

**Economy & Environment Program for SE Asia
(EEPSEA)**

**Annual Report
July 1, 2004 - June 30, 2005**

**David Glover, Director
October, 2005**

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1. WHAT IS EEPSEA?

The Economy and Environment Program for Southeast Asia was established in May 1993 to support training and research in environmental and resource economics. Its goal is to strengthen local capacity for the economic analysis of environmental problems so that researchers can provide sound advice to policymakers. The program uses a networking approach to provide not only financial support but meetings, resource persons, access to literature, publication outlets, and opportunities for comparative research across its ten member countries. These are Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Cambodia, Lao PDR, China, Papua New Guinea and Sri Lanka.

EEPSEA's structure consists of a Sponsors Group, comprising all donors contributing at least USD 100,000 per year; an Advisory Committee of senior scholars and policy makers; and a small Secretariat in Singapore and Cambodia. EEPSEA is a project administered by the International Development Research Centre (IDRC) on behalf of the Sponsors Group.

Typically, researchers learn about EEPSEA by various means and apply for a research or training award. Most applicants attend one of EEPSEA's courses before or in conjunction with their research project. Budget ceilings for research projects are CAD 24,000-35,000, depending on the country. Researchers may be affiliated with a university, government or non-government organization and grants are normally made to that institution. Most projects are carried out by teams of researchers.

Proposals are sent to experts for written review. Those recommended for further consideration must then be revised and presented in a working group meeting at the next EEPSEA biannual meeting. Further revisions are usually called for, until the project is judged satisfactory and a grant approved. After approval, interim findings are presented and critiqued every six months until the project is completed. Researchers receive frequent technical assistance and literature from the Secretariat and resource persons. Final reports from successful projects are widely disseminated by EEPSEA and by the researchers themselves through publications, the media, and consultations with policy makers.

The selection process for both training and research awards is highly competitive. Approximately one application in four for research awards is accepted. To date, EEPSEA has provided training to some 545 people and supported 160 research projects.

2. HIGHLIGHTS

As always, this year's Annual Report emphasizes the **impacts and accomplishments** of EEPSEA's members, documenting a number of noteworthy achievements. These include seven examples of policy influence related to topics such as livestock waste and watershed management, new courses offered by EEPSEA members; and members' career achievements. Eight new projects were funded and four courses offered.

In January, an *external evaluation* of EEPSEA's last five years of operation was completed, with highly positive results. On July 1, 2005, EEPSEA's Deputy Director moved to Phnom Penh, Cambodia to take responsibility for EEPSEA's *expanded program of capacity building in Cambodia, Vietnam and Lao PDR*.

3. EXTERNAL EVALUATION

In January, *Dr. Jeffrey Vincent* of the University of California, San Diego completed an evaluation of EEPSEA's last five years of operation. The assessment was highly positive, as the report's abstract attests:

“During the past five years of its twelve-year history, EEPSEA did an excellent job in building capacity for policy-relevant environmental economics research in Southeast and East Asia. Its success is the product of several factors: sensitivity to its researchers' needs, abilities, and interests; a roster of outstanding resource persons, who understand and share EEPSEA's goals and methods and are highly committed; and a secretariat whose efficiency is remarkable, especially in view of its small size. Satisfaction with the program by all parties involved is high. There is little room for improvement in the selection of research projects, the advising of researchers, the design and implementation of training courses, and the dissemination of research results to academic and policy audiences and the public.

The recommendations in this report are largely in the nature of fine-tuning. They are chiefly aimed at promoting more scholarly interaction among EEPSEA's somewhat reticent researchers and encouraging them to take on more responsibility for advising on EEPSEA research projects and teaching in its courses. While the program has achieved high performance standards, it remains dependent on external resources... For this reason, EEPSEA should accelerate its efforts to nurture a local community of scholars that can eventually provide the intellectual support that has thus far come mainly from outside the region.”

For an electronic copy of the 100-page report, please contact Catherine Ndiaye at cndiaye@idrc.org.sg.

