

UNIVERSITY CONSORTIUM

A quarterly newsletter for the Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources

UC Executive Board meets, approves new collaborative projects in 2010

The Executive Board of the Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC) held its 22nd meeting at the Tokyo University of Agriculture (TUA) in Tokyo, Japan on 12-13 November 2009.

During the meeting, the following new collaborative projects were approved for implementation starting 2010: 1) Dissertation Doctorate Program Scholarships for the University Consortium, two slots of which will be jointly funded by the TUA and the University Consortium, and one slot to be jointly funded by the TUA and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA); and 2) Research-based Internship Program of four University of British Columbia (UBC) students taking up the Master of Food Science and the Master of Food Resource Economics to be hosted in any of the UC members.



The UC Executive Board during the 22nd UC Executive Officers' Meeting held on 12-13 November 2009 at Tokyo University of Agriculture in Tokyo, Japan.

Aside from the new projects, the UC Executive Board also approved the management and financial reports of the UC Secretariat; and the planned activities for 2010 as follows: 1) hiring of contractual UC Secretariat staff on an output basis to assist in coordination of UC activities and in developing project proposals for the UC; 2) student and faculty exchanges; 3) thesis grants; 4) production of a new UC brochure and poster; 5) information dissemination activities; and the 5) conduct of the 23rd UC Executive Board Meeting. The Board also discussed the possibility to develop an international masters course to be offered by UC members.

The awarding of the Royal Thai Decoration to TUA Educational

Corporation President, Dr. **Toshiro Matsuda**, coincided with the UC meeting in TUA on 12 November 2009. The Decoration was granted to Dr. Matsuda in honor and recognition of his contribution to the advancement of agricultural research and development in Thailand up to the present. All participants of the UC Executive Board meeting and faculty and staff of TUA witnessed the awarding ceremony.

The University of the Philippines Los Baños (UPLB) will be the host of the 23rd UC meeting tentatively scheduled on the second week of November 2010.

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TUA Education Corp President receives Royal Thai decoration

Tokyo, Japan - Dr. **Toshiro Matsuda**, President of the Tokyo University of Agriculture Educational Corporation, received the Royal Thai Decoration on 12 November 2009 at Tokyo University of Agriculture (TUA) in Tokyo, Japan. The Royal Thai Decoration was granted to Dr. Matsuda in honor and recognition of his contribution to the advancement of agricultural research and development in Thailand up to the present.

Dr. Matsuda led many projects under the Japan Society for the Promotion of Science (JSPS) as agricultural economist and President of TUA. The TUA was the core university for JSPS program in agricultural sciences. In his speech, Dr. Matsuda acknowledged the Decoration and informed the audience that he spent a lot of time in Thai rural villages to conduct agricultural research projects directed towards



Dr. Toshiro Matsuda (right) holding the Decoration and shaking hands with Dr. Sornprach Thanisanwanyankura (left).

improving the welfare of small farmers. The JSPS projects that TUA conducted in Thailand were in cooperation with professors from Thai universities, including Kasetsart University (KU). The KU officially recommended Dr. Matsuda for the Decoration, which was presented to him by Dr. **Sornprach Thanisanwanyankura**,

KU's Vice President for International Affairs.

Officials of the Executive Board of the University Consortium witnessed the awarding ceremony.

KU is one of the founding members of the University Consortium. (ECCedicol with report from AFujimoto)

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Participants of the meeting were Dr. **Herry Suhardiyo**, Rector; Dr. **Khairil Anwar Notodiputro**, Dean of Graduate School, Dr. **Rinekso Soekmadi**, Director, Directorate of Collaboration and International Programs, all from Institut Pertanian Bogor, Indonesia; Dr. **Triwibowo Yuwono**, Dean, Faculty of Agriculture; Dr. **Arman Wijonarko**, Vice Dean of Collaboration and Student Affairs, Faculty of Agriculture; and Dr. **Masyhuri**, Director, Center for World Trade Studies, all from Universitas Gadjah Mada, Indonesia; Dr. **Nik Mustapha Raja Abdullah**, Vice Chancellor, and Dr.

