

Sida – EEU  
Environmental Economics Program  
Activity Report 2007-2009



Cover photo shows PhD students (2009) at the Environmental Economics Unit:  
Simon Wagura, Xiaojun Yang, Haoran He, Clara Villegas, Haileselassie Medhin,  
Hailemariam Teklewold, Jorge Bonilla, and Pham Khanh Nam.  
Missing in the picture: Yonas Alem and Kofi Vondolia.  
Photo: Johan Wingborg

Photos in this report:  
Johan Wingborg, Göran Olofsson, Gunnar Köhlin, Karin Jonson

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# Executive summary

This is the three-year activity report for the agreement between Sida and the Environmental Economics Unit for the period 2007 – 2009 in support of programs pertaining to environmental economics activities (Sida ref: 2006-002684, Komponent: 7300078601).

The overall **development objective** for the program is to improve welfare among poor people in developing countries by preventing pollution and natural resource depletion, and to promote sustainable use of natural resources and ecosystems through the use of environmental economics tools. To fulfill this objective the program consists of three **main activities**: (i) Doctoral studies in environmental economics, (ii) Joint environmental economics projects and post-doc training, and (iii) Environmental economics expert advice for Sida (External knowledge support). The more **specific project objectives** for these activities are (i) to increase capacity for environmental economics analysis and applications at universities and institutions in developing countries; (ii) increased capacity for environmental economics research and analysis applied to real resource and environmental issues in developing countries; and (iii) enhanced integration of environmental concerns in Swedish development cooperation.

The report contains a wealth of information regarding the achievements of the program, starting with the capacity building program through graduate training. This is followed by the closely linked section on studies and post doc support. The environmental economics expert knowledge support provides valuable advice to Sida on a day-to-day basis, and, finally, the program is widely disseminated through a number of venues, supported by a dissemination component.

The **PhD program in environment and development economics** has been running since 1997 with recruitment of five new students every other year. During 2007 - 2009, there have been 17 PhD students enrolled in the program. Seven PhD students have successfully defended their theses (Jorge Garcia from Colombia, Mintewab Bezabih from Ethiopia, Martine Visser from South Africa, Precious Zikhali from Zimbabwe, Jiegen Wei from China, Ping Qin from China, Miguel Quiroga from Chile) while another five students were recruited – two from Ethiopia, one from Kenya, one from Colombia and one from China.

The PhD program includes a unique sequence of **environmental economics specialization courses** in the second year. PhD students from developing countries

enrolled in other programs (that do not offer environmental economics specializations) are invited to these courses and funded by the program. During the three years, five such courses were given, attended by 65 students.

The **joint environmental economics projects and post doc training**, is an activity closely related to the PhD program. It is designed to ensure sustained development of skills among our PhD graduates. It is also the source of new knowledge and skills for the whole program. Through these studies the faculty at EEU can carry out research together with the PhD students both during the program and after they return to their home countries. It also enables involvement by EEU staff in the collaborative research that is carried out in the Sida-supported Environment for Development initiative. There are four thematic areas: Policy instruments, Strategic environmental assessment, Sustainable management of natural resources and ecosystems, and Human Cooperation and Risk. Within these areas the output has been remarkable. In Section 2, brief reports are given from 75 publications produced during the project period. In Appendix 2, the interested reader can also find references to 81 peer reviewed publications and 77 working papers written by researchers who have been funded by the program (although not all studies have).

The program also provides the opportunity to organize thematic **workshops** in order to bring about greater impact of the research into policy as well as creating cross-fertilization among researchers. Nine such workshops have been conducted during the period with high-level international participation from both academics and policy makers.

The studies and workshops have been supplemented by **book support**, where eight universities in Africa and the AERC have received sets of books. The program has also given the possibility for 34 **visiting researchers** to visit EEU in order to benefit from the research environment and conduct collaborative research and also to contribute to the PhD program.

The **external knowledge support to Sida** on environmental economics has produced several important outcomes during 2007-2009. EEU has contributed to enhance Sida's integration of environment and climate change issues in more than 50 of Sweden's development cooperation strategies, which have been formulated during the period. EEU has provided analytical foundations for Swedish commitments in environment- and climate

change-related areas of work in these strategies – as a cross cutting issue, in specific sectors as well as in program support. EEU has informed key policy and strategy processes, and contributed to increased learning on environment and climate change issues within Sweden’s development cooperation, and within Sida Operations in particular.

Regarding *methodological development and advice* for Sida, EEU has contributed to improve methods, procedures and approaches used by Sida with respect to integration, or consideration, of environment and climate change issues in formulation of policies, strategies and position papers. EEU has also contributed to enhance Sida’s influence on important international processes and work on methodological development, e.g. the World Bank’s new Environmental Strategy and EU’s Environmental strategy. Regarding *indicators*, two major outcomes are identified: EEU has contributed to (i) Sida’s methodological development aiming at increasing the level of integration of environmental and climate change aspects in results-based management; and (ii) better informed results matrices, both for environment as a sector but also for environment and climate change as cross-cutting issues, in specific cooperation strategies. EEU’s dialogue with Sida country teams has been a good entry point for capacity development of results-based management and linkages between Sweden’s three thematic priorities.

A key outcome of EEU’s support to Sida on *training and communication* has been an increased capacity to conduct appropriate trainings of Sida staff on environment and climate change issues, sustainable development cooperation and the role of natural resources in low-income countries’ development. Moreover, EEU has contributed to increase capacity among Sida staff to integrate environment and climate change issues in operations (project and program development, follow-up and dialogue).

Principal outcomes of EEU’s support to *methodological development in international processes* are contributions to i) enhanced harmonization among donors on integration of environmental and climate change issues in development cooperation; ii) integrate environmental economics perspectives and Swedish experiences in the joint work of bi- and multi-lateral donors; iii) improved understanding among these donors of the potentials for using economics (analysis, arguments) to strengthen the demand for sector cooperation and improved management of environment and natural resources; and iv) enhanced learning and

understanding of possibilities for better environmental outcomes through strengthening (environmental) institutions in strategic planning and decision-making.

Lessons learned: The period has produced several important lessons for future work in this area. Important ones include the need for timely, competent and adequate advice to requests for advice. Adjusting the analytical support to the specific needs and demands is key for successful outcomes. Apparently, there is also a large need for communication, training and dialogue on environment and climate change issues in order for these issues to be properly understood and integrated in Sida’s work. Here, EEU has increased its efforts to reach out by interacting more closely with Sida’s Operations, conducted several training workshops in Swedish embassies and provided coaching to individual program officers.

Regarding *methodological development in international processes*, enhanced harmonization is critical to increase aid effectiveness. Environment and climate change as a development theme is no exception in this respect. Swedish participation in international fora in this area is essential to increase donor harmonization but also for joint learning and sharing of information, that helps improve Sida’s work. Harmonization at head quarter levels is necessary but insufficient to change practices on the ground. Hence, increased harmonization and alignment among donors in partner countries (e.g. in program support, or in sector working groups) are essential measures for appropriate responses to environmental degradation and climate change impacts at the local level.

Finally, the dissemination activities have increased substantially as a result of all the interesting work carried out, and due to the active guidance from our communications officer. The graduate students and researchers have been very active at international academic conferences, not least the EAERE annual meeting in Gothenburg in 2008. There have also been many press releases, articles and interviews in media and press as is evident from Section 4 of this report.

All in all, the team is proud of having contributed substantially to the development of environmental economics capacity in developing countries, having created a lot of new knowledge on important environment and poverty issues, disseminated this knowledge to academic and policy users, as well as mainstreaming environmental concerns into important development policies and programs, not least in Swedish development assistance.

# Doctoral studies in environmental economics

## PhD program in environmental economics

### Background

The Sida financed PhD program is the largest component of the capacity building program and has been running full scale since 1997 with recruitment of five new students every other year. Capacity building is the key word and the overriding objective of the PhD program is to improve welfare among poor people by preventing unsustainable use of natural resources and ecosystems in developing countries. The program has received international reputation for its high quality and steady output of well trained environmental economists from developing countries. Besides training in economics and environmental economics, the program emphasizes links with other sciences such as natural sciences and other social sciences.

### Objective

The objective of the PhD program is to build capacity in developing countries to teach, to do research, and to give policy advice in environmental economics and sustainable development. Developing countries are highly exposed to local and global environmental problems and face many serious environmental and natural resource related problems. It is hence important for them to possess the local capacity to analyze and give policy advice on these issues. Especially in the area of climate politics, all countries need extensive expertise to participate in the international climate negotiations. Environmental economics is a naturally important subject for countries that are dependent on scarce and often sensitive ecosystem resources, and it is often a key instrument in addressing important poverty-environment issues. Therefore, there is a great need for environmental economics training, research and policy advice in developing countries to make this happen. This observed need constitutes the rationale for building capacity in environmental economics in developing countries and within Swedish Development Cooperation. Our objective is to train future academic leaders who analyze and evaluate environmental problems and policies, conduct high-quality research, educate the next generation of academics and civil servants and give advice to policy makers and produce background reports for policies. Environmental economics is a useful tool to

(i) analyze and understand many of the driving forces behind environmental degradation and negative poverty-environment links, (ii) reveal the economic costs of this degradation, and the benefits of sound environmental management, and (iii) design efficient instruments to deal with these environmental problems.

### Outline of the program

The PhD program is designed to provide the students with a strong education in economics in general and environmental economics in particular. The selection criteria have been: academic performance and potential, capacity building context and gender/age.

The first two years involve course work that provides both a full PhD curriculum in economics and a unique specialization in environmental and natural resource economics. The courses offered the second year is an important part of the program. To our knowledge, there is no other program that offers such a series of specialization courses at the PhD level. This has made our PhD program very popular and we receive many applications from outside. We offer four specialization courses, which are presented later on.

The rest of the time the students write their theses and are given training in teaching/policy advice and other tasks they may face when they return home. Throughout the program, students interact with researchers and staff at the EEU expert function regarding relevant research issues and important policy processes. Supervision is mainly done by EEU staff, although we are now starting to involve previous graduates in supervision as well.

Funds for conducting fieldwork is provided by the program. Back from field work, students continue working in close collaboration with faculty members, receiving support in data analysis, academic writing and publication.

The EEU is able to offer this exceptionally strong program in environmental economics with a sequence of courses largely due to our strong faculty. There are four full professors, three associate professors, and four post-docs that are directly involved in teaching and supervision. All researchers publish in high ranked field journals in environmental economics, and conduct research both with current PhD students and with former graduates. We have also started to involve former graduates in the supervision of new candidates. In addition, the department of economics includes several researchers focusing on development economics and the unit has a broad network

of academic researchers all over the world, which creates an international research environment that the students have access to. The PhD program is particularly integrated with the EfD, Environment for Development which is a capacity building program in environmental economics, focusing on research, policy advice, and teaching in Central America, China, Ethiopia, Kenya, South Africa, and Tanzania and has the overall objective to support poverty alleviation and sustainable development through the increased use of environmental economics in the policy making process. EfD was initiated by the EEU in 2007.

### Activities/Output

This is a three-year report for 2007-2009 and we will therefore, present the activities accordingly.

In 2007 we had 14 PhD students enrolled in our program at various levels. Some were about to graduate, some were in the middle of their thesis writing and

some were doing their course work. A more detailed presentation is found in our annual report 2007.

In 2008 we still had 14 PhD students enrolled in the program, but the difference this year was that some graduated, and we enrolled five new PhD students in September. More details about this can be seen in our annual report of 2008.

In 2009, we had the same 14 PhD candidates as in 2008. However, three of them graduated. Jiegen Wei returned to China and a research position at the Chinese Academy of Science. Ping Qin, supported by the post doc part of this program, obtained a post-doc position at the Resources for the Future, RFF, at Washington D.C. Her research there was a collaboration between RFF, Peking University and the EEU. She is now returning to China to work at the EfD center at Peking University. Miguel Quiroga returned to a position as a lecturer at University of Concepcion. In Appendix 1, their theses are presented in detail.

The students accepted in 2006 have now finalized their field studies and are writing on their theses. The students accepted in 2008 have taken courses as part of the program, including a number of specialization courses.

### Outcome

It is a challenge to talk about the outcome of our three-year cooperation as it is difficult to measure the outcomes of a long-term capacity building program in such a short term perspective as three years. However, to link back to the objectives of the program, the PhD program emphasizes on capacity building in order to improve welfare among poor people by preventing unsustainable use of natural resources and ecosystems in developing countries by building sufficient capacity to teach, do research and give policy advice pertaining to environmental economics and sustainable development.

If we look at the individual PhD students that graduated during this period all of them have continued the cooperation with us in terms of joint research project with our faculty. The

**Students enrolled in the PhD program 2007-2009**

Name	Country	Home Affiliation	Year of Enrollment	Status
Jorge Garcia	Colombia	Universidad de los Andes	2001	Graduated 2007
Mintewab Bezabih	Ethiopia	Alemaya University	2001	Graduated 2007
Martine Visser	South Africa	University of Cape Town	2001	Graduated 2007
Precious Zikhali	Zimbabwe	University of Zimbabwe	2003	Graduated 2008
Jiegen Wei	China	Chinese Academy of Sciences	2003	Graduated 2009
Ping Qin	China	Chinese Academy of Sciences	2003	Graduated 2009
Miguel Quiroga	Chile	Universidad de Concepción	2003	Graduated 2009
Yonas Alem	Ethiopia	Addis Ababa University	2006	Thesis writing
Haoran He	China	Chinese Academy of Science	2006	Thesis writing
Pham Khanh Nam	Vietnam	Ho Chi Minh City University of Economics	2006	Thesis writing
Clara Villegas	Colombia	National University of Colombia	2006	Thesis writing
Kofi Vondolia	Ghana	University of Cape Coast	2006	Thesis writing
Haileselassie Medhin	Ethiopia	Ethiopian Development Research Institute	2008	Courses
Xiaojun Yang	China	Peking University	2008	Courses
Jorge Bonilla	Colombia	University of Los Andes	2008	Courses
Simon Wagura	Kenya	University of Nairobi	2008	Courses
Hailemariam Teklewold	Ethiopia	Addis Ababa University	2008	Courses

ones graduated in 2007 were Jorge Garcia, Colombia, Mintewab Bezabih, Ethiopia, and Martine Visser, South Africa. Martine was the only one that returned back to her home country directly. Does this mean that the rest of the graduates were lost to us and that the objectives of the program were not met? We do not think so. Let us look at the graduated PhDs one by one.

**Jorge Garcia** went to work for the Environmental Protection Agency, in the USA for two years as post-doc. During this time, he worked on several research projects with Fredrik Carlsson, Åsa Löfgren and Thomas Sterner. After finishing his post-doc at the EPA, he is now working as an assistant professor of economics at Universidad Javeriana – Bogotá, Colombia. His work has mainly been on the enterprise and policy instruments for industrial and agricultural pollution control. This includes public disclosure and tradable emissions permits. Recently he has also been involved in projects that use concepts and methodologies from behavioral economics.

**Mintewab Bezabih** went to University of Portsmouth, Centre for the Management and Economics of Aquatic Resources, England. She has kept contact with us through joint research projects with Gunnar Köhlin and Menale Kassie. She is also in close cooperation with the Efd center in Addis Ababa, Ethiopia. Her main research interests are biodiversity and climate change, performance of rural land markets, and fisheries economics. Her works included biodiversity in relation with adaptation to climate change, management of multispecies fisheries under the risk of collapse, land markets and contracts, and gender issues.

**Martine Visser**, went back to her home institution University of Cape Town, South Africa where she joined the Efd Center. She is currently the Coordinator of the Environmental Policy Research Unit (EPRU) and a senior lecturer in the School of Economics at the University of Cape Town. Furthermore, she has been collaborating with our unit through joint research projects with Åsa Löfgren. Martine's main research interest includes behavioral and experimental economics and specifically studying the role of social norms and its application to environment and natural resource use. In this regard she is currently working on various projects that consider the role of social norms and risk preferences on behavior of individuals confronted with climate variability and risk. She is also interested in the role of local governance and social institutions on the provision of basic services to the poor and its effects on subjective wellbeing.

During 2008 only one candidate graduated, Precious Zikhali, Zimbabwe. She did not return to her home country due to lack of political stability and an uncertain situation over all. She therefore chose an alternative position.

**Precious Zikhali**, went to Centre for World Food Studies, VU University Amsterdam as a post-doc. Again, she is also in constant contact with our unit, especially through research collaboration with Menale Kassie and Gunnar Köhlin. Her current research interests broadly include theoretical and applied empirical research that falls at the intersection of poverty, environment, and development. This includes issues such as, program impact evaluation, in particular assessing the impact of land reforms and development interventions in developing countries, adoption and subsequent impacts of sustainable agriculture on livelihood of smallholder farmers. She is also exploring the link between poverty and the environment in developing countries e.g. land degradation and poverty in developing countries, renewable and non-renewable natural resource management in developing countries. Finally, she is also working on institutions or mechanisms design and application of behavioral economics, particularly exploring issues such as a social capital formation and the effect of ethnic fragmentation and ethnic nepotism in a given society in social capital

In 2009 three candidates graduated, Ping Qin, China, Jiegen We, China and Miguel Quiroga, Chile. Two of them returned to their home institutions and one went to the United States.

**Ping Qin**, has been working during 2009 as a post-doc at RFF, Resources for the Future, in Washington DC. RFF is one of the top research centers within the field of environmental economics and also an important partner of the Efd. During Ping's post-doc time she has been collaborating with Fredrik Carlsson, Elina Lampi, Åsa Löfgren and Thomas Sterner on a multi-country survey of the willingness to pay for slowing climate change. Her main research interests are on the investigation of the performance of decentralization in Chinese collective forestry sector. At the same time, she is also interested in stated preference method (for example, choice experiment) and behavioral economics (for example, time preference, risk preference). She will take on her position as deputy country coordinator for Efd China, Peking University 1st April, 2010.

**Jiegen Wei**, went back to Beijing China, to work at the Chinese Academy of Sciences, from where he came before taking up his PhD training here in Gothenburg. He also has kept in touch with our unit. He has very broad interests, mainly in environmental regulation and natural resource management. His work philosophy is to bring sound economics to relevant issues. His current research covers a rank of topics, including forest transition in China, incentive design of forest management contract, the role of social norm in environmental regulation compliance, industrial organization of energy market and carbon taxation, firm performance and behavior under political control.

**Miguel Quiroga**, went back to his home institution, Universidad de Concepción, Chile, before graduating. He spent almost a year back home teaching and doing collaborative research with Thomas Sterner. At the end of 2009 he returned to Gothenburg to defend his theses after which he went back to Concepción. Miguel has only partly been funded from the program as he also has had a scholarship from his home institution.

### Impact

It is not easy to say anything about the long term impact of our graduated PhD candidates or whether they have fulfilled the objectives of the program, but it is quite clear to us that their work is well related to the contents of the objectives. As can be seen from above, all of them have continued to collaborate with researcher at the EEU; they are doing relevant research on environment, poverty, and sustainable development in their home countries. Although not all of them are working in their home countries, it is evident from the above description that their research is focused on environmental problems in developing countries which meets the objective of being capable to give policy advice to leaders in their own home countries, should the need occur. Almost all of them are collaborating with an EfD center that has the capacity and role of making the research available for policy makers.

It should also be noted that out of the seven graduated PhD's during the report period five are women.

In order to know more in-depth of how our PhD program is working and the overall impact a follow-up study was made during 2009. The "PhD Follow-Up Study" 2009<sup>1</sup> was made using qualitative interviews with former PhD students. The questions pertained areas like recruitment, courses given, choice of thesis subject, supervision,

<sup>1</sup> This study was made by Elizabeth Földi, Environmental Economics Unit, University of Gothenburg



PhD students Clara Villegas, Kofi Vondolia and Ping Qin, 2008.

field studies, policy training, networking, returning home/ leaving Gothenburg, administration of the program and personal matters. Responses were overall very positive and we received comments and suggestions for further improvements.

The general opinion was that our recruitment methods and selection criteria are good. The courses are generally perceived as useful and important. Normally the choice of thesis subject was made by the PhD student, often in dialogue with their supervisor. As regard to supervision, it was felt that the access to the respective supervisor was excellent. Field studies are an important part of our PhD program and the respondents agreed simultaneously that we facilitated these in a good way. The grants were being adequate and the time spent in the field was sufficient. Everybody that wished to do field studies had the opportunity to do so. There was a consensus among the respondents about the necessity that this part was not restricted. Since the policy training conducted by the EE expert function, is fairly new, few of the respondents had had the opportunity to have benefit from this course. The networking facilities were perceived as good. The frequent seminars were much appreciated and educational. When it came to the questions regarding the return to the home country or leaving Gothenburg it was also very positive. All of them had research collaboration with both researchers at EEU and with each other. Another positive view was that EEU is right on track as regards to the EfD centers as it was generally believed that they present a "soft landing" for those who return to those countries where an EfD center is available. There was, without exception, an overall satisfaction regarding the administration of the program.



