Evaluation of
Economy and Environment Program for Southeast Asia (EEPSEA)
January 1, 2000 to December 31, 2004

Prepared by

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Abstract

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. Not only EEPSEA’s funding but most of its technical assistance comes from non-Asian sources. While researchers universally express a great deal of appreciation for and satisfaction with the technical advice they receive, and evince no desire for greater Asian involvement for its own sake, donors are unlikely to support this level of external assistance indefinitely. 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. This could start with simple steps like requiring every researcher at the biannual workshops to act as a discussant for someone else’s presentation. Those who perform well could be selected as apprentice advisors, paired with one of EEPSEA’s external resource persons, and given increasing responsibility over the course of several project cycles until they are ready to serve as solo advisors. More ambitious measures, such as the establishment of an Asian journal of environmental economics, which could be linked to one or more of the professional associations that EEPSEA has helped create, could also be explored.

This phase of EEPSEA’s work—strengthening the Southeast Asian community of environmental economists—will likely be more difficult than the task on which EEPSEA has largely concentrated to date, namely providing researchers with technical support of the highest caliber, regardless of its source. This new orientation should be pursued gradually, with the aim of extending EEPSEA’s approach, rather than fundamentally altering it.

Concentrating on the development of individual researchers’ capacity remains appropriate in poorer countries such as Cambodia and Lao PDR, where training in economics is more limited. To replicate the success it has achieved in other countries, EEPSEA will need to identify and work closely with organizations in Cambodia and Lao PDR where there is a research culture and provide institutional support to strengthen that culture. It might also need to provide more support for graduate training to expand the number of environmental economists in those countries, although its existing dissertation fieldwork grants program might be the most appropriate way for it to contribute to graduate training.
Executive Summary

This report presents the findings of an evaluation of the activities of the Economy and Environment Program for Southeast Asia (EEPSEA) during the period January 1, 2000 to December 31, 2004. The evaluation was based on documents produced by EEPSEA during the evaluation period, material posted on its website, and interviews and observations during the November, 2004 biannual workshop in Bangkok. The report is organized according to eight questions included in the terms of reference for the evaluation.

1 Output: what is the quality of the research produced?

The quality of EEPSEA research can be inferred from the number of publications generated by its projects and the outlets where those publications appeared. Publication in peer-reviewed outlets is the best indicator of research quality. The average EEPSEA project generated 1.3 publications. Publications were split nearly evenly between ones published by EEPSEA and ones published by external sources. EEPSEA publications were mainly Research Reports, which are peer-reviewed discussion papers. About three-fifths of EEPSEA projects generated Research Reports. Although this might appear to be a low proportion, such a “glass half-empty” view fails to take into account EEPSEA’s capacity-building mission and the academic training and prior research experience of the pool of researchers from which it draws. Through the combination of Research Reports and other publications, EEPSEA appears to be squeezing the optimal number of its own publications out of the projects it funds.

The Research Reports are an important dissemination mechanism, but they should not be the final resting place for the output of EEPSEA projects. The most important reason is that EEPSEA researchers must learn the ropes of publishing in external outlets if they are to form a community of scholars whose ability to communicate with each other in print does not depend on EEPSEA being a permanent program. EEPSEA researchers have succeeded in publishing in leading international environmental economics journals, and they have also published in a variety of international multidisciplinary environmental and natural resources journals and books from highly regarded international scientific publishers and leading international publishers of environmental economics books.

The number of researchers who published in external, peer-reviewed outlets was only about half of the number of those who published Research Reports, however. This is disappointing. Although most Research Reports are too long for a journal submission, they are already peer-reviewed and edited, and they thus offer high-quality material from which EEPSEA researchers should rather easily be able to distill one or more manuscripts suitable for publication in a refereed journal. Local journals are one outlet where there has been a surprising shortfall in publication.

2 Process: Has the project cycle of meetings and technical assistance been effective in developing research skills and research output?

Overall, the project cycle is running smoothly and leaves little room for improvement. It has
been highly effective in developing the skills of local researchers, and it has been administered with near-perfect efficiency. Full appreciation of this process requires some knowledge of the interactions that occur among the secretariat, advisors, and researchers during the project cycle. Table 4 illustrates the intensity of these interactions for one particular project; although this table is in the main report, readers of the executive summary are encouraged to look at it. EEPSEA pushes individuals to produce the best possible research they can. It takes into account differences in individuals’ knowledge and experience, and it provides them with thorough and prompt feedback. It works hard to identify individuals who are willing to work hard, and it monitors their progress closely. It does not hesitate to threaten termination of a project if progress is unsatisfactory.

Workshop evaluations provide information about just the workshops, not the entire project cycle. Although their scope is limited, they are the best source of information of participants’ satisfaction with the project cycle because they are nearly complete from a sampling perspective—they are available for all the workshops during the evaluation period, and nearly all participants completed them—and because the workshops are the focal point of the project cycle. They indicate a consistently high level of satisfaction with all aspects of the workshops, with no evidence of downward trends and very little room for upward trends. Written comments on the questionnaires reinforce the numerical results, and they were echoed in my interviews with participants at the November, 2004 workshop.

My observations at the November, 2004 workshop were consistent with the strongly positive views expressed by participants in the workshop evaluations and interviews. To begin, the secretariat is obviously exceptionally capable. Perhaps the best evidence of its ability was the resilience it demonstrated in responding to an unusual—as all participants, resource persons, and advisory board members agreed—series of mishaps associated with this particular workshop. The dedication of the resource people and the quality of their advice was abundantly evident in both the working groups and the concluding bilateral sessions. The resource persons emphasized the need for the research to be rigorous, and they cautioned the participants against drawing policy implications not supported by the research. They geared their advice to the “absorptive capacity” of the participants. The workshop was notable for its overall tone: not much tension and lots of laughter, without undermining the seriousness of the discussions.

3 Training: Aside from capacity building through the project cycle, what is the quality and effectiveness of EEPSEA’s various short courses?

The main training courses that EEPSEA organized during the evaluation period included its flagship, 4-week regional training course in environmental and resource economics, which was offered three times during the period; shorter versions of this course or modules from it that were offered in particular countries; and several courses on special topics. The overall impression is that the regional training course was very good to begin with and has improved over time and that EEPSEA has achieved success in rolling out in-country versions of this course and other, more specialized courses.

Mean responses from participant evaluations for the regional training courses mirror those for the biannual workshops, with most ratings at the high end of the range. Participants were most
satisfied with the natural resources module and least satisfied with the valuation module. In the case of the latter module they felt more practical exercises should be added. Past participants who were interviewed at the November, 2004 workshop made comments consistent with these. They commended the instructors for the clarity of their lectures and for demonstrating the link between theory and practice, especially in the case of the natural resources module. A few stated that too much of the material in the course assumes well-functioning markets and strong government institutions, and that this reduces, or at least makes less apparent, its applicability to countries in the region. They called for more consideration of the relevance of environmental economics theory and methods in situations of weak institutions.

Regarding the in-country courses, evaluations were available only for a course taught in China. The patterns of the ratings are similar to those for the regional course. Specialized courses organized by EEPSEA covered a variety of topics, ranging from ones more focused on environmental science to ones on advanced topics in environmental economics. EEPSEA broke new ground with the environmental science courses: environmental economics courses for noneconomists are relatively common, but environmental science courses for economists are not. Such courses are important for EEPSEA because many of its projects involve multidisciplinary teams. The broad implication of the participant evaluations is that these courses, like the regional training courses, have been very well-received.

A main reason for offering short courses is to prompt the generation of proposals for EEPSEA research projects. The secretariat and resource persons and advisory committee members who were interviewed at the November, 2004 workshop expressed some disappointment that the courses do not lead to more proposals. Only a minority of course participants submit proposals. The low yield of proposals pertains to the broader issue of the sustainability of EEPSEA’s program, which is considered below.

4 Dissemination: Are research outputs disseminated in a suitable form and to an appropriate audience? Do researchers get the support they need from EEPSEA to present and disseminate their work effectively?

EEPSEA aims to disseminate the results of its research to both academic and policy audiences. Results of a subscribers’ survey conducted in 2002/03 indicate that EEPSEA has succeeded in reaching both audiences. Subscribers indicated a high level of satisfaction with Research Papers and Policy Briefs. In 2002/03, EEPSEA shifted toward more reliance on electronic distribution, to cut costs and to capitalize on increased access to the Internet in the region. The shift to electronic distribution was timely and appropriate, and it appears to have been implemented smoothly.

It is difficult to think of a way that EEPSEA does not currently provide researchers with the support they need to disseminate their work effectively. It helps them develop their written and oral communications skills in a variety of ways, and it provides funding for special events that create opportunities for researchers to interact directly with government officials, civil society, and the media. The most important support is the tailored feedback that researchers receive throughout the project cycle. EEPSEA has also organized special sessions, plenary talks, and role-playing exercises related to effective writing for a policy audience.
5 Impact: Is the program having an appreciable impact on teaching, career development, public discussion, and policy making in the region?

Teaching

Participants’ involvement with EEPSEA has undoubtedly broadened and deepened their knowledge of environmental economics and thus made them more likely to convey accurate and up-to-date information when they teach. Several participants who were interviewed at the November, 2004 workshop stated that they were now better, more confident teachers as a result of their association with EEPSEA. EEPSEA enhances the quality of the content of courses taught locally by generating materials that are useful for teaching and have a local flavor. EEPSEA also helps with pedagogy. The advice that the secretariat and resource persons offer on participants’ presentations at the biannual workshops improves participants’ ability to present environmental economics concepts clearly and in an interesting manner.

It appears that very few, if any, teachers of environmental economics in the region have not participated in at least one EEPSEA activity. EEPSEA alumni have launched a number of new environmental economics courses and degree programs. Without EEPSEA, the scale and scope of teaching of environmental economics in the region clearly would have been dramatically lower.

Career development

Both indirect and direct evidence indicates that EEPSEA has had a substantial impact on the professional careers of its participants. Indirect evidence refers to EEPSEA’s success in building the skills needed by environmental economics researchers and practitioners. Direct evidence includes promotions, awards, and other examples of EEPSEA participants having advanced in their careers thanks to the skills they have gained through their involvement with EEPSEA. The annual reports list many such examples.

Public discussion

The annual reports list several examples of EEPSEA’s research findings being reported by the media. Even allowing for incomplete lists in the annual reports, the number of examples is small. It appears that, with a few exceptions, EEPSEA did not have a large impact on public discussion though the media. Instead of being broadcast, the results of its research projects have instead been transmitted in a more targeted way through project-specific dissemination events. Although those events reach fewer members of the public than stories in the national or international media, the members they do reach are more likely to have an interest in the information conveyed than the public at large. Most EEPSEA projects focus on quite narrow topics, which is appropriate from a research standpoint but makes them unlikely to attract widespread media coverage. It should not be surprised or disappointed if few of its studies are picked up by the media, especially the international media.

Policy making
EEPSEA’s impact on policy making must be put in perspective. It is a rare event anywhere for an environmental economics study to have an immediate and direct impact on a government decision. Instead, environmental economics research typically influences policy in an indirect fashion and with some delay. The policy recommendations that flow from environmental economics studies often go against the grain of existing policies, which are usually based more on ecological or engineering considerations and do not balance benefits and costs. Overturning the status quo can take time. It usually requires a combination of factors, not just a single study.

The 1999/00-2003/04 annual reports listed 17 distinct cases of policy impacts, in the sense of EEPSEA research having influenced a government decision, from eight different countries. This total was about one for every five projects funded during the period. This is a low proportion. Is it cause for concern? I think not, for several reasons. First, establishing a link between research and policy change is always difficult. Second, the lists in the annual reports are incomplete. A third reason is that EEPSEA is not failing to get the message out in suitable ways. More than a quarter (28.8 percent) of the respondents to the 2002/03 subscriber’s survey stated that they used Policy Briefs “As input to decisions in government.” A fourth reason is that many of the researchers funded by EEPSEA are young, and their inexperience creates obstacles in interacting with government officials. Given that EEPSEA’s mission is to develop capacity to conduct policy-relevant research, it necessarily must work with bright researchers at the start of their careers.

The final and most important reason is that EEPSEA’s processes for selecting policy-relevant research projects and assisting researchers in formulating policy recommendations provide confidence that EEPSEA is squeezing the most policy juice from the studies it funds. Some projects address issues that have already caught governments’ attention, while others address ones that have not yet, but should. Although research on issues that have already caught government attention is more likely to have a quick and identifiable policy impact, research on issues that governments have ignored or downplayed is potentially more important, as it helps ensure that governments set the right environmental priorities. EEPSEA wisely does not require projects to have an immediate government “client,” which would reduce their likelihood of identifying governments’ blindspots and myopia.

6 Sustainability: Based on the evidence from Item 5, is the program developing self-sufficient communities of environmental economists in member countries? In particular, are member countries developing the ability to train their own environmental economists in their own institutions?

EEPSEA’s impact on the teaching of environmental economics has been most substantial, both in absolute terms and relative to country size, in the Philippines, Sri Lanka, and Vietnam. Moreover, during or just before the start of the evaluation period, EEPSEA supported the founding of the Resources and Environmental Economics Association of the Philippines and the Vietnamese Association of Environmental Economists. EEPSEA also supported the founding of the Malaysian Association of Resource and Environmental Economists.
A community of scholars requires a critical mass of researchers with shared interests in a field. One straightforward indicator of the national level of interest in environmental economics is the quantity of proposals submitted to EEPSEA. In turn, this is reflected, though not perfectly, in the number of approved projects by country. Consistent with the other evidence cited in the previous paragraph, the Philippines and Vietnam were the first and second largest sources, respectively, of approved projects during 1999/00-2003/04. Sri Lanka was also a large source relative to its size.

Sustaining a community of scholars requires attracting new individuals to join it, in particular junior researchers, and keeping existing members involved in research and other scholarly activities. One purpose of EEPSEA’s training courses is to elicit project proposals from new individuals. The regional training course includes sessions on proposal development. About a third of the participants in this course typically submit proposals. The secretariat is somewhat disappointed with this yield, but a yield of one-in-three is respectable. Moreover, to a large degree this yield is determined by factors beyond EEPSEA’s control. The most important of these factors is the opportunity cost of time for academic economists in the region.

Consultancies and other income-generating opportunities are the main reason senior academics in the region move out of research and teaching. Objective evidence on the extent to which university lecturers who receive EEPSEA research grants remain academically active after their EEPSEA grants finish is not available. Anecdotal evidence indicates that some do and some don’t, with the proportions unclear but many examples of individuals whose association with EEPSEA has fortified their interest in research and teaching. The issue is not so much the proportion of past grantees who remain academically active, but rather whether the proportion is higher than it would have been in the absence of EEPSEA. I have no doubt that it is.

**Interaction within the community**

A community of scholars consists of more than productive researchers and effective teachers. Its most important function is peer review, which provides quality control over the generation of new knowledge. EEPSEA develops local scholars’ skills as peer reviewers in a variety of indirect and direct ways. On the whole, however, the amount of intra-regional scholarly interaction, in particular the amount of peer feedback, is less in EEPSEA than in similar capacity-building programs in Africa, Latin America, and South Asia. Asian experts play a very small role as resource persons for research projects. During the evaluation period, EEPSEA drew its project advisors almost exclusively from North American universities. The point is not that the North American experts are anything less than outstanding resource persons for EEPSEA research projects. Rather, it is that the existence of Asian experts who are able to serve in a similar capacity is a vital sign of the sustainability of environmental economics in the region.

Although sustainability requires a shift of responsibility toward Asian resource persons, such a shift should not be sudden or necessarily complete. Participants interviewed at the November, 2004 workshop emphasized repeatedly, and without exception, that the knowledge and mentoring skills of resource persons are what matter most to them. They do not want Asian resource persons just for the sake of EEPSEA looking more Asian. North America is unquestionably a center for the development of new environmental economics theories and
methods, and participants cherish the opportunity to learn directly from the individuals responsible for these developments. They also place a high value on the different perspectives that resource persons from outside the region bring to EEPSEA, which as one noted prevents “in-breeding” within the still relatively small community in the region.

7 Poorer countries: Has the program effectively addressed the needs of countries like Vietnam, Cambodia, and Lao PDR? What other activities might meet those needs? Are there any models or lessons from the experience of other agencies working in those countries?

This item was addressed by a separate evaluator, Philip Hirsch, who prepared a review report titled “EEPSEA in Cambodia, Lao PDR and Vietnam.” Hirsch’s summary assessment of EEPSEA’s impact in the three countries is as follows:

EEPSEA has done a very good job in getting environmental economics established as a discipline, as a research approach and potentially as a policy influence in Vietnam, and is well regarded there. EEPSEA has had less impact in Cambodia but is well regarded by those who have been associated with the program. EEPSEA has had relatively little training impact, minor research capacity impact and virtually no policy impact in Lao PDR and has little profile there even among the most relevant people at the most relevant institutions.

This relative ranking, with Vietnam at the top and Lao PDR at the bottom, is consistent with my own review of the evidence. I also agree with Hirsch’s summary of the obstacles that EEPSEA has faced in the three countries, which include their relative inexperience with market economics as a practice and as a discipline, their politically closed nature, limited English-language skills, and the low salaries of researchers. He notes, however, that the last obstacle, the opportunity cost of research for individuals who receive low salaries but have relatively lucrative opportunities as consultants, “has not been an absolute barrier in the case of Vietnam,” which has a stronger research tradition and professional research culture than the other two countries.

When placed in this context of research tradition and culture, two of Hirsch’s recommendations for capacity-building in Cambodia and Lao PDR make sense. The first is to identify and work more closely with organizations where there is at least a trace of a research culture. The second is “to invest in a small number of key individuals to take them to a higher level of expertise (PhD level).” Although donors have tended to shy away from supporting graduate training, Hirsch is probably correct in concluding that more investment in graduate training is needed to establish a critical mass of environmental economists in the two countries. Whether or not EEPSEA accepts these two recommendations of Hirsch’s, it does appear to need to develop a deeper understanding of universities, research institutes, and other organizations in Cambodia and Lao PDR in order to develop stronger programs in the two countries.

Better understanding on an ongoing basis might also be promoted by relocating the regional training course from its every-other-year home at UP Los Banos to a suitable university in Cambodia (if one can be found) or Vietnam (if one cannot). A more dramatic move along these lines would be to relocate the EEPSEA headquarters from Singapore to Cambodia or Vietnam. Either of these moves would need to be carefully considered, however, to ensure that the
secretariat can continue to provide the high level of administrative services required to run a regional capacity-building program.

8 Gender balance: Has EEPSEA achieved a reasonable gender balance in its capacity building and research activities?

Economics is a male-dominated profession in most parts of the world. EEPSEA has done better than average. It has achieved approximate parity between male and female participants in its activities. The proportion of female participants varies by country and appears to roughly parallel the populations of female economists in those countries.

Recommendations

EEPSEA is an efficient and successful capacity-building program. There are no major defects in its design or implementation. It does face two principal challenges, however: replicating the success it has achieved in other countries in Cambodia and Lao PDR; and developing the capacity of Asian environmental economists to review each others’ work and mentor junior researchers, which are critical features of a sustainable scholarly community. I have already reviewed Hirsch’s recommendations related to Cambodia and Lao PDR. Recommendations related to sustainability include:

- Actively recruit more Asian experts to serve as instructors in EEPSEA’s training courses and advisors for its research projects, and more Asian members of the Ad Comm who can serve as resource persons during the biannual workshops—A transition to more reliance on Asian resource persons is essential, but it should not be sudden, nor should it necessarily be complete. Maintaining high quality teaching and advising is of paramount importance.

- Convene a meeting of resource persons and Ad Comm members in the afternoon of Day 4, to discuss decisions on proposals and major recommendations on interim and final reports—The meeting would be an important means of nurturing a scholarly community by promoting interchange among Asian resource persons and Ad Comm members.

- Prepare and review with resource persons a set of guidelines for the working group sessions, to encourage more participation by Asian participants—In particular, a local discussant could be appointed for each proposal and report presented in the sessions.

- Invite 2-3 ad hoc Asian resource persons to the biannual workshops—This recommendation is less necessary if the first recommendation above is successfully implemented.

- Investigate the desirability of launching an Asian environmental and resource economics journal—A new journal could provide a center of attraction for the regional environmental economics community: a reason to interact professionally outside of the EEPSEA project cycle and to continue interacting after EEPSEA no longer exists.
These recommendations are spelled out in more detail in the main report, which also includes numerous recommendations related to other issues (output, process, training, etc.). Most of those recommendations are of a fine-tuning type.
Main Report

Introduction

This report presents the findings of an evaluation of the activities of the Economy and Environment Program for Southeast Asia (EEPSEA) during the period January 1, 2000 to December 31, 2004. The evaluation was commissioned by the EEPSEA Sponsors Group, which consists of donors who provide at least USD 100,000 of annual financial support. This group includes, in order of size of contribution, the International Development Research Centre (IDRC), Canada; the Swedish International Development Agency (Sida); and the Canadian International Development Agency (CIDA).

The terms of reference for the evaluation contained the following eight questions:

1. **Output**: What is the quality of the research produced?

2. **Process**: Has the project cycle of meetings and technical assistance been effective in developing research skills and research output?

3. **Training**: Aside from capacity building through the project cycle, what is the quality and effectiveness of EEPSEA’s various short courses?

4. **Dissemination**: Are research outputs disseminated in a suitable form and to an appropriate audience? Do researchers get the support they need to present and disseminate their work effectively?

5. **Impact**: Is the program having appreciable impact on teaching, career development, public discussion and policy making in the region?

6. **Sustainability**: Based on evidence from Item 5, is the program developing self-sustaining communities of environmental economists in member countries? In particular, are member countries developing the ability to train their own environmental economists in their own institutions?