Hasanah Mohd. Ghazali, Dean, School of Graduate Studies, both from Universiti Putra Malaysia; Dr. **Sornprach Thanisanwanyankura**, Vice President for International Affairs, Dr. **Somsakdi Tabtimthong**, Director, International Affairs Division, and Dr. **Norongchai Pipattawanong**, Director of Agro-Ecological System Research and Development Institute, all from Kasetsart University, Thailand; Dr. **Oscar B. Zamora**, Dean of Graduate School, and Dr. **Cristeta N. Cuaresma**, Secretary of Graduate School, both from UPLB; Dr. **Mahesh Upadhyaya**, Associate Dean, Faculty of Agricultural Sciences Graduate Studies,

University of British Columbia, Canada; Dr. **Richard Williams**, Professor and Coordinator, Faculty of International Programs, Faculty of Natural Resources, Agriculture, and Veterinary Science, University of Queensland, Australia; Dr. **Ohsawa Kanju**, President, Dr. **Akimi Fujimoto**, Director of International Programs, and Dr. **Mariko Uehara**, Deputy Director of International Programs, all from the Tokyo University of Agriculture, Japan; Dr. **Gil C. Saguiguit, Jr.**, Director; and Dr. **Editha C. Cedicol**, Manager of Graduate Scholarship Department, both from SEARCA. (ECCedicol)

New UGM Graduate School dean appointed



Photo courtesy of UGM

Prof. Dr. Ir. **Edhi Martono**, M.Sc. has been appointed as Dean, Graduate School, Universitas Gadjah Mada (UGM) by Prof. Ir. **Sudjarwadi**, M. Eng., Ph.D., Rector of UGM on 2 November 2009.

Prof. Martono replaced Prof. Dr. **Irwan Abdullah**, M.A. who has retired.

During the inauguration ceremony, Prof. Sudjarwadi asked the new official to work well and improve all the weaknesses in the organization.

"We must maintain the health of the organization. UGM has developed much, but there is still room for improvement with sustainable principles," he said.

The Rector also expressed gratitude to Prof. Irwan who had done his job well. Prof. Sudjarwadi said under the leadership of Prof. Irwan, much progress had been achieved by the Graduate Program, both for multidisciplinary and monodisciplinary sciences.

"Steps to improve the Graduate School are not constraint-free and they would become an experience for the next officials," he said. (Condensed from news in UGM website)

UQ researchers produce world's first transgenic sweet sorghum



Dr. Anshu Raghuwanshi with the world's first transgenic sweet sorghum plants. (Photo courtesy of UQ)

University of Queensland (UQ) researchers are leading green energy technology with confirmation of the world's first transgenic sweet sorghum plants.

Dr. **Anshu Raghuwanshi**, a Research Fellow in UQ's School of Biological Sciences, said sorghum had advantages as a biofuel crop, but until now, tissue culture steps in the gene transfer process had proven difficult, despite international efforts in recent years.

Dr. Raghuwanshi leads a research team that developed the gene transfer system for sweet sorghum, within an industry-collaborative R&D program led by UQ Professor Robert Birch.

"Sweet sorghum is a promising biofuel crop with potential for cultivation on marginal lands due to relatively high drought tolerance, low water requirement, short growing season and easy propagation by seed," Dr. Raghuwanshi said.

"The ability to use gene transfer to help produce improved varieties has significant commercial and industrial potential."

Professor Birch said that development of a transformation system opened up new avenues to tailor sweet sorghum varieties for optimum use in green energy, biofuel, and biomaterial production.

"I expect it to be a part of the sustainable 'green carbon' economy on a global scale into the future," Professor Birch said.

The work to develop the gene transfer system was undertaken in collaboration with CSR Sugar.

According to Dr. Raghuwanshi, sorghum was highly complementary to sugarcane in the expanding global need for renewable biofuel systems.

The UQ team is now interested in further development with Australian and international sorghum industry participants. (Source: UQ News Online 9 November 2009)

IPB produces super cassava

Institut Pertanian Bogor (IPB) has agreed to participate in the development of large-scale IDB Super Cassava (ISC) Plantation in Nusa Tenggara Timur (NTT) province.

IPB has signed on signed on 23 October 2009 a memorandum of understanding on said cassava plantation development with IDB Bio Research Development and Samyang IDB for the Reseach and Community Service in NTT.