Students of specialization courses, 2008.

## Specialization Courses in Environmental Economics

### Background

As a part of the PhD program, we have designed a number of specialization courses in Environmental Economics. These are second year courses especially designed for our students. The courses are also open for teachers, researchers, and policy makers from relevant developing countries for an average of 8-10 additional participants. These additional students are fully financed by Sida and receive a full professional training during a longer period of time. Typically, we give two courses in the fall and two courses in the spring, every second year. The participants have been university teachers from developing countries, with or without a PhD in economics, as well as some policy makers or other analysts. The gender balance has improved during the years and we recruit more and more female candidates to our courses.

### Outline

We offer four specialization courses:

*Environmental Valuation.* Environmental valuation deals with how to put a value on the environment. Valuation is an integral part of cost-benefit analyses of environmental problems. The focus of the course is on stated preference

methods, in particular how to conduct studies in developing countries.

*Natural Resource Economics.* This course gives an overview of natural resource economics with particular emphasis on resources that are important in a developing country context. The course explains how natural resources should be used in an optimal allocation, and how they tend to be allocated in real economies. The focus is on renewable resources such as fisheries, forests, and water.

*Environmental Policy Instruments.*

This course gives an overview of applied environmental economics with particular emphasis on the design of policies in the area of environmental and natural resource management. The course gives an overview of why economic policies are needed in the area of pollution and resource management as well as a survey of the policy instruments that

are available. Finally, it explains how policies should be selected and designed so as to meet not only the criteria of efficiency, but also of equity, political feasibility, and other criteria.

*Climate Economics.* Within the climate-economics curriculum there are three parts: The first of these is a natural science orientation into the physics, climatology and ecosystem response to climate change. The second is the economics of climate change as a dynamic intertemporal resource management dilemma and the third part concerns the design of policy instruments at the national and international level to deal with climate change.

### Objectives

The overall objective of this activity is to strengthen the capacity in developing countries to do research, teach, and provide policy advice. To our knowledge, there is no other program that offers such a series of specialization courses at the PhD level. This has made our program very popular and we receive many applications.

Professor Peter Parks<sup>2</sup> was interviewed 25th February 2008, see the whole interview on <http://www.hgu.gu.se/item.aspx?id=15129>, and to the question "What is different about these courses compared to others of its kind?" his answer was: "This course is associated with one of the leading institutions in the world, EEU, and examines the

<sup>2</sup> Peter Parks, Associate Professor, Rutgers University, New Jersey, USA, has taught the course in Natural Resource Economics for many years.

relationship between environment and economic development, so its setting is ideal. In addition it brings together students who are ideally qualified to offer their experiences in class discussions. They are also qualified to take the benefits of their learning to their home countries to create and maintain improved economic policies as they relate to the natural world and the environment. I think those are the two key characteristics that distinguish the EEU program and courses from others. There are not many programs in the world like this one”

Our main target groups are PhD candidates in other programs in developing countries, such as AERC, and local programs in Tanzania, Colombia and Kenya. Another important target group is researchers from the regional networks including CEEPA, LACEEP, EEPSEA, and SANDEE.<sup>3</sup>

### Activities/Output

During the report period we gave a number of specialization courses.

In the autumn of 2007 we offered two specializing courses Public Economics and Environmental Valuation. Se below a brief description:

Public Economics, where the teachers were Agnar Sandmo, Katarina Nordblom and Olof Johansson-Stenman. Public economics deals with the role of the government in the economy. The course deals both with public economic issues in general, such as optimal taxation, tax compliance, and the theory of second best, as well as issues related to environmental problems such as environmental taxation and provision of public goods.

Environmental Valuation, where the teachers were Hala Abou-Ali, Fredrik Carlsson, Gunnar Köhlin and Peter Martinsson. Environmental valuation deals with how to put a value on the environment. Valuation is an integral part of cost-benefit analyses of environmental problems.

70 students applied to our specialization courses. In total ten students not from the department participated in the course. We accepted 13 students, but for various reasons three of them had to decline the offer. Most of the students were PhD candidates at other departments where similar courses are not offered, but some were PhDs with a need to learn more about the topics. The students were from the following countries: China, Ethiopia, Nepal, Philippines, Puerto Rico, Tanzania, Thailand, Uganda, Zimbabwe. The students who were PhD candidates came

from the following PhD programs: University of Dar-Es-Salaam (2 students), CEEPA University of Pretoria (2 students), NIDA, Thailand.

In the spring of 2008 we offered two specialization courses. Se below a brief description:

Natural Resource Economics, where the teachers were Gardner Brown, Håkan Eggert, Peter Parks, Thomas Sterner. This course is intended to give an overview of natural resource economics with particular emphasis on resources that are important in a developing country context. The course explains how natural resources should be used in an optimal allocation, and how they tend to be allocated in real economies. The main focus is on renewable resources such as fisheries, forests, and water.

Environmental Policy Instruments, where the teachers were Jessica Coria, Magnus Hennlock, Katrin Millock and Thomas Sterner. This course is intended to give an overview of applied environmental economics with particular emphasis on the design of policies in the area of environmental and natural resource management. The course gives an overview of why economic policies are needed in the area of pollution and resource management as well as a survey of the policy instruments that are available. Finally, it explains how policies should be selected and designed so as to meet not only the criteria of efficiency, but also of equity, political feasibility, and other criteria.

Around 100 students applied to our specialization courses. In total 8 students participated in the Environmental Policy Instruments course with support from the program. In total 13 students participated in the Natural Resource Economics course with support from the program.

Most of the students were PhD candidates at other departments where similar courses are not offered, but some were PhDs with a need to learn more about the topics. The students were from the following countries: China, Colombia, Bangladesh, Ethiopia, Ghana, India, Kenya, Peru, South Africa, Sri Lanka and Uganda.

In 2009 only one course was offered, Environmental Valuation. Se below a brief description of the course:

Environmental Valuation where the teachers were Professors Fredrik Carlsson, Gunnar Köhlin, Danny Campbell and Doctors Elina Lampi and Ping Qin. This course is intended to provide a detailed introduction to the valuation of environmental goods. The course is based on the idea that valuation is often a part of a more general welfare assessment, e.g. as a part of a cost-benefit analysis. The course mainly covers the theory and practical implementation of stated preference methods. In addition experimental methods such as field experiments were covered.

<sup>3</sup> CEEPA (Centre for Environmental Economics and Policy in Africa), LACEEP (Latin American and Caribbean Environmental Economics Program - LACEEP), EEPSEA (Economy and Environment Program for Southeast Asia) AND SANDEE (South Asian Network for Development and Environmental Economics) are all regional research capacity building programs supported by Sida and other organizations.

53 students applied to the course. In total 7 received scholarships funded by Sida and 6 students had their own financing. So in total, together with our won PhD students 24 participated in the course. The guests represented countries like Spain, Zimbabwe, Sri Lanka, Vietnam, Kenya, china, Ethiopia, Finland, and Peru.

### Outcome

There is a strong link between the PhD program and the specialization courses offered to students from developing countries, which has had several positive effects. First of all, students participating in the courses become a part of the research network at the EEU. Second, students participating in the course often develop research papers from the courses. Third, students participating in the courses continue to collaborate with each other and with the students from the PhD program after the courses. These collaborations have then resulted in working papers and even published papers. Most importantly, the courses make it possible for students from developing countries to specialize in environmental economics. These courses can have a very instrumental impact on the orientation of their PhD theses, and thus on the content of their future academic pursuit.

In order to investigate the outcome of the specialization courses we have conducted a number of follow-up surveys throughout the years. The first one covered the period 1992-1999, the second one 2000-2005 and the most recent one covers the years 2006-2008.

The "Follow-Up of Sida-Supported Environmental Economics capacity Building Program 2006-2008" targeted a much wider range of respondents, including previous and present PhD students and participants in our specialization courses. The respondents were asked to fill in a questionnaire that was available on the web. Below is a brief summary of the results. All respondents answering the questionnaire stated that they are currently using environmental economics in their present work. Since many respondents began their studies at the EEU more than 10 years ago, it is notable that all of them have remained working with environmental issues throughout the period. When asked to estimate how much of their time that significantly relates to environmental economics, the results show that about one third can devote more than 80 percent of their time to this. Looking specifically at the present working situation of the respondents, about 49 percent defined themselves as mainly occupied with research, 37 percent as teachers, while about 14 percent worked mainly with advisory and/or decision making. When asked to look back at their time at the EEU and

review the impact collaboration/training has had on their future professional careers mean response was very positive (4.4 on a scale ranging from 1= no impact to 5 = crucial impact). About the same appraisal (4.5) was obtained when respondents were asked about the usefulness of their EEU training for later working experiences. Most alumni's have remained in their home countries.

Regarding the academic training taking place at the EEU it scored a very high rating with an overall average of 4.6 on a five point scale. The four courses currently given at the department generally received very high ratings. Students were also asked to grade courses in their ability to prepare them for future research and thesis writing and here as well courses received a similarly high ranking (4.7). In commentary fields where students were asked to come up with improvements of the specific course, no critical remarks what so ever were made, instead the "hands on knowledge" provided by the courses was mentioned.

Looking at the research achievements of alumni, this gives indication that the productivity, measured as produced research papers per year, have more than doubled between 2005 and 2008. In 2005 average number of research articles per year was 0.8, which was increased to 2 in 2008 (with an expected increase of 0.3 in 2009). This development indicates that former EEU students are becoming more productive, reaching international standards. Comparing the publications of 2008 with expected publications for 2009, a dramatic increase in publications in international journals seems close at hand, from an annual average of one international publication every other year to an estimated average of 1.3 per year in 2009. Although the actual outcome of 2009 cannot be firmly established, they strongly indicate improved productivity and academic achievements by the 64 students who answered the survey.

In light of the above we feel that the objectives of the specializing courses are being met.

### Impact

As the specialization courses are very popular we get many applicants. One of our criteria is that the applicant should be in a capacity building setting, i.e. do research, teach and provide policy advice. Many of our visiting students work in such a setting. Judging from the answers we have received over the years from the former course participants the long term impact of what they learned seems to be there. It is, of course, difficult to say exactly how the impact is being made, but results seem to indicate that our specialization courses make a difference.

# Joint environmental economics projects and post-doc training

The objectives of this component is to increase the knowledge of the key links between poverty, poverty reduction, development and sustainable management of environment and natural resources, in order to improve policy making and enhance welfare among the poorest. More specifically, it is designed to ensure sustained development of skills among our PhD graduates after completing their PhD theses within the Sida-EEU program, in order to improve environmental economics teaching and research in the developing countries. The main activity is joint studies. The applied research carried out under this activity fulfills multiple purposes. It maintains and develops the skills among past graduates of the program. It strengthens the quality and relevance of the PhD program, and it supports the advice on development issues given to Sida and other international organizations.

The EEU has during 2007-2009 carried out a large number of environmental economics studies. Our focus has been on a select number of topics: Policy instruments, Strategic environmental assessment, Sustainable management of natural resources and ecosystems, and Human Cooperation and Risk. In many cases the studies have been implemented as collaborative research with Research Fellows in the EfD initiative. In these cases, this component has paid for the involvement of EEU in the research. The studies have been supplemented by book support and the possibility to visit EEU in order to benefit from the research environment and conduct collaborative research.

## Outputs

In the three-year plan for 2007 - 2009 we expected publication of around 40 working papers and international peer reviewed articles. As will be evident below, the output turned out to be far beyond that, with 75 publications briefly reported on. (See also a full list of peer reviewed articles and discussion papers produced by the group in Appendix 2.) The program has thus developed into a remarkably efficient research outfit. The reason for this efficiency lies in the strong synergies between the PhD program, the Sida funded research and the follow-up support through the EfD initiative. It is very unfortunate that these synergies are now breached through the discontinuation of the Sida-funded research activity in

2010. Most importantly, this component has led to very active participation of the graduates of the program in international research as well as domestic and regional capacity building and policy advice.

## Policy Instruments for Sustainable Development

*This theme addresses the design of actual policy instruments to address real environmental and resource problems. This is very practical research in the sense that its ultimate purpose is to provide for better policy making. During the last couple of years we have focused on a number of areas that are very much related to the political acceptability of environmental and resource policy and focus particularly on their role vis a vis poverty reduction.*

One of the most crucial obstacles to environmental policy making is of course its political acceptability. This is particularly relevant when it comes to climate change and we have a fairly large body of work dealing, broadly speaking, with the aftermath of the Stern Review on the costs of climate change and the ensuing debate.<sup>4</sup> We argue that there are factors related to discounting and relative prices that imply that costs could be even higher than estimated by Stern. Within this research area, a large number of speeches and lectures have also been given by Thomas Sterner and others, see separate reporting below under conferences. We also have a number of ongoing studies related to perceptions of fairness in climate negotiations. We believe strongly that the lynchpin of climate negotiations is related to burden sharing and that developing countries,

<sup>4</sup> Mendelsohn R, T Sterner, M Persson and J P Weyant, (2008), "Comments on Simon Dietz and Nicholas Stern's Why Economic Analysis Supports Strong Action on Climate Change: A Response to the Stern Review's Critics", Review of Environmental Economics and Policy Vol 2:2 pp 309-313, DOI 10.1093/reep/ren012

Sterner, T and M. Persson "An Even Sterner Report": Introducing Relative Prices into the Discounting Debate, Review of Environmental Economics and Policy, vol. 2, issue 1, 2008.

Sterner, T and M. Persson "Comments on Simon Dietz and Nicholas Stern's „Why Economic Analysis Supports Strong Action on Climate Change: A Response to the Stern Review's Critics" Review of Environmental Economics and Policy 2(2), 310-313.

India not least, have considerable reason to be concerned with the tendency in the West to always argue in terms of prior appropriation (ie emission reductions in percentage of past use – which favours the big emitters today).<sup>5</sup>

A related area of study is the analysis of the effects on income distribution of environmental taxes at the national level. The background to this interest is the fact that fuel taxes are a very powerful instrument for climate change but have been considered politically unacceptable if they are regressive. The purpose is to verify if this is true.

Within this area a number of country studies have been carried out and a book will be published with RFF press during 2010. Our preliminary conclusions are that fuel taxes are actually not regressive in poor countries. In for instance India, the bottom half of the income distribution uses very little motor fuel, even counting indirect use through public transport and so forth. We have thus been able to show that for a given need in terms of taxation, a fuel tax is vastly preferable for the poor compared to value-added tax, income tax or most other practically feasible taxes. A fuel tax in India, is in effect a luxury tax.

Another factor that can impede the implementation of environmental policy is its potential effect on patterns of production and trade. The fear of losing jobs and competitiveness drives much of the resistance to otherwise sound environmental policy. We have therefore studied the relationship between environmental regulation and industrial production. It is often asserted that regulations will lead industry to move to less regulated countries but we do actually not find much evidence for this which is good news for environmental policy making.<sup>6</sup>

Still, we know that environmental policy making – both taxation and ordinary regulation is particularly difficult in low-income developing countries. Many attempts at regulation or taxation have been foiled by a combination of ideological opposition and vested interests. We have therefore in a number of projects put particular attention to the role of more informal instruments such as public disclosure and rating schemes for environmental management.<sup>7</sup>

Among other results we have a forthcoming book on environmental effect of the Indonesian rating program PROPER, run by the Indonesian Ministry for Environ-

ment. It operates by affecting reputation of the firms. It rates environmental performance and then discloses the ratings to the media which has proved to be a very successful policy instrument in a difficult environment. The careful design of this program has made it successful which contrasts with a number of failures of what appear to be superficially similar programs.

Finally we continue to collaborate with Elinor Ostrom in a number of studies on the way local common pool resources are used. These resources, fishing grounds, wells, pastures, irrigation schemes and so forth are particularly important for the very poorest who have no other capital or property. Unfortunately much of what is called “development” tends to threaten these resources through enclosure. Ostrom has of course been a major champion of this area and was recently awarded the Nobel prize for this work. She has helped advise and examine a number of our graduate students such as Edwin Muchapondwa and we feel particularly reinvigorated in continuing this collaboration in a number of fields, wildlife in the case of Muchapondwa, but also fisheries, irrigation, forests and so forth.

## Strategic Environmental Assessment

The rationale for this area of analysis is the disconnection in many instances between environmental commitments and implementation in developing countries. Integration of environmental aspects is generally poor or insufficient in the formulation and implementation of national and sector policies in developing countries. This research analyzes the role played by formal and informal institutions for effective integration of environmental concerns in strategic planning and decision making. A particular focus is put on analyzing the effectiveness of Strategic Environmental Assessment (SEA) in strengthening environmental institutions and promoting environmental integration.

SEA is highlighted as a key approach to environmental integration in the Paris declaration and in the OECD/DAC's Good Practice Guidance on SEA in Development Cooperation (2006). This research project contributes to improved use of SEA through the first systematic effort to evaluate SEAs undertaken at the policy level in developing countries.

The research has been conducted in collaboration with the World Bank (Environment Department) and

<sup>5</sup> Persson, M & T Sterner Konsensus i Förändring- Klimatekonomi efter Stern”, *Ekonomisk Debatt*, 2008 May. For this article the authors were awarded the Myrdal Prize 2008.

<sup>6</sup> Quiroga, M, T Sterner, and M Persson, Have Countries with Lax Environmental Regulations a Comparative Advantage in Polluting Industries? RFF Working Paper DP 07-08

<sup>7</sup> Garcia, J, S Afsah and T Sterner, (2008), “Which Firms are More Sensitive to Public Disclosure Schemes for Pollution Control? Evidence from Indonesia's PROPER Program”, *Environmental Resource Economics*, Volume 42, Issue 2 (2009), Page 151.

formed part of a broader Pilot Program (partly funded by Sida) on institution-centered Strategic Environmental Assessment. EEU's role in the Pilot Program has consisted of developing an analytical framework for evaluating Strategic Environmental Assessment (SEA) at the policy level, evaluation of two pilot SEAs and participation in the synthesis analysis from the different pilot evaluations. The final report from this research project will be published during 2010.

This research has influenced the use of SEA, and other approaches to environmental integration, in the World Bank as well as other development agencies and fora. To exemplify, the World Bank's Environment Note 4 on "Mining Sector Strategic Environmental and Social Assessment" draws on the lessons learned from the evaluations conducted within this research project. Further, the research has contributed to develop the World Bank's toolkit for practical use of SEA in development cooperation and in developing countries.

The research process has been interactive and involved leading scholars in this field who have met in several workshops (e.g. in Rotterdam, Gothenburg and Washington D.C.). Findings have been shared with the OECD/DAC Task Team on SEA and a major workshop on the findings of the research will be arranged jointly with this task team at the annual conference of the International Association for Impact Assessments in Geneva in April 2010. Besides the World Bank, other key collaborative partners have been the Efd center in Kenya (Kenya Institute of Public policy research and Analysis; KIPPR), Department of Public Administration, Erasmus University in Rotterdam, the Netherlands Commission for Environmental Assessment and Swedish EIA Centre at the Swedish University of Agricultural Sciences.

### **Conceptual Analysis and Evaluation Framework for Institution-Centered Strategic Environmental Assessment<sup>8</sup>**

EEU led the development of a conceptual framework and methodological guidance for evaluation of institution centered SEAs. Key conclusions are that in order for SEA to be an effective tool for environmental integration at the policy level it should have a broader focus than just to provide technical environmental information into policy formulation. Instead an effective SEA at the policy level should focus on more long term strengthening of

<sup>8</sup> Slunge, Daniel, Sibout Nooteboom, Anders Ekbohm, Geske Dijkstra and Rob Verheem 2009. Conceptual Analysis and Evaluation Framework for Institution-Centered Strategic Environmental Assessment, World Bank SEA toolkit: <http://siteresources.worldbank.org/INTRANETENVIRONMENT/Resources/244351-1222272730742/sea.htm>

environmental integration through contributing to clearer environmental priorities, strengthened environmental constituencies, improved social accountability and to a social learning process. The report provided guidance for the subsequent evaluation of the SEAs included in the World Bank Pilot Program.

### **Evaluation of SEAs of Malawi Mineral Sector Reform and of the Kenya Forests Act<sup>9</sup>**

EEU has evaluated the effectiveness of two of the SEAs in the World Bank pilot program. The SEAs were undertaken to enhance the integration of environmental and social concerns in the mining sector reform in Malawi and in forest sector reform in Kenya respectively. The evaluations consisted of reviewing relevant literature, interviewing a wide range of stakeholders from government, private sector and civil society in the two countries and field visits to the Kayelekera Uranium Mine in Northern Malawi and to Hombe community in the vicinity of Mount Kenya. Key strengths of the SEAs included the focus on assessing institutions and political economy factors that can enhance or block the integration of environmental concerns in reform processes of natural resource management. Key weaknesses included the lack of communication and implementation of the findings and recommendations of the SEAs.

