

The SEARCA DIARY



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EDUCATION FOR ALL

As we begin a new decade, we are faced with challenges and opportunities to improve lives of underserved communities.

This year, education leaders in Southeast Asia pledge anew to fight illiteracy in the region.

Photo by: Edwin A. Cortes

Philippines hosts two meetings of Southeast Asian Education Ministers

“To provide education in communities where it is needed the most in Southeast Asia.” This aim was the top agenda of the *45th Southeast Asian Ministers of Education Organization (SEAMEO) Council Conference* and the *Fifth ASEAN Meeting of Ministers of Education (ASEM)*, two annual conferences hosted this year by the Philippines at Shangri-La Mactan Resort and Spa, Cebu, on 26-29 January 2010.

The back-to-back conference ended favorably with the 11 ministers of education of the SEAMEO member states united in pushing for early childhood care and ensuring greater access to quality education for all Southeast Asians.

The Education ministers discussed 10 collaborative projects that aim at providing education to the underserved communities in the region. They agreed to strengthen existing initiatives to provide education to the underserved communities.

Underserved communities include parts of society such as those with disabilities, students at risk of dropping out, learners in hard-to-reach places, very poor families in rural areas, stateless and undocumented children, learners affected and infected by HIV and AIDS, and those learners in disaster prone communities.

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DA-BAR, SEARCA team up to improve local capacity on climate change adaptation



Participants from the Cordillera Autonomous Region and Regions 1 and 2 of the Philippines draft their research, development, and extension action plans for climate change adaptation and mitigation as part of the *Training in Responding to Climate Change through Research and Development in Agriculture* held on 9-12 March 2010 at SEARCA, Los Baños, Laguna.

Much of the success against the threats of climate change to human life and livelihood depends on timely local action. This requires the strengthening and updating of adaptive capacity at the local level. With this goal in mind, the Bureau of Agricultural Research of the Philippine Department of Agriculture (DA-BAR) and SEARCA conducted a *Training in Responding to Climate Change through Research and Development in Agriculture* on 9-12 March 2010 at SEARCA, Los Baños, Laguna.

The training had 41 participants composed of managers and representatives of the country's Regional Integrated Agricultural Research Centers (RIARC) and Regional Fisheries Research and Development Consortia (RFRDC) as well as representatives from the various DA bureaus, namely: Bureau of Soils and Water Management (BSWM), Bureau of Animal Industry (BAI), Bureau

of Plant Industry (BPI), and DA-BAR. The training provided the participants with core climate science concepts so that they may have a clearer understanding of climate change and its impact on agriculture and fisheries.

CAPACITATING REGIONAL STAKEHOLDERS

Several of the country's top experts involved in climate change adaptation and mitigation efforts were resource persons. Dr. Flaviana D. Hilario, Weather Services Chief of the Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA) described the country's climate change scenario. Atty. Mary Ann Lucille L. Sering, Undersecretary of the Department of Environment and Natural Resources (DENR) and Climate Change Commissioner, explained the challenges faced by the Commission as a result of the Copenhagen Talks. Their sessions provided the participants with an overview of the current physical and policy environment that they are navigating in creating strategies to combat climate risks.

The next sessions provided the participants with an appreciation of the necessary knowledge and skills to help ensure that their local agricultural systems can adapt to climate change. Dr. Juan M. Pulhin, Professor of Social Forestry and Forest Governance at the University of the Philippines Los Baños (UPLB), introduced the participants to climate change vulnerability assessment. Dr. Rogelio N. Concepcion, UPLB Adjunct Professor and former BSWM Director, and Dr. Laura T. David, Associate Professor of UP Diliman Marine Science Institute, discussed how climate risks

to agriculture and fisheries can be effectively managed. Dr. Michael D. Pido of Palawan State University provided additional input on how to strengthen the governance and sustainability of small-scale fisheries management. Dr. Canesio D. Predo of the UPLB Institute of Renewable Natural Resources explained the economic valuation of climate risks.

Lastly, to provide a holistic view of the country's current efforts and plans in adapting to the threats of climate change, Ms. Sheila M. Encabo, Officer in charge of the Agriculture Offices, National Economic and Development Authority (NEDA), described the initiatives undertaken by the Millennium Development Goal Fund (MDG-F) Joint Programme. In addition, Dr. Maria Victoria O. Espaldon, Dean of the UPLB School of Environmental Science and Management and training's Technical Coordinator, outlined DA-BAR's research and development (R&D) program in addressing the impacts of climate change in agriculture and fisheries.

The resource persons' inputs guided the participants in crafting a sub-national research, development and extension (RDE) action plan for climate change adaptation and mitigation. The participants are expected to use the action plan they developed during the training as a jump-off point in integrating climate change adaptation and mitigation activities in their respective regional R&D plans.

NEXT OFFERING

In his remarks during the training's opening program, Dr. Nicomedes P. Eleazar, DA-BAR Director said "the implementation of the DA-BAR's RDE program will be ineffective and, perhaps, pointless if our researchers and research managers themselves are not capable and equipped with the right information and knowledge to put into action the research strategies and mitigating measures to address climate change." Thus, to further extend its current efforts to strengthen local capacity, DA-BAR, in cooperation with SEARCA, plan to conduct a second offering of the training course in June 2010. The second training will involve researchers from state universities and colleges, nongovernment organizations, local government units, and other DA agencies involved in climate change R&D activities.

Given such a diverse group of participants, the next training hopes to provide the participants with specific skills in identifying areas vulnerable to climate change, tools to measure the extent these areas are exposed to, and specific adaptation and mitigation measures to overcome climate change impacts. (JVBarian)

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SEARCA, six provinces seal partnership for food assistance project

SEARCA signed on 3 February 2010 Memorandums of Agreements (MOA) with partners and associates for the implementation of a European Union (EU)-funded project in support of food production activities of indigenous peoples, farmers, and fisherfolk in six provinces in the Philippines.

Dubbed *Focused Food Production Assistance to Vulnerable Sectors*, the 22-month project is underwritten by EU with a grant of Euro 3.09 million. SEARCA has earmarked PhP3.5 million pesos as counterpart funding. The project generally aims “to help reduce poverty, improve the well-being of the farmers, and ensure the access to safe food, particularly the vulnerable ones.” The beneficiary provinces (Occidental Mindoro, Oriental Mindoro, Camarines Norte, Camarines Sur, Misamis Occidental, and Misamis Oriental) will also have counterpart funding.

SEARCA is working with the French Agricultural Research Centre for International Development (CIRAD), the Philippine National Commission on Indigenous Peoples, WorldFish Center, Philippine Department of Agriculture (DA), and DA-Philippine Rice Research Institute (PhilRice) in implementing the project.

Signatories to the MOAs were: Dr. Gil C. Saguiguit, Jr., SEARCA Director; Mr. Pierre Morrisens, CIRAD Agricultural Senior Scientist; and governors of the six provinces: Governor Jesus Typoco, Jr. of Camarines Norte; Governor Luis Raymond F. Villafuerte, Jr. of Camarines Sur; Governor Loreto Leo S. Ocampos of Misamis Occidental; Governor Oscar S. Moreno of Misamis Oriental; Governor Josephine Ramirez-Sato of Occidental Mindoro; and Governor Arman C. Panaligan of Oriental Mindoro. The signing ceremony, held in Manila, was witnessed by representatives of the EU Delegation in the Philippines and the participating agencies.

The project covers upland, lowland, and coastal areas in 31 towns and five cities in the six provinces. The main activities are:



Dr. Gil C. Saguiguit, Jr., SEARCA Director and Hon. Josephine Ramirez-Sato, Governor of Occidental Mindoro, Philippines, sign a Memorandum of Agreement on 3 February 2010 in regards to the implementation of EU-funded project *Focused-Food Production Assistance to Vulnerable Sectors*.

- Food production assistance in the upland, lowland, and inland and coastal areas
- Mainstreaming of climate change adaptation in local development plans
- Capacity-building and institutional strengthening of local government units and sectoral organizations
- Knowledge management and public awareness campaign

Ambassador Alistair MacDonald, Head of the EU Delegation in the Philippines, was represented in the project’s launching by Ms. Raffaella Boudron, EU Food Facility Program Officer.

People’s organizations in the project areas shall serve as focal groups that will assist the project beneficiaries (indigenous peoples, farmers, fisherfolk). In his speech at the project’s launching program, Dr. Saguiguit said that the undertaking will “assist the most vulnerable sectors in the pursuit of food security amidst the challenge of current and emerging concerns affecting agricultural production.”

These include environmental concerns, notably climate change, socioeconomic circumstances such as prevalence of poverty, lack of livelihood opportunities, inadequate access to government

support services, and rural and production infrastructures.

Dr. Saguiguit said that the project will count on the expertise and support of CIRAD, the French government’s leading R&D agency whose operations are worldwide and has in its stable the world-class scientists.

Technical and related support will be provided by the NCIP, DA, DA-PhilRice, and Worldfish Center, especially its regional office for Asia which is currently hosted by SEARCA.

During the project launch, the heads of the local government units of the six provinces thanked the EU, SEARCA, and the collaborating agencies for choosing their provinces as project beneficiaries. They also committed their full support to the project, recognizing that the project will considerably empower their people in the areas of livelihood and food production activities.