7. **Poorer countries**: Has the program effectively addressed the needs of countries like Vietnam, Cambodia and Lao PDR? What other activities might meet those needs? Are there any models or lessons from the experience of other agencies working in those countries?

8. **Gender balance**: Has EEPSEA achieved a reasonable gender balance in its capacity building and research activities?

The report is organized around these questions, with a separate section on each one. The final section of the report contains recommendations based on the analysis in these sections. The
report assumes that the reader is familiar with EEPSEA’s mission, structure, and principal activities. Readers without this familiarity should begin by reading Appendix 1.

The evaluation was based on various sources of information. The first was a thorough review of documents produced by EEPSEA during the evaluation period and material posted on its website. Documents included, among others, annual reports, research publications, a 2004 tracer study conducted by the EEPSEA secretariat, programs and evaluation results for biannual workshops and training courses, and memos prepared by proposal reviewers and research advisors. The annual reports were especially useful. Because they refer to July-June fiscal years instead of calendar years, some of the information in this report refers to the period 1999/00-2003/04 instead of 2000-2004. This discrepancy does not have a significant impact on the findings. It is also important to note that coverage of item 7 in this report is largely a discussion of a separate report prepared by a different evaluator, Philip Hirsch.

The evaluation also draws on interviews and observations during the November, 2004 biannual workshop in Bangkok. Appendix 2 lists the individuals whom I interviewed. According to the secretariat, the Bangkok workshop was typical of workshops during the period. Day 1 was devoted to preliminary bilateral sessions between the secretariat and researchers who were making presentations during the workshop. Day 2 began with a plenary talk by one resource person and the introduction of an interactive exercise by another. The rest of Day 2 and all of Day 3 were spent in working group sessions. Day 4 had concluding bilateral sessions between researchers and their advisors in the morning and a meeting of EEPSEA’s Advisory Committee (Ad Comm) in the afternoon. Small variations from the norm included the participation of some resource persons in the preliminary bilateral sessions on Day 1, a somewhat wider range of projects in terms of level of sophistication, fewer final reports, and several sessions devoted to discussions of a cross-country contingent valuation project. These variations are minor and do not bias the information collected at the workshop.

Table 1 provides summary statistics on approved EEPSEA research projects during 1999/00-2003/04. Appendix 3 provides more detail on the individual projects. As can be seen, EEPSEA projects were drawn from countries across the region and pertained to a variety of themes. Some of the differences in numbers across countries and themes will be discussed later in this report. Approved projects are the result of a process that begins with about 30 proposals being submitted to the secretariat twice a year. The secretariat selects about 20 of the proposals for further consideration. Typically two of the 20 are good enough to be sent directly to a potential advisor for review. The secretariat reviews the remaining 18. About 15 applicants submit revised proposals in response to the review comments. Following what can be several rounds of comments and revisions, the secretariat sends the 15 or so remaining proposals out for external review. Through this review process, the secretariat identifies applicants who are invited to a biannual workshop to present their proposals. Following the workshop, the secretariat decides which proposals to approve in consultation with resource persons. Applicants whose proposals are approved typically present an interim report at the biannual workshop one year later and a final report one year after that. The average length of a project is thus two years.
1 Output: what is the quality of the research produced?

Approach for evaluating research quality

The quality of EEPSEA research can be inferred from the number of publications generated by its projects and the outlets where those publications appeared. Publication in peer-reviewed outlets is the best indicator of research quality. Among peer-reviewed outlets there is a hierarchy of selectivity that runs typically from journal articles to book chapters to discussion papers, and from international publishers to local publishers to self-publication.

EEPSEA’s annual reports list publications of various types generated by its projects. Although these lists are surely not perfectly complete in the case of external publications, they are the best available source of information, and they probably reflect general publication patterns even if they omit some specific publications. The EEPSEA secretariat regularly emphasizes the importance of external publication to EEPSEA researchers, it draws attention to such publications in its annual reports, it solicits publication information from researchers on an annual basis, and it provides a cash bonus of $500 to researchers who publish in peer-reviewed outlets abstracted by the U.S. Library of Congress. These actions create incentives for researchers to inform the secretariat of publications based on their projects.

Table 2 presents statistics on publications listed in the five annual reports from 1999/00 to 2003/04. The first column shows different categories of publications. The second column shows the total number of publications in each category. The third column shows the ratio of the numbers in the second column to the total number of approved research projects during the same five-year period, which was 76. This ratio provides an approximate measure of research output per project. It is approximate because some of the publications come from projects approved before 1999/00, which tends to bias the ratio upward, and because some of the projects approved during 1999/00 to 2003/04 will generate publications after 2003/04, which tends to bias the ratio downward. I assumed that these biases more or less cancel out. If anything, the upward bias is probably stronger than the downward bias, as the number of approved projects declined from 1999/00 to 2002/03.

Statistics in the table indicate that the average EEPSEA project generated 1.3 publications. Publications were split nearly evenly between ones published by EEPSEA and ones published by external sources.

EEPSEA publications

EEPSEA publications were mainly Research Reports, which are peer-reviewed discussion papers. Appendix 4 lists the Research Reports published during 1999/00-2003/04. About three-fifths of EEPSEA projects generated Research Reports. This might appear to be a disappointingly low proportion: nearly half of EEPSEA projects do not generate research of sufficient quality to support the publication of one of EEPSEA’s own discussion papers. But such a “glass half-empty” view fails to take into account EEPSEA’s capacity-building mission and the academic training and prior research experience of the pool of researchers from which it draws. As described in the next section, EEPSEA reviews proposals carefully and provides
high-quality guidance to the researchers it selects. The fact that not all projects generate Research Reports is best viewed as a sign of EEPSEA’s commitment to publishing only quality research, not a sign of shortcomings in its project cycle. Aside from lowering the standards for its Research Reports, which would undermine their credibility, I believe there is little EEPSEA can do to raise the proportion of projects that yield Research Reports. Its procedures for reviewing proposals and mentoring researchers are well-established, well thought-out, and efficiently administered, and its standards for the Research Reports are at an appropriate level, so one can have confidence that the resulting acceptance rate for the Research Reports series is also at an appropriate level.

EEPSEA has recognized that final reports that do not achieve the quality required for Research Reports sometimes contain data or methods that might be of interest to other researchers. During 2002/03, it launched a new web-only publication series, Technical Papers, to disseminate the best of these final reports “as is” (not edited or peer-reviewed). EEPSEA published 4 Technical Papers in 2002/03. Through the combination of Research Reports, Technical Papers, and occasional books (two during the review period), EEPSEA appears to be squeezing the optimal number of its own publications out of the projects it funds.

**External publications**

The Research Reports are an important dissemination mechanism, but they should not be the final resting place for the output of EEPSEA projects. One reason is that self-published discussion papers are several rungs down the hierarchy of scholarly respect. Publications based on EEPSEA research will be more highly regarded if they are vetted through additional rounds of review organized by external publication outlets. They will then also be more likely to have their quality reaffirmed by being cited in works by other researchers. But the most important reason has to do with sustainability. EEPSEA researchers must learn the ropes of publishing in external outlets if they are to form a community of scholars whose ability to communicate with each other in print is not contingent on EEPSEA being a permanent program.

Table 3 lists the external publishers of EEPSEA research. Most noteworthy is that EEPSEA researchers succeeded in publishing in leading international environmental economics journals: *Ecological Economics, Environment and Development Economics, Environmental and Resource Economics,* and *Land Economics*. These are selective journals with high rejection rates. EEPSEA researchers also published in a variety of international multidisciplinary environmental and natural resources journals. Many of these journals were newer ones, which tend to have a lower scholarly profile and higher acceptance rates, but a few were well-established and highly regarded (e.g., *Canadian Journal of Forest Research, Journal of the American Water Resources Association*). With the exception of one article in *Contemporary Economic Policy* and another in *Development Policy Review*, EEPSEA researchers did not publish in mainstream economics or development journals. This is not surprising: even in North America and Europe, most environmental and resource economists publish primarily in field journals. Peer-reviewed chapters by EEPSEA researchers appeared in books published by Kluwer, one of the most highly

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1 The table does not include several papers by one EEPSEA researcher, Jikun Huang, that were published in such prestigious international journals as *Science* and *Nature*. These papers evidently drew on data generated by Huang’s EEPSEA project but were not direct outputs of it.
regarded international scientific publishers, and Edward Elgar and Resources for the Future
Press, which are two of the leading international publishers of environmental economics books.
All in all, EEPSEA researchers have published in respectable, and in a number of cases leading,
international outlets.

Appendix 5 provides additional detail on external publications by author. This information
indicates that some researchers have, not surprisingly, been much more prolific than others. For
example, just two researchers, Yaoqi Zhang and Thanakvaro Thyl De Lopez, accounted for
nearly a third of the external peer-reviewed publications by EEPSEA researchers. The remaining
external peer-reviewed publications were spread over about 20 different lead authors. The
number of researchers who published in external, peer-reviewed outlets was only about half of
the number of those who published Research Reports. This is disappointing. Although most
Research Reports are too long for a journal submission, they are already peer-reviewed and
edited, and they thus offer high-quality material from which EEPSEA researchers should rather
easily be able to distill one or more manuscripts suitable for publication in a refereed journal.
This impression was reinforced by my own review of the complete set of Research Reports
published by EEPSEA during the evaluation period. In my view, all had the potential to yield at
least one peer-reviewed article in some journal, for the most part some international journal.

A glance at the numbers in Table 2 suggests one outlet where there has been a surprising
shortfall in publication: barely a third as many articles—only eight in total—were published in
local journals as compared to international journals. One might have expected more of EEPSEA
researchers’ publications to be in local journals, due to a lower language barrier and less
stringent review standards. The reason for the small number of publications in such outlets is not
clear. One possible explanation is that there is a lack of suitable local journals. Another is,
ironically, that EEPSEA researchers might have little incentive to publish locally because
EEPSEA Research Reports already reach the intended local audiences. In the concluding section
of this report I offer some recommendations aimed at increasing the proportion of Research
Reports that yield at least one peer-reviewed publication in an external outlet. Although
international outlets are preferred, it is unlikely that all EEPSEA researchers will succeed in
publishing in such outlets. An increase in the proportion published in local outlets is required.

Other indicators of research quality

This section has focused on publications as an indicator of research quality, but other indicators
also exist: for example, invitations to present papers at international conferences, and citations in
other published work. The annual reports contain some information on these indicators, but it is
too sparse for careful analysis. It does, however, provide additional favorable evidence of the
quality of EEPSEA research. In particular, the annual reports list more than 50 conference
presentations made by EEPSEA researchers—on average, about one per Research Report
published during the same period. Most of the presentations were at international conferences,
which included the World Energy Congress, the World Congress of Agroforestry, and the annual
conferences of the Royal Economic Society in the U.K. and the American and Australian
Agricultural Economics Associations. They included conferences organized by such
organizations as the IIASA, the IPCC, CIFOR, IRRI, and IFPRI. In most cases sponsors other
than EEPSEA covered the researchers’ travel costs.
EEPSEA’s project cycle has been highly effective in developing the skills of local researchers, and it has been administered with near-perfect efficiency. I base this conclusion on three sources of information: results from evaluations of the biannual workshops by workshop participants; interviews conducted at the November, 2004 workshop; and my own observations of the sessions at that workshop. I review information from these sources in turn in this section.

Full appreciation of this information requires some knowledge of the intensity of interactions that occur among the secretariat, advisors, and researchers during the project cycle. EEPSEA pushes individuals to produce the best possible research they can. It takes into account differences in individuals’ knowledge and experience, and it provides them with thorough and prompt feedback. It works hard to identify individuals who are willing to work hard, and it monitors their progress closely. It does not hesitate to threaten termination of a project if progress is unsatisfactory. Table 4 illustrates these points by describing the interactions that occurred on one particular—and not particularly stellar—EEPSEA project from start to finish.

Workshop evaluations

The workshop evaluations provide information about just the workshops, not the entire project cycle. Although their scope is limited, they are the best source of information because they are nearly complete from a sampling perspective—they are available for all the workshops during the evaluation period, and nearly all participants completed them—and because the workshops are the focal point of the project cycle. I reviewed evaluation results for every biannual workshop between May, 2000 and November, 2004. There was no workshop in May, 2003, due to the SARS outbreak. The evaluation questionnaires differed somewhat from workshop to workshop, but in all cases they included questions about both logistical issues (e.g., service at the hotel where the workshop was held) and substantive activities. Table 5 shows mean responses for selected questions, with an emphasis on questions related to substantive activities. A response of 1 indicates strong disagreement or a poor rating, depending on the phrasing of question, while a response of 5 indicates strongly agreement or an excellent rating.

The results largely speak for themselves. They indicate a consistently high level of satisfaction with all aspects of the workshops, with no evidence of downward trends and very little room for upward trends. Ninety-nine percent of respondents rated the overall organization of the workshop a 4 or a 5.\(^2\) Perhaps even more impressive, 91 percent gave the EEPSEA staff a perfect 5 for its helpfulness and efficiency. Respondents are very satisfied with the combination of plenary lectures and interactive exercises as an introduction to the workshop, with a majority at every workshop since the one in May, 2000 strongly agreeing that EEPSEA should continue with this format. They rate the lectures and interactive exercises comparably, with overall mean ratings in the low 4s. Some workshops had more than one lecture or exercise, and so the table includes more than one row of responses for these questions for those workshops. The fact that

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\(^2\) Beginning with November, 2003 workshop, this question referred to “overall satisfaction” with the workshop, which is a broader notion than “overall organization.” I doubt that this change in phrasing had a significant impact on the responses.
there is appreciable variation in the responses across lectures and exercises, with several responses of 2 or 3 and some mean responses in the mid 3’s, indicates that the respondents were discerning and were not mindlessly giving the workshops 4s and 5s across the board. These instances of lower ratings should not, however, obscure the more important fact that, with the exception of just one lecture and one exercise, a majority of respondents gave all the lectures and all the exercises ratings of 4 or 5.

The evaluation questionnaires included few questions about sessions other than the introductory one, which is somewhat surprising given that these sessions—the bilateral sessions and the working group sessions—account for most of the program and pertain most directly to the guidance that researchers receive from the secretariat and the resource persons to improve their proposals and research. One question that appeared on the questionnaire for the most recent three workshops asked about the usefulness of the working group sessions. The majority of the responses were 5s, and nearly all were 4s or 5s. Despite these reassuringly high ratings, I believe the secretariat should give workshop participants an opportunity to provide structured feedback on more aspects of the project cycle. In the final section of this report I offer some recommendations for revising the evaluation questionnaire to do this.

Written comments on the questionnaires reinforce the numerical results:

- “One of the most well organized workshops I have attended. Good structure for researchers. Just the right balance of presentation and discussion.” (May 2004)
- “Excellent.” “Excellent! Thank you.” “Thanks for the excellent organization.” (November 2001)
- “Well organised even out of Singapore as usual.” (November 2000).
- “Overall, secretariat did a fine, wonderful job.” (November 2004)
- “Workshop staff extremely excellent, helpful, caring, and very efficient.” (May 2000)
- “Thank you. As always, I learned a lot from the sessions and they always broaden my understanding of environmental economics.” (November 2004)
- “EEPSEA workshops are always very useful to me as a researcher, it gives opportunity to learn new and interesting issues on environmental economics as well as it provides us with a venue to interact with specialists and other researchers and hear their comments and suggestions on how to further improve our research work.” (May 2001)
- “Vic’s [Adamowicz] exercise on ethics is very appropriate, insightful, and has been excellent. I learned a lot, though I must admit that it is tough. Dale’s [Whittington] lecture literally opened my eyes on water issues.” (November 2004)
- “The interaction between the lecturer and the resource persons are very informative and give important insights on issues that many of us researchers have not yet encountered.” (May 2004)
- “The advisers were very supportive (as usual) and effective in providing directions for the research. The discussion groups meeting were very casual, providing the researchers an environment and motivation to do best. The pressure is off.” (November 2000).

3 In my own experience with environmental economics capacity-building programs in Southeast Asia and other developing regions, I have observed that participants are predisposed to give favorable ratings. I have also observed, however, that they will not hesitate to give low ratings if they are dissatisfied, although they tend to refrain from giving ratings at the very bottom of the scale. I see no reason to doubt that ratings of 4 and 5 on the evaluations of EEPSEA’s biannual workshops indicate above-average and superior quality, respectively.
“Thanks to EEPSEA (and to the donors) for this continuing activity. The research that I have conducted … are very useful in my professional growth.” (November 2003)

Interviews conducted at November, 2004 workshop

Such comments were echoed in my interviews with participants at the November, 2004 workshop. The interviews also provided feedback on parts of the project cycle other than the biannual workshops.

Participants praised the secretariat for the clarity of the information about the proposal process on the EEPSEA website. This information includes several documents: “How to Design a Research Project in Environmental Economics,” “Ethical Considerations” (2 documents, one general and one for stated-preference valuation studies), “Guidelines for Research Proposals,” and “Criteria for Assessment of Proposals.” There is even a model proposal from an actual EEPSEA project. Without exception, participants reported that the written comments they received on their proposals were prompt, clear, and constructive. Many reported that they had received comments within just one or two days of submitting an initial or revised proposal. One example of the secretariat’s efficiency in administering the review process came from a participant who applied late for a Ph.D. fieldwork grant but nevertheless received three sets of comments before the workshop. She felt that she would not have been able to participate in the workshop had the secretariat not been so efficient. Participants appreciate that the comments are provided in a nonintimidating way. One participant noted that his proposal went through five rounds of revisions before being approved. Instead of frustration, he expressed gratitude that “EEPSEA is very patient with me.” Another participant was grateful to the secretariat for the constructive explanation it had provided for its decision not to fund a previous proposal.

A few participants said they would have benefited from more guidance before the workshops about which comments to consider most seriously in revising their proposals. They quickly added, however, that the preliminary bilateral sessions are an immense help in this regard. They reported that the sessions clarify points of contention, help them focus their presentations, and, not least, “prevent you from being embarrassed.”

The participants feel very well served by the resource persons during and between the workshops. They are impressed by the resource persons’ knowledge and are grateful for their responsiveness. One participant said, with more than a trace of awe, “Whenever there are any problems, the resource people can solve them.” A member of the advisory board observed that EEPSEA’s unique contribution is that it provides “people to talk to” when researchers run into problems. Researchers in the region have access to other sources of research funds, but those sources do not provide the mentoring services that EEPSEA does.

Participants believe that the secretariat does a very good job of assigning them to appropriate advisors. One participant noted that the secretariat showed that it was “on top of things” by changing his advisor when it realized that his initial advisor was too busy to provide the amount of support he required. Another reported a negative experience in the late 1990s with a previous advisor, who he felt was placing the advisor’s interests ahead of his own, but he noted that this
person is no longer involved with EEPSEA. He gave the secretariat credit for recognizing that the person was not an effective advisor and dropping him.

The secretariat does not have a standardized process for obtaining feedback from participants on their advisors’ performance. On the other hand, all communications between researchers and advisors are channeled through the secretariat. This enables it to keep a close watch on the interactions between researchers and advisors and to intervene if it observes that participants are not receiving the support they require. The secretariat also vets potential advisors carefully by having them give a plenary talk at a workshop and observing their interactions with participants. It maintains a sufficiently large stable of advisors to avoid overloading any single one. Each advisor typically supervises three to four projects.

Participants feel that they receive comments “all over the place” during the working group sessions, and they are grateful to their advisors for their guidance during the concluding bilateral sessions in determining which comments to take most seriously. “He rescued me,” said one participant following the concluding bilateral session with his advisor. Participants highly value the fact that they receive not only oral comments during these sessions but also written comments soon after the workshop. The written comments are especially important to participants with weaker English language skills. Participants also noted with appreciation that during communications between meetings, advisors often ask, “Are my comments clear? Do you understand?”

The potential for conflict exists for recipients of Ph.D. fieldwork grants, who receive advice not only from EEPSEA but also from their Ph.D. committee members. None of the participants who had received such grants reported any problems in this regard. They used the word “complementary” more than once.

Although the secretariat referred to isolated incidents when transmission of funds to researchers was delayed due to problems with local banks, no researchers complained about this.

Resource persons agreed that the secretariat is superb at communication and monitors interactions between themselves and researchers closely. Its performance is particularly impressive when one considers how lean it is, less than three full-time persons. One resource person noted that, immediately after he submitted his comments on the first proposal he reviewed, the secretariat reminded him that he needed to coach and mentor, not just assess the strengths and weaknesses of the proposal. The only shortcoming in communication mentioned by resource persons was that they do not receive a list of participants who are funded. EEPSEA newsletters contain this information, but resource persons would appreciate earlier notification about the fate of the whole set of proposals, not just those they reviewed.

Some resource persons commented that the quality of proposals had improved in the time since they had become involved with EEPSEA. None said it had declined. Credit appears to be due to the secretariat, for the clarity of the proposal guidelines it has prepared and for its often lengthy dialogue with applicants before it sends revised proposals to reviewers. Resource persons highlighted participants’ limited access to literature as a chronic problem that continues to create problems with both proposals and research implementation.
Observations at the November, 2004 workshop

Given that much of the time during biannual workshops is allocated to concurrent sessions, I was not able to observe all sessions. I did, however, sit in on several sessions of each type (preliminary bilateral, working group, concluding bilateral). My observations are consistent with the strongly positive views expressed by participants in the workshop evaluations and interviews.