4. TRAINING

a) **Physical Science of Pollution Control for Economists**

This course was first offered by EEPSEA in December 1999. The same team of instructors (*David Barnes, Matt Davies* and *David James*) returned to teach it in November 21-25 in Bangkok, Thailand in conjunction with the biannual workshop. The five-day course covered the principal air and water pollutants typical of Asian cities; their sources and effects on humans & ecosystems; and common technologies for their control.

b) **Economics of Pollution Control, China**

EEPSEA provided a three-week course in resource economics to Chinese researchers in 2003. In February, 2005 the same group received a week of training on the economics of pollution control. The course took place in Beijing and was taught by *Benoit Laplante*.

c) **Fundraising**

At the May biannual workshop, EEPSEA offered a half-day course on effective methods for fundraising for research and training institutes. The session covered how to prepare grant requests, how to approach donors, how to present an effective “sales pitch”, and how to retain donor support. These topics were covered through lectures and role playing. Two-thirds of the participants used real projects in their role plays (i.e. activities for which their institutions are actively seeking funds) so the session promises to have immediate practical value.

Like our course on effective writing (see below), this course will be repeated periodically for new EEPSEA members.

d) **Effective Writing**

A half-day session on **effective writing** was first conducted at the May 2002 biannual workshop. In November 2002, it was expanded to a full day. It is now run periodically for EEPSEA researchers who were not present at earlier offerings (most recently in May 2005). It uses a combination of lectures, examples and hands-on exercises to demonstrate effective ways to present research results. Participants receive an interactive CD-ROM with which to further hone their skills after the workshop.

e) **Postdoctoral Award**

Rosalina Palanca-Tan of the Philippines received a six-month postdoctoral award to study at Gothenburg University, Sweden. There she enrolled in PhD courses and consulted faculty about possible topics for subsequent research. Since then, she has returned to Ateneo University where she is teaching new environmental economics courses based on those she took in Sweden. She has also submitted a new research proposal to EEPSEA.

5. RESEARCH

Eight projects were approved, two of which were PhD thesis awards.

1. Vo Thanh Danh
Groundwater Management in the Mekong Delta of Vietnam
2. Thanakvaro De Lopez
Forests, Development and Traditional Livelihoods in the Angkor World Heritage Site
3. Erwin Corong
Trade Liberalization, Carbon Emission and Poverty in the Philippines: A Dynamic CGE Analysis
4. Jing Cao
A Dynamic Computable General Equilibrium Analysis of Environmental Taxation and "Rural-Urban" Migration Distortions in China
5. Phan Thi Giac Tam
Cost-Benefit Analysis for Coastal Shrimp Farming in Vietnam
6. Aziz Aziz
Investigating Possibility of Implementing Ecological Tax for Petroleum Products and Electricity in Indonesia: Lessons Learned from Germany
7. Dieldre Harder
Saving the Philippines Eagles: How Much will this Cost and are Filipinos Willing to Pay for it?
8. Tran Huu Tuan
Using Stated Preference Techniques to Value Economic Benefits of Preservation of Cultural Heritage: The World Heritage Site, My Son Sanctuary

6. BIENNIAL WORKSHOPS

The format for these workshops is essentially unchanged in recent years. Effective January 2004, the deadlines to submit proposals in the biennial research awards competitions were moved forward by one month. This allows more time for review & revision and for planning of the associated biennial workshops.

The new deadlines for proposals are: *February 1* for the May workshop and *August 1* for the November workshop. Deadlines for interim and final reports are unchanged (*April 1* for the May workshop and *October 1* for the November workshop).

a) November 2004 Biannual Workshop

The twenty-second biannual workshop was held at the *Montien Riverside Hotel, Bangkok* and included two plenary sessions and a day of concurrent sessions for proposals and reports by researchers.

Dale Whittington discussed the costs & benefits of investments in municipal water and sanitation. The talk reflected his thirty years of experience in the sector – but not the conventional wisdom on the subject. A widespread view is that access to water and sanitation is a basic human right and is always and everywhere one of the best investments one can make to alleviate poverty. While governments and NGOs have frequently declared that everyone should have access to clean water and sanitation, progress toward this goal has been disappointingly slow. According to Dale, one of the reasons is that investments in water and sanitation are far more expensive than most people realize. Most developed countries did not achieve widespread distribution of water and sanitation in urban areas until relatively recently – when their per capita incomes were far higher than those of today’s developing countries.

Part of the problem is that people tend to focus only on one element of water supply, such as piped connections to households. But there are many other steps in the process, from acquiring water at its original source, transporting it to an urban area, purifying and providing it to households, through to treating and disposing of the wastewater. Households in some urban slums are so short of space that piped connections are not even practical – a shared water pipe is the only solution.