This new project relates well with the priority thrusts of SEARCA, which are agricultural competitiveness and natural resource management. It is expected to directly create an impact on food security and poverty reduction in the identified vulnerable provinces. (MAFABad)

SPEAKERS DURING THE OPENING PROGRAM



Dr. Gil C. Saguiguit, Jr.
SEARCA Director



Ms. Raffaella Boudron
Project Manager-Operations (Agriculture)
EU Delegation to the Philippines



Dr. Teodoro A. Abilay
Chief Technical Advisor of FPAVAS



Mr. Pierre Morrisens
CIRAD Agricultural Scientist

Tokyo University of Agriculture, SEARCA strengthen ties through joint scholarships

Tokyo University of Agriculture (TUA) and SEARCA signed a memorandum of agreement (MOA) on 23 February 2010 to collaborate in providing graduate scholarships to Southeast Asians.

The collaborative undertaking, called *TUA-SEARCA Scholarship for Dissertation Doctorate Program*, allows a Southeast Asian scholar to be conferred a doctorate from TUA upon satisfying the academic requirements for doctorate dissertation work. Initially, the program will have one scholar for its first three years (2010-2013) of implementation.

Signatories of the MOA were Dr. Kanju Ohsawa, TUA President, and Dr. Gil C. Saguiguit, Jr., SEARCA Director. The signing was witnessed by Dr. Akimi Fujimoto, Director for International Programs, TUA, and Dr. Francisco F. Peñalba, Deputy Director for Administration, SEARCA.

In the brief signing ceremony, Dr. Editha C. Cedicol, Manager of SEARCA's Graduate Scholarship Department, said that TUA and SEARCA's partnership goes as far back as 1973 when SEARCA launched a Food Fermentation Project with the University of the Philippines Los Baos (UPLB). That project had several visiting professors from TUA coming to SEARCA and UPLB from 1973 to 1979. In 2000, the two institutions

signed a memorandum of understanding to cooperate in similar fields of interest.

"The relationship of SEARCA and TUA was further strengthened in 2006 when TUA became an associate member of the University Consortium, a network that SEARCA initiated in 1989 and continues to coordinate up to the present," Dr. Cedicol said.

"This (the MOA) is part of our efforts to build capacities in agriculture and related fields among Southeast Asian nationals. Being the center for agriculture in this part of the world, we see this as

an integral part of our role and mandate in bringing about agricultural and rural development. SEARCA cannot do it alone and has to reach out and forge partnerships with other centers of excellence that share the same concern," Dr. Saguiguit noted.

Dr. Ohsawa capped the ceremony with some words of thanks. "We at TUA are very honored and grateful for this partnership with SEARCA. I hope that this collaboration will lead to other joint initiatives in the future," he said.

TUA is an academic institution founded in 1891 in Japan. It offers agricultural education in the core areas of agronomy, life science, environmental science, and bio-industry science to advance agriculture and to support agriculture's related industries. (MAFABad)



Dr. Kanju Ohsawa (left), TUA President, and Dr. Gil C. Saguiguit, Jr., SEARCA Director, shake hands after the MOA signing held on 23 February 2010 at SEARCA, Los Baños, Laguna.

SEARCA awards PhD research scholarships to 4 Southeast Asians



Sol D. Rama



Joselito I. Rosario



Nguyen Thanh Son



Lita B. Sopsop

complete their doctoral degrees on topics. Their research topics focused on the Center's priority thrusts under the broad themes of promotion of natural resource management and agricultural competitiveness.

The awardees and their degree programs, study posts, and dissertation titles are:

- Ms. Sol D. Rama (Filipino), PhD in public administration, University of the Philippines Diliman; "Collaboration and Community Sustainability Indicators" The Case of Mining Operations in Palawan"
- Mr. Joselito I. Rosario (Filipino), PhD, forest resources management, University of the Philippines Los Baños (UPLB); "Process-based Yield Modeling for the Natural Stands of Kawayan Tinik (*Bambusa bluemana* J.A. and J.H. Schultes) in Ilocos Norte"
- Ms. Lita B. Sopsop (Filipino), PhD in environmental science, UPLB; "Human-Forest Interaction in Aborlan Guba System, Palawan

Island, Philippines and Implications for Conservation and Management"

- Mr. Nguyen Thanh Son (Vietnamese), PhD in geoinformation engineering, National Central University, Taiwan; "Application of Remote Sensing and GIS for Sustainable Land Use Management and Agricultural Drought Monitoring in the Mekong Delta, Vietnam"

SEARCA began awarding PhD research scholarships in November 2005 to give opportunity to more Southeast Asian PhD students to use the resources and facilities available at SEARCA and its network of universities for their research. The grant also aims to help the scholar produce quality research papers for publication and enable them to work with SEARCA's R&D personnel on mutually identified areas of concerns/interests in agriculture and rural development.

These four awards bring to 28 the total number of PhD research scholarships the Center has granted as of 31 March 2010. (LLDDomingo)

SEARCA implements 3 projects for Philippine Agriculture Department

SEARCA, through its Project Development and Management Department (ProDev), has implemented new projects beginning January 2010. Three projects are funded by the Government of the Philippines; through the Department of Agriculture - Bureau of Agriculture Research (DA-BAR) and the Department of Agrarian Reform (DAR). These projects are:

- DA-BAR – SEARCA *Capability-building on Responding to Climate Change through Research and Development in Agriculture*
Through this one-year project, SEARCA supports the goal of the DA-BAR in developing a cadre of trained research managers and researchers, and the local governments units, who could proactively respond to the challenges related to climate change.
- DA-BAR – SEARCA *Capacity-building and Comparative Study on Technology Management in Southeast Asia*
This one-year project seeks to build on the experiences and lessons learned from a

completed project in 2009 titled *Enhancing the Capability of DA on More Sustainable Management of Technologies*. The new project stems out of the need for a continuing capacity-building activity in support of the DA's National Technology Commercialization Program (NTCP). The project includes the provision of training in financial viability, a comparative study on technology management in Southeast Asia, and a workshop on technology management practices. The project seeks to strengthen the capacities of DA-BAR personnel at the national, regional and

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SFRT grantee presents research findings on coastal, marine resource management



Dr. Agustin L. Arcenas

The management of common-pool resources (e.g. irrigation systems, forests or fishing grounds), remains one of the most challenging development issues among countries that rely heavily on the harvest of natural resources to sustain a great number

of its households, even after the transfer of such responsibilities to the local authorities. Faced with the risks of deteriorating natural resource, many communities have started to engage and embrace the idea of voluntary alliances to create cooperation toward the common goal of efficient management of natural resources.

Banate Bay Resource Management Council (BBRMCI) is an example of a successful alliance

in the province of Iloilo, central Philippines. It has been successful in reducing the incidence of illegal fishing, reforesting mangrove areas, creating livelihood projects for its four-member municipalities. However, respondents of a study were critical of the council's ability to implement the rules fairly among all the stakeholders. BBRMCI is also confronted with the risk of losing many of its members due to disagreements among political parties that comprise the alliance, thus raising questions on the sustainability of the organization.

There were among the findings of a study titled *Coastal and Marine Resource Management in the Philippines: An Analysis of the Political Economy of Selected Local Government Units' Initiatives* conducted by Dr. Agustin L. Arcenas, Assistant Professor at the University of the Philippines School of Economics (UPSE). The study was undertaken with support from SEARCA through the Centers's Seed Fund for Research and Training (SFRT).

Dr. Arcenas presented the results of his study on 13 January 2010 at UPSE, Diliman, Quezon City, Philippines.

The presentation aimed to generate feedback and comments on the findings of the study prior to a stakeholders' presentation in Iloilo as well as to obtain insights that can be integrated in the final technical report.

Dr. Arcenas and his co-researchers (Dr. Joseph J. Capuno, Assistant Professor of UPSE, and Dr. Alice Joan G. Ferrer, Associate Professor, University of the Philippines Visayas), recommend that in order for the BBRMCI to function as mandated more fluidly, it needs to address the disconnection between the organizational objective (i.e., to improve the quality of resources in the Banate Bay area), and the individual political objectives of the local leaders who comprise the alliance. It also needs to professionalize its staff and gradually reduce its reliance on political funding to minimize possible overlaps between local fishery regulations and that of the BBRMCI, or at least disabuse the perceived overlaps. (RCDikitanan)

51 scholarships available for junior and mid-level DA staff

A total of 51 scholarships (48 MS and 3 PhD) are available starting school year 2010/2011 for junior and mid-level professional staff of the central and regional offices of the Philippine Department of Agriculture (DA).

The scholarship is a component under the *Umbrella Capacity Development Program on Strategic Management and Policy for Agriculture Professionals and Executives of the Department of Agriculture* funded by the DA and implemented through SEARCA in partnership with three Manila-based academic institutions.

The program provides support to fulltime and part-time graduate studies of selected DA professionals toward MS and PhD under any of

the following general priority areas in support of food security and rural poverty alleviation: 1) strategic leadership and public management, 2) development economics and agricultural policy, and 3) agricultural business and trade and investment.