To begin, the secretariat is obviously exceptionally capable. One small example of its mastery of detail is that it distributes at the workshop a handout explaining Asian names. This helps participants understand how to address each other and avoid inadvertently causing offense. Perhaps the best evidence of the secretariat’s ability was the resilience it demonstrated in responding to an unusual—as all participants, resource persons, and advisory board members agreed—series of mishaps associated with this particular workshop. These episodes also illustrate the commitment of EEPSEA’s resource persons. First, one resource person was forced to cancel a week before the workshop due to an unexpected and unavoidable conflict with his regular job. The secretariat immediately reassigned advising duties for that person’s projects to other resource persons. Second, one of the two plenary speakers cancelled minutes before the opening session. On the spot, the secretariat revised the program, allocating more time to the other plenary speaker and to the interactive exercise. Third, later on the first day the secretariat also learned that another resource person was forced to cancel, this time due to sudden illness. The secretariat made arrangements for her to participate in a critical working group session by speakerphone, which she did despite her illness, an inconvenient time difference (late night at her home), and an unreliable telephone connection.

The workshop was notable for its overall tone: not much tension and lots of laughter, without undermining the seriousness of the discussions. The plenary lecture by Dale Whittington and the interactive exercise (which was spread over two days) led by Vic Adamowicz helped set this tone. Whittington was outstanding in the effort he made to engage the participants in the discussion of his lecture material. He punctuated his lecture with frequent questions to the participants. The topic of Adamowicz’s exercise, ethical considerations in research involving human subjects, was well-chosen given the substantial amount of survey research that EEPSEA funds and the fact that IDRC’s ethical guidelines now apply to EEPSEA projects. The groups took the interactive exercise seriously yet found it interesting and fun. Whittington and Adamowicz are highly skilled presenters, and their PowerPoint slides provided excellent models for the participants. They were uncluttered and contained keywords and phrases instead of large amounts of text. These features served to keep the listeners’ attention focused on the speakers instead of being distracted by reading lots of material.

Unlike most EEPSEA biannual workshops, this one included several extra sessions dedicated to the discussion of a prospective cross-country project that would involve several researchers. The secretariat is to be commended for the effort it made to keep the researchers involved in the discussions and to prevent the discussions from being entirely dominated by the resource persons.
The preliminary bilateral sessions were run mainly by the director and deputy director of EEPSEA, which is the usual practice. They focused on matters requiring clarification and on techniques for improving presentation quality (e.g., avoiding the “PowerPoint karaoke” approach of reciting what was on the slides). They provided guidance on which issues would more likely elicit useful feedback in the working groups and which should be taken up with the advisors in the second bilateral session. Their advice appropriately took into account the stage of the research. For example, one participant who was presenting an interim report was reminded that she should focus on progress made since the previous workshop and did not need to repeat the details of material presented previously. Both the director and deputy director of EEPSEA are knowledgable economists, and they also alerted participants to substantive issues that would likely be raised during the working group sessions.

The dedication of the resource people and the quality of their advice was abundantly evident in both the working groups and the concluding bilateral sessions. The resource persons emphasized the need for the research to be rigorous, and they cautioned the participants against drawing policy implications not supported by the research. They geared their advice to the “absorptive capacity” of the participants. For participants with less training and experience, much of their advice pertained to the formulation of a clear research question that was capable of being answered within a one to two year project. In a few cases resource persons spoke too quickly and used too much jargon during the working groups. Participants who were queried afterward confirmed that they did not understand much of the advice in those cases.

The concluding bilateral sessions were scheduled in one-hour increments, with some scheduled for longer when the secretariat expected more time would be required. The allotted times appeared to be adequate. I detected no evidence of frustration among participants that they did not have adequate opportunity to interact with their advisors or had failed to obtain clarification of comments they had received during the working groups. In all cases the sessions were extremely interactive. They were not at all monologues by the resource persons. At least one resource person began by asking, “What would be most useful for you to discuss,” which is probably the best way to begin. Most resource persons concluded by recapping the issues discussed and the main advice. I observed several instances of resource persons agreeing to check on unresolved issues and report back to the participants or volunteering to help them obtain key literature. Researchers’ access to literature has improved greatly since 2002/03, when EEPSEA arranged support from IDRC for access by active researchers to leading international research databases.

The secretariat provided, for my review, two sets of written comments prepared by advisors immediately following the workshop. One was for a proposal related to groundwater management, while the other was for an interim report on a study of water markets. Both sets of comments began with cogent synopses of the materials (proposal and interim report) prepared by the participants. The advisor for the proposal then moved quickly to a clear statement of the biggest shortcoming of the proposal: it “does not describe the existing and project situations regarding water use in the region particularly well. This makes it rather problematic to identify meaningful management options and an appropriate approach to an economic evaluation of the options.” He next provided an equally clear statement of the broad solution to this problem that he and the participant had agreed upon: to divide the project into two phases, with the first being
“a review of existing and projected situations for water resources and their possible uses” and the second “specifying in detail the set of management options to be investigated and evaluated.” This introductory section of the comments gave the reader a clear “big picture” of the advisor’s assessment. The advisor’s remaining comments were specific to the first phase and were organized according to the issues the researcher will need to consider in that phase (regional water balance assessment, household water use survey, health aspects, environmental aspects, institutional aspects). The list of specific comments was long—about two dozen—but, with one exception, the comments were appropriate. The one questionable comment was a suggestion that, as part of a household survey, the participant should ask, “What might the household be willing to pay for water from each source?” Was the advisor suggesting that the participant should conduct a contingent valuation study? The advisor’s other comments suggest that the participant is unlikely to have the necessary training to conduct a valid CV study and should instead focus on other, more basic matters.

The comments on the interim report were more dense, with the big picture harder to see. This was partly a consequence of the research already being underway and thus calling for more detailed technical comments, but it was also a consequence of the lack of an up-front statement of the advisor’s priority concerns and his broad suggestions for addressing them. The reader needed a better roadmap to navigate the comments. The individual comments themselves were insightful, but they required more explanation. For example, would the researcher know what to do with a comment like: “Presumably this [problem of the simultaneous determination of water price and transactions costs] could be addressed by tests for endogeneity and by the use of alternative estimation procedures if endogeneity is present.” Which tests and procedures was the advisor recommending? There was also a tendency to restate comments made by other resource persons without the advisor indicating his view of their importance. The secretariat noted on the copy of these comments that it had asked the advisor to revise the comments. So, although the usefulness of these comments does not match the usefulness of the other advisor’s comments on the proposal, the secretariat’s request for revision indicates that it is working with advisor to make the comments more useful to the researcher.

Overall, the project cycle is running smoothly and leaves little room for improvement. My recommendations related to it in the concluding section of this report are entirely of a fine-tuning nature.
Training: Aside from capacity building through the project cycle, what is the quality and effectiveness of EEPSEA’s various short courses?

Table 6 lists the main training courses that EEPSEA organized during the evaluation period. The courses included its flagship, 4-week regional training course in environmental and resource economics, which was offered three times during the period; shorter versions of this course or modules from it that were offered in particular countries; and several courses on special topics. My evaluation of these courses is based on participant evaluations, which were available for most courses, and interviews with the secretariat and past participants and lecturers who were present at the November, 2004 workshop. I did not observe or participate in any of the courses. I begin with the regional training course, then comment briefly on the in-country courses, and conclude with the specialized courses.

Regional training course

Mean responses from participant evaluations were available for the 2000 and 2004 regional training courses. Table 7 shows responses to selected questions. Responses mirror those for the biannual workshops, with most ratings in the mid to high 4s. Closer examination indicates that although nearly all participants found the 2000 course to be very useful (mean rating of 4.86), they felt there was room for improvement (the rating for their expectations being fully met was lower, at 4.57). They were most satisfied with the natural resources module and least satisfied with the valuation module. Comments on the evaluation forms suggest that there were two reasons for the less-than-complete satisfaction: the course attempted to cover too much in too little time, and it did not contain enough opportunities for participants to practice applying the concepts and methods presented. Comments included:

Regional training course (2000)

Overall
- “Intensive course, work hard, good lecture, so its very useful to apply with my job.”
- “But better if it provide more practical exposures.”
- “A month long training is alright but there is too much too discuss.”

Module: Cost-benefit analysis (CBA) & pollution
- “The lecture is very fascinating, instructive and presented clearly.”
- “The module is quite intensive, level of productivity declines with time. There’s not enough time to internalize what is being taught ....”
- Topics/activities that should be added: “More practical applications (e.g., computer).”

Module: Valuation
- “The module is very useful to apply with my research in my country or anywhere. But its very short for 5 days to clear in the theory.”
- Topics/activities that should be added: “Hands-on empirical analysis of each method; more empirical materials.”

Module: Natural resources

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4 EEPSEA should also be credited for organizing periodic special sessions on effective writing at the biannual workshops.
• “Her lecture and methods of delivering them were very inspiring and impressive. I wish there would be more applications of the various model presented; EXCELLENT!”
• “The professor did an excellent job by covering all the major aspects within a short period of time; need more time.”

Ratings improved for most questions in the evaluation of the 2004 course. Especially notable is the increase in the overall rating for expectations being fully met (from 4.57 to 4.80). Ratings continued to be highest for the natural resources module and lowest for the valuation module, with the module on economy-wide approaches, which was not included in the 2000 course, in between and about the same as for CBA & pollution module. Compared to the 2000 course, participant comments included fewer complaints about inadequate time and insufficient empirical material, although these complaints continued for the valuation module and to a lesser extent for the CBA module. Several participants also commented that time was too short to develop a satisfactory understanding of the material covered in the module on economy-wide approaches. Comments included:

**Regional training course (2004)**

**Overall**
• “Very comprehensive, profound and practical knowledge and experience.”
• “[Make it] a little longer, but we can do as well as we can.”

**Module: Cost-benefit analysis (CBA) & pollution**
• “A good mix of theory and practical examples.”
• Topics/activities that should be added: “Example of CBA and explain how to do step by step of CBA, since it is useful if I had to do it by myself.”

**Module: Valuation**
• “The module is very suitable but there is very little time to absorb the topics discussed.”
• Topics/activities that should be added: “Application of actual use of models.” “Case studies applied in developing countries, especially those in Southeast Asia.”

**Module: Natural resources**
• “A good mixture of examples with both successful and unsuccessful cases.”
• “Excellent! I’ve never seen such a good lecturer before.”

**Module: Economy-wide approach**
• “In general, the resource person is very good source. The problem is too limited time …”
• “Very good module, if numerical application or case can be demonstrated to show how the process work right from the beginning there will be an extra advantage.”

Past participants who were interviewed at the November, 2004 workshop made comments consistent with these. They commended the instructors for the clarity of their lectures and for demonstrating the link between theory and practice, especially in the case of natural resources. Even participants from countries where English is less widely spoken reported that they did not have much difficulty understanding the instructors. They appreciated the many reading materials they received and the suggestions for further reading. Thanks to the course, they found that they could better understand the extra reading required for their EEPSEA research projects. One participant commented that the course “opened the window to enter the field.”
Suggestions for improvements were also consistent with the evaluations. Several participants recommended that more practical exercises be added on valuation. Several also voiced deep reservations about the section of the economy-wide module on CGE models, recommending that it be eliminated. A few stated that too much of the material in the course assumes well-functioning markets and strong government institutions, and that this reduces, or at least makes less apparent, its applicability to countries in the region. They called for more consideration of the relevance of environmental economics theory and methods in situations of weak institutions. Although the evaluations did not contain comments specifically on this issue, it might have been implicit in some of the more general comments about the need for more consideration of applications.

Based on my own review of the syllabi for the regional courses, I believe these recommendations have merit. Compared to other modules, the valuation module contains many fewer readings drawn from the region. The economy-wide module does appear to have too much crammed into it. Material in the module on such important issues as trade and the environment, the double dividend, and policy spillovers (e.g., the impact of agricultural subsidies on deforestation) can be taught without getting into the details of CGE models. On the issue of institutional aspects, a surprising feature of the syllabi is that they do not show evidence of systematic coverage of the causes of environmental degradation: externalities, public goods, transactions costs, asymmetric information, market imperfections, policy failures, and so forth. Perhaps these topics are adequately covered in the individual modules—I strongly suspect they are, given the caliber of the instructors—but it is hard to tell from the syllabi. The natural resources module does include some coverage of property rights, the open access problem, and collective action (common property rights regimes), but this coverage appears slight in view of the fundamental importance of these topics for understanding resource use and formulating effective policy responses. The strongest coverage of institutional issues occurs in the CBA & pollution module, which in the case of pollution control covers issues of incomplete monitoring and informal regulation and includes abundant readings drawn from studies conducted in Asia.\footnote{Even in this module, however, there is little if any coverage of the political economy of pollution regulation: economic models of how governments decide which standards to set and which instruments to use to achieve them. The module takes pollution regulations as given. Given EEPSEA’s emphasis on policy-relevant research, more coverage of the economics of environmental policymaking would be worthwhile.}

\textit{In-country courses}

Regarding the in-country courses, evaluations were available only for the CCAP course taught in China, and then only for the individual modules of the course (not for the overall course). Table 8 shows results for selected questions. The patterns of the ratings are similar to those for the regional course. The natural resources module received the highest ratings, followed by the cost-benefit analysis module. These two modules were taught by same instructors as in the regional courses. The instructor for the natural resources module received spectacular ratings: she received a majority of 5s on all 18 questions about her teaching ability. Ratings for the other two

\footnote{The syllabus for the specialized course on “Economics of Pollution Control,” held in Beijing on January 10-14, 2005, is also notable in this regard.}
modules, which were not taught by regular instructors from the regional course, were lower, though still respectable. The lowest ratings were once again for the valuation module.

**Specialized courses**

Specialized courses organized by EEPSEA covered a variety of topics, ranging from ones more focused on environmental science to ones on advanced topics in environmental economics. EEPSEA broke new ground with the environmental science courses: environmental economics courses for noneconomists are relatively common, but environmental science courses for economists are not. Such courses are important for EEPSEA because many of its projects involve multidisciplinary teams.

Table 9 shows results from the available evaluations of the specialized courses. The evaluation formats varied across the courses, which makes comparisons difficult. I will focus instead on the broad result, which is that these courses, like the regional training courses, have been very well-received by participants. With one exception, all received mostly ratings in the mid 4s and very high ratings for instructors. The exception was the first course during the period, which was on forest ecology and was only the second specialized course ever offered by EEPSEA (the first was on pollution science in 1999). The secretariat agrees that this was EEPSEA’s weakest course. It blames the disappointing performance on a “marriage of convenience” with the International Center for Research on Agroforestry (ICRAF) that did not turn out as expected. ICRAF had already developed the course and wanted to try it out, and it offered to pay for it. In the secretariat’s view, which I share, the course syllabus looked appropriate for researchers in the region. Unfortunately, the course was delivered with a heavy dose of pro-agroforestry advocacy. Participant comments on the evaluations tell the story:

- “It would have been more effective if EEPSEA contracted people not affiliated with interest groups who promote land use options interpreted in their lectures.”
- “The lectures seemed radical at the beginning and provoked a lot of questions. Only at the end the balanced view prevailed. ‘Phew!’”

Past participants in other specialized courses who were interviewed in Bangkok reported highly favorable impressions, especially for the environmental econometrics and contingent valuation & choice modeling courses. They reported that these two courses built effectively on what they learned in the regional training course and greatly boosted their ability to apply valuation methods in their research.

A main reason for offering short courses is to prompt the generation of proposals for EEPSEA research projects. The secretariat and resource persons and advisory committee members who were interviewed at the November, 2004 workshop expressed some disappointment that the courses do not lead to more proposals. Only a minority of course participants submit proposals. The low yield of proposals pertains to the broader issue of the sustainability of EEPSEA’s program and will be taken up again in section 6 below.

To sum up, the overall impression is that the regional training course was very good to begin with and has improved over time and that EEPSEA has achieved success in rolling out in-country versions of this course and other, more specialized courses. My recommendations in the concluding section focus on two issues: modifications to the regional training course to make it
even more effective, and suggestions of additional specialized courses that EEPSEA should consider organizing.
4 Dissemination: Are research outputs disseminated in a suitable form and to an appropriate audience? Do researchers get the support they need from EEPSEA to present and disseminate their work effectively?

Audience and suitability

EEPSEA aims to disseminate the results of its research to both academic and policy audiences. The best form of dissemination to an academic audience is in principle external publication, preferably in peer-reviewed international journals. Publications in such outlets undergo the most rigorous scrutiny during the review process and thus have the greatest credibility. On the other hand, the Internet has eroded some other advantages that external publication long enjoyed over self-publication, such as cost, accessibility, and shelf life. External publication should remain the goal of EEPSEA researchers, but EEPSEA’s own academically oriented publications, in particular its Research Reports, help EEPSEA reach a broader audience more quickly and are an important complement to external publication.

Publications in academic outlets often reach a policy audience in developed countries, though typically through the filtering mechanisms of government analysts, think-tanks, and NGOs instead of directly. These mechanisms also exist in Southeast Asia, and they are abetted by academically-informed advice provided by environmental experts with bilateral and multilateral development organizations. These indirect mechanisms are thinner in Southeast Asia than in the West, however, and so EEPSEA must directly market its findings to its policy audience. Its main instruments for doing this are its 3-page Policy Briefs, which provide nontechnical summaries of the Research Reports and highlight policy implications.

Results of a subscribers’ survey conducted in 2002/03 indicate that EEPSEA has succeeded in reaching both audiences. The survey found that two-thirds of the subscribers to EEPSEA’s publication series are individuals, with the remaining one-third being libraries. Sixty percent of the individual subscribers work in universities and 24 percent in government. Subscribers indicated a high level of satisfaction with Research Papers and Policy Briefs: 90 percent said that the style and length of these publications were “about right.” EEPSEA’s 3-E logo is a distinctive brand that is familiar to environmental economists around the world. EEPSEA has also generally refrained from giving its publications excessively cute titles that run the risk of prompting snickers instead of respect.

EEPSEA upgraded its publication format just before the start of the evaluation period, and it made several changes to its publication process during the period. In 2001/02, it moved the printing of Research Reports and Policy Briefs to Kuala Lumpur and upgraded its editing standards. In 2002/03, it shifted toward more reliance on electronic distribution, to cut costs and to capitalize on increased access to the Internet in the region. A survey at the November, 2002 biannual workshop had revealed strong support among researchers for such a shift. Twenty out of 28 participants checked 4 or 5 when asked to indicate their level of agreement with the following statement about Research Reports, “I prefer to be notified by email and download from the website.” The main reason they gave was ease of storage, followed by ease of circulation to colleagues.
The shift to electronic distribution was timely and appropriate. It has been intentionally more complete for Research Reports than for Policy Briefs. Individual subscribers no longer receive hardcopies of Research Reports. They are notified by e-mail when a new one is available for download on the EEPSEA website. Libraries continue to receive hardcopies of Research Reports. Policy Briefs continue to be mailed to all subscribers, although they are also available on-line. The differing reliance on electronic distribution is appropriate in view of differences in the costs of printing and mailing the two publication series and the needs of users (e.g., libraries need printed copies for their shelves).

The shift to electronic distribution appears to have been implemented smoothly, although direct evidence is lacking because no subscriber survey has been conducted since 2002/03. Evidence is also lacking on the effect of the shift on the number of copies of Research Reports and Policy Briefs that are distributed. EEPSEA’s annual reports contain data on the number of “user visits” to its website, which is a more accurate measure of usage than “hits.” User visits indicate the number of times that visitors actually entered the website and extracted information. Unfortunately, they do not provide information on the nature of this information, i.e. the material that was downloaded. The number of user visits grew strongly during the evaluation period:

<table>
<thead>
<tr>
<th>Year</th>
<th>User Visits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999/00</td>
<td>23,787</td>
</tr>
<tr>
<td>2000/01</td>
<td>41,777</td>
</tr>
<tr>
<td>2001/02</td>
<td>73,616</td>
</tr>
<tr>
<td>2002/03</td>
<td>80,622</td>
</tr>
</tbody>
</table>

Data for 2003/04, the first full year after the shift to electronic distribution, are unfortunately not available due to the relocation of EEPSEA’s website to a new server. The secretariat is moving in the direction of collecting better data on downloads from the website.

Participants interviewed at the Bangkok workshop praised the website for its useful information and ease of navigation. My reaction is the same. One feature that facilitates identifying publications of interest is that Research Reports are categorized in two ways, by country and by theme (coastal and marine resources, economy-wide issues, forests, pollution control, and research methods). The only unusual features of the website are that the “Home” button is labeled “Southeast Asia,” which creates unnecessary confusion for first-time users, and that the publications are downloadable as Word documents instead of PDFs, which provide greater assurance that documents have the intended appearance irrespective of visitors’ software. Not least of the advantages of PDFs would be the inclusion of EEPSEA’s logo, which appears to be missing from all the Word documents.

Support to researchers for dissemination

It is difficult to think of a way that EEPSEA does not currently provide researchers with the support they need to disseminate their work effectively. It helps them develop their written and oral communications skills in a variety of ways, and it provides funding for special events that create opportunities for researchers to interact directly with government officials, civil society, and the media.
The most important support is the tailored feedback that researchers receive throughout the project cycle. Advice aimed at improving oral presentation skills is a main purpose of the preliminary bilateral sessions at the biannual workshops. The secretariat also distributes a useful handout, “Procedures for Presentations at EEPSEA Workshops,” that provides essential advice on oral presentations. Researchers receive ongoing suggestions on their writing from the time they submit research proposals, and those who succeed in producing Research Reports receive the support of a professional editor.

But this is not all they receive. At May 2002 workshop, the secretariat organized a half-day session on “Writing for Change,” which was conducted by the editors of the Research Report series. It expanded that session to a full day at the November 2002 workshop. A plenary talk on “Effective writing” by the EEPSEA director at that workshop received all 5s from the participants, and a role-playing exercise on “Drawing policy recommendations” received overall ratings of 4 or 5 from 15 of 18 participants.

