titled *Impact on Climate Change on the Philippine Rice Sector: Supply/Demand Projections and Policy*.

Dr. Felino P. Lansigan, Professor at University of the Philippines Los Baños-College of Arts and Sciences (UPLB-CAS), led the project. His team included Dr. Mercedita A. Sombilla, Mr. Arnold R. Salvacion, and Ms. Anna H. de Guia.

## Project targets

The study sites were the top rice-producing provinces in the country, including Ilocos Norte, Cagayan, Isabela, Nueva Ecija, Laguna, Camarines Sur, and Iloilo.

The study analyzed the effects and impacts of climate change on rice production in the Philippines and assessed the effects of global warming on rice productivity.



Farmers transplant rice seedlings to a field in the town of Alicia in Isabela, one of the top rice-producing provinces in the Philippines included in the IRRI-SEARCA study. (Photo by Jose B. Cabajar)

Crop yields were estimated and compared for different possible climate scenarios (i.e., incremental increases in temperature, change in rainfall volume and distribution, and increase in atmospheric carbon dioxide concentration). The study established data on the sensitivity of rice yield to weather variables, analyzed the risks associated with climate-related hazards, and assessed the availability of and access to coping measures in the major rice-growing areas and the level of adaptive capacity of the rice production systems. A survey of key climate change adaptation measures and good practices in rice production was also conducted.

## Hotter climate predicted

Crop simulation modeling and analyses showed that temperature increase is expected to result in rice yield reduction.

Global warming is likely to lead to drier conditions, which will result to a decrease in area planted, hence, affecting rice production.

## High adaptive capacity

Despite their vulnerability to climate hazards, the study areas continue to be the top rice-producing provinces in the Philippines. This indicates that these areas have high adaptive capacity.

Farmers in these provinces have successfully put into practice adaptation measures and good agricultural practices (GAP) to cope with climate change. These good practices include adjusting the crop calendar, updating of weather-based

dynamic cropping calendar based on crop yield probabilities, planting more resistant or climate stress-tolerant crop varieties, and employing crop diversification and crop-livestock integration.

## Low population, not vulnerability, accounts for surpluses

The extent of each climate hazard, exposure, and adaptive capacity varies spatially due to topography, climate type, and archipelagic nature of the Philippines. The effects and impacts of climate hazards on rice production systems in the Philippines also vary.

Provinces with rice surpluses or shortages are spatially differentiated in relation to climate hazards. Most provinces with rice surplus are areas that are highly vulnerable to climate hazards and are less populated, while provinces with rice shortage are less vulnerable and densely populated.

## Moving forward

The study recommends the following:

- Define the plausible climate scenarios downscaled to specific provinces.
- Study the inter-provincial or regional trading of rice among areas with surpluses and shortages in the context of food security under a changing climate.
- Incorporate the suite of available climate change adaptation measures in the integrated crop management strategies to increase adaptive capacity of rice farmers. (FPLansigan/PMLuis)