Successful applicants may pursue their graduate studies at any of the following collaborating higher education institutions:

- Ateneo de Manila School of Government (AsoG) - Master in Public Management (MPM) specialized in Strategic Leadership for Agricultural Development
- University of Asia and the Pacific School of Management (UAP)

- Master in Food Systems Management
- Executive Master in Business Management (Strategic Business Economics Program)
- University of the Philippines School of Economics (UPEcon)
 - Master in Development Economics
 - PhD in Economics

The program generally aims to produce a cadre of homegrown, world-class career bureaucrats who can competently and proactively steer the government's agriculture program in synergy with local governments, the private sector, external markets, civil society, small producers and their communities, and other national and international partners. (RMMDedicatoria)

Income security first and food security will follow, says agribusiness expert



Dr. Rolando T. Dy (center), Dean, School of Management, University of Asia and the Pacific, receives a Certificate of Appreciation from Secretary Arthur C. Yap of the Philippine Department of Agriculture. They are joined by Dr. Gil C. Saguiguit, Jr., SEARCA Director.

Make farming profitable. This is the overriding goal for a sustainable and globally competitive agribusiness, according to Dr. Rolando T. Dy, Dean, School of Management, University of Asia and the Pacific, Philippines. He said the bottomline should be 'income security first and food security will follow.' As such, there is a need to measure farmers' incomes to know if agricultural performance is improving.

Dr. Dy shared this and other recommendations for Philippine agriculture during his inaugural lecture for the *Department of Agriculture (DA) Lecture Forum Series* held on 9 March 2010 at the DA Office in Quezon City, Philippines. The lecture series is part of a collaborative project between the Philippine DA and SEARCA titled *Umbrella Capacity Development Program on Strategic Management and Policy for Agriculture Professionals and Executives*. It features experts to share and interact with DA executives and professional staff on new, contemporary, or unexplored ideas and developments in agriculture.

Titled *Philippine Agriculture and Fishery: Challenges, Opportunities and Global Competitiveness*, Dr. Dy's lecture discussed in-depth the relationship of agriculture and agribusiness and how it influences economic growth. He offered global perspectives and related them with the Philippine scenario.

Citing the World Development Report 2008, Dr. Dy underscored that dynamic and efficient agribusiness spurs economic growth. It has also been observed that a strong link between agribusiness and smallholders can reduce rural poverty.

The challenge now is for the Philippines to leapfrog its agricultural and agribusiness performance in a time of multiple challenges such as growing pressure on food supply, rising energy and high fertilizer costs, increasing land and water scarcity, climate change, and stringent food standards.

Dr. Dy said that the country has to capitalize on global opportunities such as rising incomes and wealth in Asia, supply chain transformation, biofuels boom, technology advances, and cross-border investments. "The Philippines has a big unexploited advantage in exporting fish, fruits and nuts, vegetable oil, seafood preparation, among others, but its actual agriculture and fisheries export performance pales in comparison with its neighboring countries," revealed Dr. Dy. Data from the International Trade Center showed that in 2006, the Philippines' total agriculture and fisheries export value is only US\$2.5 billion, as opposed to Indonesia's US\$15.8 billion, Malaysia's US\$12.4 billion, Thailand's US\$22.8 billion, and Vietnam's US\$7.3 billion.

Dr. Dy recommended three key strategic goals to alleviate the state of Philippine agriculture: 1) increase farm productivity, 2) expand market-led diversification, and 3) promote non-farm and off-farm job creation through private investment.

He added the following key success factors, as demonstrated by global experiences: 1) a marketing infrastructure that links supply/value chains; 2) a market information system with timely, accurate, and accessible information; and 3) a well-funded research and development program accompanied by human resource development of scientists and researchers, which engages universities and the private sector.

The Umbrella Capacity Development Program is a brainchild of former Secretary Arthur Yap of the Philippine DA, who relinquished his post with the Department in March 2010 because he was running for a political office in the May 2010 elections in the Philippines. The Program is intended to provide DA executives

Income security/ to page 15

SEARCA awards 3 travel grants

An Indonesian and two Filipinos were able to present their scientific papers in three separate conferences held in Cyprus Island, United States of America (USA), and France between January and March 2010, with help from SEARCA's Travel Grants Program.

Dr. Rully Rahadian, a faculty member of the Department of Biology, Diponegoro University, Indonesia, presented a paper titled "Structure of Collembola Community and Its Nutrient Mineralization as Affected by Application of Different Organic Manures and Effective Microorganisms" at the International Conference on Organic Agriculture in Scope of Environmental

Problems held in Famagusta, Cyprus, on 3-7 February 2010.

Dr. Rosie S. Abalos, Associate Professor and Associate Dean of Pangasinan State University, Philippines, presented a paper titled "Seaweed (*Eucaema sp.*) Farming at Various Distances Along the Coastline of Dasol Bay Area, Pangasinan, Philippines" at the Aquaculture Conference 2010 held in San Diego, California, USA on 1-5 March 2010.

Dr. Romel B. Armecin, Assistant Professor, National Abaca Research Center, will present his paper titled "Soil Fertility and Suitability Assessments of the Different Abaca Growing

Areas in Leyte, Philippines" at the Young Researchers Seminar in Montpellier, France on 25-30 March 2010.

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

Since the program was started in 2006, 45 Southeast Asian researchers have received support from SEARCA. Details on the SEARCA Travel Grant are available at www.searca.org/web/research/travelgrants/. (RCDikitanan)

Agriculture and Development Seminar Series (ADSS) Highlights

18 February 2010

COP 15: What the Copenhagen Accord means



Dr. Henry Neufeldt
*Global Research
Project Leader,
Climate Change, World
Agroforestry Centre*

This presentation centered on what transpired during the 2009 Conference of Parties (COP) 15 and the Copenhagen Accord, the summit's main outcome. The conference, attended by over 110 heads of government or state, was dubbed "Hopenhagen" because of the hope it sparked to millions of people worldwide that a solution to climate change can be put in place. COP15 was expected to secure an ambitious target for a post-2012 global climate agreement as the Kyoto protocol expires on 2012.

However, COP15 did not achieve this. Dr. Neufeldt said that there were many actors in the negotiation process, each one with their own vested interest. Eventually, the Danish prime minister opted to convene 20+ leaders to draft the Accord during the final 24 hours of the conference.

The draft Accord's key provision recognizes the need to reduce global emissions to keep temperature increase by no more than 2°C. Annex I (developed countries) have committed to implement economy-wide emissions target for 2020 while non-Annex I countries will implement mitigation actions. In the end, the draft Accord was not adopted because it was not legally binding, provisions on mitigation were deemed weak, and there was no quantification of medium- and long-term global emission reduction goals.

With the refusal of the Conference to adopt the Accord, a mutual blame game ensued with various country groups fighting for their own interests. The United States claimed that the Accord came at a bad time; developing countries suffered from poor negotiation skills. There was confusion whether China is classified as an industrialized or developing country. Such matters contributed to why COP15 failed to arrive at a global agreement.

But beyond Copenhagen, Dr. Neufeldt explained that agriculture and forestry can be part of the climate change solution. He said food security should be integrated in the shared vision of the Ad-Hoc Working Group on Long-term Cooperative Action to open the door for adaptation and mitigation support, especially for vulnerable communities. Future climate change-related strategies should also consider agriculture, forestry, and other land use.

He said the world is a long way from overcoming the climate change challenge. With the emergence of fragmented governance – as seen during the COP15 – the world may be in greater peril. The way forward is for all countries to agree on a compromise and recognize the primacy of the United Nations (UN) negotiations. Quick-start funds should also be channeled through existing climate funds to avoid further erosion of trust.

2 March 2010

Knowledge Management for Disaster Risk Reduction and Climate Change Adaptation



Dr. Serafin D. Talisayon
*Professor, Technology
Management Center
University of the
Philippines Diliman*

How should knowledge management (KM) be done in relation to disaster risk reduction (DRR) and climate change adaptation (CCA)? This was the question posed by Dr. Talisayon during his presentation.

According to him, the purpose of KM is simply productivity and innovation. On the other hand, DRR is often episodic, has a localized scope, and requires national action. He noted that the Philippines is one of the few countries in the world with a DRR law. Lastly, CCA is a regional environmental concern requiring international action.

He pointed out that both DRR and CCA cut across the mandates of various government organizations/ministries. Both are also developmental concerns. As such, they require systemic thinking – the integration of disciplines in order to produce tangible results. Creating a "mind map" is a useful KM tool to determine the scope of a certain issue and prevent blind spots. However, he noted that one of the gaps in DRR and CCA is that there is no knowledge taxonomy.

Dr. Talisayon sees KM as a "very strange" discipline because its practice is ahead of theory. As such, knowledge managers should start by accurately assessing the knowledge demands of their stakeholders. Ultimately, the goal is to help the stakeholders produce socially-desirable results. He pointed out that KM for development institutions must be driven by the desired social/market values that their stakeholders need to create. He recommended that DRR and CCA activities must be localized in the communities in order to be effective. Likewise, he emphasized that both concepts should be mainstreamed in various sectors to create "re-usable" knowledge products.