Furthermore, provision of clean water may not be the most cost-effective solution to some of the problems associated with poverty. For example, evidence suggests that investments in improved water and sanitation will not prevent the majority of diarrhea episodes. A more direct approach, such as typhoid and cholera vaccines, may be a more cost-effective approach to preventing some of the most serious water-borne diseases – at least until economic growth provides the incomes needed for improved water, sanitation and housing services. But such comparisons are rarely made. While feasibility studies may assess the cost-effectiveness of different options for providing water and sanitation, the basic choice of water versus other poverty-alleviating investments is rarely questioned.

Vic Adamowicz ran an interactive session on the ethics of survey-based research. Funding agencies increasingly insist that researchers pay attention to issues like informed consent, confidentiality, risks to survey respondents and so on. Such attention is also a requirement for EEPSEA awardees. In North American universities, ethics committee typically review research proposals and survey instruments to see if they conform to accepted standards, a practice that is relatively new to Asia.

After an exposition of the issues, Vic assigned researchers to one of four mock ethics committees. The committees then reviewed mock research proposals that had significant but unidentified ethical problems. The committees interviewed the research proponents; weighed the ethical issues; and issued decisions as to whether the mock proposals were approved, conditionally approved or sent back for revision. The session was an effective way to get people thinking about ethical issues which may not previously have seemed relevant.

b) May 2005 Biannual Workshop

The twenty-third biannual workshop was held at the *Le Meridien Hotel, Singapore* and included two plenary sessions and a day of concurrent sessions for presentations by researchers.

Benoit Laplante talked about his experiences as a member of the team that conducted a cost-benefit analysis of the proposed Nam Theun 2 dam in Lao PDR. As the team economist, he was expected to estimate the economic value of environmental impacts, for which physical data were scarce or non-existent. The talk provided lessons about how to carry useful analysis under difficult conditions and about how to better plan such large-scale impact studies in the future.

Subhrendu Pattanayak presented the results from two studies done at a single project site: the protected area in Indonesia. The first assessed possible relationship between deforestation and spread of malaria, while the second examined the impact of deforestation on drought in downstream areas. The talk illustrated the wide variety of services that forests can provide and offered suggestions for efficient research strategies. The latter included the extraction of information from a single data set to answer multiple questions, and use of follow-up visits to assess changes over time.

7. OTHER MEETINGS

a) Vietnam Environmental Economists Association

The Association held its annual meetings in June 2005, this time focusing on urban environmental issues. As in previous years, the meeting was co-financed by EEPSEA and local sources.

b) Curriculum Development Meeting for Vietnam Teacher Training Course

In June, the Deputy Director met with three senior Vietnamese academics. Over a two week period, they made the final selection of course materials, translated them into Vietnamese, and prepared a teachers' manual. These materials were later used in a three-week course for Vietnamese professors of environmental economics, which covered both course content and teaching methods. (This course will be described in next year's annual report.)

The manual is also suitable for other countries and its use will be promoted in forthcoming EEPSEA activities.

8. PUBLICATIONS PROGRAM

a) Research Reports

2004-RR1 *Incentives for Wastewater Management in Industrial Estates in Vietnam* - Le Quang Thong and Nguyen Anh Ngoc

2004-RR2 *Options for Mitigating Greenhouse Gas Emissions in Guiyang, China: A Cost-Ancillary Benefit Analysis* - Jing Cao

2004-RR3 *Distribution of Benefits and Costs among Stakeholders of Protected Area: An Empirical Study from China* - Yazhen Gong

2004-RR4 *Impacts of Unit Pricing of Solid Waste Collection and Disposal in Olongapo City, Philippines* - Ma. Eugenia Bennagen and Vincent Altez

2004-RR5 *Avoiding Adverse Health Impacts from Contaminated Vegetables: Options for Three Wetlands in Phnom Penh, Cambodia* - Sideth Muong

2004-RR6 *A Fishery in Transition: Impact of a Community Marine Reserve on a Coastal Fishery in Northern Mindanao, Philippines* - Asuncion De Guzman

2004-RR7 *Clean Incineration of Solid Waste: A Cost-Benefit Analysis for Manila* - Loreta and Carlito Rufo, Jr.