The secretariat produced a “Procedures Manual” in 2003/04 that contains several helpful documents:

- “Style Guidelines for Authors of EEPSEA Research Reports” (19 pages)
- “Authors’ Guide to Using the EEPSEA Research Report Template” (9 pages)
- “What Makes a Good ‘Policy Paper’? Ten Examples” (a paper based on the director’s November 2002 talk)
- “Handbook of Disseminating Research Results”

The manual is available on-line, although only the table of contents is available for the “Handbook of Disseminating Research Results.” This is unfortunate, as the “Handbook” is a wonderful reference work that researchers in the region should have on their computers. It includes thoughtful articles on the links between research and policy, writing scholarly articles for publication (including a 1985 classic by Donald McCloskey, “Economical Writing,” that should be compulsory reading for all economists), and dealing with the media. It also includes a list of journals that publish articles in environmental economics.

Every research grant includes funds for dissemination activities. These activities include policy seminars, public meetings, and media events. The annual reports list numerous examples of these activities. Conferences are an important channel for disseminating results to fellow researchers, and as noted at the end of section 1 EEPSEA researchers have presented research findings at a large number of conferences, including many international ones.

EEPSEA encourages its researchers to translate their Research Reports into their local languages. This is done on a regular basis only in Vietnam. Given that translation is time-consuming, this might be an area where additional support from EEPSEA is justified, especially for translation of Policy Briefs, as academic consumers of its publications are more likely than government officials to read English well.

Courses that are taught by EEPSEA alumni or use EEPSEA publications are an important additional dissemination mechanism. Such courses have important connections to sustainability, and so I discuss them in section 6.
As in the case of most previous sections, my recommendations on dissemination, which are presented in the final section of this report, are relatively minor adjustments to a well-functioning process.
5 Impact: Is the program having an appreciable impact on teaching, career development, public discussion, and policy making in the region?

Teaching

EEPSEA’s impact on teaching is a function of the quality and quantity of teaching done by the individuals who have participated in its research grants program and short courses. Direct evidence on the quality of teaching done by EEPSEA participants is unavailable, but their involvement with EEPSEA has undoubtedly broadened and deepened their knowledge of environmental economics and thus made them more likely to convey accurate and up-to-date information when they teach. Several participants who were interviewed at the November, 2004 workshop stated that they were now better, more confident teachers as a result of their association with EEPSEA. Some said they had selected their EEPSEA research projects specifically to learn about new methods or issues so they could teach more effectively on those topics.

EEPSEA enhances the quality of the content of courses taught locally by generating materials that are useful for teaching and have a local flavor. Many participants reported that they use EEPSEA publications, in particular Research Reports, as reading materials for their courses. Teachers at local universities who wish to use the interactive exercises from EEPSEA’s biannual workshops can download them from its website. EEPSEA has also supported the preparation of textbooks and anthologies intended for use in courses at local universities. One example is Economy and Environment: Case Studies in Vietnam, which was published by EEPSEA and was the first book on environmental economics prepared in Vietnam. It involved 26 Vietnamese researcher. Another example was a book edited by by Marian de los Angeles and Hermi Francisco, Economy and Environment: Selected Readings in the Philippines. This volume contains 16 case studies, ten of which were funded by EEPSEA.

EEPSEA also helps with pedagogy. The advice that the secretariat and resource persons offer on participants’ presentations at the biannual workshops improves participants’ ability to present environmental economics concepts clearly and in an interesting manner. An upcoming in-country course for environmental economics teachers in Vietnam will include sections specifically on pedagogy.

A rough indicator of EEPSEA’s impact on the quantity of environmental economics teaching in the region is the proportion of EEPSEA participants who teach at universities. The secretariat estimates that 80 percent of the recipients of EEPSEA research grants work at universities. My review of participant lists for the regional training course suggests that the proportion in those courses was comparable or even higher. Nearly half (44.5 percent) of the respondents to the subscribers’ survey were university teachers. It appears that very few, if any, teachers of environmental economics in the region have not participated in at least one EEPSEA activity.

EEPSEA alumni have launched a number of new environmental economics courses and degree programs. Examples include the University of Los Banos and the University of San Carlos in

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6 Unfortunately, for the reasons discussed in section 4 no statistics are available on downloads of the exercises.
the Philippines, the University of Jaffna and the University of Peradeniya in Sri Lanka, and many universities in Vietnam: the Forestry University, Nong Lam University, and the University of Agriculture and Forestry. In some cases, courses and programs were launched on more than one campus of these universities. EEPSEA alumni have also organized or been invited to lecture in short courses sponsored by other organizations, including the World Bank, WWF, and country governments. These courses have targeted government officials and NGOs and have included ones in Thailand and Vietnam. Some EEPSEA participants have also gained teaching experience by lecturing in EEPSEA’s own in-country courses (e.g., in Lao PDR). Without EEPSEA, the scale and scope of teaching of environmental economics in the region clearly would have been dramatically lower.

Lastly, it should not be overlooked that EEPSEA has had an impact on teaching beyond the region. Instances of EEPSEA Research Reports and other materials being used in courses have been reported from Canada, the United States, and the United Kingdom.

**Career development**

Both indirect and direct evidence indicates that EEPSEA has had a substantial impact on the professional careers of its participants. Indirect evidence refers to EEPSEA’s success in building the skills needed by environmental economics researchers and practitioners. Sections 2 and 3 have already provided abundant evidence that EEPSEA has done this through the project cycle and its training courses. An additional point to note here is that resource persons believe that the secretariat does an excellent job of taking into account both the previous training of individuals and their potential for growth when it selects them to participate in the research grants program or its training courses.

Direct evidence includes promotions, awards, and other examples of EEPSEA participants having advanced in their careers thanks to the skills they have gained through their involvement with EEPSEA. The annual reports list many such examples. Although it would be an exaggeration to claim that none of these examples would have occurred in the absence of EEPSEA, all participants at the November, 2004 workshop who were asked whether EEPSEA had enhanced their career opportunities responded “yes.” Moreover, the information in the annual reports is surely not complete, and the professional successes of EEPSEA alumni are at the very least a sign that EEPSEA has succeeded in identifying able and motivated individuals.

Table 10 summarizes the broad types of career advances listed in the annual reports. These advances include a large number of consultancies, which were for a variety of local and international organizations, including the ADB, UNDP, UNEP, FAO, IFPRI, and ITTO. Job promotions and new jobs were primarily outside the academic sector, although they did include several examples of EEPSEA participants becoming deans and department heads at local universities. Non-academic jobs included ones with leading international agencies and NGOs, for example the ADB, Conservation International, IUCN, and the World Fish Centre. EEPSEA participants made study visits to several Western universities, with funding from prestigious fellowships such as Fulbrights. The examples indicated in Table 10 refer to a large number of participants, not just a few “stars.”
Public discussion

EEPSEA’s impact on public discussion is difficult to gauge, but EEPSEA does put substantial effort into disseminating information to the public. The primary mechanisms are the Policy Briefs and the dissemination activities built into every research project. These activities were discussed in previous sections.

The annual reports list several examples of EEPSEA’s research findings being reported by the media. Several of the examples pertain to EEPSEA’s haze study, which was completed before the evaluation period but was published at the start of the period. These examples, which included mentions in the *Financial Times* and *Ottawa Citizen*, indicate the international interest in the study. No EEPSEA research project conducted during the period had a media impact comparable to the haze study’s, but two had especially large impacts. One was Thanakvaro Thyl de Lopez’s study of Ream National Park in Cambodia, which was featured on BBC and elsewhere, and Nguyen Van Song’s study on illegal wildlife trade, which was reportedly widely within Vietnam.

Even allowing for incomplete lists in the annual reports, the reported number of media citations is small compared to the number of examples of impacts related to teaching and career development cited above and the number of Research Reports and publications discussed in section 1. The total number of researchers involved was barely half a dozen. More than half of the reported interviews were with the EEPSEA director, not EEPSEA researchers.

With the exception of the three cases mentioned above, EEPSEA evidently did not have a large impact on public discussion though the media during the evaluation period. Instead of being broadcast, the results of its research projects have instead been transmitted in a more targeted way through project-specific dissemination events. Although those events reach fewer members of the public than stories in the national or international media, the members they do reach are more likely to have an interest in the information conveyed than the public at large. Most EEPSEA projects focus on quite narrow topics, which is appropriate from a research standpoint but makes them unlikely to attract widespread media coverage. EEPSEA should continue to provide its researchers with guidance on how to interact with the media, and it should consider convening another workshop for journalists like the one in November, 1999, but it should not be surprised or disappointed if few of its studies are picked up by the media, especially the international media.

Policy making

EEPSEA’s impact on policy making must be put in perspective. It is a rare event anywhere for an environmental economics study to have an immediate and direct impact on a government decision, especially when the study is not commissioned by the government. Instead, environmental economics research typically influences policy in an indirect fashion and with some delay. One of the main reasons for this is that the policy recommendations that flow from environmental economics studies often go against the grain of existing policies, which are usually based more on ecological or engineering considerations and do not balance benefits and costs. Overturning the status quo can take time. It usually requires the combination of an
accumulation of evidence on the advantages of economics-based policies from numerous studies, not just a single one, a “champion” of such policies appearing on the scene, and a highly visible environmental event that triggers widespread calls for policy change (e.g., the haze in the late 1990s).

Consider the slow penetration of some of the most important ideas in environmental economics into the policy world. Perhaps the single most important idea in the discipline is the “tragedy of the commons”: the overuse that occurs when there is open access to environmental resources. This idea appeared in the economics literature in the mid-1950s in a paper by H. Scott Gordon. It came to the attention of a broader audience in the late 1960s thanks to an article in *Science* by Garrett Hardin. Today, 40-50 years later, open access and the degradation that accompanies it remain ubiquitous, especially in marine fisheries, which were the topic of Gordon’s seminal paper. A second example pertains to the relative merits of taxes and tradable permits for regulating pollution. Differences in the performance of price-based and quantity-based instruments when benefits and costs are uncertain were first explained in a 1974 paper by Martin Weitzman. Initially, this paper was more or less ignored by its intended academic audience, researchers on economic planning, and even more so by policymakers. Over time, however, it became one of the most influential papers ever written in environmental economics, and today it frames the debate about economic policy responses to greenhouse gas emissions. A third example is “green accounting”: the adjustment of national income and wealth accounts to incorporate resource depletion and environmental degradation. The basic theory was developed in the 1970s by a series of researchers. It did not attract attention, however, until the late 1980s and early 1990s, thanks largely to studies conducted by the World Resources Institute. Today, although the World Bank publishes estimates of “genuine savings” and the United Nations promotes environmental accounting, relatively few governments have adjusted their official national accounts in the recommended ways.

A fourth example is not as high-flying but is still illustrative. Evidence that tropical countries were systematically underpricing their standing timber began being documented in the 1970s. It was not until the late 1980s that this issue became a central one in international forestry policy circles, however, and not until the mid 1990s that many countries began raising their stumpage fees.

Just before the start of the evaluation period, the secretariat prepared a report on EEPSEA’s policy impacts. Since then, it has worked hard to record examples of such impacts, which it reports in the annual reports. The 1999/00-2003/04 annual reports listed 17 distinct cases of policy impacts, in the sense of EEPSEA research having influenced a government decision, from eight different countries. This total was about one for every five projects funded during the period. Table 11 shows the distribution by country, and Appendix 6 contains descriptions of these impacts, edited down from the accounts given in the annual reports.

As with other information in the annual reports that pertains to matters not directly related to EEPSEA events, the list of policy impacts is probably not complete, despite the considerable...
effort the secretariat puts into compiling it. Researchers who have a current or recently completed EEPSEA project are more likely to respond to the secretariat’s requests for information about their activities than are researchers who completed projects many years ago. In view of the typically delayed impact of research on policy, this results in underreporting of impacts.

On the other hand, there are also reasons to suspect that EEPSEA research did not have a significant impact on some of the reported policy changes. The descriptions in the annual reports acknowledge this possibility and are phrased in a suitably cautious way. As emphasized above, drawing a direct line from research to policy action is difficult, and a direct line usually does not exist. For example, the description of an increase in electricity prices in Vietnam, which was recommended by EEPSEA reports produced by Nguyen Van Hanh and Nguyen Van Song, states that “The weight given to Hanh & Song’s recommendations by the government is unknown.” Similarly, the description of the cancellation of a natural gas installation fee by several cities in China, which was recommended by EEPSEA researcher Mao Xianqiang as a means of encouraging greater use of natural gas, acknowledges that “Mao’s project was not the only one to advocate the use of natural gas; others may have influenced the decision as well.” Indeed, since the mid 1990s many international organizations and energy companies have heavily promoted natural gas in China. Other examples include “Budy Resosudomo’s evidence about the economy-wide benefits of integrated pest management influenced the decision to continue the program in Indonesia” (how did the research “influence” the decision?); “Selliah Thiruchevam’s work led local farmers associations to combat salinity from over-irrigation in Sri Lanka” (farmers already knew that salinity was a problem; what did the report prompt them to do?); and “Vietnam established its first Marine Protected Area, for the Hon Mun Islands, after a Research Report by Pham Khanh Nam & Tran Vo Hung Son quantified the economic benefits provided by the area’s ecosystem and proposed measures for its protection” (coincidence or cause?). In a couple of cases, participants in the November, 2004 workshop who were asked about policy impacts that they had previously reported to the secretariat sheepishly admitted that they were really not sure that the government had used information from their studies. A couple of Asian members of the Ad Comm also questioned the role that EEPSEA research had played in environmental policy changes in their countries.

Some clearcut examples of policy impacts certainly do exist. One of the clearest is the research by Ma. Les Cateloo on livestock waste in Laguna de Bay, Philippines. According to the descriptions in various annual reports,

The Laguna Lake Development Authority has incorporated her findings into their policy guidelines for backyard hog producers. On September 27, 2001, the LLDA passed Resolution 169, which approved ‘Guidelines Governing the Operation of Backyard/Small Scale Hog Farmers in the Laguna de Bay Region.’ Prior to the resolution, small-scale hog producers were exempt from pollution regulations. The decree explicitly extends coverage to include them. Its stated purpose is to encourage the adoption of technologies to minimize and mitigate pollution. It recommends the methods put forward in Les’s study. The Guidelines include a table from the study describing those methods.

Other examples of studies with significant policy impact include Thanakvaro Thyl de Lopez’s research on Cambodia’s Ream National Park and Jikun Huang’s research on the environmental and health effects of pesticides in China (see Appendix 6).
Is the low proportion of EEPSEA projects that have had an identifiable policy impact cause for concern? I think not, for several reasons. I have given two already: establishing a link between research and policy change is always difficult, and the lists in the annual reports are incomplete. A third reason is that EEPSEA is not failing to get the message out in suitable ways. As discussed in the section on dissemination, it has established effective mechanisms for communicating findings to policy audiences (Policy Briefs, project-specific dissemination events) and developing participants’ skills in communicating those findings. More than a quarter (28.8 percent) of the respondents to the 2002/03 subscriber’s survey stated that they used Policy Briefs “As input to decisions in government.” Links to a policy audience were also signaled by the 30.1 percent who stated that they used Policy Briefs “As material for consulting reports”; the 17.1 percent who stated that they used them “For work with media or the general public”; and the 24.7 percent who checked “Other,” which on the basis of written comments pertained mainly to policy advocacy.

A fourth reason is that many of the researchers funded by EEPSEA are young, and their inexperience creates obstacles in interacting with government officials. Given that EEPSEA’s mission is to develop capacity to conduct policy-relevant research, it necessarily must work with bright researchers at the start of their careers. EEPSEA’s investment in such individuals can earn a long-lasting return. Moreover, by encouraging them to think about the policy relevance of their research, EEPSEA not only increases the odds that their research will generate social benefits, but it also likely improves the quality of the research itself. There is an unfortunate tendency among fresh Ph.D.s in the region to fall back on replicating their dissertation research instead of continuing to develop as researchers by investigating new issues or learning new methods. Their research becomes “method for method’s sake.” EEPSEA’s requirement of policy relevance reduces this problem by forcing researchers to formulate a research question and to select appropriate methods to answer it. Methods serve the topic, rather than the other way around.

The final and most important reason is that EEPSEA’s processes for selecting policy-relevant research projects and assisting researchers in formulating policy recommendations are appropriate. They provide confidence that EEPSEA is squeezing the most policy juice from the studies it funds. In selecting projects, EEPSEA applies a suitably flexible definition of “policy relevance.” Some projects address issues that have already caught governments’ attention, while others address ones that have not yet, but should. Although research on issues that have already caught government attention is more likely to have a quick and identifiable policy impact, research on issues that governments have ignored or downplayed is potentially more important, as it helps ensure that governments set the right environmental priorities. Governments are not omniscient; an important role of research is to identify issues that they should take more seriously. EEPSEA wisely does not require projects to have an immediate government “client,” which would reduce their likelihood of identifying governments’ blindspots and myopia. Such a requirement would also run the risk of reducing EEPSEA’s research projects to consulting studies. Participants interviewed at the November, 2004 workshop emphasized that they do not want to see this happen. They value the freedom of choice that EEPSEA offers, and they view this freedom as inseparable from EEPSEA’s capacity-building mission. EEPSEA allows researchers to propose projects that the researchers believe will afford the greatest opportunity to
expand their knowledge and experience. Consulting studies, which are readily available to most EEPSEA researchers, do not afford the same opportunity.

In advising researchers during the project cycle, the secretariat and resource persons take steps to ensure the validity of policy recommendations based on researchers’ studies. Fundamental to this is an emphasis on academic rigor: getting the research right. As the secretariat noted, EEPSEA does not want to be the source of policy recommendations that are wrong because they are based on shoddy research. A consequence of this insistence on academic quality is that, as discussed in section 1, only about three in five projects generate Research Reports and Policy Briefs. For this reason, it perhaps better to express the number of reported policy impacts in Table 11 relative to the number of Research Reports, which causes the ratio to rise from one in five to about one in three. In the working group and concluding bilateral sessions, I observed many instances of resource persons appropriately drawing researchers’ attention to weak links between study findings and proposed policy recommendations and advising the researchers to modify or even drop the recommendations.

Interviews turned up two factors that might be reducing the policy impact of EEPSEA research. There was not a consensus about the significance of these factors, but they were mentioned by enough different people to suggest that the secretariat should discuss them with the Ad Comm. The first was the view that EEPSEA needs to do more “pump priming” to build demand for its research findings, by conducting more training activities targeted at government officials. The purpose would be to turn officials into more sophisticated consumers of environmental economics research, not to turn them into researchers. This opinion was expressed by some of the Asian members of the Ad Comm and by a small number of participants. They recognize that EEPSEA has run some such training activities already, but they believe it should run more, that it needs to do more to complement its “supply-side” efforts to develop research capacity. As one put it, EEPSEA must “go on two hands.”

The second factor is the view that EEPSEA’s research has not paid sufficient attention to institutional issues. As a consequence, government officials are prone to ignore EEPSEA studies that, say, estimate the value of unpriced environmental goods without considering property rights issues associated with those goods or the details of payment mechanisms for turning latent economic values into actual financial flows. As with the first factor, this one was voiced by several Asian members of the Ad Comm and by a few participants. One aspect of it was the claim that the selection of EEPSEA projects is biased, probably unintentionally, against studies on institutional issues. One way this concern was phrased was that EEPSEA emphasizes quantitative methods, which discourages individuals from proposing institutional research either because they think such research can’t be made quantitative (hence, EEPSEA will reject it) or because they don’t know how to make it quantitative. They pointed to what they felt was inadequate coverage of institutional issues in the regional training course as a signal that EEPSEA places a low weight on these issues as topics for research projects. A second aspect was the claim that researchers receive insufficient guidance on the analysis of institutional issues during the project cycle. Some attributed this to the fact that advisors were from outside the region and, with a couple of notable exceptions, lacked policy experience within the region. The advisors’ policy experience in their home countries or other regions of the world did not necessarily carry over to Asia, due to institutional differences.
These views were disputed by most resource persons and many participants. One of the resource persons, who advises on many of the projects with an institutional flavor, said he thought EEPSEA’s coverage of different topics was balanced and that he saw no evidence that the secretariat is biased against institutional studies. The list of approved projects in Appendix 3 supports this view, as it contains many projects on institutional themes. Proposals for projects on such themes were presented at the November, 2004 workshop, and I detected no evidence of a bias against them. Quite the opposite: I observed resource persons reminding participants who were conducting valuation studies or benefit-cost analyses that they needed to consider institutions for their studies to be policy-relevant. The overwhelming majority of participants who were questioned about this matter reported that, in their view, EEPSEA was open to a wide range of topics within environmental economics and was not biased in any particular direction.

In the recommendations section of this report I offer some thoughts on addressing these two factors, if after discussion with the Ad Comm the secretariat decides corrective action is needed.
6 Sustainability: Based on the evidence from Item 5, is the program developing self-sufficient communities of environmental economists in member countries? In particular, are member countries developing the ability to train their own environmental economists in their own institutions?

Variation across countries

Information on EEPSEA’s impact on the teaching of environmental economics in the region was summarized in the first part of section 5. This impact has been most substantial, both in absolute terms and relative to country size, in the Philippines, Sri Lanka, and Vietnam. Moreover, during or just before the start of the evaluation period, EEPSEA supported the founding of the Resources and Environmental Economics Association of the Philippines and the Vietnamese Association of Environmental Economists. The creation of these associations provides additional evidence that communities of scholars have formed in the two countries: that capacity building has progressed from individual human capital to social capital. Evidence of nascent communities of scholars also exists for other countries in the region. For example, EEPSEA also supported the founding of the Malaysian Association of Resource and Environmental Economists, and an EEPSEA alum led the formation of the Malaysian Universities Consortium for Environment and Development, which involves four universities. These Malaysian organizations appear to be less active than their counterparts in the Philippines and Vietnam, however.