9 March 2010

Aftermath of the Copenhagen Talks and Its Challenges to the Newly-formed Climate Change Commission



Atty. Mary Ann Lucille
L. Sering
*Commissioner,
National Climate
Change Commission,
Office of the President,
Philippines and
Executive Director,
Climate Change*

Office, Department of Environment and Natural Resources, Philippines

As the world reeled from the COP15 failure, the Philippines has put in place the National Climate Change Commission to ensure the mainstreaming of climate change policies in synergy with disaster risk management into national, sectoral, and local development plans and programs.

Atty. Sering's presentation also detailed COP15's implications to the Philippines. She said that during the conference, the political momentum was high in terms of recognizing the need for urgent action to reduce the global emissions of greenhouse gases (GHGs).

Despite this, no decision was taken during COP15 on whether to agree on a legally binding successor or complement to the Kyoto Protocol. Delegates merely "took note" of the draft Copenhagen Accord instead of adopting it.

As to the Philippines' standpoint, Atty. Sering said that the country's GHGs (carbon dioxide, in particular), emission is very negligible compared with those of the industrialized countries. Thus, mitigation measures implemented in the country are for other benefits, i.e., cleaner air, less dependence on oil, and cheaper energy sources.

The Philippines is starting to experience the adverse effects of climate change such as the occurrence of more intense typhoons. There is a need for immediate action. She said the National Climate Change Commission is tasked to develop the National Framework Strategy in Climate Change, which shall serve as basis for planning, conducting R&D, and implementing programs and projects related to climate change.

The National Framework Strategy will be formulated based on vulnerabilities, bio-physical profiling and characterization, socioeconomic assessments, specific adaptation needs and mitigation potential, and in accordance with the international agreements to which the Philippines is a member. The draft framework was to be submitted by April 2010. (RMMDedicataria)

Three of the important initiatives also discussed and endorsed were about integrating climate change in the school curriculum, harmonizing higher education and strengthening visibility of SEAMEO.

The conference, the largest gathering of education leaders in the Asia-Pacific region, had 157 participants comprising 11 Ministers of Education of Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor Leste, and Vietnam and their delegations; officials of the 19 SEAMEO regional centers, network, and secretariat; and representatives from Australia, New Zealand, and Spain (SEAMEO Associate Member Countries); Tsukuba University of Japan (SEAMEO Affiliate Member); ASEAN Secretariat; United Nations Educational Scientific and Cultural Organization (UNESCO), United Nations Children's Fund (UNICEF), and United Nations Human Settlement Programme (UN-HABITAT).

SEARCA was represented by Dr. Gil C. Saguiguit, Jr., Director; Dr. Francisco F. Penalba, Deputy Director for Administration; Dr. Maria Celeste H. Cadiz, Manager of Knowledge Management; Ms. Adoracion T. Robles, Project Development Specialist cum Technical Assistant; Ms. Eidelmine Elizabeth F. Genosa, Human Resource Specialist; Ms. Mina G. Talatala, Records and Archives Assistant; and Dr. Luis Rey I. Velasco, Chancellor of the University of the Philippines at Los Baños and Philippine representative to SEARCA's Governing Board.

A highlight of the SEAMEO Council Conference was a forum on early childhood care and education (ECCE). Titled *Understanding the Vital Years for Future Learning*, the forum discussed experiences on early childhood and pre-primary school learning. The ECCE program is an effort to begin educating children even before they enter the formal (government-mandated) education system. As a proponent of the discussion, the Philippines volunteered to lead a regional cooperation project on policy research on ECCE and committed an initial funding of US\$50,000.

With a spirit of cooperation and having in mind the remaining five years of the Education for All (EFA) Movement, the SEAMEO Council voiced its support of the ECCE and reinforced its pledge to the cause of EFA, a global movement that aims to meet the learning needs of all children, youth and adults. The attainment of EFA supports the second Millennium Development Goal: Achieve Universal Primary Education. The MDG target is to ensure that, by the year 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling. Primary education usually begins at 5 or 6 years and continues through until they are 11 or 12. In order to achieve this target, first, the countries need to



Recipients of the 2009 SEAMEO Service Awards with Dato' Dr. Ahamad bin Sipon, SEAMEO Secretariat Director.

ensure that children are enrolled in school and second, that they finish their primary education.

The 45th SEAMEO Council Conference's opening ceremony had H.E. Gloria Macapagal-Arroyo, President of the Philippines, as keynote speaker during the opening ceremonies. In her message, which was delivered by Hon. Eduardo R. Ermita, the President's Executive Secretary, President Arroyo commended the models of people-to-people cooperation exemplified in SEAMEO. She challenged the leadership and membership of the SEAMEO to position the organization to be part of the solution in attaining Education for All and the MDGs.

During the opening ceremonies, H.E. Mr. Chinnaworn Boonyakiat, Education Minister of Thailand, turned over the SEAMEO leadership to H.E. Dr. Jesli A. Lapus, Secretary of Education of the Philippines. In his inaugural speech, the new SEAMEO Council President shared that "with the rest of the world and Southeast Asia moving on to new and greater challenges, SEAMEO must not only keep pace with the demand, but position itself several steps ahead in an increasingly dynamic environment."

SEAMEO gave a special tribute to the 2009 recipients of SEAMEO Awards during the Awards Night, hosted by Hon. Ms. Gwendolyn F. Garcia, Governor of Cebu.

Secretary Lapus presented plaques of recognition to the following:

- Dr. Rosnarizah Abdul Halim of the Institute Aminuddin Baki, Ministry of Education, Malaysia, recipient of the 2009 SEAMEO Jasper Research Award for her research titled "Innovation in Educational Management Leadership: High Impact Competency for Malaysian School Leaders."
- Mr. An Sithav, Reporter of the *Economics Today Magazine*, Cambodia, recipient of the 2009 SEAMEO-Australia Press Award for his article titled "Mortgaged Futures."

Plaques of appreciation were conferred as well to the 2009/2010 recipients of the SEAMEO Service Awards, namely:

- Mrs. Sri Widayanti, SEAMEO Regional Centre for Tropical Biology, Bogor, Indonesia

- Mrs. Susana R. Dizon, SEAMEO Regional Center for Educational Innovation and Technology, Quezon City, Philippines
- Mr. Ooi Kah Eng, SEAMEO Regional Center for Education in Science and Mathematics, Penang, Malaysia
- Mr. John Siak Tack Chiew, SEAMEO Regional Language Center, Singapore
- Mrs. Le This Thuy Duong, SEAMEO Regional Training Center, Ho Chi Minh, Vietnam
- Mr. Khalid Mustafa, SEAMEO Regional Open Learning Center, Jakarta, Indonesia
- Ms. Mina G. Talatala, SEAMEO Regional Center for Graduate Study and Research in Agriculture, Los Baños, Philippines (*story on page 9*)
- Mr. Kevin Charles Kettle, SEAMEO Regional Center for Archeology and Fine Arts, Bangkok, Thailand
- Ms. Pornpimol Chaivittayangkul, SEAMEO Regional Tropical Medicine and Public Health Network, Bangkok, Thailand
- Mrs. Relita Ambarwati, SEAMEO TROPMED Regional Centre for Community Nutrition, Jakarta, Indonesia
- Dr. Zainah Saat, SEAMEO TROPMED Regional Centre for Microbiology, Parasitology and Entomology, Kuala Lumpur, Malaysia
- Mr. Rolando Villanueva, SEAMEO TROPMED Regional Centre for Public Health, Manila, Philippines
- Mr. Sethavudh Kaewviset, SEAMEO TROPMED Regional Centre for Tropical Medicine, Bangkok, Thailand
- Mrs. Monarita Haji Harris, SEAMEO Regional Centre for Vocational and Technical Education, Brunei Darussalam
- Mrs. Charunee Manakul, Southeast Asian Ministers of Education Secretariat, Bangkok, Thailand

Since its inception in 1965, SEAMEO has been promoting cross-border cooperation in education, science and culture. It continues to advance the provision of quality education for all to ensure a better opportunity for present and future Southeast Asians to make a better life for themselves.

The next (46th) SEAMEO Council Conference will be held in February 2011 in Brunei Darussalam. (ELRosellon, with reports from ACLancetais and SEAMEO website)

Talatala receives 2010 SEAMEO Service Award

Ms. Mina G. Talatala, SEARCA's Records and Archives Assistant, is the Center's SEAMEO Service Awardee for 2010. She, along with other awardees from 14 various regional centers of the Southeast Asian Ministers of Education Organization (SEAMEO), was recognized during the 45th SEAMEO Council Conference held on 28 January 2010 at the Shangri-La Mactan Resort and Spa in Cebu, Philippines. The awardees received their plaques of appreciation from Dr. Jesli A. Lapus, Secretary of the Philippine Department of Education and Dr. Ahamad bin Sipon, Director of the Thailand-based SEAMEO Secretariat.

Established by the SEAMEO Council in 2003 during the 38th SEAMEO Conference in Manila, Philippines, the SEAMEO Service Awards aim to recognize workers who have contributed to the success of the organization's missions and goals. The Award is conferred yearly to deserving staff members of SEAMEO units who have demonstrated exceptionally high levels of achievement in areas such as work performance, professionalism, innovation, and creativity. Each SEAMEO unit is tasked to select its recipient of the annual award based on a standard set of criteria.