## **Sustainable Management of Land, Forest and Marine resources**

The overall theme is sustainable use of renewable resources like land, forests, and aquatic resources. Poor people are often compelled to exploit their surrounding for short-term survival, and are often the ones most exposed to natural resources degradation. Many natural resources are of common pool resource type, which implies problems with overexploitation that sometimes are hard to handle even in developed countries. In a developing country

<sup>9</sup> Slunge, Daniel and Ekbohm, Anders, 2009. Evaluation of the Rapid Integrated Strategic Environmental and Social Assessment of Malawi Mineral Sector Reform, background report to the World Bank Pilot Program on Institution Centered Strategic Environmental Assessment.

Slunge, Daniel, Anders Ekbohm, Wilfred Nyangena, Paul Guthiga, 2010. Evaluation of the Strategic Environmental Assessment of the Kenya Forests Act, background report to the World Bank Pilot Program on Institution Centered Strategic Environmental Assessment.

infringement of property rights are sometimes hard to rule out and on top, the high prevalence of corruption means that there are profitable opportunities to systematically violate property rights and other measures taken by a managing authority to ensure sustainability. These studies deal with various issues like regulatory compliance, trade-offs between resources use and degradation, collective action behavior, and efficiency. The ultimate purpose of all the studies is better management of these vital resources in order to facilitate sustainable pro-poor growth.

### Land management

*Land is a productive asset and provides ecosystem services for social and economic development. Managing land, like managing any other type of capital, is a balance between investment for future revenue flows and collecting today's flows. The following studies are dealing with various types of trade-offs like how to improve future harvests by investing in soil conservation, providing improved credit facilities for farmers, and future needs in terms of climate adaption with respect to agricultural land use.*

#### Economic Analysis of Soil Capital, Land Use and Agricultural Production in Kenya<sup>10 11 12 13 14 15</sup>

The challenges addressed in this research include the need to maintain soil as a productive asset and ecosystem service for social and economic development, the need to



*Ethiopian landscape with sustainable land management technologies.*

increase crop production and food security in low-income countries, and the need to enhance welfare among the poor by promoting conservation agriculture and sustainable land management in rural areas. Rationales behind the studies include the large-scale soil loss and land degradation facing Kenya (and many other tropical developing countries), the low agricultural production and food insecurity, and the fundamental problem of sustaining livelihoods and environmental services in these areas.

This analysis has produced several important and useful analytical results; it shows that (i) farmers need stronger incentives to reduce soil erosion and downstream damages, and that factors such as low discount rate, tenure security, access to credits and crop insurance, promote accumulation of soil capital and reduce soil loss and nutrient leakage; (ii) farmers' soil capital is not a given or fixed factor but depends on soil conservation investments and the allocation of labour, crops, manure and fertilizer in agricultural production; (iii) large variation of soil properties across farms indicates a need to tailor technical extension advice to farmers' preferences and the specific local economic and agro-ecological circumstances, and enhance the use of integrated soil analysis, field assessment and detailed soil mapping at the local level; and (iv) agricultural output is determined not only by farmers' input of land, labour, manure and fertilizer, but also by the

<sup>10</sup> Akpalu, Wisdom and Anders Ekbom, 2008. Bio-Economics of Conservation Agriculture and Soil Carbon Sequestration in Developing Countries, submitted to Strategic Behavior and the Environment

<sup>11</sup> Ekbom, Anders and Thomas Sterner, 2008. Production Function Analysis of Soil Properties and Soil Conservation Investments in Tropical Agriculture, EFD Discussion Paper 08-20 ([www.rff.org](http://www.rff.org)), Washington DC.

<sup>12</sup> Ekbom, Anders and Thomas Sterner, 2008. Soil Properties and Conservation Technologies in Agricultural Production, submitted to Environment and Development Economics.

<sup>13</sup> Ekbom, Anders 2008. Determinants of Soil Capital, EFD Disc. Paper 08-21, ([www.rff.org](http://www.rff.org)), Washington DC.

<sup>14</sup> Anders Ekbom, Gardner Brown, Thomas Sterner, 2008, Muddy Waters: Soil Erosion and Downstream Externalities, submitted to African Journal of Agricultural and Resource Economics

<sup>15</sup> Ekbom, Anders, 2007. Economic Analysis of Soil Capital, Land Use and Agricultural Production in Kenya, Ph D thesis, Department of Economics, University of Gothenburg.

quality of soil conservation investments and farm-specific soil properties.

Results have been communicated to a wide range of stakeholders including donors, relevant government agencies, non-governmental organizations and researchers. Results have been disseminated in seminars, training workshops and through distribution of publications.

### **Synthesis of past experiences regarding cost of land degradation and adoption of soil conservation in Ethiopia<sup>16</sup>**

The paper argues that an improved policy environment is very important in order to improve land management. Most institutional reforms in the agricultural sector have the potential to improve the profitability from SLM investments. Unfortunately, a conducive investment environment will probably not be enough to achieve truly sustainable land management. Unfortunately, past interventions have often failed, and good examples have proved difficult to scale up. When direct interventions are considered, they must be tailored very carefully to local conditions and be sufficiently sensitive to the farmers' need for short-term profitability.

### **Estimating the returns to soil conservation in Ethiopia<sup>17</sup>**

This paper investigates the impact of stone bunds on the value of crop production per hectare in low and high rainfall areas of the Ethiopian highlands using cross-sectional data from more than 900 households, with multiple plots per household. The analysis showed that plots with stone bunds are more productive than those without such technologies in semi-arid areas but not in higher rainfall areas, apparently because the moisture conserving benefits of this technology are more beneficial in drier areas. This implies that the performance of stone bunds varies by agro-ecology type, suggesting the need for designing and implementing appropriate site-specific technologies.

16 Köhlin, G. Aspects of Land Degradation in Lagging Regions: Extent, Driving Forces, Responses, and Further Research with Special Reference to Ethiopia, forthcoming in proceedings from preparatory meeting for World Development Report 2008 – Agriculture for Development.

17 Kassie, M., J. Pender, M. Yesuf, G. Köhlin, R. Bluffstone, E. Mulugeta (2008), 'Estimating returns to soil conservation adoption in the Northern Ethiopian highlands', *Agricultural Economics*, 38: 213-232.

### **Economics of Soil Conservation Adoption in High-Rainfall Areas of the Ethiopian Highlands<sup>18</sup>**

Measuring and analyzing the impact of fanya juu bunds on the value of crop production in Ethiopian highlands with high rainfall had the surprising conclusion that this technology reduced soil erosion and off-site effects at the expense of lower value of crop production and, hence, poor Ethiopian farmers.

### **The Role of Soil Conservation on Mean Crop Yield and Variance of Yield: Evidence from the Ethiopian Highlands<sup>19</sup>**

Stone bunds in the Ethiopian highlands showed statistically significant and positive impact on yield in low-rainfall areas, but not in high-rainfall areas, and they did not have a statistically significant impact on production risk in either area. Stone bund performance varied by agro-ecology type, which implies the need for appropriate technologies that enhance productivity and are better adapted to local conditions.

### **Market Imperfections and Farm Technology Adoption Decisions: A Case Study from the Highlands of Ethiopia<sup>20</sup>**

This examination of the impacts of market and institutional imperfections on technology adoption found that Ethiopian farmers' decisions to adopt fertilizer significantly and negatively depended on whether they also adopted soil conservation, but not vice versa. Market imperfections were significant factors in explaining variations in decisions to adopt farm technology, such that relieving market imperfections could increase adoption of farm technologies.

### **Sustainable Agricultural Practices and Agricultural Productivity in Ethiopia: Does Agro-ecology Matter?<sup>21</sup>**

This paper investigates the impact of sustainable agricultural practices on crop productivity, particularly whether reduced tillage results in more or less productivity gain than chemical fertilizer. The results, using two sets of plot-

18 Menale Kassie, Stein Holden, Gunnar Köhlin, and Randy Bluffstone, (2008) "Economics of Soil Conservation Adoption in High-Rainfall Areas of the Ethiopian Highlands", EFD Discussion paper 08-09

19 Menale Kassie, John Pender, Mahmud Yesuf, Gunnar Köhlin, and Elias Mulugeta, (2008) "The Role of Soil Conservation on Mean Crop Yield and Variance of Yield", EFD Discussion Paper 08-08

20 Mahmud Yesuf, and Gunnar Köhlin, (2008) "Market Imperfections and Farm Technology Adoption Decisions: A Case Study from the Highlands of Ethiopia", EFD Discussion Paper 08-04

21 Kassie, Menale, Precious Zikhali, John Pender, and Gunnar Köhlin (2009), "Sustainable Agricultural Productivity in Ethiopia: Does Agroecology Matter?", EFD Discussion Paper 09-12.

level data in Ethiopia, revealed clear superiority of reduced tillage over fertilizer in enhancing productivity in the low-rainfall region. In the high-rainfall region, fertilizer is overwhelmingly superior and reduced tillage potentially results in productivity losses. This underscores the need to understand the role of agroecology in determining the profitability of farm technologies.

### **Soil Conservation and Small-Scale Food Production in Highland Ethiopia: A Stochastic Metafrontier Approach<sup>22</sup>**

This study used the newly developed metafrontier approach to assess the technical efficiency of small-scale food production in the Ethiopian highlands at plot level, in order to investigate the role of soil conservation technology in enhancing agricultural productivity. Stochastic frontier estimations showed that plots with soil and water conservation technologies are relatively more efficient than plots without soil conservation. Studying the aspects in which a given soil and water conservation technology affects efficiency could shed light on why laboratory-effective conservation technologies underperform in the real world.

### **Risk Implications of Farm Technology Adoption in the Ethiopian Highlands<sup>23</sup>**

In developing countries, production and consumption risks play a critical role in the choice and use of production inputs and adoption of new farm technologies. The authors investigated impacts of chemical fertilizer and soil and water conservation technologies adoption on production risks, using a moment-based approach and two years of cross-sectional data. Their results revealed that the impacts of technology adoption on yield variability and downside risk vary by technology type. The results underscore the need for complementary policies to hedge downside risks for effective adoption strategies.

### **The Role of Production Risk in Sustainable Land-Management Technology Adoption in the Ethiopian Highlands<sup>24</sup>**

The empirical analysis in this paper shows that production risk plays a significant role in sustainable land-manage-

ment technology adoption in the Ethiopian highlands. The adoption and intensity decreased for farmers who experienced higher variance of return and downside risk exposure (skewness), and increased for farmers who experienced higher expected return. These findings could help decisionmakers design economic instruments that can hedge against variability of return (as measured by variance) and crop failure, and increase expected return to promote sustainable land-management technologies.

### **Estimating Returns to Soil and Water Conservation Investments: An Application to Crop Yield in Kenya<sup>25</sup>**

The authors investigated the impact of soil and water conservation (SWC) investment on farm productivity in Kenya. They focused on plots with and without SWC, testing whether increased SWC is beneficial for yield and affects input levels, input returns, and crop characteristics.

The mixed results showed that plots without SWC have higher yield values, although plots with SWC are significantly steeper and more eroded. A two-stage random effects switching regression estimation indicated that SWC increased returns from degraded plots and other inputs. A simulation exercise showed that adoption has been beneficial to plots with SWC and would be beneficial for plots without it.

### **Farmers' Preferences for Crop Variety Traits: Lessons for On-Farm Conservation and Technology Adoption<sup>26</sup>**

Although in-situ conservation is increasingly considered an efficient way of conserving plant genetic resources, little is known about the incentives and constraints that govern conservation decisions among small farm holders in developing countries. Using a choice experiment approach, we investigated Ethiopian farmers' crop variety preferences, and identified household-specific and institutional factors that governed the preferences. We found that environmental adaptability and yield stability are important attributes for farmers' choice of crop varieties. Farmers are willing to forgo some income or output in order to obtain a more stable and environmentally adaptable crop variety. Among other things, household resource endowments (particularly land holdings and livestock assets), years of farming experience, and contact with extension services

22 Haileselassie A. Medhin, and Gunnar Köhlin, "Soil Conservation and Small-Scale Food Production in Highland Ethiopia: A Stochastic Metafrontier Approach", EFD Discussion Paper 08-22

23 Yesuf Mahmud, Menale Kassie, and Gunnar Köhlin (2009), "Risk Implications of Farm Technology Adoption in the Ethiopian Highlands", EFD Discussion Paper 09-13

24 Menale Kassie, Mahmud Yesuf, and Gunnar Köhlin, "The Role of Production Risk in Sustainable Land-Management Technology Adoption in the Ethiopian Highlands", EFD Discussion Paper 08-15.

25 Wilfred Nyangena and Gunnar Köhlin, 2008, "Estimating Returns to Soil and Water Conservation Investments: An Application to Crop Yield in Kenya", EFD Discussion Paper 08-32.

26 Asrat, S., M. Yesuf, F. Carlsson and E. Wale (2009) Farmers' Preferences for Crop Variety Traits: Lessons for On-Farm Conservation and Technology Adoption, Working Papers in Economics No. 357, Department of Economics, University of Gothenburg.

are the major factors causing household heterogeneity of crop variety preferences. Based on our experimental results, we derived important policy implications for on-farm conservation, breeding priority setting, and improved variety adoption in Ethiopia.

### **Climate change and Namibia's natural resources and economy<sup>27</sup>**

Climate change is likely to exacerbate the dry conditions already experienced in southern Africa. When rainfall does come, it is likely to be in bursts of greater intensity, leading to erosion and flood damage. However, these predictions have had very little influence on policy in southern African countries. Computable general equilibrium (CGE) model simulations for Namibia indicate that over 20 years, annual losses to the Namibian economy could be up to 5% of GDP, due to the impact that climate change will have on its natural resources alone. Namibia must take steps to ensure that all its policies and activities are 'climate proofed' and that it has a strategy to deal with displaced farmers and farm workers. The need to mainstream climate change into policies and planning is clear, and it is the responsibility of industrialized nations, who have largely created the problem of climate change, to help Namibia and other vulnerable countries cope with climate change impacts and plan for a climate-constrained future.

### **On blending mandates, border tax adjustment and import standards for biofuels<sup>28</sup>**

The transport sector is a major contributor to green house gas emissions and its share is increasing. Biofuels may provide an option to replace fossil fuels and generate an increasing worldwide interest. Rich countries like the US and the European Union have set targets like blending mandates for the use of biofuels and provide subsidies for domestic producers, while applying tariffs for some of the foreign producers. Mid income and poor countries do not have binding restrictions on carbon emissions in the Kyoto treaty, but may have great potential for producing biofuels both for domestic and foreign use. In this paper we study trade policies for biofuels. We find that only by combining an import standard with border tax adjustment the government can ensure cost efficient production of biofuels from a global point of view. We also consider a blending mandate. This fundamentally alters the way the

<sup>27</sup> Reid, H., Sahlén, L., Stage, J. and MacGregor, J. (2008): Climate change impacts on Namibia's natural resources and economy. *Climate Policy* 8 (5): 452 – 466

<sup>28</sup> Eggert, H. and M. Greaker. 2009. On blending mandates, border tax adjustment and import standards for biofuels. Scandinavian Working Papers in Economics <http://swopec.hhs.se/>

market works. For instance, if domestic biofuels production is subsidized, the optimal BTA may be negative.

### **Agricultural productivity and climate change<sup>29</sup>**

The paper analyses the economic impacts of climate change-induced adjustments on the performance of the Tanzanian economy, using a country-wide CGE model. The effect of overall climate change on agricultural productivity is projected to be relatively limited until approximately 2030 and become worse thereafter. Our simulation results indicate that despite the projected reduction in agricultural productivity, the negative impacts can potentially be quite limited. This is because the time scales involved and the low starting point of the economy leave ample space for factor substitutability and increased overall productivity. This indicates that policies that give farmers opportunity to invest in autonomous climate adaptation, as well as policies that improve the overall performance of the economy, can be as important for reducing the impacts of climate change in the economy as direct government policies for climate adaptation.

### **GMO crops and trade<sup>30</sup>**

Food with inputs from genetically modified organisms (GMOs) has met considerable skepticism among European Union (EU) consumers. The EU import ban on GM food has triggered a great deal of controversy and has been partly replaced by a mandatory labeling scheme. WTO and others have been skeptical to mandatory product labeling on the grounds that they may be used as hidden protectionism hampering global welfare. This study has two foci. First, we examine how different policies for the production and use of GMOs might influence the market outcome in consumer food markets. Second, we evaluate the welfare effects of the policy measures. We find that mandatory labeling often increases domestic welfare and, may also enhance global welfare. On the other hand, a trade ban is more likely to decrease global welfare.

<sup>29</sup> Bezabih, M., Chambwera, M. and Stage, J. (2010): Climate change and total factor productivity in the Tanzanian economy: A Computable General Equilibrium analysis. Submitted to *Environment and Development Economics*

<sup>30</sup> Eggert, H. and M. Greaker. Trade, GMOs, and Environmental Risk: Are Policies Likely to Improve Welfare? Resubmit to *Environmental and Resource Economics*



*In the degraded highlands of Ethiopia trees are kept around a monestary, showing the potential for resource management and collective action.*

## Forest management and domestic fuel strategies

*Forests provide a range of goods and services and many poor people are particularly dependent on common forest areas for wood, fuel and fodder. Most people would agree that we need to manage forests better, plant more trees and make sure that the resulting yields benefit the poorest. The question is how this can be ascertained. The following studies look at this type of interaction problems that must be improved in order to facilitate sustainable forestry.*

### Can the trees save the soil? Biomass fuel consumption and dung use as manure in highland Ethiopia<sup>31</sup>

This study examines the determinants of: (1) decision to use dung as fuel and as manure and (2) woody biomass and dung consumption as fuel. The results suggest imperfections in credit, factor and product markets and indicate that wood and dung are complements. Implications include the need to focus on the asset poor and use of appropriate stove/energy types in attempts to address issues of limited manure use and significant dung use as fuel.

<sup>31</sup> Mekonnen, A and G. Köhlin, Can the trees save the soil? Biomass fuel consumption and dung use as manure in highland Ethiopia, Environment for Development Discussion Paper 2008:17.

### Determinants of household fuel choice in major cities in Ethiopia<sup>32</sup>

This paper looks at the fuel choice of urban households in major Ethiopian cities, using panel data collected in 2000 and 2004.

The results suggest that as households' total expenditures rise, they increase the number of fuels used, even in urban areas, and they also spend more on the fuels they consume (including charcoal but not wood).

The results also show that even fuel types such as wood are not inferior goods. This study shows the relevance of fuel stacking (multiple fuel use) in urban areas in sub-Saharan Africa.

### Ethiopian Productive Safety Net Program (PSNP)<sup>33</sup>

We evaluated the impacts of the PSNP on rural households' holdings of livestock and forest assets/trees. We found no indication that participation in PSNP induces households to disinvest in livestock or trees. In fact, households that participated in the

program increased the number of trees planted, but there was no increase in their livestock holdings. Further, we found no strong evidence that the PSNP protects livestock in times of shock. Shocks appear to lead households to disinvest in livestock, but not in trees. Our results suggest that there is increased forestry activity as a result of PSNP, and that improved credit access encourages households to increase their livestock holdings.

### Participatory forest management and the choice of fuel in Tanzania<sup>34</sup>

This paper examines the socioeconomic impacts of participatory forest management (PFM) reforms in Tanzania, and explores the economic determinants of households' fuel choice. Preliminary findings suggest that in some areas, reduced use of protected forests has simply meant

<sup>32</sup> Mekonnen, A. and G. Köhlin, Determinants of household fuel choice in major cities in Ethiopia, Environment for Development Discussion Paper 2008:18.

<sup>33</sup> Andersson, C., Mekonnen, A. and Stage, J. (2010): Impacts of the Productive Safety Net Program in Ethiopia on livestock and tree holdings of rural households. Forthcoming in the Journal of Development Economics

<sup>34</sup> Lokina, R., Robinson, E. and Stage, J. (2008): Economics of forest products in Tanzania. In M. Varmola, S. Valkonen and S. Tapaninen (eds.): Research and development for sustainable management of semiarid miombo woodlands in East Africa 87 – 92. Metlan työraportteja / Working Papers of the Finnish Forestry Research Institute 98

that people have switched to using other forests instead. Household characteristics influence whether PFM is perceived as a success. Rich households, and those with own tree plots or other alternative forest sources, are more likely to perceive PFM as a success, poorer households who have lost access to forest products less so. Preliminary results on determinants of fuel choice indicate that fuel use in the cities, particularly charcoal, is currently a major driver of deforestation in large parts of the country.