2005-RR1 *Implementation and Financing of Solid Waste Management in the Philippines* - Zenaida Sumalde

2005-RR2 *A Water User Fee for Households in Metro Manila, Philippines* - Margaret Calderon, Leni Camacho, Myrna Caradang, Josefina Dizon, Lucrecio Rebugio and Noel Tolentino

2005-RR3 *Household Demand for Improved Water Services in Ho Chi Minh City: A Comparison of Contingent Valuation and Choice Modeling Estimates* - Pham Khanh Nam and Tran Vo Hung Son

2005-RR4 *Valuing Biodiversity Conservation in a World Heritage Site: Citizens' Non-use Values for Tubbataha Reefs National Marine Park, Philippines* - Rodelio Subade

c) Policy Briefs

Industrial Estates and the Environment: A Study of Water Pollution in Vietnam - Le Quang Thong and Nguyen Anh Ngoc

The Hidden Benefits of Cooling the Global Greenhouse: A Lesson from China - Jing Cao

Sharing The Cost of Conservation: The Fanjingshan Nature Reserve in China - Yazhen Gong

Pay to Throw: A New Way to Charge for Waste Disposal in the Philippines - Ma. Eugenia C. Bennagen and Vincent Altez

Vegetables, Wetlands and Waste: Ensuring Food Safety in Phnom Penh, Cambodia - Sideth Muong

Do Marine Protected Areas Work?: A Case Study from the Philippines - Asuncion B. De Guzman

The Burning Question: Better Options for Incineration in Manila - Loreta and Carlito Rufo, Jr.

Searching for a Solution to Solid Waste in the Philippines - Zenaida M. Sumalde

Will People Pay to Protect Watersheds? A Case Study from the Philippines - Margaret Calderon et al

Tapping into Demand: A New Approach to Water Supply in Vietnam - Pham Khanh Nam and Tran Vo Hung Son

Reef Rescue: Financing Marine Conservation in the Philippines - Rodelio F. Subade

d) Translations

Approximately ten policy briefs are translated into Vietnamese and distributed widely in the country each year. These include all the policy briefs derived from EEPSEA Research Reports in Vietnam, as well as a selection of EEPSEA Research Reports from other countries.

e) Special Papers

The Reliability of Stated Preferences for Vaccines With and Without Time to Think - Dale Whittington et al

f) Website

Since 1996 we have tracked usage of our website and reported it in our Annual Reports. The earliest measure we used was “hits”. However, this is a poor measure of usage, since text, images and icons and so on require separate hits. A single printed page may require 5 or 6 hits. So in 1999, we began to monitor “user visits” i.e., the number of times visitors actually entered the site and extracted information. This is normally a much smaller figure than hits. The relevant statistics for 1996-2002 were recorded in our Annual Reports.

In 2003, EEPSEA’s website was redesigned and relocated to the IDRC server in Ottawa. For technical reasons, it was not possible to measure user visits during the transition period, which lasted several months.

For 04-05, we again face technical problems. At the time of writing, figures for website use are unavailable. Rather than delay distribution of this report, we will communicate website statistics separately when they become available.

9. IMPACT & OUTREACH

a) Policy Impact and Influence

i) Land Reclamation Plan Changed

Lourdes Montenegro's recently completed project on the environmental impacts of land reclamation in Cebu, Philippines appears to have influenced government policy. The study looked at what would happen to coastal resources, particularly fishing and recreation, if a proposed land reclamation plan were to go ahead. After her report was submitted to the local government, officials announced that the site for the reclamation project has been shifted away from the area containing the most fishing and coral and that its scale has been reduced to about 100 hectares. Officials also told Lourdes that they are now looking for ways to maximize possible economic benefits from those coastal resources through tourism.

ii) Thai Researcher Advises on International Agreements

Orapan Nabangchang has been involved in some international environmental meetings and negotiations recently. She was invited by the Permanent Secretary of the Ministry of Natural Resources & the Environment to participate in the CITES Conference of Parties in Bangkok, October 2-14, 2004. This was because the PS knew of her EEPSEA study on charitable behaviour of Thai people towards wildlife conservation. Apart from helping to write speeches for the Minister and the PS, she attended the wrap-up meetings and press conferences. She was subsequently asked by the PS to correspond about incidents of illegal trading of orangutans in the country.

She was also invited by the Deputy Director of the Royal Forestry Department to join the Task Force to review a proposal for submission to UNDP on Financial Sustainability of Protected Areas. Thailand is to be one of six countries which will be granted funds to undertake this study, which will prepare a larger project for the Global Environment Fund. Orapan provided advice on the economic valuation of resources in protected areas.