A community of scholars requires a critical mass of researchers with shared interests in a field. One straightforward indicator of the national level of interest in environmental economics is the quantity of proposals submitted to EEPSEA. In turn, this is reflected, though not perfectly, in the number of approved projects by country (Table 1). The reflection is imperfect because the quality of proposals obviously matters during the approval process and because EEPSEA strives for regional balance (though not quotas) in awarding grants. Consistent with the other evidence cited in the previous paragraph, the Philippines and Vietnam were the first and second largest sources, respectively, of approved projects during 1999/00-2003/04. Sri Lanka was also a large source relative to its size. The large number of approved projects in Thailand, China, and, especially, Cambodia is an encouraging sign, although China is so populous that any number of projects would be small when expressed relative to its size. Perhaps the biggest surprise in Table 1 is the low number of approved projects in Indonesia.

Attracting new scholars to the community

Sustaining a community of scholars requires attracting new individuals to join it, in particular junior researchers, and keeping existing members involved in research and other scholarly activities. One purpose of EEPSEA’s training courses is to elicit project proposals from new individuals. The regional training course includes sessions on proposal development. About a third of the participants in this course typically submit proposals. The secretariat is somewhat disappointed with this yield, but a yield of one-in-three is respectable. Moreover, to a large

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8 The secretariat reports that the yield rate (the number of approved projects divided by the number of proposals) is roughly the same across countries. The main exception is Indonesia, which has a low yield rate due to the poor quality of a large portion of the proposals.
degree this yield is determined by factors beyond EEPSEA’s control. The most important of these factors is the opportunity cost of time for academic economists in the region. This factor was highlighted by the secretariat, members of the Ad Comm, and participants as a limiting one for countries as disparate as Cambodia, Indonesia, and Thailand. University salaries are very low in Cambodia, and lecturers find the additional income they can earn by consulting on donor and NGO projects hard to resist. Since the financial crisis, lecturers at Indonesian universities have been forced to raise more of their own money, so they too do lots of consulting. The USAID Natural Resources Management project is one particular project that has siphoned off lecturers who otherwise might have applied for EEPSEA grants. The financial crisis and the reforms that followed it also reduced demand for environmental economists relative to mainstream economists. In Thailand, the corporatization of universities has made teaching more lucrative than research. Many Thai lecturers have abandoned their research programs to spend more time teaching, including in the evenings and on weekends.

The secretariat conducted a tracer study in 2004 to understand better why individuals who took one of EEPSEA’s training courses never submitted a proposal. The study confirmed that the main reason was the opportunity cost of time. The director’s synopsis of the study is as follows:

The responses to question D1—“What are your reasons for not submitting research proposals to EEPSEA?”—show that in 80-90% of the cases, the reason is that they are too busy with other commitments. But the responses to question D2—“What could we do to encourage more proposals?”—offer some suggestions, but none that address the problem of people being too busy with other commitments.

I agree with this assessment. For example, 31 percent of respondents suggested that EEPSEA would receive more proposals if it promoted more frequent communication among researchers, such as by establishing e-groups and organizing regular conventions, and 15 percent suggested sponsoring more training courses. Both of these suggestions would consume more of the time of people who say they don’t have any to spare! Interestingly, only tiny percentages suggested “Ease on screening procedures” (4 percent) and “Consider practical research oriented studies instead of academic oriented” (2 percent). The type of research that EEPSEA supports and the rigorous standards it applies are evidently not limiting constraints.

The large number of approved projects from Cambodia—the largest relative to population for any country in the region—is interesting in view of the frequently-mentioned competition for researchers’ time from consulting opportunities. Credit appears to be due to a special effort by EEPSEA. An in-country course in Cambodia in 2000 concluded with a 5-day proposal development workshop. That workshop yielded five approved projects out of 23 participants—a lower yield (about one-in-five) than the regional course but a high one in view of the limited economics training in the country (more on this in section 7).

Several resource persons expressed concern that EEPSEA’s policy of offering consecutive grants might be excluding or discouraging junior researchers. They believe that some participants have developed a sense of entitlement, and they speculate that those participants might be intimidating (not necessarily overtly) junior researchers from applying. I suspect that this effect, if it exists, is small. A perusal of the list of approved projects in Appendix 3 reveals that there were relatively few instances of repeat grantees during 1999/00-2003/04. A couple of participants mentioned
that EEPSEA’s requirement that research must be policy-relevant might discourage junior researchers who lack experience in the policy world, but this view was not widely shared. Moreover, EEPSEA signals its receptiveness to proposals from junior researchers through its Ph.D. fieldwork grants, and it sets the bar higher for proposals from individuals who received previous grants.

Retaining existing scholars in the community

Consultancies and other income-generating opportunities are the main reason senior academics in the region move out of research and teaching. If a large portion of the individuals who receive EEPSEA research grants parlay the skills they gain into more lucrative nonacademic activities, then EEPSEA will have been more successful in developing individual human capital than the social capital of a scholarly community. Not that it will have failed in the latter regard: EEPSEA alums who join development agencies or NGOs can help stimulate demand for environmental economics training and research. One example is Shamen Vidanage, an EEPSEA alum whose responsibilities with IUCN in Sri Lanka include establishing a Regional Environmental Economics Program. But a scholarly community is surely more sustainable if more of its senior members remain active as researchers and teachers.

Objective evidence on the extent to which university lecturers who receive EEPSEA research grants remain academically active after their EEPSEA grants finish is not available. Anecdotal evidence indicates that some do and some don’t, with the proportions unclear but many examples of individuals whose association with EEPSEA has fortified their interest in research and teaching. They would not have started new courses, programs, and professional associations if this were not the case. This marginal (in the economic sense) impact of EEPSEA is the pertinent one to consider. The issue is not so much the proportion of past grantees who remain academically active, but rather whether the proportion is higher than it would have been in the absence of EEPSEA. I have no doubt that it is, and not just marginally (in the conventional sense).

Interaction within the community

A community of scholars consists of more than productive researchers and effective teachers. Its most important function is peer review, which provides quality control over the generation of new knowledge. EEPSEA develops local scholars’ skills as peer reviewers in a variety of indirect and direct ways. The most basic ways are by providing participants with a better knowledge base through its training courses, and by assembling them at the biannual workshops, where they are exposed to research from different countries and on different topics, encouraged to interact through the role-playing exercises, and allowed to comment on each others’ work in the working group sessions. On this last point, EEPSEA’s superb resource persons provide role models for making comments that are critical yet constructive, and through their comments they help local participants understand the standards for fundable and publishable research. The secretariat also fosters Asian-to-Asian interaction by including local experts as reviewers of proposals, by facilitating communication between current grantees and previous grantees who worked on similar topics, and by using local academics as instructors in some of its in-country courses.
On the whole, however, the amount of scholarly interaction, in particular the amount of peer feedback, is less in EEPSEA than in similar capacity-building programs in Africa, Latin America, and South Asia. Local researchers participated relatively little in the working group sessions at the November, 2004 workshop, although the amount of participation did increase over the course of the workshop. The secretariat and resource persons blame language and culture. This surely does explain the relatively greater participation by, say, Philippine participants compared to participants from China, but the approach of the moderators of the working groups also mattered. Some sessions were no more than dialogues between the presenter and his or her advisor. In other sessions, moderators asked for questions from local participants after a researcher’s presentation instead of giving the floor immediately to the researcher’s advisor. If this approach yielded only silence, the moderator of one session asked specific participants for their views about particular issues raised in the presentation. This succeeded in stimulating discussion. In about half the sessions I observed, moderators did not enforce the time limits for presenters. Although some flexibility was required to adjust for differences in the presenters’ English language skills, the consequence was reduced time for discussion. Some participants said they would have participated more if they had received copies of proposals and reports earlier. The secretariat e-mails copies of proposals and reports to the relevant resource persons before the workshops but not to other participants. It does, however, make copies available to all participants during the workshop.

Asian experts also play a very small role as resource persons for research projects. During the evaluation period, EEPSEA drew its project advisors almost exclusively from North American universities. The reliance on North American experts was evidently less extreme in earlier years, when EEPSEA had a number of Asian members of the Ad Comm who also served as resource persons at the biannual workshops and in some cases as project advisors. Their involvement with EEPSEA withered after their terms expired. In most sessions at the November, 2004 workshop, the EEPSEA deputy director was the sole source of resource-person comment from an Asian perspective.

The point is not that the North American experts are anything less than outstanding resource persons for EEPSEA research projects. Rather, it is that the existence of Asian experts who are able to serve in a similar capacity is a vital sign of the sustainability of environmental economics in the region. EEPSEA needs to redouble its efforts to nurture this capacity. The challenge is greater than in developing effective training courses and an effective project cycle. In the concluding section, I offer some ideas on starting points for meeting this challenge, without claiming that they are anything more than that.

Although sustainability requires a shift of responsibility toward Asian resource persons, such a shift should not be sudden or necessarily complete. Participants interviewed at the November, 2004 workshop emphasized repeatedly, and without exception, that the knowledge and mentoring skills of resource persons are what matter most to them. They do not want Asian resource persons just for the sake of EEPSEA looking more Asian. North America is unquestionably a center for the development of new environmental economics theories and methods, and participants cherish the opportunity to learn directly from the individuals responsible for these developments. They also place a high value on the different perspectives
that resource persons from outside the region bring toEEPSEA, which as one noted prevents “in-breeding” within the still relatively small community in the region.
Poorer countries: Has the program effectively addressed the needs of countries like Vietnam, Cambodia, and Lao PDR? What other activities might meet those needs? Are there any models or lessons from the experience of other agencies working in those countries?

This item was addressed by a separate evaluator, Philip Hirsch, who prepared a review report titled “EEPSEA in Cambodia, Lao PDR and Vietnam.” In this section I provide a synopsis of Hirsch’s report and comment on it in relation to other information I compiled for my own evaluation, in particular interviews conducted with participants from Vietnam and Cambodia at the November, 2004 workshops (there were no participants from Laos). I can offer only limited insights, as I have no personal or professional experience in the three countries. I have never visited any of them, and I have not even conducted any previous desk research on them. In view of the different nature of the evaluation process for this item, I include a discussion of Hirsch’s recommendations and my reactions to them in this section instead of in the final section of this report.

Hirsch’s assessment of EEPSEA’s impact

Hirsch’s summary assessment of EEPSEA’s impact in the three countries is as follows:

EEPSEA has done a very good job in getting environmental economics established as a discipline, as a research approach and potentially as a policy influence in Vietnam, and is well regarded there. EEPSEA has had less impact in Cambodia but is well regarded by those who have been associated with the program. EEPSEA has had relatively little training impact, minor research capacity impact and virtually no policy impact in Lao PDR and has little profile there even among the most relevant people at the most relevant institutions.

This relative ranking, with Vietnam at the top and Lao PDR at the bottom, is consistent with my own review of the evidence. Table 12 provides more detail on Hirsch’s assessment of EEPSEA’s impact on training, research, and policy impact in the three countries. I have intentionally selected excerpts that accord most closely with the impressions I gained through interviews at the November, 2004 workshop. Even so, some differences between Hirsch’s views and my own should be noted. One is that Hirsch has not given EEPSEA sufficient credit for its tailoring of in-country training courses to the audiences in the three countries. A current example is the upcoming training course for teachers of environmental economics in Vietnam, which, according to the secretariat, is a response to a request from senior EEPSEA participants from Vietnam for help in bridging the “gap between the relatively advanced material we present in Los Banos and the material they need to prepare and present to their undergraduates.” A second is that Hirsch’s assessment of EEPSEA’s impact on research in Cambodia is too negative. As noted earlier and as shown in Table 1, the number of approved proposals is actually relatively high in Cambodia compared to most other countries. His assessment of EEPSEA’s policy impact in Cambodia might similarly be too negative, in view of the evidence on the impact of Thanakvaro Thyl de Lopez’s study on Ream National Park. Hirsch appears to define “policy” as national legislation, when EEPSEA in fact interprets the word more broadly (and in my view correctly) as encompassing government decisions of various types (not just laws, but regulations and decisions on programs and projects) at various levels (local and provincial as well as national). His definition rules out the impacts EEPSEA projects are most likely to have.
The excerpts in Table 12 also indicate the obstacles that EEPSEA has faced in the three countries. I agree with Hirsch’s summary of these obstacles, which he states elsewhere in the report as follows (italics added):

A common issue facing all three countries is their relative inexperience with market economics as a practice and as a discipline. This meant that from the early 1990s, when EEPSEA commenced its program, all three faced a steep learning curve in application of economic analysis based on market economics to many spheres of activity, let alone the environment.

The politically closed nature of Lao PDR and Vietnam in particular means that certain topics are difficult to research in an open and objective manner. It is also difficult to effect policy advocacy in “taboo” areas. On the other hand, putting analysis in the framework of economic valuation may in some cases allow discussion of environmental issues that are otherwise too sensitive or where there is an overly simplistic assumed trade-off between environment and development.

English remains a significant barrier, particularly in Lao PDR where most university teachers have a poor working knowledge of written and spoken English, but also in Cambodia and Vietnam. While courses could be delivered in Khmer, Lao or Vietnamese, written materials remain an issue. The situation is changing rapidly, and the new generation of graduates has a much higher level of English.

The low salaries of researchers is an issue in all three countries, and it places real opportunity costs that rise with the level of economics expertise.

Perhaps his most important observation pertains to the last obstacle, the opportunity cost of research for individuals who receive low salaries but have relatively lucrative opportunities as consultants: “This is quite an intractable problem, but it has not been an absolute barrier in the case of Vietnam ….” As indicated in Table 12, chief among the factors he identifies as setting Vietnam apart are its research tradition and professional research culture. But tradition and culture cannot be established immediately, which implies that progress toward environmental economics capacity-building in Cambodia and Lao PDR will continue to be slower than in Vietnam.

Hirsch’s recommendations

When placed in this context of research tradition and culture, two of Hirsch’s broad recommendations for capacity-building in Cambodia and Lao PDR make sense. These recommendations also follow from some of the observations by Hirsch that are summarized in the “Institutional issues” section of Table 12. The first recommendation is to identify and work more closely with organizations where there is at least a trace of a research culture. Individuals with a personal commitment to research are more likely to select those organizations for employment and to receive nonpecuniary rewards (respect and recognition) that encourage them to stay in the research world despite low salaries. Hirsch suggests that in some cases new organizations might need to be created. For example, he says that in LAO PDR

There is a need for an Environment Research Institute under STEA or NAFRI, with a mandate to influence policy. This is a policy decision for the Lao government, but possibly one on whose shape EEPSEA could have a positive influence if a redesign of its Lao program were to incorporate institutional support for such an institute.
Hirsch is seldom so specific about the meaning of “institutional capacity building” when he uses the phrase elsewhere in the report, but he is on target when he warns that “Unless human capacity building is done in concert with institutional capacity building, the best people will continue to gravitate to international organisations and the private sector.”

Hirsch’s second broad recommendation for Cambodia and Lao PDR is “to invest in a small number of key individuals to take them to a higher level of expertise (PhD level).” He points out that there are very few such individuals in universities and research institutes in the two countries (see the “Institutional issues” section of Table 12). Although donors have tended to shy away from supporting graduate training, Hirsch is probably correct in concluding that more investment in graduate training is needed to establish a critical mass of environmental economists in the two countries. Such investment is risky in view of the possibility that individuals who receive graduate training will opt for non-research careers, but this risk just serves to highlight the importance of Hirsch’s first recommendation. On the positive side, Hirsch does mention that about ten members of the Faculty of Economics and Business at the National University of Laos are currently on leave working toward their doctoral degrees. Perhaps some of them could be drawn into environmental economics upon their return. It should also be noted that as a quicker and cheaper interim measure, funding might be provided for individuals to earn research-oriented Master’s degrees instead of Ph.D.s.

These two recommendations point toward an EEPSEA program that would look quite different from its current program, although the emphasis on younger researchers enrolled in Ph.D. programs can be viewed as an extension of the move EEPSEA has already made into Ph.D. training through its dissertation fieldwork grants. Moreover, the recommendation to work more closely with specific institutions is not necessarily at odds with EEPSEA’s approach of investigator-driven research. EEPSEA could (and in my view, should) require that individual researchers from such institutions prepare and defend their proposals. It should also make clear in its dealings with the institutions that the choice of research topic should be up to individuals and that funding is not automatic but dependent on proposals achieving a threshold level of quality.

Whether or not EEPSEA accepts these two recommendations of Hirsch’s, it does appear to need to develop a deeper understanding of universities, research institutes, and other organizations in Cambodia and Lao PDR in order to develop stronger programs in the two countries. As a first step for Cambodia, Hirsch makes the common-sense suggestion that “A one- to two-day brainstorming workshop should be held that involves those who undertook the 2000 training and have followed it up in some way, and also involving others who have been involved with EEPSEA, in order to set new directions and collaborative arrangements.” He also suggests that other IDRC programs might be helpful in getting to know local organizations better in both countries.

Better understanding on an ongoing basis might also be promoted by relocating the regional training course from its every-other-year home at UP Los Banos to a suitable university in Cambodia (if one can be found) or Vietnam (if one cannot). A more dramatic move along these lines would be to relocate the EEPSEA headquarters from Singapore to Cambodia or Vietnam. Either of these moves would need to be carefully considered, however, to ensure that the
secretariat can continue to provide the high level of administrative services required to run a regional capacity-building program.

I have reservations about Hirsch’s third broad recommendation, which is to “Involve decision makers at policy, program or project level in defining research projects from the start, to give a sense of ownership and ‘buy-in’ to the process.” He makes this recommendation in connection to all three countries. I agree with the motivation for this recommendation, which he describes for Vietnam as follows:

There is a dilemma for EEPSEA in that younger scientists are often those most open to new ideas, have ambition, have language learning capacity and so on, but may be in a poor/junior position from which to influence policy. They often tend to seek degrees and work toward towards fulfilling their own individual ambitions rather than selecting the most relevant or urgent issues for study …. Other issues are urgent but not studied …. Without such studies, decision makers will not be persuaded to spend sufficient funds on protection. So, combined measures are needed to accommodate youthful dynamism and research potential with a policy relevant research agenda.

My reservations have to do with the degree of control by government agencies over EEPSEA’s research agenda. Allowing government agencies to decide which policy issues are permissible topics for EEPSEA research or which particular projects should be funded would undermine EEPSEA’s ability to develop a capacity to do research that is objective and serves the public interest as opposed to short-run government needs. EEPSEA research must remain distinct from consulting studies. On the other hand, promoting interaction between government agencies and EEPSEA researchers at an early stage of their projects is desirable for a variety of reasons: to enhance researchers’ access to data; to educate government officials about the research, and thus to make them more willing to listen to recommendations based on it; and to educate researchers about institutional factors they need to consider in formulating their recommendations. Hirsch gives an example of a previous EEPSEA research project in Cambodia that illustrates how workshops at the start of a project can secure government buy-in without ceding control of the research:

The multi-team research effort EEPSEA carried out in Cambodia, supervised by Bruce McKenney, involved workshops with policy makers. One workshop was held at the beginning of the project to brief policy makers on the research that was about to be undertaken, introduce them to the researchers, and get their input on the research. Another set of workshops was held at the end to disseminate the final results.

This is a useful model that could be applied not just in Cambodia and Laos but in other countries, too.
8  Gender balance: Has EEPSEA achieved a reasonable gender balance in its capacity building and research activities?

Economics is a male-dominated profession in most parts of the world. In the United States, this was true to such an extent in the early 1970s that the American Economic Association established a Committee on the Status of Women in the Economics Profession “to monitor the status of women in the profession and formulate activities to improve their status” (see the 2003 committee report, available on-line at www.cswe.org). In 1972, only 7.6 percent of Ph.D.s granted in economics in the U.S. were to women. By 2003, the figure had risen to 29.0 percent.

EEPSEA has done better. Overall, EEPSEA has achieved approximate parity between male and female participants in its activities. Forty percent of the leaders of the approved projects during 1999/00-2003/04 were female. The proportion of female participants varies by country and appears to roughly parallel the populations of female economists in those countries. For example, EEPSEA attracts many female participants from the Philippines, where there are many female economists, but fewer from Indochina, where female economists are more rare. Gender imbalance is not a problem in EEPSEA.
Recommendations

EEPSEA is an efficient and successful capacity-building program. There are no major defects in its design or implementation. It does face two principal challenges, however: replicating the success it has achieved in other countries in Cambodia and Lao PDR; and developing the capacity of Asian environmental economists to review each others’ work and mentor junior researchers, which are critical features of a sustainable scholarly community. I have already discussed recommendations related to Cambodia and Lao PDR in section 7. Recommendations specifically on the issue of sustainability are at the very end of this section. Most of the other recommendations in this section refer to minor adjustments to specific activities. I have no recommendations related to gender balance, which as noted in section 8 is indeed in balance inEEPSEA.

Recommendations related to section 1, Output

Promoting publication in peer-reviewed outlets:

1.1. Set a policy of not approving a second grant to the same researcher unless that individual has submitted a manuscript based on research conducted under the first grant to a journal, and not approving a third grant unless a manuscript based on the first or second grant has been accepted for publication.

1.2. Encourage researchers whose research at the interim-report stage shows promise of yielding peer-reviewed publications to submit 1-2 journal-length manuscripts instead of a lengthy final report—If this recommendation is implemented, time should be added to the concluding bilateral sessions for advisors to review the manuscripts in detail with the researchers, advice them on journal selection, and alert them to likely comments by referees.

1.3. Require all presenters of final reports to include a slide listing 2-3 candidate journals for articles based on their research and proposed titles for those articles.