### **Natural Resource Use Conflict: Gold Mining in Tropical Rainforest in Ghana<sup>35</sup>**

The location of gold deposits within valuable natural environments imposes a dilemma that requires an exchange of future benefits from the current benefits from extracted gold. This paper presents the details of an efficient severance tax, and illustrates such a tax using data for gold mining in Ghana's rainforests. The optimal tax must change at a rate equal to the difference between the discount rate and rate of change in the price of gold. The optimal tax is positively related to the discount rate and negatively related to the price of gold. Empirical simulations suggest that the current 3 per cent tax rate is too low to fully represent the external cost of extraction (i.e., lost forest benefits). We conclude that ignoring environmental opportunity costs of extraction when selecting the tax rate may lead to irreversible loss of forest ecosystems. Because similar conflicts are common in other tropical countries, the results from this Ghanaian analysis may cautiously be extended to other natural resources in developing countries.

### **Fuel demand elasticities for energy and environmental policies: Indian sample survey evidence<sup>36</sup>**

India has been running large-scale interventions in the energy sector over the last decades. Still, there is a dearth of reliable and readily available price and income elasticities of demand to base these on, especially for domestic use of traditional fuels. This study uses the linear approximate Almost Ideal Demand System (LA-AIDS) using micro data of more than 100,000 households sampled across India. The LA-AIDS model is expanded by specifying the intercept as a linear function of household characteristics. Marshallian and Hicksian price and expenditure elasticities of demand for four main fuels are estimated for both

<sup>35</sup> Akpalu, W. and P. J. Parks (2007), Natural Resource Use Conflict: Gold Mining in Tropical Rainforest in Ghana, *Environment and Development Economics*, 12: 55-72

<sup>36</sup> Gundimeda, H. and G. Köhlin (2008), 'Fuel demand elasticities for energy and environmental policies: Indian sample survey evidence', *Energy Economics*, 30/2: 517-546.

urban and rural areas by different income groups. These can be used to evaluate recent and current energy policies. The results can also be used for energy projections and carbon dioxide simulations given different growth rates for different segments of the Indian population.

### **Fuelwood, forests and community management - Evidence from household studies<sup>37</sup>**

This paper reviews the state of economic understanding about fuelwood in developing countries. It synthesizes the main results from numerous empirical studies with the intent of identifying implications for policy and pointing out where important questions remain unanswered. Overall, the empirical results reviewed reinforce the contention that households alter their behavior in the presence of sufficient scarcity in ways that are least costly to them. Still, the cost can be substantial and many cases remain where policy intervention is justified to address concerns of both equity and efficiency. Addressing the coping capabilities of the very poor and the open access conditions of woodlands appear to be two ways of dealing with fuelwood scarcity that are likely to yield high social rates of return. Community forestry has the potential to address these two important areas, but there is little evidence to date that this is being done with fuelwood in mind.

### **Household Tree Planting in Tigray, Northern Ethiopia: Tree Species, Purposes, and Determinants<sup>38</sup>**

Trees have both economic and ecological purposes in rural Ethiopia, supplying households with wood products for consumption and sale, and decreasing soil degradation. The authors used cross-sectional household-level data in a sample selection framework that simultaneously took into account whether or not to plant trees and how many, and a logistic regression that analyzed tree attributes contributing to households' tree-planting decisions. Land size, age, gender, tenure security, education, exogenous income, and agroecology increased the propensity to plant trees and the amount of trees, whereas increased livestock holding impacted both decisions negatively.

<sup>37</sup> Cooke-St. Clair, P.C., G. Köhlin and W. F. Hyde (2008), Fuelwood, forests and community management – evidence from household studies', *Environment and Development Economics*, 13: 103-135.

<sup>38</sup> Gebreegziabher, Zenebe, Alemu Mekonnen, Menale Kassie, and Gunnar Köhlin (2010), "Household Tree Planting in Tigray, Northern Ethiopia: Tree Species, Purposes, and Determinants", EFD Discussion Paper 10-01, Environment for Development Initiative and Resources for the Future, Washington DC, January 2010.

## Management of aquatic resources

*Aquatic food products, i.e. fish and similar from both fresh and salt water, constitute the biggest net export group of goods for developing countries. They are also an essential food ingredient. Trade is in general beneficial for poor countries but implies pressure on resources and may be problematic when resources are poorly managed and more or less open-access. Understanding and improving management of aquatic resources is the common objective of these studies with particular attention given to how successful monitoring and enforcement can be achieved.*

### Fishing Regulation, Individual Discount Rate and Fisherman behavior in a Developing Country Fishery<sup>39</sup>

This paper considers a fishery crime that generates flow of returns until the offender is caught and then punished. Consequently we incorporate in the existing model, the influence of dynamic deterrence in which the discount rate affects violation levels. The predictions of the model are tested on data from an artisanal fishery in Ghana.

### Genetics of Nile perch in Lake Viktoria<sup>40</sup>

This project uses modern genetic and behavioural understanding to analyze the behavior and structure of fish stocks. It shows that unobserved genetic diversity between sub stocks within a fish stock can exacerbate the risk for overestimation of the stock and thus inadvertent overfishing.

### A Dynamic Model of Mesh Size Regulatory Compliance in Tropical Fishery<sup>41</sup>

This paper employs a dynamic model for crimes that involve time and punishment to analyze the use of nets with illegal mesh size under two management regimes: competitive and regulated open access fishery. We find that under the competitive fishery, the equilibrium stock and harvest are lower if the fishers use the illegal mesh size. However, under regulated open access, the size of the equilibrium stock depends on the ratio of the elasticity of catchability coefficient to the elasticity of the hazard rate. Furthermore, under some condition, the fine for violation should be higher under open access relative to the competitive fishery for any given level of violation.

<sup>39</sup> Akpalu, W. 2008. Fishing regulations individual discount rate and fisherman behaviour in a developing country fishery *Environment and Development Economics* 13(5): 591-606

<sup>40</sup> Sterner, T. 2007. Unobserved Diversity, Depletion and Irreversibility The importance of subpopulations for Management of cod stocks. *Ecological Economics* 61( 2-3): 566-574.

<sup>41</sup> Akpalu, W. (in review), A Dynamic Model of Mesh Size Regulatory Compliance in Tropical Fishery.

### Ostracism and Common Pool Resource Management: Young Fishers in the Laboratory<sup>42</sup>

This paper investigates how the presence of ostracism, which is a familiar punishment mechanism to subjects in an experiment, affects harvests in a common pool resource experiment. The experiment was framed as a fishing problem and the subjects were young fishers in Ghana. We find that the introduction of the possibility to ostracize other members of a group at a cost to the remaining members of a group decreased over-fishing significantly in comparison with the situation where ostracism was not possible. Moreover, the subjects demonstrated a strong desire to ostracize those who over-fished.

### Small-scale Fishermen and Risk Preferences<sup>43</sup>

Using an experimental approach, we investigate the risk preferences of artisanal fishermen in Tanzania waters of Lake Victoria. The experiment concerns pairwise comparisons of hypothetical fishing trips that vary in expected mean and spread of the net revenue. The results show that about 34% of the fishermen can be considered as risk-neutral, 32% as risk-averse, and 34% as risk seekers. Econometric analysis indicates that the likelihood of belonging to the risk-seeking group increases if motorboats are used, if fishing is the main source of household income, and if the fisherman is targeting Nile perch. Asset ownership and perhaps socioeconomic variables influence risk preferences.

### Technical Efficiency and the Role of Skipper Skill in Artisanal Lake Victoria Fisheries<sup>44</sup>

Lake Victoria fisheries are important to Tanzanian food security, employment and foreign exchange, but experience declining performance largely due to overfishing. This paper studies technical efficiency and skipper skill using Tanzanian fishery data for the two artisanal fisheries targeting either Nile perch or Daga in Lake Victoria. The results suggest that the Tanzanian artisanal fishers of Lake Victoria are relatively technically efficient and that skipper skill can be significantly approximated by various variables. For the Nile perch fishery, efficiency increase with skippers' experience. Skippers owning their vessels, revenues shared after cost deduction and if the owner shares 50-50 with the crew imply increased efficiency. For the Daga fishery, efficiency increases with skipper education and if the owner shares 50-50 with the crew.

<sup>42</sup> Akpalu, W. and P. Martinsson. (in review) Ostracism and Common Pool Resource Management: Young Fishers in the Laboratory

<sup>43</sup> Eggert, H. and R. Lokina. (2007) Small-scale Fishers and Risk Preferences *Marine Resource Economics* 22(1): 49-67

<sup>44</sup> Lokina R. B. 2009. Technical Efficiency and the Role of Skipper Skill in Artisanal Lake Victoria Fisheries *Environment and Development Economics* 14(4): 497-519.

### The importance of genetic diversity for fish stock assessments<sup>45</sup>

This study is a continuation of Sterner (2007), which investigated theoretically the importance of subpopulations for fish stock assessments. The aim here is to learn more about fish stock assessment but also to develop into studying conditions for community based management particularly in Lake Victoria. Collaboration has been established with Dr Charles Masembe, Institute of Environment and Natural Resources, Makerere University, Uganda, and his PhD candidate Mathew Tenywa. Fish samples from the Tanzanian part of the lake have been collected for genetic analysis that will be carried out during 2009.

### Fisheries self-governance<sup>46</sup>

Economic theory predicts that open access leads to myopic behaviour of fishermen, while improving property rights leads to more long-term decisions of fishermen. In this study, we report the experiences from a co-managed fishery within a marine reserve by the Swedish West coast. A group of fishermen were granted exclusive collective user right to 100 fishing days annually during 2004-06, which they distributed evenly within the group. First, we note a dramatic increase in real revenues. Second, the fishermen within the reserve voluntarily increased the mesh size in order to leave specimen to grow as long as it is optimal.

### Welfare Effects of Fisheries Boom in Lake Victoria<sup>47</sup>

The purpose of this study is to explore the changes in household welfare and poverty since the liberalization of trade in Nile Perch from Lake Victoria. Preliminary results indicate that the welfare of the study population has not improved and may even have deteriorated between 1993 and 2008. Further, our results imply that the Nile perch export boom during the late 1980's and beyond did not appear to have a trickle down effect on the welfare of residents in the Lake Victoria area.

<sup>45</sup> Kateregga, E. and T. Sterner (2009), "Lake Victoria Fish Stocks and the Effects of Water Hyacinth" *Journal of Environment and Development*, March, Vol. 18:1 pp 62-78.

<sup>46</sup> Eggert, H. and M. Ulmestrand. 2008. 'Tenure Rights and Stewardship of Marine Resources: A co-managed Swedish shrimp fishery in a marine reserve' in Townsend, R., Shotton, R., and Uchida, H. (eds). *Case studies in fisheries self-governance*. FAO Fisheries Technical Paper. No. 504. Rome, FAO. 2008. Download the book at <http://www.fao.org/docrep/010/a1497e/a1497e00.htm>

<sup>47</sup> Eggert, H., Greker, M. and A. Kidane. 2010. *Welfare Effects of Fisheries Boom in Lake Victoria 1993 to 2008*. Mimeo.



Kenyan fisheries.

### Enforcement and corruption in fisheries<sup>48</sup>

Many resource users are not directly involved in the formulation and enforcement of resource management rules and regulations in developing countries. As a result, resource users do not generally accept such rules. An enforcement officer who has social ties with the resource users may encounter social disapproval and possible social exclusion from the resource users if he/she enforces the regulation zealously. The officer may avoid this social disapproval by accepting bribes. In this paper we present a simple model that characterizes this situation and derive results for situations where the officer is passively and actively involved in the bribery.

### Effects of global fisheries on developing countries<sup>49</sup>

Fish is globally traded, and for many developing countries, it is an important net export good.

Fisheries management is often de facto open access, where vessels with or without permission to fish land as much as they can catch, due to limited monitoring and enforcement activities. While trade generally is beneficial for growth and welfare, the combination of pure open

<sup>48</sup> Akpalu, W. H. Eggert, and G. K. Vondolia. 2009. Enforcement of exogenous environmental regulation, social disapproval and bribery. *Journal of Socio-Economics* 38(6): 940-45.

<sup>49</sup> Eggert, H. and M. Greker. 2009. Effects of Global Fisheries on Developing Countries Possibilities for Income and Threat of Depletion, in Ackefors, H. and M. Cullberg (Eds) *Fisheries, Sustainability and Development*. Stockholm: The Royal Swedish Academy of Agriculture and Forestry. Download at [http://www.ksla.se/sv/redirect\\_frameset.asp?p=993&time=154846](http://www.ksla.se/sv/redirect_frameset.asp?p=993&time=154846)

access and trade liberalization may reduce both welfare and stocks for a country – an outcome that can be reinforced by the common use of bad subsidies. However, trade liberalization may have an additional positive impact by promoting the development of property rights in response to increased fish exploitation.

### **Regulation and compliance: analysis of what determines compliance with regulation, and what can be done in order to reduce violation of regulation when corruption exists<sup>50</sup>**

This study analyzes the causes for regulatory compliance. Results suggest that in order to prevent catches of under-sized fish in Lake Victoria there are three important areas to consider. Traditional deterrence variables like risk of getting caught and size of punishment are important for the decision of violating or not. The Tanzanian effort of involving fishing communities in management by creating beach management units (BMUs) have so far not contributed in reducing violation of the mesh size regulation. Still, there is a scope for BMUs as normative aspects like fishermen involvement, perceived fairness and justness are important for the decision of violation or not. The common use of bribes in Tanzania is also important for fisheries management, and our results indicate that the small group of persistent violators systematically uses bribes to avoid punishment.

### **Lake Victoria fish stocks and the effects of water hyacinth<sup>51</sup>**

The water hyacinth infestation had serious repercussions for the fishermen (and others) on Lake Victoria, since they basically led to the cessation of all transport and other activities on the lake. The paper (published 2008) showed that although this was very negative for the fishermen, it also ironically had benefits: Since the lake is seriously over-harvested, the couple of years with hyacinths actually led to a partial recovery of the fish stocks so that fishing, at least initially was improved after the hyacinths disappeared. This should serve as a lesson concerning the importance of better stock management.

<sup>50</sup> Eggert, H. and R. Lokina. 2010. 'Regulatory Compliance in Lake Victoria Fisheries' *Environment and Development Economics* 15(2):197-217.

<sup>51</sup> Kateregga, E. and T. Sterner (2009), *Lake Victoria Fish Stocks and the Effects of Water Hyacinth* *Journal of Environment and Development*, March, Vol 18:1 pp 62-78.

### **Microcredits to small holder shrimp farming<sup>52</sup>**

Microcredit schemes have become a popular means of improving smallholders' access to credit and making long-term investment possible. However, it remains to be explored whether the current microcredit schemes are more successful than earlier formal small-scale lending in identifying successful borrowers. We study shrimp farming in a rural region in Bangladesh where formal microlending is well established, but where more expensive informal microlending coexists with the formal schemes. The results suggest that informal lenders – with their closer ties to the individual farmers – remain more successful in identifying those small-holder farmers that are most likely to use the borrowed funds successfully. Informal lenders have an information advantage that formal microlenders lack; formal lenders need to find routes for accessing this information in order for formal microcredits to succeed.

## **Wildlife management**

*Wildlife habitats are not only very valuable in their own right, they are also increasingly important sources of foreign exchange through tourism and local employment generation. It is therefore important to analyze how best to manage these resource in order to maintain the biodiversity, increase the revenues and make sure that they are distributed equitably.*

### **Wildlife Management In Zimbabwe: Evidence From A Contingent Valuation Study<sup>53</sup>**

If communities living adjacent to the elephant see it as a burden, then they cannot be its stewards. To assess their valuation of it, a contingent valuation method study was conducted for one CAMPFIRE district in Zimbabwe. Respondents were classified according to their preferences over the elephant. The median willingness to pay for the preservation of 200 elephants is ZW\$260 (US\$4.73) for respondents who considered the elephant a public good and ZW\$137 (US\$2.49) for those favouring its translocation. The preservation of 200 elephants yields an annual net worth of ZW\$10,828 (US\$196) to CAMPFIRE households. However, the majority of households (62%) do not support elephant preservation. This is one argument against devolution of elephant conservation. External

<sup>52</sup> Andersson, C., Holmgren, E., MacGregor, J. and Stage, J. (2008): *Giving credit to the microlenders. Formal microlending, credit constraints and adverse selection: a case study.* Environmental Economics Programme Discussion Paper 08-02, International Institute for Environment and Development. Resubmitted to Applied Economics

<sup>53</sup> Muchapondwa, E., Carlsson, F., and G. Köhlin (2008), 'Can local communities in Zimbabwe be trusted with wildlife management?: Evidence from contingent valuation of elephants', *South African Journal of Economics*, 76/4: 685-704.

transfers constitute one way of providing additional economic incentives to local communities.

### Costs and benefits of wildlife corridors<sup>54</sup>

In this paper, we discuss economic aspects of different potential policies to maintain the wildlife corridors and wildlife dispersal areas that are linked to, but not included in, Kenya's system of protected areas. These dispersal areas are crucial for the maintaining the ecosystems within the protected areas, but are currently under very limited protection. We use the dispersal area of the Nairobi National Park as a case study. We find that a scheme where livestock pastoralism continues alongside the wildlife migration, but where other uses of the land are banned or heavily limited, would be the best from an overall economic viewpoint.

### Economic impacts of tourism in Botswana, Namibia and South Africa<sup>55</sup>

We use social accounting matrices to compare the economic impacts of foreign tourism in South Africa, Namibia and Botswana. Foreign tourism plays an important role in the three countries' economies. However, South Africa's economy is considerably more diversified than its neighbours', and a greater share of the goods and services used by tourists and by the tourism industry are supplied domestically. Consequently, the impact on GDP per Rand spent in South Africa is estimated at 1.24, which is considerably larger than 0.95 and 0.76 estimated for Namibia and Botswana respectively. Our results suggest that the share of tourism income accruing to the poorer segments of the countries' populations is smaller than their share of overall national income. If tourism is to help reduce poverty, changes in tourism policy may be necessary.

## Human Cooperation and Risk

### Field Experiments on Human Cooperation

*The world's most pressing environmental and natural resource problems, such as global warming, overfishing, overharvesting and overgrazing, reflect ultimately the lack of adequate human cooperation. The ability to handle social dilemma type situations such as provision of public good and use of natural resources, and the corresponding free-rider problems, are crucial for economic and social development. While conventional economics has dealt with such free-riding problems for a long time, the insights that can be drawn from microeconomic models based on the perfectly rational but completely egoistic and atomistic Homo Economicus are limited. Therefore, it is important to develop models that consider other factors than direct monetary benefits and costs, such as altruism, conformity and social capital. However, in order to be able to draw important policy conclusions, it is also important to conduct empirical studies in developing countries looking at the role of these factors for the behavior of individuals when for example utilizing natural resources.*

### Anonymity, reciprocity, and conformity in voluntary contributions<sup>56</sup>

We investigate the role of anonymity, reciprocity, and conformity for voluntary contributions, based on a natural field experiment conducted at a national park in Costa Rica. Contributions made in public in front of the solicitor are 25% higher than contributions made in private. Giving subjects a small gift before requesting a contribution increases the likelihood of a positive contribution. At the same time, the conditional contribution decreases. The total effect of giving a gift is positive but small, and taking the cost of the gift into account, it is far from profitable. When the subjects are told that the typical contribution of others is \$2 (a small contribution), the probability of a contribution increases and the conditional contribution decreases, compared with providing no reference information. Providing a high reference level (\$10) increases the conditional contributions. Overall, the total effects have the expected signs, although the magnitudes are smaller than what one might have expected based on existing evidence from laboratory experiments.

<sup>54</sup> Nyangena, W. and Stage, J. (2010): Saving Kenya's Wildlife Corridors: Economic Benefits and Costs. Mimeo

<sup>55</sup> Muchapondwa, E. and Stage, J. (2010): The economic impacts of tourism in South Africa, Botswana and Namibia. Submitted to Economic Systems Research

<sup>56</sup> Alpizar, F., F. Carlsson, O. Johansson-Stenman (2008) Anonymity, Reciprocity, and Conformity: Evidence from Voluntary Contributions to a National Park in Costa Rica, *Journal of Public Economics*, 92, 1047-1060.

### **Does context matter more for hypothetical than for actual contributions?<sup>57</sup>**

We investigate the importance of the social context for people's voluntary contributions to a national park in Costa Rica, using a natural field experiment. Some subjects make actual contributions while others state their hypothetical contribution. Both the degree of anonymity and provided information about the contributions of others influence subject contributions in the hypothesized direction. We do find a substantial hypothetical bias with regard to the amount contributed. However, the influence of the social contexts is about the same when the subjects make actual monetary contributions as when they state their hypothetical contributions. Our results have important implications for validity testing of stated preference methods: a comparison between hypothetical and actual behavior should be done for a given social context.