Orapan also participated in the World Conservation Congress organized by IUCN in November. Her main duties were to contribute to speeches by the Minister of Natural Resources & the Environment, in particular adding ideas from an economic perspective.

iii) Local Governments Adopt Economic Principles for Solid Waste

On June 9, *Cory Naz, Eugene Bennagen, Zeny Sumalde, and Gem Castillo* shared the findings of their various EEPSEA studies in a "clinic" on ecological solid waste management (ECOSWAM) financing and cost recovery for local governments in Camp John Hay, Baguio City, Philippines. The clinic provided a forum for local governments in the Baguio-Benguet district to present their solid waste management issues and seek advice from the EEPSEA ECOSWAM specialists. About 80 participants from local governments in Benguet province, the Department of Environment and Natural Resources (DENR), the Department of Interior and Local Government, the National Economic Development Authority, the Philippine Information Agency, the private sector, NGOs and the media shared their experiences and issues on the

growing garbage problem. Many local governments requested technical assistance in the design of user fee systems, in the pay-as-you-throw scheme and in full-cost accounting for waste management.

As a result of the clinic, the local governments of Benguet province and Baguio City have started to adopt full-cost accounting principles in the preparation of their ECOSWAM plans. Baguio City has requested the assistance of the EEPSEA researchers (through the Resources, Environment and Economics Center for Studies - REECS) in designing its solid waste management system and user fees.

Meanwhile, *Zeny Sumalde* was a resource person at the October 11-15 SWAPP Conference in Zamboanga City, a national event for some two hundred members of the Solid Waste Management Boards of the country's Local Government Units.

iv) Philippine Researcher Assists in Drafting Watershed Legislation

Marge Calderon's EEPSEA research looked at the willingness of Manila residents to pay for upstream watershed protection, as a way to safeguard the municipal water supply. As a result, she was invited to be a member of the group formulating the Implementing Rules and Regulations (IRR) of Executive Order 318, signed by President Arroyo in June 2004. Specifically, she is assigned to the group on "Proper Valuation and Pricing of Forestry Resources and Financing Sustainable Forest Management." The Executive Order is an important step forward, providing a legal basis for, among other things, the pricing and collection of fees for resource use.

v) Thai Legislators Pick Up on Biogas

Siriporn Kiratitkrankul's project on the potential for biogas on livestock farms in Thailand has not been completed yet - but is already attracting attention from policy makers. Her preliminary findings indicate that one bottleneck to biogas production is lack of a market for the gas that farmers produce in excess of their own requirements. Large amounts of useable biogas are routinely released into the atmosphere because farmers are unable to use, store or sell it. With oil prices at record high levels, a solution that reduces livestock waste while simultaneously providing renewable energy is well worth exploring.

Siriporn has discussed this several times at Parliament House in Bangkok with senior members of the Ministry of Agriculture and Cooperatives and other interested parties. Meetings have been held with the National Energy Policy Office, Department of Livestock Development, Electricity Generating Authority of Thailand and others to discuss barriers to the use of biogas, particularly lack of on-farm storage facilities.

As a result of these discussions, Parliament has taken steps to encourage pig farmers to install biogas systems, especially on medium and large scale farms. Large farms have the potential to supply electricity to the national grid and Parliament has taken measures to facilitate this.

Medium scale pig farms are particularly important, since they produce large amounts of

unused biogas (80 million m³ per year - equivalent to 48 million litres of diesel). At present, 80% of this is simply released into the atmosphere.

One possible solution for these farms is to compress and store the biogas in carbon fiber cylinders and then use it as vehicle fuel. To further explore this option, the Department of Alternative Energy Development and Efficiency (DEDE) at the Ministry of Energy has provided 5.5 million baht for Siriporn's university (Maejo, in Chiang Mai) to assess the feasibility of the carbon fiber cylinder system in more detail. If successful, this approach could provide a clean-burning energy source, reduce dependency on oil, and provide an additional source of income to farmers, while reducing a particularly bothersome source of rural pollution.

vi) Deputy Director Addresses Senate about Environmental Services

EEPSEA's Deputy Director *Hermi Francisco* spoke at the Senate-PIDS Economic Forum on May 25, 2005. The forum was organized by the Philippine Institute for Development Studies (PIDS) and the Senate Economic Planning Office (SEPO) as part of a series that explores the relevance of various research studies for the Senate's legislative agenda. The objective is to provide the technical staffs of the various Senate committees, the offices of the Senators and the SEPO with research-based findings that may help them in their drafting and discussion of certain bills relating to key policy issues.