The collaboration is envisioned to enhance the super cassava plantation project in terms of technical support and systemic development. IPB's research and information expertise is deemed the best resource for the special variety ISC Cassava, which is seen as key to efficiently expanding the plantation gradually from 300 ha

in 2009 to 30,000 ha in 2011.

In establishing the super cassava plantation, IPB will be involved in land surveys, evaluation of the agriculture environment, and research and development, among others.

Although cultivation of the super cassava in a large-scale plantation has been carried out for a long time, the corporate-dimension investment is a challenges that will first be met in Indonesia and in NTT.

The success of the project is seen as a solution to problems on food security and a new source of alternative energy. It could also contribute to social development in NTT in areas such as education, health, and infrastructure. Moreover, the project is envisioned to help the

government reduce unemployment in NTT as jobs become available with the opening of the plantation.

Cassava is cultivated throughout Indonesia and it is consumed as food as well as used for industrial purposes. With IPB's support and using the special variety ISC cassava, the project intends to put up a well-programmed plantation that will use economical and modernized plantation methods, which are comprehensively oriented with foreign investment.

Samyang IDB is a new joint venture investment company forged between Samyang Genex, a subsidiary of Samyang Group in Korea, and IDB Bio Research Development, which was established in November 2009. Samyang Group is the Korean company that invests in the Indonesian agricultural sector, specially in cassava.

IDB Bio Research Development has been active in agribusiness and in the bioenergy industry in Indonesia,. It has expertise in the cultivation the special variety ISC cassava for planting in large-scale plantation areas.

Founded on 1 September 1963 and located in Bogor, IPB is well-known for its agriculture and life science studies.

CARDS-IPB is one of prominent research center belonging to Research and Community Services Institute of IPB and for a long time now, it has played very extensive roles in rural and agricultural socioeconomic studies conducted across Indonesian regions. Its research concentration is still placed in rural and agriculture-related issues but it is expanding to cover other contemporary issues such as natural resources governance, economic partnership issues, poverty issues, rural income getering issues, and rural politics. (Source: IPB Public Relations, 4 November 2009)



Cassava is cultivated throughout Indonesia and consumed as food as well as for industrial purposes.

UPM produced multifunctional fruit device

A team of researchers from the Universiti Putra Malaysia (UPM) Faculty of Engineering has successfully produced a multifunctional device called Fruit Peeler and Grater to ease the process of grating, peeling, and slicing fruits as well as vegetables.

The significance of the device compared to other commercialized products is the automatic mode during the multi-functions of grating, peeling, and slicing.

Dr. **Siti Mazlina Mustapa Kamal**, Head of the Research Team, said the device is not only hygienic in nature but also time-saving and efficient in terms of peeling pace, hence significantly reducing the operational cost.

According to Dr. Siti Mazlina, the device, which is estimated at RM100 to RM150, is suitable for fruits of various sizes, including exotic ones such as dragon fruit.

"As for vegetables, it can be used on cucumbers, potatoes and tapiocas," she said in a press conference held at UPM to introduce new inventions by UPM.

The product won gold medal and was given 'The Best Award' during



Dr. Siti Mazlina (right) demonstrate how to use the fruit peeler while other members of her research team look on.

the Malaysia Technology Expo (MTE) 2009 and a patent for it was registered in 2008.

Dr. Siti Mazlina expressed that it is her hope that the product will be commercialized to the entrepreneurs, from the small industries and fruits and vegetable traders to food research

institutes, hotel and restaurant operators and even domestic consumers.

Fellow researchers, Mr. **Nur Aliaa Abd Rahman** and Ms. **Wan Zuha Wan Hasan**, had assisted Dr. Siti Mazlina in her invention. (Source: UPM website)

KU hosted UPM students' visit



UPM students being received by Kasetsart University's International Affairs Division, headed by Dr. Somsakdi Tabtimthong.