### **Social background, cooperative behavior, and norm enforcement<sup>58</sup>**

We provide an empirical test of the influence of an individual's social environment on his or her cooperative and norm-enforcement behavior. For this end, a unique data set is created based on a series of public goods experiments conducted in Cape Town, South Africa. Our main empirical results clearly confirm that variables accounting for social environment are consistently related with human cooperative and norm-enforcement behavior. Moreover, we find that their impact is even able to overpower typical group variables.

### **Conformity and the demand for environmental goods<sup>59</sup>**

We investigate if people conform to certain social norms - that some individuals may be willing to pay a higher price premium for green products the more widespread green consumerism is in society - using a choice experiment. We find that women are the ones who conform to the social norm, while men do not.

57 Alpizar, F., F. Carlsson, O. Johannson-Stenman (2008) Does context matter more for hypothetical than for actual contributions? Evidence from a natural field experiment, *Experimental Economics* 11, 299-314.

58 Kocher, M., P. Martinsson and M. Visser (2009 October) Social background, cooperative behavior, and norm enforcement, University of Gothenburg, Working Papers in Economics 385.

59 Carlsson, F., J. Garcia and Å. Löfgren (2007), Conformity and the demand for environmental goods. Working Paper, Department of Economics, University of Gothenburg.

### **Ostracism and Common Pool Resource Management: Young Fishers in the Laboratory<sup>60</sup>**

This paper investigates how the presence of ostracism, which is a familiar punishment mechanism to subjects in an experiment, affects harvests in a common pool resource experiment. The experiment was framed as a fishing problem and the subjects were young fishers in Ghana. We find that the introduction of the possibility to ostracize other members of a group at a cost to the remaining members of a group decreased over-fishing significantly in comparison with the situation where ostracism was not possible. Moreover, the subjects demonstrated a strong desire to ostracize those who over-fished.

### **Does stake size matter for cooperation and punishment?<sup>61</sup>**

The effects of stake size on cooperation and punishment are investigated using a public goods experiment in South Africa. We find that an increase in stake size does neither significantly affect cooperation nor, interestingly, the level of punishment.

### **Conditional Cooperation and Social Group - Experimental Results from Colombia<sup>62</sup>**

In contrast to previous studies on cross-group comparisons of conditional cooperation, this study keeps cross- and within-country dimensions constant. The study was conducted in Medellin, Colombia, and subjects were recruited from different social-classes. The results reveal significantly different cooperation behavior both in terms of composition of types and extent of conditional cooperation.

### **Attitudes toward uncertainty among the poor: Evidence from rural Ethiopia<sup>63</sup>**

We investigated risk and ambiguity attitudes among Ethiopian peasants in one of the poorest regions of the world and compared their attitudes to a standard Western university student sample elicited by the same decision task. Strong risk aversion and ambiguity aversion were

60 Akpalu, W. and P. Martinsson. (2009) Ostracism and Common Pool Resource Management: Young Fishers in the Laboratory, Working Paper 130, Economic research Southern Africa, University of Cape Town.

61 Kocher, M., P. Martinsson and M. Visser (2008) Does stake size matter for cooperation and punishment?, *Economics Letters*, 99, 508-511.

62 Martinsson, P., C. Villegas-Palacio and C. Wollbrant (2009) Conditional Cooperation and Social Group - Experimental Results from Colombia, University of Gothenburg Working Papers in Economics 372.

63 Akay, A., P. Martinsson, H. Medhin and S. Trautmann (2009) Attitudes toward uncertainty among the poor: Evidence from rural Ethiopia, IZA Discussion Paper 4225.

found with the Ethiopian peasants. Ambiguity aversion was similar for peasants and students, but peasants were more risk averse. Testing for the effect of socio-economic variables on uncertainty attitudes showed that poor health increased both risk and ambiguity aversion.

#### **A choice experiment on coca cropping<sup>64</sup>**

Little is known about the effectiveness of policies targeting coca cultivation, this paper evaluates the effects of the two main policies: eradication and alternative development. We measure the responsiveness of farmers to eradication and alternative development programs using a survey based experiment. Our results support Becker's (1968) model of crime participation and in addition shed light on other non-monetary factors that affect the coca cultivation decision. Religion, legitimacy, social interaction, and poverty are found to be affecting coca cultivation. We evaluate the main policies against coca cultivation under different scenarios and conclude that the choice of policy is sensitive to the cost estimates of each policy, and within reasonable ranges, the preferred policy varies.

#### **Can we do policy recommendation from a framed field experiment? The case of coca cultivation in Colombia<sup>65</sup>**

Laboratory experiments are potentially effective tools for studying behavior in settings where little or no information would otherwise exist such as participation in illicit activities. However, using laboratory experiments to draw policy recommendations is highly debatable. We investigate the external validity of a framed field experiment that mimics coca cultivation and find evidence that behavior in the experiment is consistent with self-reported behavior. We use the experiment to discuss the effectiveness of carrot and stick policies on coca investments. The experiment indicates that subjects are more responsive to changes in the relative profit of cattle farming than to changes in the probability of coca eradication.

#### **Household decision making and the influence of spouses' income, education, and communist party membership<sup>66</sup>**

We study household decision making in a high-stakes experiment with a random sample of households in rural China. Spouses have to choose between risky lotteries, first separately and then jointly. We find that spouses' individual risk preferences are more similar the richer the household and the higher the wife's relative income contribution. A couple's joint decision is typically determined by the husband, but women who contribute relatively more to the household income, women in high-income households, and women with communist party membership have a stronger influence on the joint decision

#### **Easy come, easy go: The role of windfall money in lab and field experiments<sup>67</sup>**

A growing number of experimental studies focus on the differences between the lab and the field. One important aspect of this is the role of windfall money. By conducting a dictator game, where the recipient is a charity organization, in exactly the same way in the laboratory and in the field, we investigate the influence of windfall and earned endowment on behavior. We find a strong effect on donation amounts of earned endowment in the lab and the field. Subjects donate more if the endowment is a windfall gain. Thus, windfall money is important not only in a lab environment. However, even for earned endowment, there is a significant difference in behavior between the lab and the field. Although the experimental design was intended to control for all other effects except environment, we still find differences. This points to the importance of discussing the environment when interpreting both laboratory and field experimental results as well as of conducting replication studies.

<sup>64</sup> Ibanez, M. and F. Carlsson (2008) A choice experiment on coca cropping, Working Papers in Economics No. 287, Department of Economics, University of Gothenburg.

<sup>65</sup> Ibanez, M. and P. Martinsson (2008) Can we do policy recommendation from a framed field experiment? The case of coca cultivation in Colombia, University of Gothenburg Working Papers in Economics 306.

<sup>66</sup> Carlsson, F., P. Martinsson, P. Qin and M. Sutter (2009) Household decision making and the influence of spouses' income, education, and communist party membership: A field experiment in rural China, Working Papers in Economics No. 356, Department of Economics, University of Gothenburg.

<sup>67</sup> Carlsson, F., H. He and P. Martinsson (2009) Easy come, easy go: The role of windfall money in lab and field experiments, Working Papers in Economics No. 374, Department of Economics, University of Gothenburg.

## Social comparisons

*Conventional economic theory proposes that only the absolute levels of income and consumption matter for people's utility, but there is ample empirical evidence that relative concerns are important. If this is true, then aid packages and other aid related projects affect people not only directly by increasing their economic standard, but may also have negative impact by making others relatively poorer. While most of the previous research is based on individuals living in industrialized countries, we have investigated factors that affect welfare in developing countries, including environmental resources and access to water, energy and sanitation. Contrary to the findings in developed countries, where relative concerns have shown a significant and often large negative impact on people's utility, we find a much weaker and in some cases no effect of relative concerns on people's utility. The results reinforce the thrust in poverty reduction strategies and also show that environment and natural resources have a direct impact of the welfare of poor people.*

### Does relative income matter for the very poor? Evidence from rural Ethiopia<sup>68</sup>

We studied whether relative income has an impact on subjective well-being among extremely poor people. We provide a micro-level test for the relative-income hypothesis on happiness for individuals in Northern Ethiopia. Contrary to the findings in developed countries, where relative income has shown a significant and negative impact on subjective well-being, we cannot reject the hypothesis that relative income has no impact on subjective well-being in rural areas of northern Ethiopia.

### Does Positional Concern Matter in Poor Societies? - Evidence from a Survey Experiment in Rural Ethiopia<sup>69</sup>

We investigate attitudes toward positionality among rural farmers in Northern Ethiopia using a survey experiment. On average, we find positional concerns neither in income per se nor in income from aid projects. These results support the claim that positional concerns are positively correlated with absolute level of income of a country. The implications of our results on implementation of aid projects are discussed.

<sup>68</sup> Akay, A. and P. Martinsson (2008) Does relative income matter for the very poor? - Evidence from rural Ethiopia, IZA Discussion Paper 3812.

<sup>69</sup> Akay, A., P. Martinsson and H. Medhin (2009) Does Positional Concern Matter in Poor Societies? - Evidence from a Survey Experiment in Rural Ethiopia, IZA Discussion Paper 4354.

### Keeping up with the Vaishyas: Caste and relative standing<sup>70</sup>

People care about relative, and not only absolute, income. We investigate the importance of relative income within and between castes in the Indian caste system, using a choice experimental approach. The results indicate that slightly more than half of the marginal utility of income comes from some kind of relative income effects, on average. This is comparable to the results from previous studies in other countries. Belonging to a low caste and having a low family income are associated with higher concern for relative income. Moreover, an increase in the mean income of the caste to which the individual belongs, everything else held constant, reduces utility for the individual. Thus, the negative welfare effect of having a reduced relative income compared to the own caste average income dominates the positive welfare effect due to increased relative income of the own caste compared to the income of other castes.

### It is better to be the head of a chicken than the tail of a phoenix: a study of concern for relative standing in rural China<sup>71</sup>

This paper examines the concern for relative standing among rural households in China. We use a survey-experimental method to measure to what extent poor Chinese farmers care about their relative income and find that the respondents care to a high degree. Compared to previous studies in developed countries, the concern for relative standing seems to be equally strong among rural households in China. This should be seen in the light of the rapid change China has undergone, with high growth, increased inequality, and the highest urban-rural income ratio in the world. Thus, the rural population, which is lagging behind, is suffering not only from the low absolute income but also from low relative income.

### Are Vietnamese Farmers Concerned with their Relative Position in Society?<sup>72</sup>

We examine the attitude towards relative position or status among rural households in Vietnam. On average, the respondents show rather weak preferences for relative position. Possible explanations are the emphasis on

<sup>70</sup> Carlsson, F. G. Gupta and O. Johansson-Stenman (2009) Keeping up with the Vaishyas: Caste and relative standing, Oxford Economic Papers 61, 52-73.

<sup>71</sup> Carlsson, F. and P. Qin (2008) It is better to be the head of a chicken than the tail of a phoenix: a study of concern for relative standing in rural China, Working Papers in Economics No. 308, Department of Economics, University of Gothenburg.

<sup>72</sup> Carlsson, F., P. Nam, M. Linde-Rahr and P. Martinsson (2007) Are Vietnamese Farmers Concerned with their Relative Position in Society? Journal of Development Studies 43 1177-1188.

the importance of equality and that villagers are very concerned with how the local community perceives their actions. We also investigate what influences the concern for relative position and find, among other things, that if anyone from the household is a member of the Peoples Committee then the respondent is more concerned with the relative position.

### Do you enjoy having more than others? Survey evidence of positional goods<sup>73</sup>

Although conventional economic theory proposes that only the absolute levels of income and consumption matter for people's utility, there is much evidence that relative concerns are often important. This paper uses a choice experiment to measure people's perceptions of the degree to which such concerns matter, i.e. the degree of positionality. This paper has now been published.

### Social capital and risk

*Whom shall I trust? This is a question that most of us ask ourselves almost on a daily basis. Trust in this sense refers to our expectation regarding the consequences of making ourselves vulnerable to subsequent actions and potential exploitation by someone else. At the social level there is much evidence that trust between people reduces transaction costs, fosters cooperation and is hence important for economic and social development. Trust is also essential when it comes to handling social dilemmas such as the use of local natural resources when there are potential free-riding problems. While most of the experimental research in this area is conducted based on students in industrialized countries, our work here is based on "real people" in poor areas in developing countries, i.e. the areas where the implications of the findings regarding e.g. how social capital in terms of trust can be built and destroyed, and even properly measured, are most important.*

### Trust in Bangladesh<sup>74</sup>

Trust is measured using both survey questions and a standard trust experiment using a random sample of individuals in rural Bangladesh. Levels of trust are measured by asking standard survey questions on trust and by observing the behavior in a trust game using a random sample in rural Bangladesh. Follow-up questions and

<sup>73</sup> Carlsson, F., O. Johansson-Stenman and P. Martinsson (2007) Do you enjoy having more than others? Survey evidence of positional goods. *Economica* 74, 586-598.

<sup>74</sup> Johansson-Stenman, M. Mahmud and P. Martinsson, "Trust, trust games and stated trust: Evidence from rural Bangladesh" with Peter Martinsson and Minhaj Mahmud. Revise and resubmit, *Journal of Economic Behavior and Organization*.

correlations between the sent amount in the trust game and stated expectations reveal that the amount sent in the trust game is a weak measure of trust. The fear of future punishment, either within or after this life, for not being sufficiently generous to others, was the most frequently stated motive behind the respondents' behavior, highlighting the potential importance of motives that cannot be inferred directly from people's behavior.

### Trust and Religion: Experimental evidence from rural Bangladesh<sup>75</sup>

Trust is measured using both survey questions and a standard trust experiment among a random sample of Muslim and Hindu household heads in rural Bangladesh. We found no significant effect of the social distance between Hindus and Muslims in the trust experiment in terms of fractions sent or returned, but the responses to the survey questions do indicate significant differences. Hindus, the minority, trust other people less in general, while Hindus trust Muslims more than Muslims trust Hindus.

### Small-scale Fishermen and Risk Preferences<sup>76</sup>

Using an experimental approach, we investigate the risk preferences of artisanal fishermen in Tanzania waters of Lake Victoria. The experiment concerns pairwise comparisons of hypothetical fishing trips that vary in expected mean and spread of the net revenue. The results show that about 34% of the fishermen can be considered as risk-neutral, 32% as risk-averse, and 34% as risk seekers. Econometric analysis indicates that the likelihood of belonging to the risk-seeking group increases if motorboats are used, if fishing is the main source of household income, and if the fisherman is targeting Nile perch. Asset ownership and perhaps socioeconomic variables influence risk preferences.

### Does age matter for the value of life? - Evidence from a choice experiment in rural Bangladesh<sup>77</sup>

Using a random sample of individuals in rural Bangladesh, this paper investigates people's preferences regarding relative values of lives when it comes to different ages of the individuals being saved. By assuming that an individual has preferences concerning different states of the world, and that these preferences can be described

<sup>75</sup> Johansson-Stenman, O., M. Mahmud and P. Martinsson (2009) Trust and Religion: Experimental evidence from rural Bangladesh, Mahmud. *Economica*, 76, 462-485

<sup>76</sup> Eggert, H. and R. Lokina. (2007) Small-scale Fishers and Risk Preferences *Marine Resource Economics* 22(1): 49-67

<sup>77</sup> Johansson-Stenman, O., M. Mahmud M. and P. Martinsson (2009) Does age matter for the value of life? - Evidence from a choice experiment in rural Bangladesh, University of Gothenburg, Working Papers in Economics 389.

by an individual social welfare function, the individuals' preferences for life-saving programs are elicited using a pair-wise choice experiment between different life-saving programs. In the analyses, we calculate the social marginal rates of substitution between saved lives of people of different ages. We also test whether people have preferences for saving more life-years rather than only saving lives. In particular, we test and compare the two hypotheses that only lives matter and that only life-years matter. The results indicate that the value of a saved life decreases rapidly with age and that people have strong preferences for saving life-years rather than lives per se. Overall, the results clearly show the importance of the number of life-years saved in the valuation of life.

## Workshops

As part of the environmental policy analysis section EEU is expected to conduct thematic workshops and an international conference with participation of EEU researchers, PhD candidates, past graduates of the program and other resource persons within the EfD initiative. This has become an important venue to bring about a greater impact of the research into policy as well as creating cross-fertilizations among researchers.

### **World Bank's World Development Report 2008, Agriculture for Development**

Each year the World Bank publishes its flagship report, World Development Report, on different themes. Dr. **Derek Byerlee** was one of the two lead authors of the WDR 2008, Agriculture for Development. On the 16th of November 2007 he presented the report at the School of Business, Economics and Law at University of Gothenburg. He also had an informal discussion with EEU PhD candidates on the direction of future research on agriculture in developing countries.

World Development Report 2008 has chosen as theme Agriculture for Development. This is the first time the World Development Report addressed this issue in 25 years. That the World Bank recognizes the subject now reflects the attention agriculture is getting in the international development debate on the Millennium Development Goals and the fight against poverty, in general. About seventy-five percent of the world's poor live in rural areas and have agriculture as their principal means

of living. The report was presented by Dr. Byerlee and commented upon by Professor **Göran Djurfeldt**, Lund University, Professor **Stein Holden**, Norwegian University of Life Sciences, **Maria Berlekom**, Swedbio, and **Lasse Krantz**, Sida. A discussion followed with a large group of participants from various parts of University of Gothenburg.

### **The Second Nordic Workshop in Behavioral and Experimental Economics**

The Second Nordic Workshop in Behavioral and Experimental Economics, supported by EEU, took place at the School of Business, Economics and Law at University of Gothenburg, November 16-17, 2007. The workshop brought together Nordic scholars for exchange of ideas and discussion of recent results within behavioral economics. Plenary speakers were **Tore Ellingsen** from Stockholm School of Economics, **Jean-Robert Tyran** from University of Copenhagen and **Bertil Tungodden** from The Norwegian School of Economics and Business Administration in Bergen. Overall, there were about 50 participants from all Nordic countries, and also some participants from the EfD centres, and about 30 contributed papers. The workshop was very well received by the participants.

### **Agriculture, land markets and development**

The seminar highlighted current research and field experiences regarding institutional innovations that can increase productivity and sustainability. The book "The emergence of land markets in Africa" was also released during the seminar that was carried out at the Royal Academy of Agriculture and Forestry (KSLA) in Stockholm, May 22, 2008. The seminar was part of as part of the follow up of the World Development Report 2008 Agriculture for Development. The seminar was organized and moderated by **Gunnar Köhlin** with the following speakers: **Dr. Klaus Deininger**, Senior economist at the World Bank, gave an overview of the recent findings of how perceived tenure security affect investment and productivity in agriculture. Prof. **Stein Holden**, professor of economics at the Norwegian University of Life Sciences, introduced the new book "The emergence of land markets in Africa" and showed how tenure reform can affect the functioning of formal and informal land markets in Africa. Prof. **Jintao Xu**, professor of economics at Peking University, will share the experiences of the recent rapid reform of collective forestry in China. Mr. **Lennart Bäckström**, Orgut consulting, will draw on decades of experience in implementing land titling in Africa and

Europe while presenting the importance of popular support in such processes.

### **Urban and rural land titling programmes – do they serve the poor?**

The international debate about the ability of land titling to contribute to poverty alleviation and improved socio-economic conditions is vivid and often polarized. This seminar looked at the reasons for the debate and attempted to give a better understanding of the role of titling in housing policy and also compare it to rural land titling. The seminar was held at Sida on May 23, 2008. It was organized by **Gunnar Köhlin**, EEU, **Margareta Nilsson** and **Mikael Atterhög** at Sida and was moderated by Gunnar Köhlin with the following program: Mr. Geoffrey Payne, principal of **Geoffrey Payne** and Associates (GPA), presented the report: Social and economic impacts of land titling programmes in urban and peri-urban areas: international experience and case studies from Senegal and South Africa. **Dr. Klaus Deininger**, Senior economist at the World Bank, presented findings on the impacts of land titling programs in rural areas.

### **Inauguration of the Latin American Field Experiment Network (LAFEN)**

So called field experiments are becoming increasingly popular to study development interventions in a more controlled way. A workshop was organized November 19 – 21 in Colombia to enable knowledge sharing among 25 environmental economists using this approach in Latin America. En workshop i Colombia kring användning av fältexperiment i miljöekonomi genomfördes. At the workshop ongoing research was presented using experimental methods with applications ranging from climate change to sustainable natural resource management. The meeting was considered a success by the participants and is expected to spur much interaction between the participants also in the future.

### **Pre-conference on Environment and Development at EAERE 2008**

A pre-conference on Environment and Development was held in connection to the EAERE conference 24 – 25 June, organized by Dr **Gunnar Köhlin**. Since there were many participants from developing countries special sessions were prepared. The conference was for example extended with a full afternoon of plenary presentations and a panel dealing with the application of environmental economics in developing countries with the following participants: **Dale Whittington**, professor, University

of North Carolina at Chapel Hill, USA: **Ed Barbier**, professor, University of Wyoming: Panel discussion: "The role of environmental economics for implementation of sustainable development" with Dr. **Chantal Line Carpentier**, Sustainable Development Officer, UN Department of Economic and Social Affairs, Dr. **Priya Shyamsundar**, Director SANDEE, South Asian Network for Development and Environmental Economics, Dr. **Kirk Hamilton**, Team Leader, Policy and Economics Environment Department, The World Bank.