Hermi's talk, about the role of environmental services payments in watershed management and environmental protection, was based largely on EEPSEA research projects and workshops.

vii) Stakeholders Discuss Livestock Waste

Les Catelo was invited by the Laguna Lake Development Authority (LLDA) to talk about her EEPSEA research at a workshop sponsored by the "Three-way Partnership Program between Chesapeake Bay, ThaChin River Basin and Laguna Lake" on August 19, 2004. LLDA and the Federation of River Basin Councils in the Laguna de Bay Region have entered into a partnership with environmental organizations based in Thailand and the US to pursue the exchange of best practices particularly in swine waste management. Aside from the delegates from Chesapeake Bay and Thailand, participation also came from Filipino hog raisers group officers, regulatory agencies and representatives of government and private institutions concerned with swine waste management.

b) Members' Accomplishments and Career Development

Several members applied skills they developed with EEPSEA in other fora, without EEPSEA funding.

Nguyen Van Hanh, of Vietnam's Institute of Energy, attended EEPSEA's November 2003 course on Climate Change and the *Clean Development Mechanism*. Since then, he has made use of the course in a number of ways. He has prepared a Vietnamese textbook on the CDM, based on the EEPSEA course materials, and used it to offer courses on the CDM in Ho Chi Minh City, Hanoi and Hue. He is also working on four CDM projects for the Institute of Energy:

- Preparing a data base for construction of the typical emission baseline for Vietnam for 2005-2010-2020-2030;
- Estimating greenhouse gas emission sources and CDM potential of energy production and consumption in Vietnam;
- Assessing demand for greenhouse gas reduction technologies in Vietnam energy/electricity production;
- Estimating the greenhouse gas reduction potential of applying the efficient fire chamber, modern combined cycle gas turbine and rice husk-fired power plants.

At Cantho University in Vietnam, a group of graduates of EEPSEA's regional training course (*Vo Thanh Danh, Mai Van Nam, Ngo Thi Thanh Truc, and Vo Thi Lang*) are collaborating with Groningen University in Holland on two research projects: "An Overview of Environmental Issues in the Mekong Delta, Vietnam" and "A Comparative Study of the '3 up, 3 down' Paddy Rice Production Model".

The Cambodia Development Resource Institute (CDRI) in Phnom Penh, Cambodia has recruited *Cory Naz* as Technical Advisor-Consultant in its Natural Resources and Environment (NRE) Programme from June to September 2005, to develop the 2006-2010 NRE strategic plan and programme. Cory has anchored the NRE plan on the framework of economy - environment linkages and the need to address market and policy failures as causes of environmental degradation. She also provided technical assistance to the ongoing NRE research project on "Managing Natural Resources for Poverty Reduction".

Sideth Muong worked as a consultant to the International Water Management Institute on its Assessment of Wastewater Irrigation Practices in Selected Cities of Less Developed Countries. Sideth used his EEPSEA report on Avoiding Adverse Health Impacts from Contaminated Vegetables as the main reference for his contribution.

Lourdes Montenegro recently finished her MPhil in Environmental Policy (Economics and International Law) at the Department of Land Economy, University of Cambridge. She graduated with a Letter of Congratulations from the degree committee for Distinguished Performance in Examinations. She is now teaching undergraduate and graduate environmental economics courses at the University of San Carlos in Cebu, Philippines, using EEPSEA Research Reports as part of the required reading.

Li Xing has finished her PhD and now is a post-doctoral research fellow at the Institute of Agricultural Economics, China Academy of Agricultural Sciences.

Grace Wong has finished her PhD and now works at Conservation International as Advisor for Corridor Economics and Strategies.

Jutamas (May) Arunanondchai has returned from her PhD studies in the UK and is Senior Researcher at the Fiscal Policy Research Institute, Bangkok.

Suparmoko introduced a new environmental economics course into the curriculum of Jenderal Soedirman University in Central Java, Indonesia.

Suparmoko also played an instrumental role in the formation of the *Indonesian Environmental and Resource Accounting Association*, of which he is Vice-chairman. The association held its first meeting in December 2003, with some 200 people in attendance, and will hold its next meeting in December 2005.

After completion of his EEPSEA research on trade and environment in the Philippines, *Caesar Cororaton* moved to the International Food Policy Research Institute (IFPRI) in Washington DC.

Yaoqi Zhang is now Assistant Professor at the School of Forestry & Wildlife Sciences, Auburn University, USA.

c) Journal Articles & Chapters

A number of publications derived from EEPSEA-funded reports were published in journals and books:

Jutamas May Arunanondchai, “Applied general equilibrium analysis of trade liberalization on land-based sectors in Malaysia and Indonesia”. Journal of Policy Modeling 25, 2003.