Recommendations related to section 2, Process

Fine-tuning of the biannual workshops:

2.1. Prepare and review with resource persons a set of guidelines for the working group sessions—The purpose of these guidelines would be to ensure that resource persons’ oral feedback is as understandable as possible and to encourage comments by Asian participants. Obvious but important advice to resource persons includes to speak more slowly than they would to an audience of native English speakers; to avoid listing a long series of points, which are better discussed during the concluding bilateral sessions, and to instead focus on the most important points, especially ones that might apply to other participants and might invite discussion; to ask along the way whether the researcher understands the comments; and to close with a 2-3 sentence recap of
their main points. To encourage comments by Asian participants, sessions could be organized as follows:

a. Presentation (25 minutes, strictly enforced)

b. Clarification questions (5 minutes)

c. Comments by local discussant (5 minutes)

d. Comments by advisor (10 minutes)

e. Response by presenter (5 minutes)

f. Open discussion (10 minutes)

The local discussant would be a fellow EEPSEA researcher who would be given a copy of the proposal or report in advance. I am not suggesting that this proposed organization be followed slavishly; variation in the styles of session chairs must be accommodated (e.g., some are better at using “cold calls” to stimulate discussion than others), and interjections from other participants should be encouraged at all points, not just during parts b and f. The most important features are: limiting the time of the initial presentation, to ensure that ample time remains for discussion; allowing local participants an opportunity to ask clarification questions right after the presentation; and creating the position of a local discussant.

2.2. Provide the chairs of the working group sessions with copies of the bibliography of past EEPSEA Research Reports, to help them alert presenters to similar studies supported by EEPSEA previously.

2.3. Make copies of proposals and reports available to participants the day before they are be presented—This would give participants more time to review the materials and formulate questions and comments for discussion in the working group sessions.

2.4. Enforce the existing requirement that presenters of interim reports must include a slide describing the next steps in their projects.

2.5. Require presenters of final reports to include a slide that describes the 2-3 main lessons they learned about the research process and another slide that describes the likely direction of their post-EEPSEA research.

2.6. If the schedule can accommodate it, include a plenary session for the very best final reports—The purpose would be two-fold: to recognize outstanding studies, and to ensure that all other participants can learn from them as models.

2.7. Whenever appropriate, spread the interactive exercises over two sessions, one at the beginning and the other later in the workshop, and distribute materials for the exercises the night before the exercise is introduced—Interactive exercises have value as an “icebreaker” when placed at the beginning of a workshop, but they also have value as a source of rejuvenation when placed later in the workshop after two to three days of intensive discussions of proposals and reports. Distribution of materials in advance would enhance participation, given the imperfect English language skills of some of the participants, although for some exercises this might not be appropriate.
2.8. Convene a meeting of resource persons in the afternoon of Day 4, to discuss decisions on proposals and major recommendations on interim and final reports—Such a meeting would help ensure that advisors have comparable expectations of their advisees and are aware of useful comments by other resource persons. It would help new resource persons learn the EEPSEA culture from experienced ones. It would promote useful interchange between resource persons from inside and outside the region, with resource persons from inside the region learning more about the standards applied to grant-making decisions in North America and resource persons from outside the region learning more about the research and policy environments within which their advisees conduct their studies. To the extent the group of resource persons includes Asian experts, the meeting would be an important means of nurturing a scholarly community by promoting interchange among those experts. If time is a constraint, the Advisory Committee meeting that is normally held in the afternoon on Day 4 could perhaps be shortened somewhat, and the meeting to discuss proposals and reports could include members of the Advisory Committee as well as resource persons (indeed, there is already some overlap between the two).

2.9. Distribute the evaluation form to participants after the resource persons have left the room, provide more time for them to complete the form, and add questions about their satisfaction with written comments received before the workshop, the usefulness of the preliminary and concluding bilateral sessions, and, if their project has been approved, their overall satisfaction with their advisor.

Fine-tuning of other parts of the project cycle:

2.10. Furnish new reviewers and new advisors with examples of proposal reviews and report comments that provide models of the feedback EEPSEA strives to provide applicants and researchers.

2.11. Include more than one model proposal on the EEPSEA website, to illustrate good research design for different topics and to avoid unintentionally signaling that EEPSEA favors valuation studies over other types of studies (the model proposal currently on the website is for a contingent-valuation study).

Recommendations related to section 3, Training

Fine-tuning of the regional training course:

3.1. Consider adding an optional preliminary session for individuals with weaker mathematics and economics skills—Harvard Institute for International Development (HIID) added such a session a few years after launching its summer program in environmental economics, and it found that the session helped participants with weaker training get more out of the program. In essence, the session gave the participants a preview of mathematical procedures and basic economic concepts they would see in the lectures. The secretariat reports that EEPSEA included a one-week refresher a few
times in the 1990s but feels that it is no longer needed. It might be right, but such a session might be valuable for participants from countries such as Cambodia and Laos, where economics training is generally weaker.

3.2. Include more empirical exercises in the valuation module—Ideally, these exercises would be based on data from EEPSEA research projects. EEPSEA could commission a small team of local and foreign experts to prepare the exercises. It could also consider publishing a casebook of such exercises. It could also commission the preparation of similar exercises for other modules, but the need is greatest for the valuation module.

3.3. Reduce the material on CGE modeling in the module on economy-wide approaches, and wherever possible explicitly link the macro-oriented material in that module to the micro-oriented material in the previous modules (e.g., the “double dividend” and choice of pollution-control instruments; sustainability and the economic depreciation of natural resources).

3.4. Encourage lecturers to provide broader and deeper coverage of the economic analysis of institutional issues relevant to environmental and natural resource policy in the region—Coverage currently appears to be strongest in the pollution module. The natural resources module should include ample coverage of models of collective action. Chapters by David Starrett, Jean-Marie Baland and Jean-Philippe Platteau, and Partha Dasgupta in volume 1 of the Handbook of Environmental Economics (North-Holland, 2003) provide coverage of these models.

3.5. Provide participants with guidelines for data they should bring to the course for the purpose of developing a research proposal, and include activities related to proposal development during every week of the course, not just at the end—HIID made such changes to the original design of its summer program, and it found that proposal quality improved markedly following the changes. The secretariat already asks participants to bring a research topic and data to the course—in fact, a preproposal is part of the application—but it might need to place more emphasis on this, and include proposal development activities throughout the course, to achieve a significant increase in quality proposals generated by the course.

Suggestions of new specialized courses:

3.6. Organize courses on one or more of the following topics (in no particular order): institutional economics (e.g., economics of common property resources, political economy of environmental regulation), modeling and valuation of ecosystem services, CGE modeling, household models, and business and the environment—Institutional economics and ecological modeling were two of the top suggestions in the December, 2000 survey of training needs. The South Asian Network of Development and Environmental Economists (SANDEE) has organized short courses on CGE modeling and household models that could be adapted for EEPSEA or jointly sponsored. Business and the environment is a relatively new area of research within environmental economics that encompasses such topics as market demand for greener products,
investor demand for greener companies, environmental performance as a signal of productive efficiency, and strategic use of government regulations to gain competitive advantage. It might an attractive area of research for individuals with backgrounds in business economics.

Recommendations related to section 4, Dissemination

Recommendations 1.1-1.3 are pertinent here. In addition:

4.1. Organize one or more sessions spotlighting EEPSEA research at the 2006 3rd World Congress of Environmental and Resource Economists in Kyoto.

4.2. Translate policy briefs into local languages of all EEPSEA member countries, and make them available for download as PDF files from the EEPSEA website—English is the global language of researchers, but policy audiences will be reached more effectively if Policy Briefs are in local languages. EEPSEA currently encourages researchers to translate policy briefs into their local languages, but this should be done systematically.

4.3. As better data on downloads from the EEPSEA website become available, use them to gain a better understanding of demand for different types of information.

4.4. Place the uncopyrighted portions of the “Handbook of Dissemination” on-line as a PDF file, and consider obtaining copyright permission for the other portions.

4.5. Convert the on-line Research Reports to PDF files.

4.6. Relabel the website’s home button “Home” (it is currently labeled “Southeast Asia”).

Recommendations related to section 5, Impact

The casebook described in recommendation 3.2 could amplify EEPSEA’s impact on teaching in the region, and the translation of Policy Briefs into local languages (recommendation 4.2) could amplify its impact on policy. Other recommendations related to policy impacts include:

5.1. Include a plenary talk on an important policy issue in the region during at least one biannual workshop a year.

5.2. Invite 2-3 ad hoc Asian resource persons to the biannual workshops—Ideally, these individuals would be drawn from the ranks of EEPSEA alumni who were successful in linking their research to policy. They could fill some of the local discussant slots described in recommendation 2.1—although use of current researchers is preferred from a capacity-building standpoint—and could be included in the session described in recommendation 2.8. The importance of this recommendation depends very much on
the degree of participation of Asian members of the Ad Comm during the working
group sessions. It is not necessary if those members are active participants.

5.3. Require researchers to organize a proto-dissemination event early on in their projects—
The purpose would be to get “buy-in” from potential users of the research findings
about the topic of the study, the methods used, and the adequacy of consideration of
institutional factors.

5.4. Consider whether EEPSEA should organize more workshops for government officials,
to educate them about environmental economics research and stimulate demand for it—
The World Bank often organizes such workshops, but perhaps more are needed.
Moreover, perhaps the Bank’s workshops have not targeted all the audiences for
EEPSEA research (e.g., analysts in planning departments might be more relevant than
senior policymakers). Government training institutes might be interested in co-
sponsoring such workshops.

Recommendations related to section 6, Sustainability

Many of the recommendations given above would contribute to the development of a regional
environmental economics community that attracts new members, retains existing ones, and
promotes scholarly interchange. Recommendations 2.1, 2.8, 3.2, and 5.2 are especially
important in this regard. Two others are:

6.1. Actively recruit more Asian experts to serve as instructors in EEPSEA’s training
courses and advisors for its research projects, and more Asian members of the Ad
Comm who can serve as resource persons during the biannual workshops—As noted in
the text, a transition to more reliance on Asian resource persons is essential, but it
should not be sudden, nor should it necessarily be complete. Maintaining high quality
teaching and advising is of paramount importance. The transition will likely be gradual
if for no other reason than the difficulty of identifying local experts willing to take on
the responsibility. The secretariat has encountered reluctance when it has asked Asian
experts to serve as resource persons. If local experts have potential as resource persons
but do not have enough experience, EEPSEA could pair them with foreign experts.
EEPSEA tried this approach several years ago without great success, but in the absence
of a better idea it should not abandon it. Moreover, it has a larger and better trained
pool of candidates to draw from now. In the regional training courses, EEPSEA could
have foreign experts handle most of the lectures and local experts handle all of the lab
sessions and selected lectures within their areas of greatest expertise. In the research
grants program, it could move toward a system of having a committee of two advisors
for selected projects, with one committee member being foreign and the other local.
The responsibility of the local expert could be increased over time until he or she is
ready to serve as a solo advisor. Even then, EEPSEA could maintain a roster of foreign
experts willing to provide support to local advisors on an as-needed basis, and some of
those foreign experts could occasionally attend the biannual workshops as at-large
resource persons.
6.2. Investigate the desirability of launching an Asian environmental and resource economics journal—Although there are already many journals that publish articles on environmental and resource economics, including some that encourage articles on policy issues in developing countries, a new journal might provide benefits that justify the time and effort required to launch it. The most important benefit of a new journal would be to provide a center of attraction for the regional environmental economics community: a reason to interact professionally outside of the EEPSEA project cycle and to continue interacting after EEPSEA no longer exists. In addition, the lack of a regional journal might be one reason for the relatively low number of articles published locally by EEPSEA researchers. As in other parts of the world, local mainstream economics journals might be disinclined to publish articles on environmental topics. High-quality papers produced by EEPSEA researchers might have a hard time cracking international environmental journals because of perceived limited interest among the journals’ predominantly Western subscribers. Although the best EEPSEA research is currently disseminated via the Research Reports series, this is not a permanent option (EEPSEA will not be around forever) or the best one (discussion papers, even peer-reviewed ones, are not given the same credibility or respect as peer-reviewed journal articles). Launching and running a journal is a lot of work, and to be viable a new journal would probably need to be pan-Asian, not just Southeast and East Asian. Both reasons suggest that the EEPSEA secretariat should not have primary responsibility for it. The responsibility should rest with one or more local environmental economics associations. EEPSEA could, however, be one of several organizations that provide start-up support of various types: not just financial, but also by providing training related to the art of reviewing manuscripts. My recommendation at this point is simply to investigate whether there is a market niche for a new journal and whether it would help sustain an Asian environmental economics community.
Table 1. Approved EEPSEA research projects during 1999/00-2003/04. Source: annual reports.

<table>
<thead>
<tr>
<th>Classification scheme</th>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cross-country</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Cambodia</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>China</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Lao PDR</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Philippines</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td>13</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>76</td>
</tr>
<tr>
<td><strong>Theme</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastal &amp; marine</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>Economy-wide</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Forests(^a)</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Pollution control(^b)</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>76</td>
</tr>
</tbody>
</table>

\(^a\) Includes agriculture and rural water management.
\(^b\) Includes urban environmental services (water supply, sewerage, solid waste).
Table 2. Publications generated by EEPSEA research projects during 1999/00-2003/04. Source: annual reports.

<table>
<thead>
<tr>
<th>Type of publication</th>
<th>Number</th>
<th>Per project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EEPSEA publications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Peer-reviewed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Research reports</td>
<td>44</td>
<td>0.58</td>
</tr>
<tr>
<td>2. Books</td>
<td>2</td>
<td>0.03</td>
</tr>
<tr>
<td>B. Not peer-reviewed</td>
<td>4</td>
<td>0.05</td>
</tr>
<tr>
<td>1. Technical papers</td>
<td>4</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>External publications</strong></td>
<td>49</td>
<td>0.64</td>
</tr>
<tr>
<td>A. Peer-reviewed</td>
<td>39</td>
<td>0.51</td>
</tr>
<tr>
<td>1. International journals</td>
<td>21</td>
<td>0.28</td>
</tr>
<tr>
<td>2. Local journals</td>
<td>8</td>
<td>0.11</td>
</tr>
<tr>
<td>3. Book chapters</td>
<td>8</td>
<td>0.11</td>
</tr>
<tr>
<td>4. Books</td>
<td>2</td>
<td>0.03</td>
</tr>
<tr>
<td>B. Not peer-reviewed</td>
<td>10</td>
<td>0.13</td>
</tr>
<tr>
<td><strong>Total publications</strong></td>
<td>99</td>
<td>1.30</td>
</tr>
<tr>
<td>A. Peer-reviewed</td>
<td>85</td>
<td>1.12</td>
</tr>
<tr>
<td>B. Not peer-reviewed</td>
<td>14</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Note: The “per project” numbers are calculated by dividing the publication totals by the number of projects approved during the period, 76.
Table 3. External publishers of EEPSEA research during 1999/00-2003/04.  
Source: annual reports.

**International journals**
- Canadian Journal of Forest Research
- Coastal Management (3 articles)
- Contemporary Economic Policy
- Contour (2 articles)
- Development Policy Review
- Ecological Economics (2 articles)
- Environment and Development Economics
- Environment, Development and Sustainability
- Environmental and Resource Economics
- Environmental Management
- Forest Policy & Economics
- International Journal of Global Environmental Issues
- International Journal of Sustainable Development and World Ecology
- Journal of the American Water Resources Association
- Journal of Environment and Development
- Land Economics
- Natural Areas Journal

**Local journals**
- Chongqing Environmental Science (2 articles)
- Desmarinas Graduate School of Education, Arts and Sciences Journal (De la Salle University)
- Hue Scientific Journal
- Jurnal Ekonomi Malaysia
- PIDS Development Research News (Philippine Institute for Development Studies)
- Sri Lankan Journal of Agricultural Economics
- Sri Lanka Economic Journal

**Book chapters**
- Edward Elgar (3 chapters)
- Kluwer Academic Publishers
- Nova Science Publishers
- Resources for the Future and Center for International Forestry Research
- World Fish Centre (2 chapters)

**Books**
- Edward Elgar (*Shrimp Farming and Mangrove Loss in Thailand*)
- EEPSEA (*Economy and Environment: Case Studies in Vietnam*)
- EEPSEA (*Economy and Environment: Selected Readings in the Philippines*)
- ISEAS and IDRC (*Indonesia’s Fires and Haze: The Cost of Catastrophe*)
<table>
<thead>
<tr>
<th>Date</th>
<th>Interaction between EEPSEA and researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 1, 2002</td>
<td><strong>R submits original proposal.</strong> Topic of proposal is pollution from agriculture. Proposed completion date is November, 2003 (1-year project).</td>
</tr>
<tr>
<td>Sept. 5, 2002</td>
<td>DG forwards proposal to Ad, with comments by HF and himself. HF notes that R had presented the proposal at the regional training course and had not changed it much—an early sign of what DG will soon label R’s stubbornness. HF also observes that the proposal is missing a discussion of the institutional context for pollution regulation. DG suggests dropping a proposed health damage valuation study and focusing instead on farmers’ incentives to adopt mitigation measures (including a financial BCA). He notes that “We should help design these projects to match the researchers’ skills, and this person is novice.” He observes that even a simplified version is “a bit risky.”</td>
</tr>
<tr>
<td>Sept. 16, 2002</td>
<td>Ad submits 2-page review to S. Ad confirms agreement with comments by HF and DG. Ad suggests including a damage valuation study (not specifically on health) but using the hedonic property method instead of an epidemiological approach. Ad suggests that R use a previous EEPSEA study as a model.</td>
</tr>
<tr>
<td>Sept. X, 2002</td>
<td>DG forwards Ad’s review to R, with additional comments of his own. He suggests background reading on the hedonic property method and asks R to respond by Sept. 24 with information about property markets in the study area.</td>
</tr>
<tr>
<td>Sept. 24, 2002</td>
<td>R provides verbal description of property markets in the study area.</td>
</tr>
<tr>
<td>Sept. 27, 2002</td>
<td>DG informs R that, based on R’s description, information appears sufficient to implement the hedonic property method. He provides additional explanation of the rationale for using the hedonic property method. He asks R to submit a revised proposal by Oct. 4, with detail on the implementation of the hedonic property method and the financial BCA (in particular, sources of data).</td>
</tr>
<tr>
<td>Oct. X, 2002</td>
<td><strong>R submits first revision of proposal.</strong></td>
</tr>
<tr>
<td>Oct. 7, 2002</td>
<td>DG sends comments on revised proposal to R. He notes that, despite “some progress from the previous version,” “you still have not responded to some of the comments raised before.” He lists the three most important ones and states that “If the next version does not respond fully … EEPSEA will reject the proposal. He gives a deadline of Oct. 10 for a second revision.</td>
</tr>
<tr>
<td>Oct. 10, 2002</td>
<td><strong>R submits second revision of proposal.</strong></td>
</tr>
<tr>
<td>Oct. 11, 2002</td>
<td>DG sends message to HF, cc: Ad. He notes that R has responded to one of the comments and partly to another but not to the third, which concerns the reasons why farmers do not adopt a particular mitigation measure. He seeks HF’s advice before “drop[ping] the axe,” asking whether the lack of response is “because he [R] disagrees &amp; deliberately refuses” or “because he does not...</td>
</tr>
</tbody>
</table>
understand what we’ve told him?”

Oct. 16, 2002  Ad informs DG and HF that, despite problems with the revised proposal, he is willing to assist R and to ensure that “a realistic approach is adopted” (i.e., one within R’s capabilities, in particular a simplified hedonic analysis).

Nov. 22, 2002  DG and Ad meet with R at biannual workshop. Ad submits 3-page written comments to S, laying out the base case and alternatives for the financial BCA and steps required to collect data for it and the hedonic property study.

Dec. 10, 2002  DG forwards Ad’s comments to R and ask for revised proposal by Jan. 15.

Jan. 15, 2003  **R submits third revision of proposal**, with cover message providing a synopsis of observations based on visits to the study area.

Jan. X, 2003  Following discussion with HF and Ad, DG sends 2-page memo to R with a list of 8 remaining points that must be addressed. He notes the list “should not have been necessary,” as “all the points … are ones we have already discussed and agreed on with you.” The last point is a suggestion that “early in the project you should set up and Excel spreadsheet with the relevant variables for assessing costs & benefits” and send it to Ad “for his advice when it is ready.”

Feb. (?), 2003  **R submits fourth revision of proposal.**

March 3, 2003  **DG approves the revised proposal** but reminds R of several points, including preparing spreadsheets for Ad to review. He asks R to do this by April 5.

Aug. 8, 2003  Ad sends 2-page comments to R on the spreadsheets, which R had evidently recently submitted.


Sept. 7, 2003  R apologizes for being out of touch and promises to send revised spreadsheets to Ad by the next day and to “speed up my research.”

Sept. 9, 2003  Ad sends message to R with spreadsheet template attached.

Sept. 11, 2003  R acknowledges receipt of Ad’s message.

Oct. 2, 2003  DG sends message to R requesting explanation for late submission of final report (due Oct. 1) and failure to submit final version of spreadsheet, “which was to be the very first step in the project.”

Oct. 3, 2003  R replies that he thought completion date for project was in Nov. 2003, not Oct. 1, 2003, and that he is using spreadsheet template sent by Ad on Sept. 9.

Oct. 3, 2003  DG points out to R that R’s contract states October 1, 2003 deadline for final report and that Ad sending R a template is not the same thing as R sending Ad a spreadsheet based on that template.

Oct. 4, 2003  Ad confirms that S has complete set of communications between Ad and R.

Oct. 6, 2003  R submits two spreadsheets to DG and Ad.

Oct. 30, 2003  R asks Ad various questions about the financial BCA.

Nov. 2, 2003  R requests extension.

Nov. 3, 2003  **DG approves extension.**

Nov. 3, 2003  Ad answers questions in R’s message of Oct. 30 and makes some additional comments that require a response from R.

Nov. 27, 2003  DG asks R to respond to Ad’s message of Nov. 3 by Dec. 2.

Dec. 2, 2003  R requests an additional extension.