### **Workshop on Climate risk, Adaptation and Technology adoption**

This workshop was held 23-24th of January 2009 in Gothenburg. The major purpose of the workshop was to discuss and formulate a joint thematic research agenda on climate, risk and adoption. During the workshop we hope to identify potential future joint research projects and also present our current work in the research proposal. The participants consisted of faculty and PhD candidates from EEU, past graduates from the Sida capacity building program, and international research collaborators from RFF and London School of Economics.

### **UN Expert Group Meeting: Sustainable land management in Africa**

An Expert Group Meeting on "Sustainable land management and agricultural practices in Africa: Bridging the gap between research and farmers" took place in Gothenburg, Sweden, April 16 - 17, 2009. It was co-sponsored by the United Nations Department for Economic and Social Affairs and the Environment for Development Initiative. It was hosted by University of Gothenburg and sponsored by UNDESA and Sida. The meeting focused on how research can be applied to scale up promising Sustainable Land Management technologies, and in particular on how to institutionalize a link between innovation, evaluation of such innovation, and extension services. It had high-level representation from UN, African Ministries of Agriculture, academic institutions as well as international organizations such as World Bank ICRISAT, IFPRI, IIED, ILRI and NEPAD.

### **Launch of The World Bank World Development Report 2010**

The World Development Report is the World Bank's primary annual report. On 15 October 2009, Dr **Kirk Hamilton**, environmental economist at the World Bank and one of the authors, presented this year's report, which focuses on development and climate change, at an open

seminar at the University of Gothenburg's School of Business, Economics and Law. Discussant was Dr. **Martin Persson** from the Environmental Economics Unit, Department of Economics, University of Gothenburg and the Division of Physical Resource Theory, Chalmers. The event was well frequented by academics from the whole university and led to a stimulating discussion on the severity of global warming, the role of the World Bank and the potential for abatement mechanisms.

## Educational Support – Book Support

The objective of the educational support is to strengthen the capacity and quality of environmental economics educational programs in developing countries.

Most of the universities and other institutions in developing countries, which EEU supports and collaborates with, lack useful teaching material and text books. This is a major constraint since many of the participants in the capacity building program are responsible to develop and teach (undergraduate and master) courses in environmental economics at their home departments. EEU has therefore assessed the access to, and demand for, text books in environmental economics.

During report period we have sent a number of books to different recipients. We have concentrated our deliveries to the different EfD centers and also to some strategically positioned universities in countries of cooperation. The full list of receiving institutions:

2007

- Awassa University
- University of Zimbabwe
- University of Cape Coast
- University of Nairobi

2008

- Addis Abeba University
- University of Nairobi
- University of Cape town
- University of Dar es Salaam

2009

During 2009 we received a request from AERC, African Economic Research Consortium, in Nairobi,

Kenya. The list contained mainly textbooks for teaching purposes. The list contained 57 titles and a number of copies for each title. Naturally, we couldn't provide AERC all the requested books, however, we succeeded in obtaining and shipping 7 titles. In addition we shipped 30 copies of Thomas Sterner's book, *Policy Instruments for Environmental and Natural Resource Management* and 30 copies of *Land Markets in Africa*, edited by prof Stien Holden, Keijiro Otsuka and Frank M Place.

## Visiting Researchers

This activity is designed both to enhance and to utilize the research environment at EEU. The environment is enhanced by inviting international scholars to give seminars, provide advice to the PhD candidates and to conduct joint research. It also facilitates promising environmental economists from developing countries develop their research skills at the EEU.

The primary objective is to provide the researcher with a conducive environment so that he/she can develop the necessary research skills and finalize initiated work, in order to publish in refereed international journals as well as to develop new research proposals.

During 2007-2008 the EEU hosted a total of 25 visiting researchers. (A detailed list can be seen in the annual reports for the relevant years). Some have been here for longer periods, up to 4 weeks, and some only for a short seminar session in connection with PhD dissertations.

For **2009** the following visitors was here:

- Martin Dufwenberg, University of Arizona, USA,
- Salvatore di Falco, London School of Economics, UK
- Danny Campbell, Queens University, Belfast, UK
- Dale Whittington, University of North Carolina, Chapel Hill, USA
- David F Layton, University of Washington, USA
- Ann-Sophie Crépin, The Beijer Institute of Ecological Economics, Stockholm
- Adrian Müller, CCRS, University of Zürich, Switzerland
- Shalini Vajjhala, RFF, Resources for the Future, Washington DC, USA
- Ashokankur Datta, Indian Statistical Institute, New Delhi, India

# External knowledge support

The overall **objective** of EEU's *External knowledge support to Sida*<sup>78</sup> is to provide support to Sida in the integration of strategic environmental and climate change concerns in Swedish development cooperation. The work includes: (i) strategic analysis of environmental and climate-change issues in Sweden's national and regional cooperation strategies, (ii) supporting methodological development and providing advice to Sida, (iii) training and communication, and (iv) methodological development in international processes.

In practice it may be difficult to separate these objectives and their associated areas of work. This is however more a difficulty in formal reporting, which needs some degree of separation and structure, rather than a practical difficulty since they often are integrated in practice. For instance, EEU participation in trainings at Sida, e.g. of NPOs (National Program Officers), often involves components of support for cooperation strategy work, training and advice and where we draw on experiences from international methodological work.

The reporting period included new political priorities and offered several opportunities and challenges of which the most important ones were: (i) an increased demand for environment and climate change support and advice due to the Swedish government's identification of environment and climate change as a thematic priority; (ii) many new cooperation strategy processes with a clear division in different categories (such as long-term, selective, and post-conflict cooperation, and EU accession); (iii) a need to communicate more closely with embassies and Sida field representations as well as other donors; (iv) an increased focus on harmonization and alignment including advice on budget/sector/program support; and (v) an increased demand for support to identify environmental indicators to measure and monitor results.

The Environmental Economics Unit (EEU) has responded to these challenges by expanding its capacity for external expert advice. EEU has recruited additional

staff, realigned its focus and priorities in view of the challenges described above, increased its collaboration with international resource persons and institutions (especially among the research institutions, and bi- and multi-lateral aid organizations), initiated dialogue with a large set of actors with Sida's operation and increased its presence at the Swedish embassies. In response to Sida's increased demand EEU has worked in a more process-oriented mode in order to tailor its services and advice appropriately. EEU has also strived to enhance the quality of its advice and external knowledge support. During the report period, EEU has also increased and improved its support to Sida with respect to trainings and communication.

During 2007-2009, EEU has written and communicated a large set statements and formal advice pertaining to Sida's work and various strategic processes (e.g. formulation of strategies, policies, position papers etc.). Most of this work is described in further detail in EEU's quarterly reports (attached), which have been communicated to and discussed with Sida during the reporting period. The tables below summarize EEU's activities, which pertain to external expert advice to Sida during 2007-2009. The following sections provide more detailed information, as well as EEU's quarterly reports (attached, see Appendix 3).

**Number of activities carried out by EEU's expert function during 2007 - 2009**

Activities	2007	2008	2009
Support in Cooperation Strategies	23 (incl. 15 ECCPB*)	22 (incl. 16 ECCPB)	14 (incl. 7 ECCPB)
Support to Methodological development and advice	30	17	30
Training and communication	8	7	20**
Methodological dev. in international processes***	17	17	10

\**Environment and Climate Change Policy Briefs (ECCPB)*

\*\**Including climate change training workshops in Bolivia, Mali, Burkina Faso, Regional Africa (Kenya/Sub-Saharan Africa (REED)) and Cambodia*

\*\*\**Principal collaborating partners: World Bank, OECD DAC, Netherlands Commission for Environmental Assessment, Poverty-Environment Partnership (Dfid, Danida, EU/EC, GTZ, UNDP and UNEP)*

78 This knowledge support is provided by a Sida-funded helpdesk function for environmental economics maintained within EEU. Sida's helpdesk for environmental economics at EEU formally changed its name during the reporting period to "Sida's External Expert Advice for Environmental Economics". In this report we use the more informal denominations EEU's expert advice, EEU's environmental economics expert function, or EEU's expert function, depending on context. Essentially, they all refer to the same function or service provided to Sida.

**Environmental and Climate Change Policy Briefs produced at Sida's request by EEU during 2007 – 2009**

Year	No of Policy Briefs	Countries
2007	15	<i>Albania, Bolivia, Burundi, Guatemala, Honduras, Kenya, Kosovo*, Lake Victoria, Moldova, Montenegro, Rwanda*, Sudan, Tanzania, Serbia*, Uganda</i>
2008	16	<i>Albania*, Botswana, China, DR Congo, Colombia, Ethiopia, India, Indonesia, Kosovo*, Liberia, Namibia, Rwanda, Serbia*, South Africa, Timor-Leste, Ukraine</i>
2009	7	<i>Cambodia, Georgia, Macedonia, Regional Africa, Regional LAC, Turkey, Middle East and North Africa</i>

\*These policy briefs were written during 2007 and complemented with additional information on climate change adaptation during 2008.

## Integration of environment and climate change in Swedish Development Cooperation Strategies

### Objective

The objective of this activity is to enhance the integration of environmental, climate change, and sustainable development aspects in Swedish Cooperation Strategies (CS) in line with the Swedish Policy for Global Development, The Swedish Government's thematic priorities, the Paris Declaration, Accra Agenda for Action and the Millennium Development Goals.

In practice this means that the cooperation strategy process should be well informed about: i) how environment and climate change risks and opportunities impact on poor men and women and the achievement of key national strategies/plans/PRS (e.g. health, poverty, growth), ii) the country's (or region's) capacity to manage these risks and opportunities, and iii) opportunities for Swedish development cooperation to address the challenges.

### Outcomes

A key outcome of EEU's support to Sida has been enhanced integration of environment and climate change issues in a large set of Sweden's development coopera-

tion strategies. This implies that specific issues related to e.g. sustainable use of water, land, forest resources and biodiversity have been addressed in the cooperation strategies. It has also provided an analytical foundation and rationale for Swedish commitments in areas related to environment and climate change - as a cross cutting issue, in specific sector work as well as in program support. Besides this outcome, EEU has arguably also contributed to increased learning on environment and climate change issues within Sweden's development cooperation, and within Sida Operations in particular. Improved knowledge is necessary to empower Sida staff in their roles as analysts, dialogue partners and financiers. The activities which have facilitated these key outcomes are described in the sections below.

### Output

(i) At Sida's request, EEU has provided advice and analytical input in more than 50 country or regional cooperation strategies (including budget support).

(ii) EEU has produced 38 Environmental and Climate Change Policy Briefs or similar documents during the period, as a key component of EEU's advice in Sida's cooperation strategy processes. The Policy Briefs have been tailored the different categories of cooperation strategies including long-term, selective, post-conflict strategies and EU accession countries;

(iii) EEU has also on Sida's demand contributed with expertise and advice as resources persons in regional and country-specific meetings and workshops linked to formulation of cooperation strategies, at Sida in Stockholm, as well as in partner countries (examples include discussions with staff at the embassies in Serbia, Ethiopia, Kenya\*, Mali\*, Burkina Faso\*, Bolivia\* and Cambodia\*).<sup>79</sup>

### Activities

Sida is requested to mainstream environment and climate change in its development cooperation and cooperation strategies. Sida requests EEU to provide analytical input to most CS processes, which usually takes the form of formulating an 'Environment and Climate Change Policy Brief' (approximately 10-20 pages analytical text based on existing analyses, data and sources of information). EEU is also often requested to review and comment on draft versions of cooperation strategies, analyse general budget support (GBS) or Joint Assistance Strategies (JAS), in order to enhance the integration of environmental and climate

<sup>79</sup> The Swedish government's special initiative on climate change created specific demand for training in Bolivia, Cambodia, Mali, Burkina Faso och Regional Africa and was the primary cause of training in these countries.

change concerns into Swedish development cooperation.

The Environmental and Climate Change Policy Briefs are adjusted to the demands identified in respective strategy process and formally agreed in a terms of reference with the responsible program officer. EEU has reviewed and commented on draft versions of Cooperation Strategies on demand, and has strived to feed in best practice from international work on Strategic Environmental Assessment and Country Environmental Analysis into the CS, and participated in selected stakeholder meetings related to key CS processes. EEU has also collaborated with other expert functions (helpdesks) and resource institutions. In particular Stockholm Environmental Institute (SEI) has provided input on climate change but the policy briefs have also benefited from input from the External expert function on Environmental Assessment (EA) and SwedBio at SLU.

EEU has also cooperated with the EFD-centres in China, Ethiopia, Kenya, South Africa, Tanzania and Central America, in a large share of the Cooperation Strategy processes to include additional expertise in EEU's analytical support and expert advice in these processes. Specific examples include the advice provided in Sweden's cooperation strategies pertaining to Africa (regional), Asia (regional), Botswana, Central America, (regional), China, Ethiopia, Kenya, Lake Victoria (regional), Latin America and the Caribbean (regional strategy), Namibia, South Africa, Tanzania, and Uganda.

The sections below describe the Cooperation Strategy processes in which EEU has provided knowledge support during 2007-2009.

#### **Africa:**

At Sida's request the EEU has developed Environmental and Climate Change Policy Briefs or similar analytical documents, and provided written comments to the draft cooperation strategies for: **Botswana, Burkina Faso, DR Congo, Ethiopia, Kenya** (Joint Assistance Strategy, JAS), **Lake Victoria, Liberia, Middle East and North Africa, MENA** (Policy Brief as an input to the regional strategy and a Water Concept Note with focus on assessing the trans-boundary issues), **Namibia, Rwanda, South Africa, Sub-Saharan Africa** (regional and sub-regional development cooperation), **Sudan** and **Uganda**.

Comments on EU's Country Strategy Paper were provided for **Burkina Faso, Ethiopia, Mali, Rwanda** and **Tanzania**.

Budget-support assessments have been provided for: **Burkina Faso, Mali, Mozambique, Tanzania** and **Zambia** (Joint Assistance Strategy, JAS).

EEU has also provided support to Sida's Regional Water Initiative for Southern Africa. Furthermore, EEU assisted the country teams to identify environmental and climate change impact and outcome indicators for the results matrices for **Botswana** and **Namibia**.

#### **Latin America:**

EEU developed Environmental and Climate Change Policy Briefs and/or provided written comments to the draft cooperation strategies for: **Bolivia** (and written comments to a draft report on Politics and Land Tenure), **Central America**, (regional strategy), **Colombia and Honduras** (statement on environmental integration in new draft PRSP), and **Latin America and the Caribbean** (regional strategy). EEU has also provided different types of input, such as background documentation, to regional country strategy-workshops and meetings.

#### **Asia and the Middle East:**

EEU developed Environmental and Climate Change Policy Briefs and/or provided written comments to the draft cooperation strategies for: **Cambodia, China, India, Indonesia, Timor-Leste** and **Vietnam**. In addition, EEU submitted written information on key regional environmental and climate change issues as an input to the regional Cooperation Strategy for **South Asia** and **South-East Asia**.

#### **Europe:**

EEU developed Environmental and Climate Change Policy Briefs for: **Albania, Bosnia-Herzegovina, Georgia, Kosovo, Macedonia, Montenegro, Moldova, Serbia** and **Turkey** and written suggestions for an update of a report on environment and climate change support to **Ukraine**, as well as compiled a written review of environment and climate change issues in Ukraine pertaining to its energy sector.

#### **Lessons learned**

Challenges during the period in EEU's work to support integration of environment and climate change in Swedish development cooperation strategies have been to i) Formulate Environmental and Climate Change Policy Briefs, which are appropriately adjusted to the specific demands and conditions shaping each strategy process; ii) Ensure learning, dialogue and awareness of various opportunities for how integration can be achieved by building on best practice from international work; iii) Extend the use of indicators in the Environmental and Climate Change Policy Briefs into strategy formulation, monitoring and follow-up (and build on work by national

authorities, the World Bank and other international organizations); and iv) Participate in selected stakeholder meetings related to key CS processes;

*Responding to challenges and increased demand from Sida and Swedish embassies:* The Swedish government's identification of 'Environment and Climate Change' as one of three thematic priorities for Swedish development cooperation, and the Swedish Climate Change Initiative implied that EEU during 2007-2009 experienced a growing interest and demand from Sida, including the embassies, for advice and support within this priority area.

EEU has responded to the challenges above and the increased demand by expanding its analytical capacity; by recruiting new highly qualified personnel, by formalizing cooperation with SEI on additional expertise on climate change, by liaising more closely with the Swedish embassies and by conducting a set of training workshops on climate change in several embassies. The environmental policy briefs have also increased its coverage of climate change, including the role of biodiversity and ecosystem services in development. Assignments to EEU have also benefited from EEU's cooperation with the EFD-centers in China, Costa Rica, Ethiopia, Kenya, South Africa and Tanzania.

*Adjusting EEU's analytical support to specific needs and demands:* During the period a large number of new cooperation strategy processes (31 national, 6 regional processes) were initiated and the demand for analytic input from EEU has been larger than expected, especially related to selective cooperation strategies (Botswana, Namibia, India, China, Indonesia, etc). The different categories of strategy processes require a somewhat different approach, and flexibility regarding the support and analytical advice. To exemplify: most of the selective CS have identified environment and climate change as a priority for the Swedish support, which generally requires deepened understanding of the issues at hand. Based on a dialogue with Country Teams EEU has therefore tailored its support to specific requests, for instance the wish to focus on energy and energy efficiency in the case of (the cooperation strategy for) Ukraine and the links with environment and climate change, or the specific request for indicators on environmental and climate change to feed into the results matrix in the cooperation strategy for Namibia.

*Focusing more on the need for communication and dialogue on environment and climate change:* EEU has increased its efforts to enhance communication with Sida and the field representatives, and follow-up on assignments, in order to promote Sida's internal capacity development as well as the integration of environment and climate change into cooperation strategies. The Policy Briefs are not only a document but also brings up opportunities for discussion and learning. EEU has presented the Environmental and Climate Change Policy Briefs at country meetings (e.g. DRC and India), at embassies (e.g. Ethiopia) or at telephone meetings with Embassy and Sida representatives. EEU has on several occasions participated at CS writing-workshops to support country teams and assist in integrating environment and climate change issues in a large set of cooperation strategies. Our experience from these contacts is positive. They have contributed to increased knowledge and awareness of the importance of environment and climate change for countries' development – risks as well as opportunities.

## Methodological Development and Advice for Sida

### Objectives

Objectives of this activity are to i) support Sida's development of methods and tools for integration of environmentally sustainable development aspects in Swedish development cooperation; and to ii) contribute with environmental economic advice, on Sida's demand.

The support in methodology development has focused on providing advice and submission of analytical background documents in key strategies, policies and position papers developed by Sida. Examples of such policies or strategies in which EEU has been involved include migration, trade, economic growth, environment and climate change. Other areas of work where advice and/or analyses have been provided include environmental capacity building in partner country institutions, climate change integration, the role of aid for financing environment and climate change, environmental and climate change mainstreaming, environmental indicators and results matrices. The focus of the support is typically at the strategic levels, including macro-, national-, sector- or occasionally program levels.

## Outcomes

A principal outcome of EEU's advice and support to Sida's methodological development has been improved methods, procedures and approaches used by Sida with respect to integration, or consideration, of environment and climate change issues in formulation of policies, strategies and various positions (e.g. statements in position papers), and enhanced learning and knowledge on these thematic issues within the organisation. Another important outcome of EEU's support to Sida is improved feedback given by Sida to important international processes and work on methodological development, e.g. the World Bank Environmental Strategy, EU Environmental strategy etc.

Regarding indicators, two major outcomes are identified: EEU has contributed to (i) Sida's methodological development aiming at increasing the level of integration of environmental and climate change aspects in results-based management; and (ii) better informed results matrices, both for environment as a sector but also for environment and climate change as cross-cutting issues, in specific cooperation strategies. The dialogue with Sida country teams has been a good entry point for capacity development of results-based management and linkages between Sweden's three thematic priorities.