Xianqiang Mao, “Improving air quality in large cities by substituting natural gas for coal in China: changing idea and incentive policy implications”. Energy Policy 33, 2005.

Thanakvaro T. De Lopez, “Resource Degradation, Property Rights, Social Capital and Community Forestry in Cambodia”. In Forest Conservation: Policy Trend Report 2004, ed. K. Harada and M. Nanang, Institute for Global Environmental Strategies, Kanagawa, Japan.

Manxiu Ning, Funing Zhong and LiXing, “A Positive Analysis of Factors Influencing Farmers’ Decisions on Crop Insurance Participation”, Issues in Agricultural Economy, 2005 (6).

Mabec Campos, "Bioeconomic Modelling of Lamon Bay, Philippines" in In Turbulent Seas: The Status of Philippine Marine Fisheries. Philippines Dept. of Agriculture, Bureau of Fisheries and Aquatic Resources. August, 2004.

Lina Tan, “Water Pricing and Demand Management in Japan,” Loyola Schools Review, 2005.

Udomsak Seenprachawong, "An Economic Analysis of Coral Reefs in the Andaman Sea of Thailand" in Economic Valuation and Policy Priorities for Sustainable Management of Coral Reefs. The WorldFish Center Conference Proceedings. June 2004.

Pham Khanh Nam and Tran Vo Hung Son, "Recreational Value of the Coral Surrounding the Hon Mun Islands in Vietnam: A Travel Cost and Contingent Valuation Study" in Economic Valuation and Policy Priorities for Sustainable Management of Coral Reefs. The WorldFish Center Conference Proceedings. June 2004.

Hermi Francisco, Agnes Rola & Jennifer Liguton, Winning the Water War: Watersheds, Water Policies and Water Institutions. Philippine Institute of Development Studies, 2004.

Hermi Francisco, “Realities of Watershed Management in the Philippines: A Synthesis of Case Studies” (Philippine Institute of Development Studies Discussion Paper DP 2004-24)

Hermi Francisco, “Realities of Watershed Management in the Philippines: The Case of the Iloilo-Maasin Watershed” (Philippine Institute of Development Studies Discussion Paper DP 2004-22)

d) Citations and Re-publication

In several cases, methods employed by EEPSEA researchers were applied in research or development projects elsewhere. EEPSEA reports were also cited or re-published in other publications.

EEPSEA's report on the haze in 1997 is being used in secondary school textbooks in Singapore as an example of good use of statistics.

The EEPSEA/REECS book Economy & Environment: Selected Readings in the Philippines is being used to teach environmental economics in several universities in the Philippines.

The EEPSEA book Economy & Environment in Vietnam is being used by IUCN in its training courses for Vietnamese legislators.

Canesio Predo's study was cited in A. Rola and I. Coxhead "Economic Development and Environmental Management in the Uplands of Southeast Asia". 25th International Conference of International Agricultural Economists, Durban, South Africa August 2003.

Advisory Committee member Jikun Huang's work on agricultural biotechnology was cited twice this year in The Economist (November 20, 2004 and April 30, 2005).

e) Conference Presentations

Several researchers presented work supported by EEPSEA at regional and international conferences, most with sponsorship from other agencies.

Fangbin Qiao presented a paper derived from his work on biosafety at a conference of the International Consortium on Agricultural Biotechnology Research (ICABR) in Ravello, Italy, July 8-11.

Mabec Campos presented papers based on her EEPSEA work at three international conferences:

International Institute of Fisheries Economics and Trade (IIFET) Conference, Tokyo, July 25-30. This was attended by over 200 participants from 45 countries. A network for "Responsible Fisheries" was formed and Mabec was chosen to head the Philippine delegation.

Second International Symposium on Southeast Asian Water Environment, Hanoi, Vietnam, December 1-3.

Land-Ocean Interactions in Coastal Zones (LOICZ) II Inaugural Open Science Meeting. June 27-29. Egmond Aan Zee, The Netherlands.

Pham Khanh Nam's paper "Household Demand for Improved Water Services in Ho Chi

Minh City" was presented at the Australian National University's Annual Economics & Environment Network National Workshop, May 5-6.

Li Xing presented a paper based on her EEPSEA work at a conference of the China Council for International Cooperation on Environment and Development (CCICED) Beijing, China, June 28-30.

Sunil Chandrasiri talked about his work on vehicular air pollution at the National Symposium on Air Resource Management in Sri Lanka, organized by the Ministry of Environment, December 2-4.