Dec. 3, 2003  DG responds to R, requesting a response to Ad’s message of Nov. 3 before deciding on extension.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 18, 2003</td>
<td>R responds to Ad’s comments of Nov. 3.</td>
</tr>
<tr>
<td>Dec. 29, 2003</td>
<td>R requests additional advice from Ad.</td>
</tr>
<tr>
<td>Feb. 28, 2004</td>
<td>Ad sends R comments on outline and draft chapters, highlighting some technical problems and some problems with interpretation of results.</td>
</tr>
<tr>
<td>April 29, 2004</td>
<td>Ad sends comments on draft report, requesting clarification of a number of major points.</td>
</tr>
<tr>
<td>May 11, 2004</td>
<td>R acknowledges receipt of Ad’s comments.</td>
</tr>
<tr>
<td>May 14, 2004</td>
<td>Ad confirms that the calculations in R’s spreadsheets are correct but asks R to think about why the estimated impact of pollution on property values is so low.</td>
</tr>
<tr>
<td>May 18, 2004</td>
<td>S and Ad meet with R at biannual workshop.  Ad submits 1-page written comments to S, which state that the analysis is complete and that just one part of the report remains unfinished (a discussion of the links between community perceptions and the impacts of pollution on property values).</td>
</tr>
<tr>
<td>May 25, 2004</td>
<td>S sends Ad’s comments to R.</td>
</tr>
<tr>
<td>Oct., 2004</td>
<td><strong>R submits final report.</strong></td>
</tr>
<tr>
<td>Nov. 18, 2004</td>
<td>R presents final report at biannual workshop.</td>
</tr>
</tbody>
</table>
Table 5. Evaluations of biannual workshops by participants.

Note: Mean ratings, on a scale of 1-5.

<table>
<thead>
<tr>
<th>Evaluation question</th>
<th>May-00</th>
<th>Nov-00</th>
<th>May-01</th>
<th>Nov-01</th>
<th>May-02</th>
<th>Nov-02</th>
<th>May-03</th>
<th>Nov-03</th>
<th>May-04</th>
<th>Nov-04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall organization of the workshop</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helpfulness and efficiency of EEPSEA staff</td>
<td>4.74</td>
<td>5.00</td>
<td>4.76</td>
<td>4.94</td>
<td>4.91</td>
<td>4.97</td>
<td>4.97</td>
<td>4.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommend using the plenary talk/exercise format again</td>
<td>3.96</td>
<td>4.48</td>
<td>4.75</td>
<td>4.56</td>
<td>4.67</td>
<td>4.70</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plenary talks</td>
<td>3.46</td>
<td>4.15</td>
<td>4.22</td>
<td>4.04</td>
<td>4.47</td>
<td>4.54</td>
<td>3.92</td>
<td>3.77</td>
<td>4.54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.88</td>
<td>4.48</td>
<td>4.16</td>
<td>3.96</td>
<td>4.56</td>
<td>4.36</td>
<td>4.62</td>
<td>4.25</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.64</td>
<td>5.00</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The exercise was very useful</td>
<td>4.24</td>
<td>4.61</td>
<td>4.39</td>
<td>4.32</td>
<td>4.35</td>
<td>3.34</td>
<td>4.32</td>
<td>3.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usefulness of the working groups sessions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.57</td>
<td>4.63</td>
</tr>
</tbody>
</table>
### Table 6. Training courses during 1999/00-2004/05.

<table>
<thead>
<tr>
<th>Type of course</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional training course</strong></td>
<td>Philippines</td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td>Philippines</td>
<td>2002</td>
</tr>
<tr>
<td></td>
<td>Thailand</td>
<td>2004</td>
</tr>
<tr>
<td><strong>In-country courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cambodia</td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td>Sri Lanka</td>
<td>2000</td>
</tr>
<tr>
<td></td>
<td>Vietnam</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>Laos</td>
<td>2001</td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>2003</td>
</tr>
<tr>
<td><strong>Specialized courses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Forest science</td>
<td>Thailand</td>
<td>2000</td>
</tr>
<tr>
<td>* Coastal ecology</td>
<td>Philippines</td>
<td>2001</td>
</tr>
<tr>
<td>* Environmental econometrics</td>
<td>Vietnam</td>
<td>2001</td>
</tr>
<tr>
<td>* Climate change &amp; CDM</td>
<td>Singapore</td>
<td>2003</td>
</tr>
<tr>
<td>* Contingent valuation &amp; choice modeling</td>
<td>Vietnam</td>
<td>2004</td>
</tr>
<tr>
<td>* Pollution control</td>
<td>Thailand</td>
<td>2004</td>
</tr>
<tr>
<td>* Pollution economics</td>
<td>China</td>
<td>2005</td>
</tr>
</tbody>
</table>
Table 7. Evaluations of regional training courses.

<table>
<thead>
<tr>
<th>Evaluation question</th>
<th>2000</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objectives of the course were very clearly stated</td>
<td>4.66</td>
<td>4.92</td>
</tr>
<tr>
<td>The objectives of the course were fully achieved</td>
<td>4.62</td>
<td>4.72</td>
</tr>
<tr>
<td>My expectation about the course was fully met</td>
<td>4.57</td>
<td>4.80</td>
</tr>
<tr>
<td>The whole course has taught me many things which I expect to be able to apply in my job back home</td>
<td>4.86</td>
<td>4.92</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module</th>
<th>Cost-benefit analysis &amp; pollution</th>
<th>Valuation</th>
<th>Natural resources</th>
<th>Cost-benefit analysis &amp; pollution</th>
<th>Valuation</th>
<th>Natural resources</th>
<th>Economy-wide approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content of the module was very suitable</td>
<td>4.47</td>
<td>4.57</td>
<td>4.90</td>
<td>4.57</td>
<td>4.86</td>
<td>4.87</td>
<td>4.54</td>
</tr>
<tr>
<td>The sessions in the module were organized very systematically and appropriately</td>
<td>4.28</td>
<td>4.47</td>
<td>4.81</td>
<td>4.65</td>
<td>4.31</td>
<td>4.95</td>
<td>4.50</td>
</tr>
<tr>
<td>The non-lecture sessions (games, exercises, etc.) were very instructive</td>
<td>4.20</td>
<td>4.14</td>
<td>4.81</td>
<td>4.46</td>
<td>4.27</td>
<td>4.87</td>
<td>4.70</td>
</tr>
<tr>
<td>Instructor: knowledge and mastery of subject matter</td>
<td>4.54</td>
<td>4.44</td>
<td>4.70</td>
<td>4.78</td>
<td>4.61</td>
<td>4.78</td>
<td>4.65</td>
</tr>
<tr>
<td>Instructor: organization and planning</td>
<td>4.50</td>
<td>4.50</td>
<td>4.78</td>
<td>4.70</td>
<td>4.56</td>
<td>4.81</td>
<td>4.61</td>
</tr>
<tr>
<td>Instructor: motivation of learning</td>
<td>4.28</td>
<td>4.23</td>
<td>4.74</td>
<td>4.63</td>
<td>4.43</td>
<td>4.70</td>
<td>4.79</td>
</tr>
<tr>
<td>Instructor: presentation skills and style and teaching personality</td>
<td>4.44</td>
<td>4.53</td>
<td>4.79</td>
<td>4.72</td>
<td>4.65</td>
<td>4.81</td>
<td>4.75</td>
</tr>
<tr>
<td>Instructor: teaching methods</td>
<td>4.40</td>
<td>4.28</td>
<td>4.90</td>
<td>4.65</td>
<td>4.42</td>
<td>4.81</td>
<td>4.67</td>
</tr>
</tbody>
</table>
Table 8. Evaluations of CCAP course (China).

<table>
<thead>
<tr>
<th>Evaluation question</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost-benefit analysis</td>
</tr>
<tr>
<td>The subject matter of the module was very suitable</td>
<td>4.59</td>
</tr>
<tr>
<td>The sessions in the module were organized very systematically and appropriately</td>
<td>4.59</td>
</tr>
<tr>
<td>The non-lecture sessions were very instructive</td>
<td>4.52</td>
</tr>
<tr>
<td>Instructor: number of questions with a majority of ratings of 5</td>
<td>15 out of 18</td>
</tr>
</tbody>
</table>
Table 9. Evaluations of specialized courses.

<table>
<thead>
<tr>
<th>Evaluation question</th>
<th>Forest ecology</th>
<th>Coastal ecosystems</th>
<th>Environmental econometrics</th>
<th>Climate change &amp; CDM</th>
<th>Contingent valuation &amp; choice modeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>The objectives of the course were clearly stated</td>
<td>4.05</td>
<td>4.50</td>
<td>4.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The objectives of the course were fully achieved</td>
<td>3.42</td>
<td>4.50</td>
<td>4.39</td>
<td></td>
<td></td>
</tr>
<tr>
<td>My expectations about the course were fully met</td>
<td>3.40</td>
<td>4.06</td>
<td>4.55</td>
<td>4.54</td>
<td>4.34</td>
</tr>
<tr>
<td>Overall assessment of the course</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.59</td>
</tr>
<tr>
<td>Instructor: number of questions with a majority of ratings of 5</td>
<td>5 out of 5</td>
<td>16 out of 16</td>
<td>6 out of 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 10. Reported impacts on career development during 1999/00-2003/04.
Source: annual reports.

Note: Excludes completion of degree programs at local or foreign universities (many examples).

<table>
<thead>
<tr>
<th>Type of development</th>
<th>Number of reported examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultancy/study/advisory group</td>
<td>41</td>
</tr>
<tr>
<td>Job promotion or new job</td>
<td>20</td>
</tr>
<tr>
<td>Study visits/fellowships</td>
<td>11</td>
</tr>
<tr>
<td>Teaching in short course</td>
<td>5</td>
</tr>
<tr>
<td>Awards</td>
<td>5</td>
</tr>
<tr>
<td>Establish new institute/center/NGO</td>
<td>4</td>
</tr>
<tr>
<td>Organize conference</td>
<td>4</td>
</tr>
</tbody>
</table>
Table 11. Reported policy impacts during 1999/00-2003/04. Source: annual reports.

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of reported examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>7</td>
</tr>
<tr>
<td>China</td>
<td>2</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2</td>
</tr>
<tr>
<td>Cambodia</td>
<td>1</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1</td>
</tr>
<tr>
<td>Thailand</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Per research project during the period (76) 0.21
Per Research Report during the period (44) 0.36
### Topic | Cambodia | Lao PDR | Vietnam
--- | --- | --- | ---
**Training** | Of the four interviewed in Cambodia who had received EEPSEA training, all were extremely positive about the content and impact. However, the self-assessment is that the [regional training] courses have really only provided rough ideas in areas such as contingent valuation rather than deeper knowledge of techniques. This may be due to the limited prior expertise in economics held by those who have received training. Other courses, such as the one offered in Cambodia, have been successful for a more diverse group by being held at a simpler level. | In Laos, training has had very little impact. It was suggested that training should be focused heavily on younger staff, recent graduates, and applied closely to their area of work, with follow-up research support. Training needs to be tailored to the background of trainees, in particular distinguishing between those with economics background and those with environmental science or natural resource management background. | In Vietnam, training has been successful in and of itself and also in terms of resulting in successful research project proposals. [There are] many examples of how self-sustaining environmental economics has become as a discipline since the early EEPSEA days in Vietnam. … environmental economics … has recently been made a compulsory subject in the national economics curriculum at Bachelors degree level …. There is a need for postgraduate training in environmental economics. The senior researchers at HCM City University of Economics suggested that there may now be a case for more specialized [i.e., advanced] training provision ….

**Research** | Overall, the number of research proposals that have emerged from EEPSEA training in Cambodia has been disappointingly small, in part because trainees have gone on to work with World Bank, UNICEF, etc and are simply too busy and also have more lucrative opportunities at a personal level. In Cambodia, there is not so much a shortage of economists as of resource and environmental economists, as those with economics training tend to get attracted to business and financial careers. | The only research proposals submitted and accepted in Lao PDR have not resulted in significant research output. Early on, for example in the case of the current DG of NERI who received training in 1993, it was simply not possible for an individual to propose an independent research project, but this has now relaxed considerably. However, any research proposals would still need to be developed in consultation with the relevant host institution. | In Vietnam, there has been a significant number of research proposals. It is only possible to speculate, but the fact that uptake has been much more disappointing in Cambodia and Lao PDR is most likely due to a combination of reasons including the below-subsistence level of official salaries; a more professional culture among researchers and long, well-established research tradition in Vietnam that gives professional recognition; and higher opportunity costs in Lao PDR and Cambodia, given the relative concentration of aid projects and organizations that compete with researchers’ salary opportunities in Vientiane and Phnom Penh.
<table>
<thead>
<tr>
<th>Topic</th>
<th>Cambodia</th>
<th>Lao PDR</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy impact</td>
<td>Policy impact is limited. In Cambodia it is difficult to convince policy makers that the environment has an economic value. There is a strong attitude that Cambodia needs to catch up first, and deal with the environment later. An interesting comment from CBNRM-LI is that there is policy impact at the District level, where there is particular interest in the significance of protecting forests for local livelihoods, whereas there may be less interest at higher levels.</td>
<td>EEPSEA has had … virtually no policy impact in Laos ….</td>
<td>The policy impact of research in Vietnam is hard to gauge, but probably quite limited, even though a number of policy briefs have been written and translated into Vietnamese in quite an attractive format. Findings are placed in policy terms, for example placing a tax on pesticides commensurate with the social costs of pollution, but it is difficult to see this impacting directly on policy …. On the other hand, program-level work (for example a study of Integrated Pest Management take-up among rich and poor) might lead to program-level improvements. Some of those interviewed expect that it will take another several years for the findings and the approach to be accepted at policy level. Some policy recommendations do not fit well with the administrative status quo ….</td>
</tr>
<tr>
<td>Topic</td>
<td>Cambodia</td>
<td>Lao PDR</td>
<td>Vietnam</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Institutional issues | **Universities**: Currently environmental economics is taught as a compulsory subject to senior level undergraduate students at RUPP [Royal University of Phnom Penh] through the environmental science program …. There are no PhDs among the environmental science faculty – most have Masters degrees from AIT …. The University of Economics and private higher educational institutions teaching economics are largely business-oriented and have no environmental economics.  
**Research institutes**: The Cambodia Development Resource Institute (CDRI) … has been cautious about overextending itself, and says no to a lot of projects. It wants to carry out policy-relevant research, not consulting. Studies often simply confirm issues already familiar to policy makers, but these do not necessarily lead to action, and it is difficult to see ways to effect implementation from publication of research results alone.  
**NGOs**: Unfortunately, such agencies tend to commission research rather than invest in local capacity to engage in this analysis – EEPSEA could play a useful role here. | **Universities**: NUOL is the only university in Laos …. The Faculty of Economics and Business has a dynamic Dean … and an Economics Department with some 25 staff. Many are away for training, and within a couple of years there will be about 10 recently returned staff with postgraduate qualifications. Environmental economics is a compulsory subject for final year students ….  
**Research institutes**: Most policy research [at the National Agricultural and Forestry Research Institute] are done by foreign experts on a consulting basis, and there is little development of NAFRI staff. They have interests but no specialised training in economic and environmental aspects of agriculture and forest management …. Very few staff at NAFRI has Master or PhD qualifications.  
The NERI [National Economics Research Institute] Director General, as one of the first batch of EEPSEA trainees, has a continuing interest in the environment, but still quite a limited program in this area. Of the 20 research staff at NERI, the DG would like to have at least two well trained in environmental economics.  
There is little economic expertise at STEA [Science, Technology and Environment Agency] but a strong interest in the EEPSEA program …. | **Universities**: With its strong higher education sector, Vietnam is in a strong position to develop a discipline such as environmental economics, and the subject also meshes well with the interest in market instruments for resource allocation and decision making in this transitional economy. Despite the relatively advanced state of environmental economics training and research in Vietnam compared with Cambodia and Lao PDR, there are still shortcomings. Most of the high quality materials and training opportunities are in English, and this is a barrier for a number of teachers. Even at HCMC Economics University, there are only two PhDs with specialisations in environmental economics, with one more underway.  
… there is a notable tension between the approach favoured by those interviewed in Hanoi and those interviewed in Ho Chi Minh City. Some in the South perceive Northerners to be more interested in meetings than research. There is also a thinly veiled resentment at what is seen as bureaucratic attempts to keep control over the research agenda. |
Appendix 1

Descriptions of EEPSEA and its major activities

What is EEPSEA?  [excerpted from 2003/04 annual report]

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, Laos, 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 the Philippines. 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.

Regional research awards  [excerpted from draft 2005/06 program of work]

Most research awards are granted through a twice-yearly competition open to researchers from all member countries. The competition is closely tied to the biannual research workshops held in May and November. 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 multi-disciplinary 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. The competition process is a rigorous one. Although there is no formal training prerequisite, in practice, successful applicants tend to have completed a PhD in economics, or an MA plus the EEPSEA regional four-week course.

**Thesis fieldwork awards** [excerpted from draft 2005/06 program of work]

Many students enroll in PhD programs overseas without any funding for fieldwork. This often leads them to pursue theoretical subjects or to carry out fieldwork near the university rather than in the home country. It may also lead them to pursue a field of study other than environmental economics. Dissertation awards are a low cost way of overcoming these problems, and increasing the likelihood that graduates will return to a career in environmental economics in their home country after graduation. These awards are also available to Asian PhD students studying in Asia.

**Biannual workshops** [excerpted from draft 2005/06 program of work and a handout from the November, 2004 workshop titled “Procedures for presentations at EEPSEA workshops”]

The biannual workshops are the focal point of EEPSEA’s program. They bring together all active researchers, including PhD thesis students and authors of new proposals, along with resource persons, eminent speakers, and (once a year) the Advisory Committee and Sponsors Group. The four-day event includes individual consultations between researchers and their advisors; concurrent working groups in which research reports and proposals are presented; case study exercises where researchers can practice techniques in small groups; and plenary sessions with talks by international experts. The meetings are held in May and November of each year.

The plenary sessions contain a mix of presentations, with one or two exploring a broad theme and the remainder describing in detail how a particular research method was applied in an actual project. The working group sessions are intended to provide advice to researchers about how to design and implement the research projects they have submitted to EEPSEA. The reports presented in these sessions can be proposals, interim reports or final reports. Most presenters have three sessions scheduled for discussion of their proposal or report:

- **Day 1 bilateral session**—This is a “dry run” or rehearsal of the working group presentation, to make sure the presentation is clear and complete.

- **Day 2 or 3 working group session**—Presenters in this session give the highlights of their papers in about 20 minutes, emphasizing the research question, objectives and methodology.
• Day 4 bilateral session—This is a wrap-up session with the researcher and advisor, to clarify any matters remaining from previous days’ discussions.

**Regional training course** [excerpted from draft 2005/06 program of work]

The centrepiece of EEPSEA’s training program is the four-week “core” course in environmental and resource economics. Many researchers get their first exposure to the field in this course, as well as their first experience in preparing research proposals. The course has been offered six times since June 1997 and has usually taken place at the University of the Philippines, Los Banos. The course is an advanced one, designed to bring well-trained economists up to speed in environmental economics and prepare them to carry out research. Each one-week module is taught by an instructor of international repute. Enrolment is limited to 28 participants from EEPSEA member countries, with an MSc in economics as the minimum qualification. The course concludes with a session on proposal preparation, in which participants design research projects for submission to EEPSEA. Since 2000, the course has been offered in alternate (even-numbered) years.
Appendix 2

Interviews conducted at November, 2004 biannual workshop

Tuesday, November 16

12:30 Lunch  Dale Whittington, Vic Adamowicz (resource persons)
18:00 Dinner  David Glover, Hermi Francisco

Wednesday, November 17

12:45 Lunch  “Veteran” researchers: Rodel Subade, Cao Jing, Sunil Chandrasiri
15:00 Cambodian researcher: Thanak de Lopez
16:00 Chinese researchers: Ruimin, Cao Jing, Zhang Junlian, Jin Jianjun
17:45 Le Quy An (AdComm, Vietnam)
18:15 Agus Purnomo (AdComm, Indonesia)
19:00 Dinner  Philippine researchers: Rodel Subade, Canesio Predo, Cory & Mario Naz, Anabeth Indab, Linda Penalba, Lourdes Montenegro

Thursday, November 18

12:15 Lunch  David James (resource person)

Friday, November 19

12:30 Lunch  Thai researchers: Udomsak, Orapan
17:45 Rick Freeman (AdComm)
18:30 Ted Horbulyk (resource person)
19:30 Dinner  Vietnamese researchers: Thuy, Danh, Chinh, Binh, Huy

Saturday, November 20

12:00 Suthawan Sathirathai (AdComm, Thailand)
18:30 Dinner  David Glover, Hermi Francisco

Note: Nancy Olewiler (AdComm member) was interviewed by telephone on February 18, 2005.
Appendix 3

Approved research projects, 1999/00-2003/04

Note: Grouped by country. Within each country, listed in alphabetical order by first author.