On 1-16 December 2009, Kasetsart University (KU) hosted the visit of 19 students accompanied by one teacher from Universiti Putra Malaysia (UPM). The UPM delegation visited the Faculty of Forestry, Faculty of Agriculture, Fishery, and Faculty of Agriculture at KU's Kamphaeng Saen campus as well as some government and private organizations. They sought to learn about agriculture, fishery, forestry, natural resources and environment. (Condensed from the KU website)

Alternative animal feed may help solve global fisheries crisis - UBC study

Finding alternative feed sources for chickens, pigs and other farm animals will significantly reduce pressure on the world's dwindling fisheries while contributing positively to climate change, according to University of British Columbia researchers.

"Thirty million tons (36%) of the world's total fisheries catch each year is currently ground up into fishmeal and oil to feed farmed fish, chickens and pigs," says Dr. **Daniel Pauly**, UBC fisheries researcher and co-author of the *Oryx: The International Journal of Conservation* article published online in November 2009.

"Meanwhile, 25% of infants in Peru—which produces half of the world's fishmeal using anchovies—are malnourished," says Dr. Pauly.

In the *Oryx* article, nine of the world's leading fisheries and conservation researchers—including four from UBC—reviewed the effectiveness of past conservation campaigns and propose new strategies to effect swifter and larger-scale changes.



Thirty million tons (36%) of the world's total fisheries catch each year is ground up into fishmeal and oil to feed farmed fish, chickens and pigs. (Photo source: earthfirst.com)

"Globally, pigs and chickens alone consume six times the amount of seafood as US consumers and twice that of Japan," says lead author Dr. **Jennifer Jacquet**, lead author of the *Oryx* article and a postdoctoral fellow at UBC's Fisheries Centre. "Ultimately these farm animals have a greater impact on our seafood supplies than the most successful seafood certification program."

"We should work to eliminate the use of tasty fish for livestock production. It's a waste," says Dr. Pauly. "Plus, it is not what pigs or chickens naturally eat. When is the last time you saw a chicken fishing?"

Many sustainable seafood campaigns focus on consumers but ignore large-scale market impacts—such as farming demand for fishmeal—and have failed to reach their goals, say the study's authors, which include Dr. **Enric Sala** of the National Geographic Society and Dr. **Rashid Sumaila** and Dr. **Tony Pitcher** of UBC.

After pioneering and distributing more than one million seafood wallet cards—pocket-sized guides that advise consumers of ocean-friendly seafood, the Monterey Bay Aquarium conducted a study that revealed no overall change in the market and that fishing pressures had not decreased for targeted species, the study points out.

"Sustainable seafood certification programs such as wallet cards have raised consumer awareness but are far less effective than targeting mega supermarket chains such as Walmart, Whole Foods and Loblaw through a combination of positive and negative publicity campaigns," says Dr. Jacquet, adding that more than 60% of seafood in Canada and half the seafood in the US is sold through supermarkets.

The authors also suggest establishing international standards for labeling sustainable seafood, eliminating harmful fisheries subsidies and leveraging momentum for fisheries conservation through existing global concerns for climate change.

"Global fisheries consume 13 billion gallons of fuel each year just to catch and land fish," says Dr. Jacquet. "That's more gas than 22 million cars would use. Energy use would be much higher if we include the fuel used to ship fish further for processing and to market. No discussion of the overall impact of fisheries would be complete without clarifying its contribution to greenhouse gas emissions and climate change."

"Overall, we'd like to encourage people to engage more as citizens—as they have with the global climate change movement – and less as mere consumers," said Pauly. "Big problems like overfishing require efforts to be directed at big change." (UBC Media Release, 9 November 2009)

The University Consortium

The Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources is a program launched on 19 September 1989 by SEARCA.

The idea of having such a program was formed in August 1988 when SEARCA, with convened a meeting of deans of five leading agricultural graduate schools in the region. The deans noted a rising demand for graduate education across all agricultural disciplines and related fields, strong agricultural and demographic pressures, and tremendous growth in education, and agreed to the idea of establishing a University Consortium.

The objectives of the Consortium are:

1. To provide highly trained personnel in agriculture and natural resources for national development of Southeast Asian countries.
2. To promote mutually beneficial cooperation among agricultural universities in the region.
3. To utilize more fully and efficiently the scarce resources and expertise available in each country in the region for top-quality graduate education and research.
4. To stimulate freer sharing and exchange of information, facilities, and expertise among agricultural universities in the region.