Ms. Talatala began her career at SEARCA 23 years ago, as a student assistant (1987) and commenced a regular post in various capacities, first as a data encoder (1988) and documentation assistant (1996) for the Agricultural Information Bank for Asia (AIBA) and a documentation specialist (2003) for the Information Resource Development Program.



Dr. Jesli A. Lapus, Secretary of the Philippine Department of Education, presents a plaque of appreciation to Ms. Mina G. Talatala for being one of the 2009/2010 SEAMEO Service Awardees during the 45th SEAMEO Council Conference held on 25-29 January 2010 at the Shangri-La Mactan Resort and Spa in Cebu. Also in photo is Dato' Dr. Ahamad bin Sipon, Director of the SEAMEO Secretariat.

As the sixth of SEARCA's SEAMEO Service awardees, Ms. Mina Talatala joins the list of exceptional SEARCA officers recognized by the SEAMEO Council. The past recipients of the SEAMEO Awards were Ms. Alicia D. Revilla, Information Systems Specialist (2008/2009); Mr. Eugene Phillip S. Boone, Grounds and Buildings Supervisor (2007/2008); Ms. Susan V. Fernandez, Head, Management Services Unit (2006/2007); Dr. Editha C. Cedicol, Graduate Scholarship Department Manager (2005/2006) and Ms. Lily Tallafer, then Senior Executive Assistant (current Special Projects Coordinator – Networks and Linkages), Office of the Director (2004/2005). (ELRosellon)

The Policy Agenda

(Editor's note: The true worth of research and human resource development can be seen when their results are used to create the desired impact. As SEARCA continues to spearhead programs and projects seen as vital to poverty reduction and food security in the region, it also strives to translate these efforts into policy recommendations and directions. The SEARCA Diary continues The Policy Agenda, a series of policy briefs and articles that provides a venue for the articulation of policy directions, shaping of agricultural research, and provision of inputs to process and regulatory framework development, comparative studies, and policy formulation and design.)

FISHING FOR LIVELIHOOD ACROSS GENERATIONS, ACROSS ASIA

Dr. Roehlano Briones¹



To many poor households in Southeast Asia, fishing through ages has been a major source of income. Fishing, fish culture, and allied activities are part of a wide range of livelihood strategies of the rural poor, who try to cope with shocks and seasonality.

For instance, in Cambodia, fishing is a common activity among farmers and other rural households in the central floodplains.

This paper discusses the salient policy issues regarding poverty and sustainable fisheries², and identifies a priority research agenda.

Trends

Throughout Asia, fish consumption has been steadily increasing. However, capture production has remained stagnant; the rising demand has been met by increasing aquaculture production.³

Recent growth trends will probably not be sustained; per capita fish consumption may even decline in some Southeast Asian countries, unless countered by aggressive productivity improvements. Southeast Asian export markets remain concentrated in Japan, the European Union, and the United States; integration within the region is limited, due in part to sluggish trade policy reform.

Technology

Growth in aquaculture has been driven by technological change. Many of these technologies have significant pro-poor dimensions. Biotechnology, organic and plant-based fish farming, and fish restocking are among the more promising directions of change, making it imperative to create opportunities for the poor to participate in fisheries transformation.

However, supply chains in Southeast Asia tend to reflect asymmetry of power and coordination emanating from the processor and wholesaler

elements of the chain, and owing to high transaction complexity and lower supplier base capabilities. The danger is that tremendous economic strides made by the sector in developing Asia may well have, to some extent, bypassed the poor.

The Resource Base

Southeast Asia hosts unique coastal and marine ecosystems and resources. The coral reefs of Indonesia and the Philippines alone compose 27 percent of the global total, and are endowed with the highest flora and fauna diversity than anywhere else.

Reefs also generate significant income from tourism revenue. Other important aquatic resource systems include mangroves, seagrass beds, and river systems, particularly in the Mekong region.

These aquatic systems are under threat, both as a side effect of economic development in the surrounding area, as well as resource extraction. Biomass has fallen dramatically in major demersal fishing grounds, with the declines ranging from 32 to as much as 96 percent.

The unprotected nature of aquatic ecosystems arises from the failure of institutions to evolve rapidly enough to cope with the challenges of rapid population growth and economic change.

Centralized command regimes simply do not work; collaborative management, within an appropriate framework of fishing rights, is a far more promising approach. Collaborative

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Tanganon recognized by nature society

The Philippine Society for the Study of Nature (PSSN), Inc. named Dr. Naomi G. Tanganon as *PSSN Kalikasan Awardee for Teaching and Research* during its Ninth Annual Scientific Convention held at Mindanao State University – Iligan Institute of Technology (MSU-IIT) on 11-14 November 2009. Themed *Nature in Crisis: A Look at the Social Responsibility of Universities, Media, Government, Private Sector, and Grassroots*, the convention was attended by members and supporters from all over the Philippines. Dr. Tanganon was among the 13 nature advocates recognized by PSSN for their valuable contribution to the preservation, protection, and conservation of the environment.

Dr. Tanganon is currently the Vice President for Research and Extension and a Professor at the University of Southern Mindanao (USM). A scientist who has achieved distinction in her field, she is the first woman to become dean of the USM-College of Agriculture (CA). She is a SEARCA graduate alumna, having finished her PhD in plant pathology at the University of the Philippines Los Baños in 1984 through a SEARCA scholarship.

The PSSN is a non-partisan organization of professionals, researchers, administrators,

policymakers, practitioners, students, and institutions advocating nature conservation and protection.

Moreover, Dr. Tanganon has recently published a *Technoguide on Diseases of Rubber and their Management* through the University of Southern Mindanao Agricultural Research Center of the University of Southern Mindanao (USMARC-USM). The publication, co-authored with Ms. Jasmin A. Pecho and Ms. Elaine Genevive G. Butardo, both of USM also, was funded by the Philippine Department of Agriculture – Bureau of Agricultural Research (DA-BAR) through its Special Publications Grant program.

Rubber is one of the top five priority commodities in Philippine agriculture. As such, there is a need to provide rubber farmers, particularly the smallholders, with vital information on the prevailing diseases in rubber. The technoguide is intended to provide the farmers with an integrated approach to the management of these diseases.

Dr. Eugenio A. Alcala, another SEARCA graduate alumnus who currently heads the Philippine Rubber Board, Inc., said Dr. Tanganon and her group have made a “monumental contribution” to the growth and development of the rubber industry in the Philippines.



A copy of the technoguide is distributed for free and can be acquired from USM or DA-BAR. An e-copy can also be obtained from the USM website <http://www.usm.edu.ph/rdpo/download/rubber-dcsstechnoguide.pdf>. (MTBFerino with a report from DA-BAR)

SEARCA appoints Country Liaison Officers



Dr. Monton Jamroenprucksas
Thailand



Dr. Trinh Dinh Thau
Vietnam

SEARCA has appointed Country Liaison Officers (CLOs) for Thailand and Vietnam. They are: Dr. Monton Jamroenprucksas, Head of the Silviculture Department, Faculty of Forestry, Kasetsart University, and Dr. Trinh Dinh Thau, Vice Dean of the Faculty of Veterinary Medicine, Hanoi University of Agriculture, respectively. As CLOs, they are expected to carry out the following tasks in close coordination with SEARCA's Networks and Linkages.

The CLOs are primarily expected to help SEARCA in establishing and strengthening the center's partners in the country for collaboration

opportunities (e.g., technical assistance requirements of the country), and in identifying possible experts/resource persons that SEARCA may tap for its programs/activities;

They will also provide assistance in maintaining/updating the contact list of SEARCA alumni (graduate and training programs) in the country and in ensuring a good communication flow between them and SEARCA.

Dr. Monton's and Dr. Thau's appointments are for a period of one year, effective 1 January 2010. CLOs for the other SEAMEO member countries are also being identified. (MTBFerino)

Having CLOs in SEAMEO member countries is a new strategy of SEARCA in support of the Center's Ninth Five-Year Plan, whose implementation took effect in July 2009. Through the CLOs, SEARCA hopes to enhance its regional operations in order to serve better the member countries of SEAMEO.

Thesis Abstracts

4-METHYLOCTANOIC ACID AND 4-METHYLNONANOIC ACID IN GOAT MEAT AS AFFECTED BY CASTRATION, SPAYING AND NUTRITION.



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Three studies were conducted to determine the physical characteristics, chemical composition, and fatty acid profile of goat meat; and to evaluate its sensory characteristics as affected by sex, castration, spaying, and feeding with concentrate. A total of 32 weanling grade goats were randomly distributed into 8 treatment groups using a 2 x 2 x 2 factorial design.

In study 1, castration, spaying, and concentrate feeding were found to significantly increase the water-holding capacity, firmness, tenderness, and moisture of goat meat. Crude protein, ether extract, and ash content were significantly affected by sex, diet, and type of animal, but no significant effect was observed in salt and cholesterol content and pH level.

In study 2, caproic, caprylic, capric, 4-methyloctanoic, and 4-methylnonanoic acid content in goat meat were significantly affected by sex, diet, and type of animal. The concentration of 4-methyloctanoic acid and 4-methylnonanoic acid was significantly higher in male goats than in female goats. These five fatty acids contribute to the odor and flavor of goat meat.