Cross-country

Awang Noor and Mohd Shahwahid Haji Othman
*Comparative Study of Forest Pricing Policy in Malaysia and Lao PDR: Malaysia Component*

Thongthanh Southitham
*Comparative Study of Forest Pricing Policy in Malaysia and Lao PDR: Lao Component*

Nerlie Manalili
*Economic and Environmental Impacts of Using Treated Distillery Slops on Irrigation of Sugarcane Fields, Philippines and Vietnam*

Cambodia

Hap Navy, Thay Somony & Keo Sovannary
*Valuation of Flooded Forests in Kandal Province, Cambodia*

Keo Chamroeun
*Ecological Effects of the ‘Mimosa Pigra’ Weed Infestation on Fishery Habitat in Kandal Province, Cambodia Area*

Mary Chamroeun, Van Kiet Le & Sun Votthy
*Health and Environmental Effects of Agrochemical Use in Rice in Cambodia*

Sideth Muong
*Implementation of Effluent Taxes for Cambodian Industry: A Pollution Levies Assessment*

Sideth Muong
*Wastewater Reuse in Agriculture Cost-Effectiveness Analysis of Alternative Measures: A Case Study on Three Wetlands in Phnom Penh, Cambodia*

Som Mithonarath, Uong Bunal & Yim Chamnam
*Cost-Benefit Analysis of Domestic Sewerage Treatment in Provincial Towns of Cambodia*

Sy Ramony, Hou Kalyan, Chay Chetha & Meas Sothunvathanak
*Forest Use and Product Flow in Chumkiri District, Kampot Province*
Thanakvaro Thyl De Lopez
*An Economic Analysis of Ream National Park, Cambodia* (PhD Thesis Award)

**China**

Cao Jing
*A Cost-Ancillary Benefit Analysis of Mitigation Options for Greenhouse Gases in China (Case Studies in Guiyang City)*

Gong Yazhen
*Opportunity Cost of Local People and Willingness to Pay of Off-site Residents for Biodiversity Conservation in Fanjingshan Nature Reserve in China.*

Jie He
*Estimation on Economic Cost of China’s New De-Sulfur Policy during her Gradual Accession to WTO: The Case of Industrial SO₂*

Ruimin Huang
*The Impacts of International Trade on Chinese Factories Environmental Performance*

Xianchun Liao
*Measuring Resources and Socioeconomic Impacts of a National Program to Protect Natural Forest in China*

Qinghong Pu
*Tradeable Discharge Permits for River Pollution Control in China* (travel grant)

Fangbin Qiao
*Refuge Policy for Bt Crops in a Developing Country: Bt Cotton in China and Beyond.*

Zhang Junlian
*Barriers and Transaction Costs of Water Markets in Heihe River Basin in Northwest China*

Funing Zhong
*Crop Insurance on Agrochemical use by farmers in the Manasi Watershed in Xinjiang China*

**Indonesia**

Bambang Hartono
*Sustainability and Structural Change: An Efficiency Analysis of Timber Plantation Policy in Indonesia* (PhD Thesis Award)

Nugroho Tri Utomo
Measuring Preferences in Water and Sanitation Services: Bundled vs. Stand Alone Projects - An Application of the Conjoint Analysis Model in Greater Bandung, Indonesia

Taufiq Alimi

Capital Market Reaction to the Public Disclosure of Companies’ Environmental Performance: Analysis of the Proper Prokasih Program in Indonesia, 1995-1997

Lao PDR

Bounmy Somsoulivong
Forest Resource Dependency: A Study of Rural Communities in Bokeo Province, Lao PDR

Malaysia

Jamal Ali
Impact of Enforcement and Penalty Severity on Compliance Behaviour of Fishermen

Jamal Othman
Options for Improving Municipal Solid Waste Management in Malaysia

Mohd Shah wahid Haji Othman
Behaviour of Timber Concessionaires in Response to Selected Policy Instruments: the Case of Peninsular Malaysia

Philippines

Florencio Ballesteros, Jr.
Determinants of Environmental Performance of Industrial Estates and Locators with Communal Wastewater Treatment Facilities in the Philippines

Eugenia Bennagen
Economic Analysis of Materials Recovery and Recycling, Philippines

Eugenia Bennagen
Simulation of the Impacts of the Introduction of Unit Pricing of Solid Waste Collection and Disposal in Olongapo City, Philippines

Asuncion Bina-De Guzman
Empirical Analysis of the Fishery Benefits of Biomass Spillover from a Community Marine Reserve in Northern Mindanao, Philippines

Margaret Calderon
Improved Management of the Angat, IPO, Umiray and La Mesa Watersheds in Luzon, The Philippines: A Contingent Valuation Study

Maribec Campos

Economic Evaluation of Fisheries Policies in Lamon Bay, Philippines

Anabeth Indab

Ex-ante Evaluation of Policy Instruments to Control Pollution in Sarangani Bay, Philippines

Ma. Esmyra P. Javier

Analysis of Institutional Arrangements in Selected Marine Protected Areas in the Philippines: Impacts on Biodiversity Conservation.

Rafaelita Mercado-Aldaba

Trade Liberalization and Pollution: Evidence from the Philippines

Lourdes Montenegro

The Environmental Costs of Coastal Reclamation in Metro Cebu

Antonio Corinthia Naz

Modeling Choices for Ecological Solid Waste Management Services in Suburban Municipalities: User Fees in Tuba, Benguet, Philippines

Elvira Orbeta

Air Quality Impacts of Electricity Restructuring in the Philippines

Linda Penalba

Biotechnology Product Development, Biosafety Regulations and Environmental Risk Assessment in the Philippines

Genandrialine Peralta

Environmental Performance of Semiconductor and Electronics Industries on Hazardous Wastes Management in Selected Industrial Estates in Luzon, Philippines

Canesio Predo

An Economic Analysis of a Smallholder Tree-based Farming System Alternatives for Imperata Grassland in the Philippines

Loreta & Carlito Rufo, Jr.

Costs & Benefits Analysis of the Municipal Solid Waste Incineration in the Philippines

Rodelio F. Subade

Economic Valuation for Biodiversity Conservation of a World Heritage Site: Citizen's Non-use Values for Tubbataha Reefs National Marine Park, Sulu Sea, Philippines

Zenaida Sumalde
Aquaculture Pollution in Lingayen Gulf, Northern Philippines: The Case of Bolinao.

Zenaida Sumalde
Financing Solid Waste Management Program and Implementation Constraints of the Local Government Units.

Rosalina Tan
Cost-Benefit Analysis of Metering Groundwater Use of Private Well Owners in Cagayan de Oro, Philippines

Sri Lanka

Sunil Chandrasiri
Health Impact of Diesel Vehicle Exhaust Emissions in Colombo

Kiran Dhanapala
Valuing the Invisible: The Health Benefits of Reduced Smoke Emissions from Cook Stoves on Women and Children in Sri Lanka

L.H.P. Gunaratne
Cost-Effectiveness of Different Measures Adopted in Conservation of Elephants in Sri Lanka

Herath Gunatilake
An Efficiency Analysis of Sawmilling Industry in Sri Lanka: Implications for Rainforest Conservation

H.M. Badra Hearath and Leel Randeni
A Comparative Research on Pollution Control in Industrial Estates in Southeast Asia: Case of Sri Lanka

Prabodh Illukpitiya
Agricultural Efficiency and Dependency on Forest Resources: An Economic Analysis of Rural Households and the Conservation of Natural Forests in Sri Lanka.

Pradeep Kurukulasuriya

Thailand

Piyaluk Chutubtim
Critique and Guidelines for Environmental Cost-Benefit Analysis of Dams in Thailand

Siriporn Kiratikarnkul
A Cost-Effectiveness Analysis of Alternative Methods of the Disposal of Animal Waste in Pig Farms in Thailand

Orapan Nabangchang

A Cost-Benefit Analysis of Resettlement Policy in Ban Pa Kluay, Chiang Mai Province, Thailand

Orapan Nabangchang

Motivations for Charitable Behaviour for Protection of Wildlife and Endangered Species of Thailand

Udomsak Seenprachawong

Economic Analysis of Coral Reefs in the Andaman Sea of Thailand

Udomsak Seenprachawong

Economic Valuation of Coastal Ecosystems in Phang-nga Bay, Thailand

Udomsak Seenprachawong

Economic Valuation of Cultural Heritage: Historic Temples in Amphawa, Thailand

Churai Tapvong

Economic Analysis of Alternative Approaches for Sludge Management in Bangkok

Anan Wattanakuljarus

The Nation-Wide Economic and Environmental Impacts of Changes in Tourism: An Applied General Equilibrium Approach for Thailand

Vietnam

Bui Dung The

Erosion, Productivity and Adoption Analysis of Typical Land Use Systems in Highly Erodible Hilly Areas in Thua Thien Hue Province, Central Vietnam

Bui Dung The

Payment for Environmental Services in Vietnam

Dang Ming Phuong

Optimal Management and Renewable Resource Dynamics: The Case of Surface Water for Rice Production and Fish Culture in Vietnam

Le Quang Thong

Incentives for Water Waste Management in Industrial Estates in Selected Provinces, Vietnam

Mai Van Nam

The Causes of Fires in the Melaleuca Forest of the Mekong Delta
Nguyen Huu Dung  
*Policy Instruments for the Reduction of Agro-chemical use in Vietnam* (part of PhD Thesis)

Nguyen Quou Chinh  
*Dairy Cattle: Environmental Consequences and Pollution Control Options in Suburban Areas of Hanoi*

Nguyen Van Hanh  
*Valuation of Environmental Impacts of Yali Hydropower Plant in Vietnam.*

Nguyen Van Song  
*The Illegal Trading of Endangered Species and Cost of Enforcement and Monitoring in Vietnam*

Pham Khanh Nam  
*Analysis of Residential Water Demand in Ho Chi Minh City.*

Pham Khanh Nam & Tran Vo Hung Son  
*Recreational Value of Hon Mun Islands, Vietnam*

Pham Le Thong  
*Valuation of Environmental Damages: The Case of Cement Industry in Kien Luong, Kien Giang Province, South Vietnam*

Vu Xuan Quang  
*Assessment and Forecast of Carbon Dioxide Emissions in Vietnam During the Economic Reform Process* (PhD Thesis Award)
Appendix 4
EEPSEA Research Reports, 1999/00-2003/04

Note: Listed in alphabetical order by first author.

Trade Liberalization and Pollution: Evidence from the Philippines - Rafaelita M. Aldaba and Caesar B. Cororaton

Trade Policy and the Welfare of Southeast Asian Timber Exporters: Some Implications for Forest Resources - May Arunanondchai

Forest Pricing Policy in Malaysia - Awang Noor Abd. Ghani and Mohd. Shahwahid Hj. Othman


Forestry Policy, Non-timber Forest Products and the Rural Economy in the Wet Zone Forests in Sri Lanka - Cyril Bogahawatte

The Economics of Soil Erosion and the Choice of Land Use Systems by Upland Farmers in Central Vietnam - Bui Dung The

Economic Evaluation of Fishery Policies in Lamon Bay, Quezon, Philippines - Maribec Campos, Blanquita Pantoja, Nerlita Manalili and Marideth Bravo

Backyard and Commercial Piggeries in the Philippines: Environmental Consequences and Pollution Control Options - Ma. Angeles O. Catelo, Moises A. Dorado, and Elpidio Agbisit

Controlling Automotive Air Pollution: The Case of Colombo City - Sunil Chandrasiri

Guidelines for Conducting Extended Cost-benefit Analysis of Dam Projects in Thailand - Piyaluk Chutubtim

Pollution Tax for Controlling Emissions from the Manufacturing and Power Generation Sectors: Metro Manila - Catherine Frances Corpuz

Policy Options for Conserving Sri Lanka’s Natural Forests - H.M. Gunatilake and L.H.P. Gunaratne

Can Forest Plantations Alleviate Pressure on Natural Forests?: An Efficiency Analysis in Indonesia - Bambang Hartono

Farm Pesticides, Rice Production, and Human Health - Jikun Huang, Fangbin Qiao, Linxiu
Zhang and Scott Rozelle

An Effluent Charge for Sarangani Bay, Philippines: An Ex-ante Assessment - Anabeth L. Indab et al

Do Institutions Affect the Performance of Marine Protected Areas? Evidence from the Philippines - Esmyra Parado Javier

Economic and Environmental Impacts of Using Treated Distillery Slops for Irrigation of Sugarcane Fields - Nerlita M. Manalili, Rodrigo B. Badayos and Moises A. Dorado

Forest Management Systems in the Mekong River Delta, Vietnam - Mai Van Nam et al

Existence Value: A Re-Appraisal and Cross-Cultural Comparison - Billy Manoka

Improving Air Quality in Chinese Cities by Substituting Natural Gas for Coal: Barriers and Incentive Policies - Mao Xinaqiang and Guo Xiurui

Responses of Timber Concessionaires to Selected Policy Instruments: The Case of Peninsular Malaysia - Mohd. Shahwahid Haji Othman and Awang Noor Abdul Ghani

A Cost-Benefit Analysis of Resettlement Policy: A Case Study of Ob Luang National Park, Northern Thailand - Orapan Nabangchang

Forest Management Systems in the Uplands of Vietnam: Social, Economic and Environmental Perspectives - Nguyen Nghia Bien

Environmental Protection and Compensation Costs for the Yali Hydropower Plant in Vietnam - Nguyen Van Hanh et al

Electricity Pricing for North Vietnam - Nguyen Van Song and Nguyen Van Hanh

Wildlife Trading in Vietnam: Why It Flourishes - Nguyen Van Song

Air Quality Impacts of Increased Use of Indigenous Fuels for Power Generation in the Philippines - Elvira M. Orbeta and Carlito M. Rufo, Jr.

Benefits and Costs of Controlling Emissions from Fossil-fired Power Plants: Region IV, Philippines - Elvira M. Orbeta, Carlito M. Rufo Jr., and Anabeth L Indab

Household Preferences for Solid Waste Management in Malaysia - Jamal Othman

Metering and A Water Permits Scheme for Groundwater Use in Cagayan de Oro - Rosalina Palanca-Tan and Germelino M. Bautista

Recreational Value of the Coral-surrounded Hon Mun Islands in Vietnam - Pham Khanh Nam

The Economy-wide Impact of Integrated Pest Management in Indonesia - Budy P. Resosudarmo

An Economic Analysis of Coral Reefs in the Andaman Sea of Thailand - Udomsak Seenprachawong

An Economic Valuation of Coastal Ecosystems in Phang Nga Bay, Thailand - Udomsak Seenprachawong

Transaction Costs of a Community-based Coastal Resource Management Program in San Miguel Bay, Philippines - Zenaida M. Sumalde and Suzette L. Pedroso

Water Quality Improvements: A Contingent Valuation Study of the Chao Phraya River - Churai Tapvong and Jittapatr Kruavan

Policy Options for Cambodia's Ream National Park: A Stakeholder and Economic Analysis - Thanakvaro Thyl de Lopez

An Economic Analysis of Salinity Problems in the Mahaweli River System H Irrigation Scheme in Sri Lanka - Selliah Thiruchelvam and S. Pathmarajah

On-Site Costs and Benefits of Soil Conservation in the Mountainous Regions of Northern Vietnam - Tran Dinh Thao

China's Paper Industry: Growth and Environmental Policy During Economic Reform - Jintao Xu

Marginal Opportunity Cost Pricing for Wastewater Disposal: A Case Study of Wuxi China - Fan Zhang

Econometric Analysis of the Causes of Forest Land Use Changes in Hainan, China - Yaoqi Zhang, Jussi Uusivuori and Jari Kuuluvainen

Economy and Environment: Case Studies in Cambodia
Appendix 5

External publications from EEPSEA research, 1999/00-2003/04

Articles in international journals


Articles in local journals


**Book chapters**


A paper by Pham Khanh Nam and TranVo Hung Son was published in M. Ahmed at al, ed., Economic Valuation and Policy Priorities for Sustainable Management of Coral Reefs (WorldFish Center, 2004).


Appendix 6

Policy impacts of EEPSEA research, 1999/00-2003/04

Note: These descriptions have been excerpted from the annual reports without paraphrasing.

Cambodia

Thanakvaro Thyl de Lopez’s project highlighting the value of Cambodia’s Ream National Park concluded with seminars and presentations to policy makers and donors. Thanak was also granted an audience with His Majesty the King and presented him with a copy of the report. All embassies and development agencies in Cambodia have received a copy of the report. As a result, Danida has commissioned a firm to prepare a detailed proposal for a project to protect the park. In late 2003, staff from the Fond Francais pour l'Environnement Mondial (FFEM, also known as French GEF) and the French Development Agency met with Thanakvaro. Following the meeting, FFEM carried out a pre-feasibility study for a project to strengthen management and promote eco-tourism at Ream. Negotiations are underway with the government about implementation of such a project.

China

Some of Mao Xianqiang’s recommendations for substituting natural gas for coal in Chinese cities have been acted on. After Mao submitted a report to Chongqing’s Environmental Protection Bureau (EPB) suggesting the cancellation or reduction of the Initial Installation Fee, the EPB’s Vice-Director, brought the recommendation before the Chongqing city government. The State Environmental Protection Administration also agreed to submit a report to the Committee of Resource and Environment of the National Congress on this matter. A year later, most cities in China, including Beijing have abolished or reduced the Initial Installation Fee. Mao’s project was not the only one to advocate the use of natural gas; others may have influenced the decision as well.

Jikun Huang's project on the health and environmental impacts of pesticides in China appeared as an EEPSEA Research Report in 2001. Jikun was also consulted extensively about his findings by the senior policy makers responsible for China's biotechnology research program:

In mid-2000, he gave a presentation to the Vice-Minister of Agriculture about China's R&D investments and research priorities, emphasizing pest problems and chemical use in grain production.

In November 2000, he was invited by the Vice-Minister to give a talk on policy recommendations for biotechnology development, research priorities and regulations.

In May 2001, he was invited by the Vice-Minister of Science & Technology and the
Vice-Minister of Agriculture to present policy recommendations for biotechnology development with regard to insect and disease traits.

In May 2001, he was invited by the Minister of Agriculture to present policy recommendations for biotechnology development in the context of China's accession to the WTO.

He recommended that the main goal of China's biotechnology research program in agriculture should be to increase resistance to disease and insects in rice and cotton. These were, in fact, adopted as research priorities. Recently, the National Science Foundation of China has decided to initiate a research project on "Impact of GM Crops Development in China" with disease and pest resistance as major components.

**Indonesia**

*Budy Resosurdomo*’s evidence about the economy-wide benefits of integrated pest management influenced the decision to continue the program in Indonesia.

**Philippines**

*Herminia Francisco*’s collaborative project with UNEP has led local organizations to implement user fees for watershed conservation in the Philippines.

*Ma. Les Catelo and Moises Dorado* continued to promote solutions to the problems of pig waste in the Philippines. … the Laguna Lake Development Authority (LLDA) invited her [Les] to present her findings in a symposium on pollution control options for hog waste in September 2000. The LLDA also asked Les to participate in one of their meetings in October 2000 to assist them in drafting policies to control hog waste from backyard piggeries. The Laguna Lake Development Authority has incorporated her findings into their policy guidelines for backyard hog producers. On September 27, 2001, the LLDA passed Resolution 169, which approved “Guidelines Governing the Operation of Backyard/Small Scale Hog Farmers in the Laguna de Bay Region”. Prior to the resolution, small-scale hog producers were exempt from pollution regulations. The decree explicitly extends coverage to include them. Its stated purpose is to encourage the adoption of technologies to minimize and mitigate pollution. It recommends the methods put forward in Les’s study. The Guidelines include a table from the study describing those methods.

Fishermen in Lamon Bay have asked the national government to help curb illegal fishing, which has contributed to declining fish catches in the area. They have appealed to the Office of the President to assign the Coast Guard to monitor and enforce fishing regulations in the Bay. As support for their request, they have cited evidence about declining catches and the prevalence of overfishing from the Research Report by *Maribec Campos* and her team.
The Philippines' Department of Environment and Natural Resources Secretary Elisea Gozun told the residents of Tuba, Benguet, that those who generate waste must pay for the services they receive for the collection, transport and disposal of these in environmentally-friendly manner. Tuba is the project site of the new EEPSEA study, "Modeling Choices for Ecological Solid Waste Management Services: The Case of User Fees in Tuba, Benguet, Philippines". The study aims to assist the Tuba municipal government in designing their ecological solid waste management (ESWM) program and in examining how to finance these ESWM services through user fees. The project is managed by REECS, Inc. with Corinthia Naz as the project leader.

Working closely with the local government of another Philippines municipality - Olongapo City - Eugenia Bennagen and Vincent Altez assessed the full costs of the city’s program for solid waste management. The city government used this information in a recent reassessment of household garbage fees. This resulted in a new schedule of monthly fees effective September, 2002.

Anabeth Indab’s feasibility study for water pollution tax for Sarangani Bay has attracted the attention of local and national policymakers. The Dept. of Environment and Natural Resources used the study in setting the guidelines for the implementation of the National Environmental User Fee.

Sri Lanka

Selliah Thiruchevam’s work led local farmers associations to combat salinity from over-irrigation in Sri Lanka.

Herath Gunatalake’s Research Report on policies for reducing deforestation in Sri Lanka was highly critical of the current system of timber permits, which he found to discourage investment in tree plantations. Following discussion of the report with government officials, the permit system has been eliminated for some tree species.

Thailand

Churai Tapvong helped Bangkok’s municipal authority establish fees for waste water treatment.

Vietnam

A recent decision to increase electricity prices has followed a series of discussions between government and researchers in Vietnam. The latter included two EEPSEA-supported economists, Nguyen Van Hanh & Nguyen Van Song. This team has produced two reports recommending that the environmental costs of power generation be incorporated into electricity prices, according to the “polluter pays” principle. The team’s overview of coal-fired power generation in the North recommended a price increase of 15%. Its case study of the Yali hydropower plant recommended an increase of 9.5% for that plant. The government’s Sept. 20,
2002 Decree mandated an increase of 13.2%. The weight given to Hanh & Song’s recommendations by the government is unknown. But it is clear that the team was well-prepared to make an effective case - their reports had detailed empirical data, clearly defined methods and a range of arguments about the environmental and budgetary implications of under-pricing.

Vietnam established its first Marine Protected Area, for the Hon Mun Islands, after a Research Report by Pham Khanh Nam & Tran Vo Hung Son quantified the economic benefits provided by the area’s ecosystem and proposed measures for its protection. The authorities are also considering imposing user fees for the MPA, as recommended in the report.