SEARCA has served as the Consortium's Secretariat since 1989. Its founding members are Universitas Gadjah Mada (UGM) and Institut Pertanian Bogor (IPB), both in Indonesia; Universiti Putra Malaysia (UPM) in Malaysia; University of the Philippines Los Baños (UPLB) in the Philippines; and Kasetsart University (KU) in Thailand. Four associate members have been admitted, namely: University of British Columbia (UBC) in Canada, University of Queensland (UQ) in Australia, Georg-August University of Göttingen in Germany, and Tokyo University of Agriculture in Japan.

"To be a leader in implementing collaborative strategies for excellent graduate education and cutting-edge research in agriculture, environment, and natural resources for the benefit of Southeast Asia" - this is the vision of the revitalized University Consortium.

The Consortium has five components, namely: faculty visits, research fellowships, professorial chairs, and thesis grants.

University Consortium is a newsletter published by the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) for the Southeast Asian University Consortium for Graduate Education in Agriculture and Natural Resources (UC). It can be downloaded from the UC website at <http://www.uc.searca.org>

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Carbon payment scheme could stop large-scale extinctions

University of Queensland (UQ) researchers have unveiled a new strategy for saving the world's forests on the eve of crucial climate change talks in Copenhagen, Denmark.

Published in the leading journal *Science*, the research suggests wealthy countries participate in a carbon payment system to encourage developing countries to keep their forests to avert a looming extinction crisis, in addition to avoiding dangerous climate change.

Experts from UQ and James Cook University assessed the ability to slow down species extinctions using both carbon-focused and biodiversity-focused strategies.

"We found that, dollar for dollar, a carbon-focused approach will contribute little to slowing biodiversity loss and save far fewer species than will a biodiversity-

focused strategy that targets the most imperilled forests," said lead author and UQ researcher **Oscar Venter**.

The study reveals if carbon payments focus narrowly on carbon and ignore threatened biodiversity, carbon-trading alone won't be enough to stave off large-scale extinctions of tropical species, according to co-author Dr. **Kerrie Wilson** from UQ.

"The problem is that the Amazon basin in South America, where there is still quite a lot of surviving forest, is the cheapest place to reduce emissions, but threatened species are concentrated in countries like Madagascar and the Philippines, where only a few scraps of forest remain," said co-author Professor **William Laurance** from James Cook University.

Fortunately, the authors found that a compromise is possible.

"If you tweak things a little, putting some carbon funds into countries that are good value for carbon but also biodiversity-rich, like Cameroon and the Philippines, you can save twice as many threatened species and still do a great deal to combat global warming," said co-author and director of UQ's Ecology Centre Professor **Hugh Possingham**.

Mr. Venter said billions of dollars will be spent on forest carbon initiatives in the next decade, and these could hold huge benefits for vanishing ecosystems and wildlife if engineered in the right way.

The team's findings are expected to draw much attention at the forthcoming climate negotiations in Copenhagen, where international leaders are hoping to hammer out a final strategy for combating global warming. (Source: UQ News Online, 3 December 2009)

UGM to establish veterinary medicine faculty in Laos, Cambodia

Universitas Gadjah Mada will initiate the establishment of a Faculty of Veterinary Medicine in Laos and Cambodia with support from the Japan International Cooperation Agency (JICA). UGM has been appointed as supervisor, together with Faculty of Veterinary Science of Yamaguchi University, Japan, of the establishment of said Faculty in Laos and Cambodia.

According to Dr. **Agung Budiyanto**, M.P., PhD, Head of UGM's Vet Professional Education Program, "this appointment is due to our similarities in culture, society and tropical animal species. We have been requested by JICA to help."

The cooperation agreement between UGM and Yamaguchi



The UGM Faculty of Veterinary Science in Yogyakarta, Indonesia. (Photo courtesy of UGM)

University were signed by the Dean of UGM's Faculty of Veterinary Science and his counterpart from Yamaguchi University.

In the agreement, the establishment of Faculty of Veterinary Medicine is set to begin in 2010. UGM staff and researchers will then be sent to Laos and Cambodia as temporary

lecturers. At the same time, several lecturer candidates from Laos and Cambodia will study at UGM. JICA will select the universities where the new Faculty of Veterinary Medicine will be established. (Condensed from UGM website news)