In study 3, the color, odor, off-flavor, and tenderness of freshly cooked goat meat were not significantly affected by sex, diet, and type of animal. On the other hand, sex, castration, spaying, and concentrate feeding significantly affected the flavor, juiciness, saltiness, goatiness, and general acceptability of the meat.

The color, juiciness, goatiness, and general acceptability of freshly cooked goat meat patties were significantly affected by sex, diet, and type of animal. Vacuum- and aerobic-packed patties, which were derived from spayed goats fed with roughage only and stored up to three weeks, obtained the highest general acceptability scores.

The total plate count of vacuum- and aerobic-packed patties increased significantly with the length of storage. Significant interactions were noted between sex by type of animal by storage

in vacuum-packed patties and between type of animal by storage in aerobic packed patties. Total plate count was affected significantly by packaging method and storage period (25 days).

The results of the study show that physical characteristics, chemical composition, and fatty acid profile of goat meat are affected by sex, castration, spaying, and concentrate supplementation. The five fatty acids (caproic, caprylic, capric, 4-methyloctanoic, and 4-methylnonanoic acid) were proven to contribute to the development of the odor and flavor of goat meat. Finally, vacuum- and aerobic-packed patties from castrated and spayed goats have the highest general acceptability.

ATTRIBUTES OF KNOWLEDGE SHARING AMONG RICE FARMERS IN OU SARAY, TAKEO, CAMBODIA.



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The general objective of this study was to analyze the attributes of knowledge sharing among rice farmers as basis for developing communication strategies for rice-fish farming. This study was conducted in two rice farming-based villages in Cambodia with a total sample of 113 farmers. A one-shot survey (62 respondents), a focus group discussion (15 participants), and a network group interview (36 respondents) were conducted.

The respondents were about 43 years old, had 30 years of farming, and resided in the villages. Having interacted with different stakeholders involved in rice farming, the respondents have established their preferred attributes of knowledge-sharing facilitators in terms of age, gender, education, neighborhood, economic status, leadership ability, and reciprocity, among others. The network analysis showed that everyone in the group was connected; no one was isolated. However, farmer groups had a low density ratio of information flow, indicating limited interaction among group members.

This study also found that these attributes of knowledge-sharing facilitators and recipients affected the knowledge-sharing process in terms of the categories of knowledge shared and flow of knowledge sharing. In addition, individuals had different motivations in sharing knowledge with the community. While these motivations also affected the knowledge-sharing process, they

had no effect on the categories of knowledge shared and sources of information.

To ensure the fast spread of information flow and knowledge sharing among families, communities, and those outside the communities, the preferred attributes of knowledge-sharing facilitators and knowledge-sharing recipients, including the factors that motivate the knowledge-sharing process, ought to be considered.

CONCENTRATION OF NITROGEN AND PHOSPHOROUS FOR PREDICTING FISH CULTURE CARRYING CAPACITY OF WATER ENVIRONMENT IN SERMO RESERVOIR, KULONPROGO YOGYAKARTA, INDONESIA



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This research on the Sermo Dam in Kulonprogo, Yogyakarta, Indonesia aimed to find the source and load of nitrogen (N) and phosphorus (P) over space and time, to evaluate the eutrophication level and the suitability of water quality for fish life, to predict the carrying capacity of the reservoir for fish culture, and to control N and P concentrations.

Water samples were taken from river inflow and outflow, as well as from upstream, middle, and downstream areas of the reservoir. The samples from the reservoir were taken at different water depths: 0 m, 2 m, 4 m, and the base/floor. Monthly observations were done from June 2006 to May 2007. The variables were: (1) ammonia, ammonium, nitrite, nitrate and phosphate; (2) N-total and P-total content in the water; (3) water temperature; (4) transparency; (5) turbidity; (6) total dissolved and suspended solids; (7) dissolved O₂; (8) pH level; (9) free CO₂ and alkalinity; and (10) plankton and benthos.²

The research found that N and P came from river inflow and fish culture waste. Also, N and P residues were present. The concentrations were spatially flat and temporarily higher during the rainy season than the dry season. The eutrophication level varied from eutrophic to hipereutrophic, and water quality was suitable for fish culture. The fish culture area, which was found to be lightly polluted, had the highest concentration of P. The carrying capacity of water environment for fish culture was 93.86 tons/year (3.76-17.35 tons/month). Controlling N and P concentrations

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ISAAA, NAST, SEARCA sponsor global state of biotech seminar



Dr. Clive James, Chairman and Founder of the International Service for the Acquisition of Agri-biotech Applications (ISAAA), presents the global status, impact and future prospect of commercialized biotech/genetically-modified (GM) crops.

SEARCA recently co-organized with the National Academy of Science and Technology (NAST) and International Service for the Acquisition of Agri-biotech Applications (ISAAA) a seminar on *Global Status of Biotech/GM Crops 2009* by Dr. Clive James, a biotech expert and founder of ISAAA, held on 1 March 2010 at Dusit Hotel, Makati City.

Attended by more than 80 participants from the government, nongovernment organizations, private sector, and regulatory, media, farmer, scientific and academic institutions, the seminar highlighted the impacts of biotech crops in poverty alleviation, food security and environmental and safety benefits.

The seminar was especially dedicated to Dr. Norman Borlaug, Nobel Peace Laureate, who passed away in September 2009. He was called the father of the Green Revolution, whose lifework positively impacted the lives of billions of people globally. Dr. James shared how he perceived Dr. Borlaug as a visionary and peacemaker. Dr. Emil Q. Javier, NAST President, National Scientist, and Dr. Gelia Castillo, National Scientist, also delivered messages and tributes to Dr. Norman Borlaug. They underscored the big role of biotechnology research as a strategic intervention for changing the face of agriculture and impacting the poorest of the poor globally.

Mr. Joseph Benemerito, a farmer from Alfonso Lista, Ifugao, northern Philippines, shared his story on how he came to adopt biotech crops and his experiences of increased yield, lowered production cost, and increased net income in planting genetically modified (GM) corn. He said he witnessed the increase in farmers' adoption of biotech corn in his area, from 12,000 hectares to almost 20,000 hectares; he attributed this to the successful introduction of GM corn. Mr. Benemerito expressed the desire to plant other important crops in his farm field such as Bt eggplant and Bt amplaya, to reduce insecticide application, similar to his experience in planting Bt corn. He also wishes to get hold of drought-tolerant corn seeds in the near future to cope with stresses brought by long dry spells.

A media forum followed the seminar to provide avenue for interaction between media and Dr. James, Dr. Randy Hautea of ISAAA, Dr. Javier of NAST and Mr. Joseph Benemerito. The forum was attended by 25 media practitioners from the print and broadcast media. They raised questions ranging from the business aspects of biotech crops in the Philippines and globally to products under development and near commercialization such as the phytase maize in China, Bt eggplant in the Philippines and India, and golden rice in the Philippines. The media also inquired on the first-hand benefits derived by Mr. Benemerito and the effects of the El Niño on his farming. (JAPanopio)

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through fish culture using double nets, fish stocking, and harvesting outside net cage may eliminate N and P residues and decrease loading of N and P in the water.

PLANT DIVERSITY, FOOD AVAILABILITY, AND RESILIENCE IN THE INDIGENOUS AGROFORESTRY SYSTEM OF THE ERUMANEN NE MENUVU OF COTABATO, PHILIPPINES.



Cabatac, Neyrma, Neyra
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The general aim of the study was to assess the resilience of the indigenous agroforestry system of the Erumanen ne Menuvu in

Barangay Palacat, Aleosan, Cotabato, Southern Philippines. Employing qualitative research methods, the study: 1) reconstructed the Menuvu's local socio-environmental history; 2) described the indigenous agroforestry system in terms of its stages, temporal and spatial cropping patterns, and plant diversity; 3) analyzed plant diversity and food availability shifts; and 4) assessed the resilience of the indigenous agroforestry system. Data were gathered through interviews, participant observation, and rapid plant appraisal.

The study contended that the effects of socio-environmental changes are most apparent in shifts in plant diversity-food availability relations, and that these dynamics are most noticed by the community experiencing them. An analysis of the Erumanen's accounts revealed that they have been through various social-ecological disruptions that led to changes in their indigenous agroforestry, thus

affecting plant diversity-food availability shifts. Results also showed that in relation to seasonal changes, an increase in plant diversity did not always reflect an increase in food availability (dietary diversity); multiple ecological, biological, and social factors came into play. Trends of plant diversity and food availability (cultigen diversity) through time suggest a direct relationship. Thus, as plant diversity increased, options for food likewise increased despite the disruptions encountered. The study likewise revealed that the system possessed buffers, strategies, and elements necessary for its continued existence. A lag existed in the response and recovery between social and ecological systems.

The study offered recommendations for further studies on capacity-building for resilience and the use of qualitative research methods in the investigation of human-environment interactions.

SEARCA, Ateneo University hold seminar on biotech products' safety



Dr. Antonio Laurena, research associate professor of the Institute of Plant Breeding, University of the Philippines Los Baños, discusses the safety issues surrounding biotechnology crops and food products.