## Outputs

- (i) Advice in Sida's formulation of a new strategy on economic growth and development. As part of this support, EEU authored and submitted at Sida's request the report "Economic Growth, Environment and Climate Change";
- (ii) Background report to inform Sweden's new environment and climate change policy "Swedish Bilateral Support to Environmental Capacity Development – Overview of Key Results and Lessons Learned", Background report to inform Sweden's new environment and climate change policy: "Old, New and Future Funding for Environment and Climate Change – the Role of Development Cooperation";
- (iii) Draft guidelines for Environmental and Climate Change Analysis (ECCA), which constitutes one of the four thematic legs of Sida's Integrated Development and Poverty Analysis. These have been presented in several seminars at Sida and been developed in a consultative way across the organization;
- (iv) Systematic review of the level of environmental and climate change mainstreaming in current Swedish cooperation strategies;
- (v) Support to Sida's measuring of results in the area of

environment and climate change. The most tangible output is the draft "Guidance on environmental and climate change indicators for cooperation strategies", where relevant, measurable and internationally accepted environmental and climate change indicators are identified for each of Sida's sectors. Related outputs include identification of environmental and climate change indicators proposed for specific results matrices (e.g. Georgia and Ukraine), or the actual development of results matrices (Namibia and Botswana).

(vi) Report on environmental impact and outcome indicators. EEU has also assisted the country teams of Namibia and Botswana to develop indicators for their respective results matrix.

(vii) New EEU internal guidelines on 'How to do an Environment and Climate Change Policy Brief', and improved integration of climate change adaptation and disaster risk reduction in EEU's analytical input to cooperation strategies.

## Activities

During the period a large set of activities on methodological development and advice were conducted for Sida.

### **Analytical support in Sida's methodology development:**

Based on requests by Sida, EEU has formulated analytical background documents for Sida's development of guidance for the Environment and Climate Change Analysis (ECCA), which constitutes one of the thematic parts of Sida's Integrated Poverty and Development Analysis. At Sida's request EEU has also developed and proposed a draft annex on Environment and climate change to the Integrated Economic Analysis.

### **Integration of environment and climate change in aid instruments:**

EEU has also contributed to improve Sida's integration of environmental and climate change concerns in strategic aid instruments such as budget support, sector program support (SWAPs) and dialogue vis-à-vis partner country governments, and methods for monitoring and improving results, by providing analytical background documents and written advice.

### **Knowledge support in the formulation of a new Swedish environment and climate change policy for development cooperation:**

EEU has provided expert advice in Sida's development of a new Swedish environment and climate change policy. Examples of such support include the development of an Environment and climate change financing study, which was developed at Sida's

request with the aim of informing Sida's policy development work ("Old, New and Future Funding for Environment and Climate Change – the Role of Development Cooperation"). The study was communicated to Sida's reference groups on the policy and disseminated during a Swedish side event at COP15 in Copenhagen in Dec 2009. EEU was also part of the reference/expert group to the Policy and provided advice and expert comments during the process of formulating the new Policy.

### **Review of the results and lessons learned from Swedish support to environmental capacity development:**

At Sida's request EEU analyzed 10 Swedish support programs to environmental ministries and agencies in partner countries. The report served as an input to Sida's results reporting (Resultatrapportering) for 2009 and for the new Swedish environment and climate change policy for development cooperation.

**Expert advice on global reports:** During the period EEU has provided written comments, advice or acted as panelists on a set of reports of global importance. Examples include the IMF/the World Bank's 'Global Monitoring Report 2008', the World Bank's World Development Report (WDR) 2008 and WDR 2009, FAO State of Agriculture 2008, assistance to Sida in preparations of the High-level Forum in Accra. Detailed information on all activities is presented in EEU's quarterly reports (attached see Appendix 3).

**Knowledge support in measuring results:** Responding to an increasing demand from Sida Operations on how to measure results, EEU has been supporting Sida officers in the process of developing results matrices and indicators. After EEU assisted the teams of Botswana and Namibia to develop results matrices to their cooperation strategies, EEU drafted a Guidance note on environmental and climate change indicators for cooperation strategies, where environmental and climate change indicators are identified for each of Sida's sectors (Health; Education; Research; Democracy, Human Rights and Gender Equality; Conflict, Peace and Security; Humanitarian Aid; Sustainable Infrastructure and Services; Market Development; Environment; and Agriculture and Forestry). The process has been participatory and consultative and several meetings have been held at Sida Stockholm where the issues have been discussed.

### **Lessons learned**

Changed political priorities and the re-organization within Sida have somewhat altered the prioritization of EEU's

activities related to methodological development during the report period. Some processes, such as the Environment and Climate Change Analysis within Sida's Integrated Poverty and Development Analysis ECCA, have been postponed while other activities such as methodological development around climate change adaptation (specifically related to the Swedish 'Climate funds'), and results-based management (including indicators) have been given high priority and raised demands for analytical support. The increased demand from the embassies for training, particularly related to climate-change adaptation, has emphasized the need for trainings that are demand-driven and flexible with respect to the specific needs, harmonized to activities of other donors and aligned with partner-country needs (subject to cost-effectiveness and efficiency).

During the reporting period there has been an increasing focus on results in development cooperation, and how to measure these results. As indicated above, EEU has been involved in Sida's work to develop results-based approaches with a focus on identifying environmental and climate change indicators, which may be relevant and useful for Sida's cooperation strategies. EEU's support was initiated by an explicit need in several country and regional teams for knowledge support and analytical guidance on how to measure results. Apparently, the country teams have a great demand and urgent need to find relevant, measurable and accessible indicators, not least for Sweden's three thematic priorities. The challenge to respond to these needs is related to timing: although the need is felt urgently, a joint guidance for measuring results of the three thematic priorities is not yet available. The process of developing a joint guidance, in which the environmental and climate change indicators shall be merged with indicators related to gender equality and democracy and human rights, is slow as it requires coordination, consultation, and that the process advances with uneven speed at different thematic policy units.

## Training and Communication

### **Objective**

General objectives of this activity are to enhance Sida's knowledge of (i) how environmental economics, and environment and climate change issues are linked with key aspects of development (e.g. poverty, health, etc.) and development cooperation, and (ii) how strategic environmental analysis can be used to contribute to improve

Sida's work. An operational objective is therefore (to use trainings and communication as means) to support Sida's integration of environmental and climate change issues at national, sectoral and program levels.

### Outcomes

A key outcome of EEU's support to Sida on training and communication has been an increased capacity to conduct trainings of Sida staff on environment and climate change issues, sustainable development cooperation and the role of natural resource in low-income countries' development. Another outcome is an increased capacity among Sida staff to integrate environment and climate change in their work – strategy and policy formulation as well as in operations (project and program development and follow-up, dialogue etc.).

### Output

- (i) A draft training module on environment and climate change for field missions and Sida headquarters, developed in cooperation with the EA helpdesk and SwedBio based on Sida's request;
- (ii) Training materials submitted in connection with trainings (powerpoint-files, print outs, background and reading materials, etc.);
- (iii) Travel reports submitted to Sida on key findings and conclusions from international processes, trainings and workshops;
- (iv) Circulation and alerting Sida staff of research studies and other reports, which are relevant and potentially useful in Sida's operations or policy work;
- (v) Coaching (minutes, agreed actions) of program officers in Embassies in Bolivia, Africa (REED, Kenya), Mali, Burkina Faso, and Cambodia;
- (vi) Updated e-learning course and evaluation of e-learning module, with very positive feedback from respondents.
- (vii) Three Helpdesk annual reports, nine quarterly reports and minutes produced by EEU from meetings between Sida and EEU; all submitted to Sida.

### Activities

EEU has pursued several training and communication activities during 2007-2009 with the purpose of improving learning within Sida and among partner countries, and increase capacities to integrate strategic environment and climate change aspects in Swedish development cooperation.

**Integration of climate change adaptation:** EEU has communicated closely and regularly with Sida staff in the

Policy pillar as well as in Operations on how to integrate environment and climate change adaptation in Swedish development cooperation. Specific activities which exemplify this integration work are EEU's participation as subject matter specialists in the development and implementation of a training on environment and climate change in Bolivia; and developing and conducting trainings (including training modules and information material) on climate change integration and adaptation for country teams in Mali, Burkina Faso, Kenya, Regional Africa and Cambodia.

**Development of website:** In order to provide Sida and others with high quality information on tools/policy instruments, approaches and processes related to integration of environment and climate change in development cooperation, EEU has been regularly updating its website ([www.handels.gu.se/eeadvice](http://www.handels.gu.se/eeadvice)).

**Increased communication with embassies/field missions:** in response to an increased demand, but also in response to recommendations in the evaluation of EEP by Johan Holmberg (2006), EEU has increased its efforts to liaise with embassies/field missions to inform personnel and discuss environmental and climate change issues of strategic concern and SEA on policy level issues. Examples of this include participation at NATUR/RRD's regional meeting in Uganda; meetings with country teams in client countries (e.g. China, Ethiopia, Kenya, Bolivia, Cambodia, Mali, Burkina Faso) or at Sida headquarters as part of Sida's 'cooperation strategy writing workshops' (skrivardagar).

**Advice and presentations in Sida seminars and conferences:** At Sida's request, EEU has several times participated as experts or resource persons (panelists, discussants, presenters, key note address etc.) at seminars or conferences organized by Sida. Examples during 2007-2009 include presentation and expert comment on IMF/World Bank presentation of Global Monitoring Report (2008), World development Report (2008, 2009), The State of Food and Agriculture (FAO, 2007), resource person at Sida's annual conference on economic growth ("Sidas tillväxt dagar"), Economic growth and sustainable use of natural resources (Sida's network days, 2009), seminar on environmental capacity development (based on EEU's report "Swedish Bilateral Support to Environmental Capacity Development: Overview of Key Results and Lessons Learned" (available at: [www.hgu.gu.se/item.aspx?id=9850](http://www.hgu.gu.se/item.aspx?id=9850)), and UTSAM days 2009 etc.

**Contributions to Sida's e-learning on environment and climate change:** EEU has provided updated information to Sida's e-learning material related to climate change adaptation, after request from Sida. Connected to this task was EEU's mapping of other donor agencies' capacity

development activities (report available at: [www.hgu.gu.se/item.aspx?id=9850](http://www.hgu.gu.se/item.aspx?id=9850)), which provided an important input to Sida's own trainings and thinking on how to use trainings to improve Sida's operations.

### Lessons learned

During 2007-2009, EEU has experienced an increased demand for trainings and workshops at embassies/field missions. Careful design of the training to adapt to the country teams' demand is time consuming but necessary for successful outcomes. Coaching has emerged as an important part of training sessions. Coaching has been well received but requests for support after trainings have been limited. Possible explanations may be that i) program officers lack sufficient needs or requirements for such follow-up support; ii) they lack the time or means to request assistance; iii) they do not find assistance useful or iv) they forget that the opportunity exist.

EEU has also experienced an increased demand for information on climate change in developing countries and, specifically, how climate change adaptation can be addressed in development cooperation. In response to this, EEU has worked closely with Sida on how best respond to this demand. At the general level EEU has worked mainly with the Environment and Climate Change Team, and specifically with individual country teams and program officers. The networks have emerged as an opportunity to improve sharing of information (on environment and climate change), strengthen capacity, increase collaboration across country teams and thematic themes on this issue. Challenges in this area are how to enhance the integration of environmental and climate change issues in practice (i.e. in Sida's operations; integration in background documents, strategies, policies etc. is basically adequate), and increase the practical collaboration on these issues with other donors in the spirit of the Paris declaration and Accra Agenda for Action. Specific activities may be to conduct/improve evaluations, sector program support, dialogue with partner government, and trainings *jointly* with other donors and partners.

## Methodological Development in International Processes

### Objective

The main objective of this area of work is to follow and actively contribute to the international development of methods and tools to enhance the integration of environmental and sustainable development aspects in strategic policy and planning processes relevant to development cooperation.

### Outcomes

Principal outcomes of EEU's support to methodological development in international processes are contributions to i) enhanced harmonization among donors on integration of environmental and climate change issues in development cooperation; ii) to environmental economics perspectives and Swedish experiences to the joint work of bi- and multi-lateral donors; iii) improved understanding among these donors of the potentials for using economics (analysis, arguments) to strengthen the demand for sectoral cooperation and improved management of environment and natural resources; iv) learning and understanding of possibilities for better environmental outcomes through strengthening (environmental) institutions in strategic planning and decisionmaking; and v) strengthened collaboration between Sida and Swedish EPA through greening development planning, facilitated by a review of country case studies for making the economic case for improved management of environment and natural resources.

### Outputs

(i) "Conceptual Analysis and Evaluation Framework for Institution-Centered Strategic Environmental Analysis"; report produced within World Bank pilot program on Institution-Centered SEA; Authors: Daniel Slunge, Sibout Nooteboom, Anders Ekbohm, Geske Dijkstra and Rob Verheem. Accessible at: [www.hgu.gu.se/item.aspx?id=18886](http://www.hgu.gu.se/item.aspx?id=18886).

(ii) OECD report on "Greening the Development Planning – Making the Economic Case for Improved Management of Environment and Natural Resources". Authors: Olof Drakenberg and Emelie Dahlberg, Jessica Andersson, Sandra Paulsen, Kristoffer Darin Mattsson, Elisabeth Wikström. Accessible at: [www.hgu.gu.se/item.aspx?id=19542](http://www.hgu.gu.se/item.aspx?id=19542)

(iii) Contributions in "Natural Resources and Pro-Poor Growth. The Economics and Politics". DAC Guidelines

and Reference Series, OECD, 2008. Accessible at: [www.hgu.gu.se/item.aspx?id=9850](http://www.hgu.gu.se/item.aspx?id=9850)

(iv) “Strengthening the Capacity of Donor Agency Staff to Face the Climate Change Challenge within the Framework of Environmentally Sustainable Development – Mapping of Donor Agency Training Initiatives on Climate Change”; Authors: Emelie Dahlberg and Olof Drakenberg; Accessible at: [www.hgu.gu.se/item.aspx?id=18885](http://www.hgu.gu.se/item.aspx?id=18885)

(v) Travel reports and reports from seminars and discussions with PEP, EU, the World Bank and other EEU collaborators relevant to Sida.

## Activities

### Advice and follow up of World Bank-Sida Trust Fund

**Strategic Approaches to Environment and Development:** EEU has established and developed a working relationship with the World Bank and formalized the collaboration in a letter of agreement. As part of the collaboration EEU has obtained and conveyed information on progress, and facilitated feedback, to Sida in terms of seminars (e.g. on Institutions-centred Strategic Environmental Assessment, SEA) and in discussions and methodology development work (e.g. Environment and Climate Change Analysis).

**Methodological development of Institution-centred SEA in development cooperation.** The largest item of the World Bank-Sida trust fund is a pilot program on how SEA can be applied at the policy level, or Institutions-centred SEA in development cooperation. In late 2006 Sida, the World Bank, Sida and EEU decided that EEU would play an active role in the program in order to contribute to the methodological development and bring lessons learned back to Sida. EEU was Team Leader for an international group of resource persons to develop a conceptual framework and guidance for performing Institution-centred SEA in development cooperation. This analytical background work guided subsequent evaluations of Institutions-centred SEA pilot studies in several developing countries in the World Bank program. The work is expected to be used on a broader scale in World Bank operations and may be useful to a larger set of bi- and multilateral donor organisations, including Sida, and developing country governments (see also Strategic Environmental Assessment, page 14).

**Implementation of SEA in Development cooperation:** EEU has contributed to the general objective of implementing OECD DAC’s “Applying Strategic Environmental Assessment: Good Practice Guidance for Development Cooperation” (OECD, 2006) through its work on

implementing national level SEA within Sida’s development cooperation, for example through our Environmental and Climate Change Policy Briefs. Different donors’ (including Sida) experiences are fed back into the OECD DAC’s SEA Task Team, shared and discussed between the participating organisations. As part of this work EEU has also supported the EA Helpdesk to comment on OECD DAC’s Advisory Notes SEA and Climate Change, and SEA and Ecosystem Services.

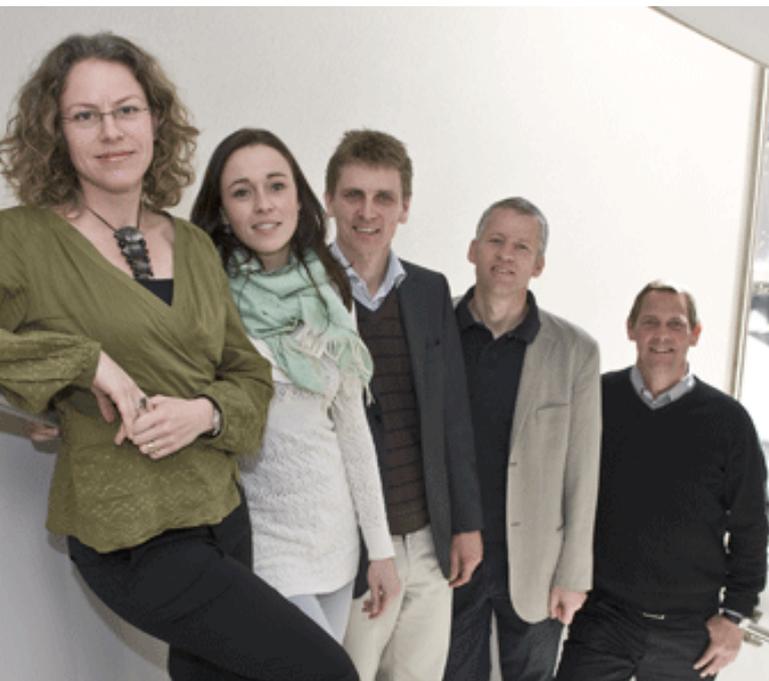
**Joint analytic work on environment and climate change at the country level.** EEU has contributed to sharing and making use of country-level analytic work among multi- and bilateral development agencies. As part of this effort EEU led a sub-working group within Poverty Environment Partnership to increase harmonization and participated as a resource to Sida workshops organized by the World Bank and OECD, with the aim of increasing the usability and harmonisation of country-level analytic work.

### OECD EPOC/DAC Integration of natural resource management into development policies and plans.

At Sida’s request the EEU has contributed to joint donor work pursued within OECD EPOC/DAC on natural resources and governance, particularly through leading the analytical work and authoring of the report “Greening the Development Planning – Making the Economic Case for Improved Management of Environment and Natural Resources”. Among others, EEU has collaborated closely with Swedish EPA and Sida in this work which has contributed to fulfill Sweden’s Policy for Global Development. EEU has also participated in meetings of OECD DAC/EPOC Task Team on Climate Change Adaptation, and provided comments to the OECD document on this theme and conveyed relevant information from this work to Sida. EEU has also acted as an expert representative of Sida in this and other task teams of OECD DAC.

**Poverty Environment Partnership (PEP):** At Sida’s request, EEU has regularly participated in PEP-meetings including chairing sessions, contributing to planning of sessions (e.g. Copenhagen- joint analytic work, Malawi-green economy), and follow up.

**Maintain contacts with WWF/Macro-Economics Program Office (MPO):** EEU has maintained contacts with WWF/MPO to follow up on Sida’s support to WWF and generally identify results and conclusions useful for Sida and EEU’s advice to Sida. This pertains for instance to WWF/MPO’s work on sustainable agriculture, which draws experiences from country case studies in Africa and Asia and sharing of information on sustainable (conservation) agriculture which fed into the UN Expert Meeting



*EEU's expert function: Gunilla Ölund Wingqvist, Emelie César, Daniel Slunge, Olof Drakenberg, and Anders Ekbohm.*

on Sustainable Agriculture, which was organized and hosted by EEU in April 2009 in Gothenburg, in which Sida also participated.

### Lessons learned

Harmonization is a critical component of aid effectiveness. Participation in international fora for methodological development is essential to increase harmonization but also for learning and sharing of information that helps improve Sida's work. Although harmonization at the head quarter level is important it is insufficient to change practices on the ground. An important challenge is thus to increase harmonization and alignment (among donors) in partner countries. Sector working groups are thus a key resource to address environment and climate change given their cross cutting character.

Contributing to international methodology development and analysis is thus a means to enhance integration of these aspects in sectors and to stimulate country demand for improved management. Even though the sharing of information and joint analytical work is increasing there are a number of barriers limiting this process. Multilateral institutions often have rigorous guidelines that limit their flexibility.

## Capacity, Management, Institutional Setting and Capacity development at EEU's expert function

In order to meet development challenges and demands from Sida, EEU has developed its expertise to offer advice in planning and strategic decision-making in Swedish development cooperation over the report period.

In 2007 EEU allocated 3 staff for external expert advice to Sida. In 2009 EEU's expert function employed 5 staff (corresponding to approximately 4 full-time positions). The increase is a response to increased demand from Sida and the political ambition to prioritize environment and climate change in Swedish development cooperation. EEU's advisory staff have on average 10 years experience from developing countries, Swedish and international development cooperation, post-graduate degrees (including PhD) in environmental economics, environmental science and/or development economics. EEU's expert function has first-hand access to international expertise and researchers on issues such as climate change adaptation, environmental economics valuation, environmental economic policy instruments, sustainable natural resource management, and the economics of forestry, agriculture, fisheries, pollution and resource use. Moreover, EEU's expert function has more than 15 years of working relationship with the World Bank on environmental economics issues.