Marge Calderon and her team presented their results during a public forum on "Sustaining Watersheds: the La Mesa Experience" September 3, 2004. This was jointly sponsored by Bantay Kalikasan, the NGO managing La Mesa, and the Australian Embassy in connection with the World Clean-up Day. The forum was attended by about 130 people from various sectors, including the Department of Environment and Natural Resources and water agencies.

Deputy Director *Hermi Francisco* presented "The What, Where and How of Environmental Service Payments in the Philippines" at the National Conference on Environmental Service Payments in the Philippines, March 1-2. The event was sponsored by WWF, RUPES-ICRAF, CARE, and REECS. The conference was attended by government and non-government organizations promoting watershed conservation in the country.

Prabodh Illukpitiya, with his thesis supervisor, John Yanagida, presented papers at two conferences:

"Trade-offs between agriculture and forest biodiversity: Does efficiency improvement in rural farming compensate for the opportunity cost of biodiversity conservation?" Presented at the 17th Annual CTAHR Student Research Symposium, University of Hawaii at Manoa, April 1-2.

"The role of income diversification in protecting natural forests: Evidence from rural households in forest margins of Sri Lanka". Presented at the 4th East-West Center International Graduate Student Conference, Honolulu, February 17-19.

Canesio Predo presented his work at the 5th International Conference on Environment and Development in Isabela State University, Philippines, April 11-13. The event was co-organized by World Agroforestry Centre and Cagayan Valley Program on Environment and Development.

f) Environmental Valuation Reference Inventory (EVRI)

Five new studies were input to Environment Canada's global valuation database.

In March, the Director presented a paper on "Benefits Transfer: An Asian Perspective" at an international workshop in Washington DC on Benefits Transfer and Valuation Databases: Are We Heading in the Right Direction?. The workshop was co-sponsored by Environment Canada and US-EPA. It discussed practical and theoretical issues related to benefit transfer and BT databases.

10. MANAGEMENT

Staffing of the Secretariat underwent some changes.

EEPSEA's Deputy Director, *Herminia Francisco*, retired from the University of the Philippines and began to work full-time (rather than 60%) for EEPSEA. On July 1, 2005, she moved to Phnom Penh, Cambodia to take responsibility for EEPSEA's expanded program of capacity building in Cambodia, Vietnam and Lao PDR. She can be reached at the following address:

c/o Cambodia Development Resource Institute (CDRI)
PO Box 622, Phnom Penh, Cambodia
Tel: (855-23) 881-701 / 883-603 / 881-384
Tel/Fax: (855-23) 880-734
Email: hfrancisco@idrc.org.sg (unchanged)

The Director, *David Glover*, has been advising IDRC and Sida about potential programs in environmental economics in other regions. He acts as the officer responsible for IDRC's recent grants to the South Asian Network for Development & Environment Economics (SANDEE) and the Latin American & Caribbean Environmental Economics Program (LACEEP).

Catherine Ndiaye continues in Singapore as Program Assistant.

Annex

SPONSORS GROUP

The Sponsors Group of participating donors sets policy, provides financial support and approves the annual Program of Work & Budget. It comprises all donors contributing at least USD 100,000 per year. The current membership is listed below. All amounts are expressed in CAD. (Since contributions are made in the donor's currency, exact CAD equivalents may vary.)

Sida extended its current grant and increased the annual rate of funding, effective January 2006 to CAD 570,000/year. The figure below reflects the contribution rate in effect in 04-05.

International Development Research Centre (IDRC), Canada	\$800,000/year
Swedish International Development Agency (Sida)	\$455,000/year
Canadian International Development Agency (CIDA)	\$400,000/year

ADVISORY COMMITTEE

The Advisory Committee advises the Director on priorities for research and training and recommends to the Sponsors Group the annual Program of Work. The Committee consists of senior scholars and policy makers active in environmental management in Asia. A majority of the Committee's members are from Asia. Each member has a three-year term, renewable once for Asian members. The Committee meets once a year, in conjunction with the November biannual workshop. The current membership is listed below.

Dr. Suthawan Sathirathai, Good Governance for Social Development and the Environment Institute, Thailand

Dr. Jikun Huang, Chinese Centre for Agricultural Policy

Dr. Le Quy An, Vietnam Society for Nature Conservancy and former Vice-Minister of Science, Technology and Environment, Vietnam (deceased September 2005)

Mr. Agus Purnomo, Pelangi Indonesia

Dr. Myrick Freeman III, Bowdoin College, USA