SEARCA's Biotechnology Information Center (BIC) and the Ateneo de Manila University's (ADMU) Department of Biology collaborated in the conduct of a seminar on the *Status, Developments and Safety of Biotechnology Products* on 1 February 2010 at SEARCA.

This seminar was organized as part of the education and study tour of ADMU students

to the Los Baños Science Community. Ninety eight college students and some science faculty attended the learning event which featured science-based information and the developing agricultural biotechnology products. The event was aimed at enhancing the participants' awareness on the issues surrounding agri-biotechnology, particularly the food and environmental safety of biotechnology

products. Dr. Antonio C. Laurena, Research Professor from the Institute of Plant Breeding, University of the Philippines Los Baños (UPLB), shared the current efforts of the public sector in the country in the development of genetically engineered crops. He also discussed policies governing biotechnology products, and how the government regulatory agencies are ensuring the safety of biotechnology products prior to commercial release.

The participants were also introduced to the available information resources in agricultural biotechnology through the websites of the International Service for the Acquisition of Agri-boitech Applications and SEARCA BIC. They were given several information materials developed by BIC and its partners, such as frequently asked questions on agri-biotechnology and the highlights of the Global Status on Biotech/GM Crop Adoption.

SEARCA BIC and ADMU's Department of Biology plan to continue this collaborative effort on agri-biotechnology information and education campaign by organizing similar events in ADMU to reach more of its students and faculty. (JAPanopio)

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approaches are practiced in various degrees throughout Southeast Asia.

Official recognition of community-based approaches is at a nascent stage in Cambodia and Lao PDR. Development of co-management is more advanced in the bigger marine producers in the region. Issues have been raised about the fit between customary and official regimes (e.g., Indonesia), dependency on donor initiatives and sustainability of community organizations (e.g., Thailand), and the importance of building capacity at the local level (e.g., Philippines).

Competent and participatory local management of resources are a necessary but not sufficient condition for protection of the resource base. Consideration of the larger spatial dimensions is inevitable, considering the range of geographic interaction in biophysical systems. Tripartite arrangements are only recently emerging for the Sulu-Sulawesi ecoregion; meanwhile the Mekong has had an established organization, the Mekong River Commission (MRC), to oversee regional cooperation issues.

Priority Issues for Policy Research

Policy formulation to promote pro-poor sustainable fisheries can already build on a vast store of information and analytical methods on Southeast Asian fisheries. Nevertheless,

significant gaps remain in the following areas:

Constructing a profile of fish producers and consumers in Southeast Asia. A systematic socioeconomic profile is necessary to understand the dependency and dynamics of household choice with respect to fisheries as a livelihood strategy, as well as for targeting.

Supply and demand analysis for planning. Quantitative analysis of supply and demand can be made even more useful by expanding the scope of existing models, and by fine-tuning the structure, data, and scenarios of these models to better serve national sectoral planning.

Globalization and trade integration initiatives: Impact assessment and implementation. Much more work remains to be done to assess the impact of international markets on domestic supply and demand, on the livelihood and food security of the poor, as well as, the appropriate mechanisms for promoting the trade reform agenda.

Characterizing value chains and expanding participation of the poor. Who are the poor participants in the supply chain? Why are they poor? What are the impacts of export orientation on domestic markets? How can policies affect value creation, the mode of governance, and the proportion of benefits accruing to the poor?

Priority setting for R&D investment. Careful impact assessment has yet to be undertaken

for a wide set of commonplace technologies in aquaculture and capture fisheries. Such assessment would then be essential for evaluating prospective impacts of research, thereby guiding the identification of priorities for R&D investments.

Comparative assessment of management regimes. Comparative assessment of various management regimes can offer concrete advice to policymakers for evaluating options for coastal and inland resource management.

Issues of scale and scope in resource management. The need for regional cooperation at the level of ecoregions is well recognized, but effective implementation has remained elusive. Quantifying the benefits (and costs) of cooperation may be key to achieving a negotiated compromise.

¹ Editor, *Poverty Reduction Through Sustainable Fisheries: Emerging Policy and Governance Issues in Southeast Asia, 2008.* ISEAS: Singapore.

² *Aquaculture is the farming of freshwater and saltwater organisms including mollusks, crustaceans, and aquatic plants. Unlike fishing, the cultivation of aquatic populations is under controlled conditions.*

³ *An Evaluation of Small-Scale Freshwater Rural Aquaculture Development for Poverty Reduction.* URL: <http://www.adb.org/Documents/Books/Freshwater-Poverty-Reduction/default.asp>

*The Policy Brief Series features research works of various experts and do not necessarily reflect the views of SEARCA.

Snapshots



H.E. Andrew Mattheson (center), Ambassador of New Zealand, visited the Center on 19 March 2010 to discuss possible collaborations with SEARCA. He was received by SEARCA officials led by Dr. Gil C. Saguiguit, Jr., SEARCA Director. Accompanying him were Ms. Sue Cotton (3rd from left), spouse, and Mr. Andy White (2nd from right), Deputy Head of Mission, New Zealand Embassy in the Philippines. Present also during the briefing were Dr. Editha C. Cedicol, Manager, Graduate Scholarship Department, Dr. Bessie M. Burgos, Manager of the Project Development and Management Department, and Ms. Carmen Nyrhia G. Rogel, Project Development Specialist, Research and Development Department.



Ms. Isabelle Epailard (3rd from right), Scientific Attaché, and Mr. Christian Merer (2nd from left), Counselor for Cooperation and Cultural Affairs, both of the French Embassy in Manila met with SEARCA officials led Dr. Gil C. Saguiguit, Jr. on 2 February 2010 to discuss areas for collaboration and partnership. Others in photo are (l-r): Dr. Maria Celeste H. Cadiz, Manager, Knowledge Management Department; Dr. Editha C. Cedicol, and Dr. Francisco F. Penalba, SEARCA Deputy Director for Administration.



A group of Texas A&M University students and Dr. Piya Abeygunawardena, Associate Director of the Borlaug Institute for International Agriculture, visited SEARCA on 6 January 2010 to learn about the Center. Photo shows the group with Ms. Lily L. Tallafer, Special Projects Coordinator, Networks and Linkages.



Dr. David J. King (2nd from left), Consultant, Sorosoro Ibaba Development Cooperative (SIDC), and Dr. William G. Rudolph (rightmost), Canadian Chair of the International Agricultural Exchange Association/Agriventure; Ms. Leda Rhovy Gonzales and Ms. Catherine D. Lualhati, also of SIDC, call on Dr. Peñalba, Dr. Cadiz, and Dr. Cedicol on 19 January 2010.



Five graduating French students from Ecole d'Ingénieurs en Agriculture (School of Agricultural Engineering) based in Haute-Normandie, France, were welcomed by Dr. Saguiguit on 4 February 2010. They visited SEARCA to learn about deforestation. Dr. Lucrecio Rebugio, Professor Emeritus, College of Forestry and Natural Resources, University of the Philippines Los Baños, and a SEARCA graduate alumnus, made a short presentation on Philippine forestry.



A group of officials from Ubon Ratchathani University (UBU) headed by Dr. Adul Apinantara (2nd from right), a SEARCA graduate alumnus and Dr. Patareeya Wisajorn (6th from right), Vice President for International Relations, met with SEARCA officials on 24 February 2010 to discuss possible collaborative work. Dr. Peñalba, led the briefing.



Dr. Hiroko Isoda (leftmost), Professor, and Ms. Myrna Orlina Villareal (2nd from left), graduate student, both of Graduate School of Life and Environmental Science, University of Tsukuba, paid a courtesy call on Dr. Saguiguit and Dr. Cedicol on 4 February 2010.



Dr. Malcolm Cooper (2nd from left), Vice President for International Cooperation and Research, Mr. Yuji Shinozaki (leftmost), and Dr. Francisco P. Fellizar (2nd from right), former Deputy Director of SEARCA and current Professor, all of Ritsumeikan Asia Pacific University in Japan visited SEARCA on 2 February 2010 and discussed possible collaborations with Dr. Peñalba and Ms. Tallafer of SEARCA.



The 17th batch of Bio-business Practice Students from Tokyo University of Agriculture (TUA), accompanied by Dr. Mitsuo Suzuki, Professor, and Dr. Hiroki Inaizumi, Associate Professor, was given a briefing on SEARCA on 23 February 2010. The visit was part of the students' farm practice in the Philippines.

SEARCA Director appointed to GEF SGP National Steering Committee



Dr. Gil C. Saguiguit, Jr., SEARCA Director, has been appointed a member of the National Steering Committee (NSC) of the Global Environmental Facility (GEF) Small Grants Program (SGP).

The GEF is an organization that aims to achieve global environmental benefits through programs and projects on biodiversity, climate change, land degradation, international waters and persistent organic pollutants. It was established in 1990 by a group of developing and industrialized countries with the aim of assisting developing nations deal with five main environmental problems: global warming, pollution of international waters, destruction of biological diversity, depletion of the stratospheric ozone layer, and prevention of land degradation and persistent organic pollutants.

The GEF is co-managed by the United Nations Development Programme (UNDP), the World

Bank, and the UN Environment Programme. The SGP supports the mission of protecting the global environment at the community level on GEF's focal areas. Ms. Jacqueline Badcock, UNDP Resident Representative said that, "in the Philippines, SGP is now focused on funding biodiversity conservation projects from uplands to coastal/marine areas."

The NSC is SGP's policymaking body at the country level; it oversees the implementation of the SGP's country program. It is responsible for selecting and approving projects for SGP support as well as in ensuring their technical and substantive quality. (ELRosellon)

SEARCA implements/ from page 5

community levels, as they manage technology development and commercialization projects.

- DAR – SEARCA *Immediate Impact Assessment for the Northern Mindanao Community Initiatives and Resource Management Project* (NMCIREMP).

This project evaluates the effectiveness and efficiency of the NMCIREMP's performance in achieving its intended outcomes and impact

vis-à-vis the commitment of the Government of the Philippines to the Millennium Development Goals. The strategic goal of NMCIREMP, a six-year project funded by the International Fund for Agricultural Development (IFAD), is to improve the situation of around 58,500 poor households located in 270 villages in the Certificate of Ancestral Domain Claim (CADC) and non-CADC areas in Northern Mindanao (CARAGA Region and Region X). The project's target sectors are:

agrarian reform beneficiaries (ARBs), upland farmers, fisherfolk, indigenous peoples and women. The six components to carry out the goals of the project are as follows: (1) community institutions and participatory development, (2) community investments, (3) natural resource management, (4) support services and studies, (5) support to indigenous peoples, and (6) project management. (ELRosellon with a report from NMLandicho)

Income security/ from page 7

and professionals with a global, 21st century perspective attuned to contemporary challenges in food security and rural poverty alleviation. It focuses on equipping and reinforcing participants with proactive leadership frameworks and mindsets informed by contemporary worldviews and theories, substantiated by real cases and science-based evidence.

The program offers graduate scholarships, an executive program comprising of two-hour lecture

forums, three-day learning forums, and certificate executive courses or study visits to institutions, industries, or private sector initiatives. Other partners in the Program and their corresponding program thrusts are: Ateneo School of Government (strategic leadership and public management), University of Asia and the Pacific – School of Management (agricultural business, trade and investment), and the UPecon Foundation, Inc. (development economics and agricultural policy).

Said Mr. Yap, "My dream is for the DA to have a culture of excellence and proactive stance amidst

the challenges we now face. I leave you this legacy, a program that would help build the country's agricultural bureaucracy for the future,"

Dr. Gil C. Saguiguit, SEARCA Director, took the opportunity during the inaugural lecture to thank Secretary Yap for his contributions to Philippine agriculture during his tenure at the DA. He said that Secretary Yap's legacy "is his foresight on where Philippine agriculture is and should be headed. He has set the roadmap for the continued growth and competitiveness of the agriculture sector." (MAFABad)

Productivity/ from page 16

- The study on rice identified seeds, irrigation, farmer training, credit, postharvest facilities, and market support as sources of productivity growth. As such, policies and investments should be geared toward improving research and extension, postharvest and irrigation facilities, and seed distribution technologies.
- The corn study revealed the importance of technical efficiency. It recommends the improvement of postharvest facilities and pricing and trade policies that would encourage corn production.
- Mango grower-operators were burdened with high pesticide costs. It would benefit them to adopt integrated pest management (IPM)

technologies. Providing grower operations with information materials and training in IPM would help promote the adoption of this technology.

- Banana farmers with access to tissue culture planting materials exhibited higher yield. Strengthening farmers and industry associations will help the farmers have access to inputs and information on quality planting materials and proper cultural management practices.
- Credit access, training, and intercropping practice were identified as significant factors affecting the technical efficiency of coconut farmers. By joining farmers' groups, coconut farmers would have better access to support services mentioned above. The study recommends the strengthening of farmers' groups.

- In the sugarcane sector, support services for new agrarian reform beneficiaries need to be intensified, and high-yielding varieties should be dispersed. These were found to be important as technological change was a major source of total factor productivity growth in the sector.
- Partly due to the high protection rate, corn prices have increased. This has resulted in higher costs of hogs and livestock production. To address this issue, hogs and livestock growers also require access to credit so they can purchase productivity-enhancing technologies.

Project outputs include research reports, monographs, journal articles, and a book on the country's agricultural productivity. (PMVCasal)

FAO, SEARCA hold inception workshop on impacts of ENSO on cereals in Asia



Scientists from 11 Asian countries pose for a souvenir photo of the Project Inception Workshop, with Dr. David C. Dawe (third from left) Senior Economist of FAO and Dr. Gil C. Saguiguit, Jr., (fourth from left) SEARCA Director

El Niño Southern Oscillation (ENSO) is an important extreme weather event that significantly affects the agricultural sector. Existing literature shows the strong impacts of ENSO events on rice production in Asia.

SEARCA and the United Nations Food and Agriculture Organization (FAO) conducted a project inception workshop titled *The Impacts of ENSO Events on Cereal Production, Area, and Yield in Asia* on 8-10 March 2010 at SEARCA. The project aims to increase the number of countries and crops that are covered by the current literature, improve cross-country comparability by using a standard methodology, increase market transparency by providing publicly available

estimates of ENSO impacts, and assist in the preliminary identification of coping strategies.

In his opening remarks, Dr. Gil C. Saguiguit Jr., SEARCA Director highlighted the importance of understanding the impacts of ENSO events on cereals (rice, corn, and wheat). The significant drop in agricultural production affects the food supply and subsequently results in an escalation of food prices," he said. He also underscored the need for comprehensive empirical data in order to have greater insights on the impact of ENSO events in the region.

Dr. David C. Dawe, Senior Economist of FAO, said the focus of the research project is more on the macro (Asia-wide) policy level than on the

farm level. He stressed that the project aims to establish the impacts of ENSO on cereals and not to predict ENSO events. He discussed also the importance of consolidating related literature, information sharing, and the use of standardized methodology for comparison purposes.

Scientists from 11 Asian countries (Bangladesh, Cambodia, China, India, Indonesia, Malaysia, Pakistan, the Philippines, Sri Lanka, Thailand, and Vietnam) presented country reports on important ongoing and completed research on the impact of climate change on cereal production.

Dr. Felino P. Lansigan, Professor at the University of the Philippines Los Baños, and Dr. Soora Naresh Kumar, Senior Scientist at the Indian Agricultural Research Institute, wrapped up the Southeast and South Asia sessions, respectively. Dr. Kumar observed that agricultural production in Asia is still very much dependent on rainfall.

On the whole, the inception workshop discussed the choice of appropriate data disaggregation (spatial and temporal) at which to conduct the analysis on production, area, and yield of the three main agricultural cereal crops in Asia. It also tackled the availability of rainfall data, methods of analysis, research project's work plan, and overall time schedule.

The project will fund country case studies and publish their final reports as monographs. Its second and final workshop is scheduled in October 2010. (RCDikitanan)

Productivity growth project draws up policy recommendations

The Productivity Growth in Philippine Agriculture (PGPA) project, a collaborative undertaking of SEARCA and two agencies of the Philippine Department of Agriculture – the Bureau of Agricultural Research (DA-BAR) and the Philippine Rice Research Institute, concluded in February 2010.

Began in March 2007, this three-year project was implemented to address findings of several international studies showing the low to negative trends of productivity growth in the agricultural sector of the country. Its objectives were to determine the nature, sources and causes of agricultural productivity, and to identify policy levers that can increase the productivity growth for the sector of the country.

The agricultural commodities studied included grains, traditional export crops, high value crops, livestock and poultry. The study leaders were (1) Dr. Minda Mangabat, Division Chief, Crop Statistics

Division, Bureau of Agricultural Statistics (rice and corn); (2) Dr. Corazon Aragon, Professor, College of Economics and Management (CEM), University of the Philippines (UPLB) (coconut and sugar); (3) Dr. Flordeliza Lantican, Dean, CEM, UPLB (banana and mango); (4) Dr. Liborio Cabanilla, Professor, CEM, UPLB (livestock and poultry); and (5) Dr. Yolanda Garcia, Associate Professor, CEM, UPLB (aquaculture). The commodity studies focused on the following factors: land, labor, machinery, seed, chemicals/fertilizer, infrastructure, environmental effects, human capital and institutional factors. They were carried out using surveys, regional household data, household panel data, and case studies. Data from previous surveys and research conducted by the academe, government agencies, and national and international research institutions were also utilized.

The cross-cutting theme studies and their primary researchers were: (1) The Research, Development and Extension System by Dr. Sergio

Francisco, Program, Leader, Impact and Policy Research, Philippine Rice Research Institute; (2) Institutions and Social Capital by Ms. Rosemarie Edillion, Research Fellow, Asia Pacific Policy Center and Associate Lecturer, La Trobe University (3) Infrastructure by Dr. Gilbert Llanto, Senior Research Fellow, Philippine Institute for Development Studies (4) Landscape and Environment by Dr. Agnes Rola, Dean, College of Public Affairs, UPLB; (5) Human Capital by Dr. Leonardo Lanzona, Jr., Professor, Department of Economics, Ateneo de Manila University; and (6) Estimation of Productivity Growth for Agriculture by Dr. Romeo Teruel, Research Director, University of La Salle.

The key findings and policy recommendations for some of the featured agricultural commodities include the following:

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