EEU's expert function also possesses long experience from working in consultative ways with government agencies, ministries and civil society in Sweden as well as internationally. Furthermore, the EE expert function has gained substantial experience from work with international organizations such as the World Bank, EU, OECD DAC, the UN system (UNEP, UNDP) and bilateral development cooperation agencies and NGOs such as WWF, World Resources Institute and IUCN.

The expert function is an integrated part of the Environmental Economics Unit (EEU) at Department of Economics, University of Gothenburg which includes around 15 senior environmental economics researchers with PhDs including four full professors. The expert function draws from this expertise in its work. Besides the knowledge possessed by EEU's expert function staff, its work is founded on research-based expertise in environmental and natural resource economics offered by the Unit's staff and the wider network of researchers in developing countries e.g. the collaborating research centers

supported by Sida in the Environment for Development (EfD) Initiative ([www.environmentfordevelopment.org](http://www.environmentfordevelopment.org)).

Besides unique in-house expertise, EEU's expert function increasingly integrates and coordinates its work with other Sida-supported external expert functions, notably the EA Helpdesk/Expert functions, Swedbio and SEI, but also to a varying degree other external expert functions (gender, fisheries, conflict etc) and resource institutions. Several joint trainings have been conducted (e.g. climate change in development cooperation-trainings in Mali, Burkina Faso, Kenya and Cambodia) and joint statements on reports (e.g. on World Development Report 2010). Collaboration with SEI has been formalized in an agreement and joint work responsibilities. Furthermore, EEU's expert function has increasingly developed its working relationships with Sida teams (operations as well as policy teams) including embassies and field offices in order to intensify the efforts to address key environmental issues. EEU's expert function has continuously increased its coordination and work with other actors in order to facilitate the effective integration of environment and climate change issues in Swedish development cooperation.

Key administrative and management activities of EEU's expert function during the period have been to i) develop internal tools for quality assurance, strategic planning, reporting, and follow-up; ii) develop good and efficient human resources management practices including performance appraisal and team work; and iii) to develop the capacity through trainings and continued and improved access to national and international expertise;

Key challenges during the reporting period for EEU's expert function to remain a credible and efficient institution include (i) demand for its services and adequate funding; (ii) sustained ability to attract competent staff; and (iii) continued competence development and maintaining good working relations with key networks; and (iv) relevant and cost-effective systems for planning, follow up and knowledge management.

In order to achieve successful outcomes, guiding principles for EEU's expert advice to Sida during the reporting period has been to i) provide services which are well received by Sida as expressed in formal evaluations and ongoing informal evaluation calls; ii) recruitment and capacity development of staff that meet Sida's needs of EEU's external knowledge support; iii) planning, reporting, and monitoring of results which are useful management tools for decision making; and iv) enhanced capacity to analyse, communicate and support integration of environment and climate change issues of strategic concern in Swedish development cooperation.

## Publications

Substantial reports which have been written and communicated by EEU as part of its external expert advice to Sida during 2007-2009 include the following:

- Evaluation of the Rapid Integrated Strategic Environmental and Social Assessment of Malawi Mineral Sector Reform (2009)
- Old, New and Future Funding For Environment and Climate Change – The Role of Development Cooperation (2009)
- Review of Sida support to Environmental Capacity Development, draft (2009)
- Guidance – Environmental and Climate Change Indicators for Cooperation Strategies, draft (2009)
- Conceptual Analysis and Evaluation Framework for Institution Centered Strategic Environmental Assessment (2009)
- Mapping of Donor Agency Training Initiatives on Climate Change (2009)
- Guidance on Environment and Climate Change Analysis in Sida's Integrated Poverty Analysis (2009)
- Environment and Climate Change Financing and the Role of Development Cooperation (2009)
- Sida Bilateral Support to Environmental Capacity Development – Overview and Lessons Learnt (draft) (2009)
- Greening Development Planning: A Review of Country Case Studies – A Review of Country Case Studies for Making the Economic Case for Improved Management of Environment and Natural Resources (OECD DAC) (2008)
- OECD DAC Natural Resources and Pro-Poor Growth (contribution to) (2008)
- Integrated Economic Analysis – Mali (2008)
- Guidance on Environmental and Climate Change indicators for Cooperation Strategies (2009)
- Economic Growth, Environment and Climate change (2008)

# Dissemination and communication

The overall objective of EEU's research communication is increased use of environmental economics in policy making processes aimed at facilitating poverty alleviation and sustainable development. We must ensure that research results are spread within the research community and communicated to areas of society where the findings can be used, for example within policy making and education. Communicating research to the media and the public is also important.

Presenting research to a wider audience is important for decision making as well as for democratic reasons. *Policy briefs* are short documents that present findings and research based recommendations to non-specialist readers. If carefully designed, policy briefs are one of the most effective tools that can be used for communicating research to policymakers, according to findings from the Overseas Development Institute, one of UK's leading think tanks on international development issues. We train our PhD students in writing effective policy briefs.

However, to influence policy we must also engage with the media, and try to seize different opportunities to participate in meetings and seminars with non-experts, and in popular science events. Popular science communication and working with the media boost the public profile of our research unit and raises both the personal profile of individual researchers and the profile of our discipline. The improved profile in turn establishes a reputation for policy advice – and maintains the reputation of our researchers as key sources of credible information. For policy makers and politicians, a piece of research may only become “real” once it has appeared in a newspaper. Another reason to engage with the media is that research articles that are followed by a press release, or that are written about in the popular press, are more cited in other scientific journals.<sup>80</sup>

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<sup>80</sup> Press-released papers are more cited in other scientific journals: Scientific articles that had been followed by a press release had more than twice the chance of being cited in other scientific journals. Press-released papers are more downloaded and cited. *Tob. Control*, Feb 2007; 16: 71

Importance of the lay press in the transmission of medical knowledge to the scientific community: Researchers are more likely to cite papers that have been published in the popular press. Research articles that had been covered by the *New York Times* received 72.8 percent more scientific citations in their first year of publication than control articles, i.e., articles not reported in the newspaper. Importance of the lay press in the transmission of medical knowledge to the scientific community. *New England Journal of Medicine*, Oct 1991, nr16, Volume 325:1180-1183

## Communication within the research community

Sida's support to the Environmental Economics Unit (EEU) has been a long-term investment in an academic environment. Over a period of 20 years the combination of the PhD program and the research support has created an unusually conducive environment for research collaborations and international academic publications. The studies funded through this project have been described in Section 2 of the report. We also present in Appendix 2 lists of both the Peer-reviewed publications and Working papers for the period 2007-2009 by the EEU. As can be seen it is a substantial number of publications, however, not all of them are fully or partly Sida-funded. In order to highlight the importance of the Sida-support to the formation of this capacity we have indicated in bold those persons that have been financially supported by this Sida project. These are, apart from our PhD students, most of our professors, researchers and supervisors.

Information to the research community is mainly disseminated through the publication of research results first in working paper series and then in international scientific journals. The department working paper series (<http://swopec.hhs.se/gunwpe>) is linked to the RePec (<http://repec.org/>) initiative, a collaborative effort of departments all over the world to enhance the dissemination of research in economics. Since 2008, we have also been using the website of the Sida-supported Environment for Development initiative (Efd) to publish papers when appropriate ([www.efdinitiative.org](http://www.efdinitiative.org)).

The EEU takes an active part in relevant Swedish and international workshops, seminars, scientific conferences, and other meetings. From 2007 to 2009, our researchers attended and presented at around 70 workshops and conferences. The rationale for EEU's active outreach and presence in international forums relates to our need to obtain research knowledge and information on key international processes, and the need to disseminate our own information on EEU's activities among our counterparts and peers, particularly in the areas of environmental economics, sustainable development, and strategic environmental assessment.

Our researchers also give advice to organizations and board meetings (see examples listed in Appendix 5), and we actively provide literature and reports to relevant recipients.

### Websites as a communication tool

The EEU website [www.handels.gu.se/econ/eeu](http://www.handels.gu.se/econ/eeu) serves as a window to the Environmental Economics Unit, the PhD program, the specialization courses, Sida's External Expert Advice for Environmental Economics, and the individual researchers and their publications. We continuously post material on the EEU and EfD websites, of which the latter connects to our important EfD partner Resources for the Future in Washington DC.

Based on the EfD website, we produce a monthly newsletter with the latest research publications and news. The newsletter is sent to around 1,200 recipients who are active in the field of environment and development around the world.

To meet the demand for information on training and research opportunities, we use the EEU website. We also use the regional networks (LACEEP, EEPSEA, CEEPA, and SANDEE) to spread information about the PhD program.

In 2009, we added an alumni site to the EfD website, which enables alumni who have taken specialization courses or completed their PhD in environmental economics at the EEU, to be visible with their contact information on the Internet. In addition, our PhD students and graduated PhDs who collaborate with an EfD center can have their own individual web page on the EfD website, which significantly increases their visibility internationally.

In 2007, we intensified our efforts to write and publish news items, press releases, and information on upcoming events. We also started to carefully keep track of the presence of EEU in the media. *All* items published 2007-2009 are of course available on the websites. The 110 news items can be retrieved via the link [www.handels.gu.se/econ/eeu/news-events](http://www.handels.gu.se/econ/eeu/news-events), the 40 items of media coverage via [www.handels.gu.se/econ/eeu/eeu-in-media](http://www.handels.gu.se/econ/eeu/eeu-in-media), and the 26 press releases via [www.handels.gu.se/econ/EEU/pressreleases](http://www.handels.gu.se/econ/EEU/pressreleases). *Some examples* are listed in Appendix 5.

In 2007, we also began updating the general information about the unit and our research.

### Presenting research to a broad audience

From 2007 to the present, we have intensified our research communication targeted to people outside the research community. To ensure that our research findings reach decision makers and the general public, we produce EfD policy briefs (available at [www.efdinitiative.org/research/policy-briefs](http://www.efdinitiative.org/research/policy-briefs)) and press releases.

Communication of research is an important part of the PhD program. Since 2007, press releases have been

produced and distributed for all dissertations in environmental economics at the department. The press releases target the media as well as groups and relevant individuals within academia and the policy community, including Sida. Press releases are also written about other research matters.

We work with the Swedish Research Council's media service, Expertanswer, to channel daily questions from journalists looking for the right expert to interview and to disseminate our press releases. We collaborate with the University of Gothenburg's Information Office to get press releases posted on international online news services such as the American EurekAlert, the British AlphaGalileo, and the German IDW. Our press releases targeting Swedish media are written in Swedish, but also English versions are posted on our website, and sent to the international news services.

In addition to giving journalistic interviews, our researchers attend and speak regularly at different meetings and popular science events; see examples listed below.

To improve communication skills among the researchers, we train our PhD students in communication and presentation techniques, and in writing policy briefs. For the latter, we use of course our positive experiences of working with policy briefs within the EfD initiative. Since the fall of 2009, the training in communication and presentation techniques has been included in the program for PhD students enrolled in 2008 or later. A thorough course evaluation proved that the students found the course highly valuable – useful, fruitful, and fun. They also felt that the timing of the course was good. As an exception, the course will be given in 2010 to students who enrolled as early as in 2006; yet in the future it will be given to PhD students in the beginning of the program. The one-and-a-half-day seminar, with both theoretical and practical parts, has been held by an external expert in communication, Erik Mattsson (Ordrum).

General information on our programs, research, and network is available in printed form and on our websites. An information brochure on the Environmental Economics Unit (available as pdf at [www.hgu.gu.se/Files/nationalekonomi/EEU/EMEFolder080617.pdf](http://www.hgu.gu.se/Files/nationalekonomi/EEU/EMEFolder080617.pdf)) was produced in 2008. (A number of copies of the EEU information brochure have been sent to Sida, together with an information leaflet specifically about the EfD, produced in 2007.) For the EAERE conference 2008, we also produced roll banners. On demand, we have submitted contributions of our program to the annual reports of the Beijer Institute of Ecological Economics and to the University of Gothenburg Sustainability Report.



*Studio Ett, the Swedish Broadcasting Corporation's news magazine, broadcasted live from the EAERE conference 2008, allowing Edwin Muchapondwa, Thomas Sterner, and Christian Azar to be heard on the air.*

### **The EAERE Conference 2008 – an opportunity for outreach**

A result of the EAERE conference in 2008 was that our research was communicated both within and outside the scientific community.

Over 650 persons from 52 countries attended and 483 papers were presented at the 16th Annual Conference of the European Association of Environmental and Resource Economists (EAERE). The conference was hosted by the Environmental Economics Unit and Professor Thomas Sterner, President of EAERE 2007-2009, on 25-28 June 2008 at the School of Business, Economics and Law, University of Gothenburg. The annual EAERE conference is one of the most important meeting opportunities for environmental economists from around the world. In 2008, the conference was open to all topics within the field, but had a special focus on climate change and environmental issues in developing countries.

Two pre-conferences were held as well. One focused on environment and development and was organized by Dr. Gunnar Köhlin on 24-25 of June. The other pre-conference, arranged by Dr. Åsa Löfgren and the research program CLIPORE, concerned the climate and was called "Critical Aspects of the Post 2012 EU Climate Policy." The pre-conferences were great opportunities to

meet in smaller interest groups before the main conference started. Since we had a very large group of participants from developing countries, we used this opportunity for networking between the various regional networks and the EFD initiative supported by Sida. In addition, administrative meetings were held with representatives from EEU in Gothenburg and Sida staff, making optimal use of the presence of so many good environmental economists from developing countries.

### **Stipends for EAERE 2008**

One of the ambitions with EAERE 2008 was to reach out to a wider audience, including economists in developing countries, Eastern Europe, and USA. Two agencies enabled us to offer grants to students from the first two categories. The European Environmental Agency (EEA) financed six stipends for students from Eastern European countries, and Sida financed 55 stipends for participants from LDCs. Each stipend covered the conference fee, travel expenses, and accommodations. The following five aspects were considered in the selection process for the Sida-funded grants: accepted paper, nationality, gender, position, and opportunity to receive funding or stipends from the regional networks SANDEE, EEPSEA, LACEEP, and CEEPA.

## Publicity in news media in connection with EAERE 2008

EAERE in Gothenburg 25-28 June 2008 meant an opportunity to get Swedish journalists to pay attention to environmental economics research from different angles, and also an opportunity for environmental economics researchers to be heard in the opinion sections of Swedish newspapers. We seized this opportunity, and the results of our media strategy turned out very positive. The media coverage, in the form of news reports and opinion articles, was broad and comprehensive. At previous EAERE conferences, there has not been any media coverage at all, nor any media strategy. The media attention during EAERE 2008 was unusually extensive compared to other research conferences held at the School of Business, Economics and Law. This successful outcome will hopefully encourage future EAERE conference hosts to try hard to use the media as a channel to reach decision makers and the general public with messages about environmental economics.

The publicity in connection to EAERE 2008 included:

- Studio Ett, the Swedish Broadcasting Corporation's news magazine, broadcasted live from the conference, allowing Thomas Sterner; Edwin Muchapondwa, coordinator for the EfD centre in South Africa; Mats Segnestam, former head of Sida's Environmental Policy Unit; and Christian Azar, professor of sustainable energy and materials systems at Chalmers and an EEU Associate, to be heard on the air.

- As a result of the conference, the EfD initiative also received media attention: on the news pages of Göteborgs-Posten, Sweden's second largest morning paper, and as part of the Studio Ett broadcast. Göteborgs-Posten interviewed both Edwin Muchapondwa and Professor Jintao Xu, coordinator for the EfD center in China.

- EEU research news was presented by our researchers in the opinion section of Göteborgs-Posten, one month before the conference. This opinion article was followed up by Ekot, the Swedish Broadcasting Corporation's principal newscast. In addition, a news report was broadcasted in several versions.

- Two additional opinion articles were published in connection with the conference, one in Dagens Nyheter, Sweden's leading morning paper, and one in Göteborgs-Posten.

- Västekot, the Swedish Broadcasting Corporation's local newscast for Gothenburg, and Göteborgs-Posten reported prior to and during the conference.

Overall, our press invitations, press releases and personal contacts with journalists resulted in the following outcome: One opinion article in Dagens Nyheter; two opinion articles in Göteborgs-Posten; three news reports in Göteborgs-Posten; a news report on the website of Miljöaktuellt, Sweden's largest independent journal on environment and sustainable development; a news brief in Svenska Dagbladet, one of Sweden's largest morning papers, a news report on Ekot; a live broadcast on Studio Ett; and a news report on Västekot Radio Göteborg. Moreover, Göteborgs-Posten chose to publish an interview with Christian Azar earlier than planned in order to time it with the EAERE conference.

All media items are listed on the EEU website [www.handels.gu.se/econ/EEU/EEU-in-media](http://www.handels.gu.se/econ/EEU/EEU-in-media)

## Press releases and personal contacts

Press releases and personal contacts made with journalists contributed to the achieved level of publicity.

Before the conference, a press invitation was sent out to Swedish news editors, environmental journalists, and relevant departments of the Swedish Environment Protection Agency and Sida. The invitation was thorough, and put the conference on the map for a number of editors. It mentioned that about 450 scientific papers would be presented, and described the two main themes of the conference; the two pre-conferences; the plenary speakers; the two EAERE awards; the urgency and background of the Gothenburg Protocol; the Practitioner's Corner; and the debate on biofuels, food prices, and hunger scheduled for the conference. It also included contact information for the different EEU researchers that could be used to obtain more information on specific research areas. An English version of the press invitation was published on the websites of EAERE, the EAERE Conference 2008, FEEM, and the Environmental Economics Unit. During the conference, two additional press releases were sent out. The first announced that one of EAERE's Prize Awards, the European Practitioners' Achievement Award in Applying Environmental Economics, would be awarded to Mats Segnestam. The second press release was an invitation to the debate on biofuels, food prices, and hunger, and included a statement by Christian Azar about why he had taken the initiative to arrange such a debate during the EAERE conference.

Press releases are listed on the EEU website [www.handels.gu.se/econ/EEU/pressreleases](http://www.handels.gu.se/econ/EEU/pressreleases), and those published in connection with EAERE 2008 are listed in Appendix 5.

# APPENDIX 1

## Presentation of PhDs and PhD candidates



Jiegen Wei, China  
Enrolled 2003 and Graduated 2009

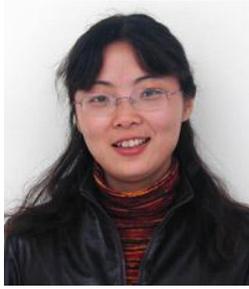
### **Thesis title: Essays in Climate Change and Forest Management**

**Paper I** analyses the exhaustion of oil resources, and the transition to a backstop technology as a strategic game between two blocks: the consumers and producers of oil which we simply refer to as —OEC” and —OED”. The OECD has two instruments: it can tax fuel consumption and decide when to switch to the carbon neutral backstop technology. The tax in the OECD is found to serve the purpose to both reduce climate damage and to access some of the resource rent. OPEC on the other hand can retaliate by choosing a strategy of price discrimination selling oil cheap on domestic markets and of course they can implicitly determine the price and thus the timing of resource depletion. The results show that price discrimination enables OPEC to better avoid the adverse consequences from the tax and backstop technology in OECD by consuming a larger share of the oil in their domestic market.

**Paper II** studies the effects of reputation on compliance with social norms of behavior, and in particular, the role of information in mediating this relationship. A prevailing view in the literature states that social sanctions can support, in equilibrium, high levels of obedience to a costly norm. In contrast, the model introduced in this paper shows that imperfect observability causes the expected social sanction to be at its lowest precisely when obedience is more common. Unless actions are fully observable, society finds it hard to conceive that someone is in disobedience when disobedience is rare. In this line of argumentation, the failure of an environmental norm as an internalization mechanism can be explained.

**Paper III** uses forest data across 28 provinces during the reform period to examine some frequently discussed questions about macroeconomic and population impacts on the forest. The data support a theoretical argument for separating forests into four components, managed and natural forests administered by either state or private agents. Our regressions suggest as incomes rise, the natural forest is first drawn down then, when incomes rise above some level, the natural forest begins to recover. As incomes continue to rise, the managed forest eventually grows even more rapidly and offsets any continuing draw on the natural forest—with an aggregate impact of net expansion for all forests, managed and natural combined.

**Paper IV** uses firm level data in China’s timber industry to evaluate the impact of manager turnover on firm productivity. We find that due to differences in selecting and screening manager candidates, the impacts of manager change on firm productivity are heterogeneous across ownership types. In state-owned firms, manager change is mainly driven by bureau leaders who may want to control the rent from firms and hence appoint new managers loyal to them. Consequently, deterioration of firm productivity can be observed following a change. For private firms, it is found that manager selection is based on the human capital of candidates. Therefore, firm productivity improves after a change. The results from both a regression analysis and a matching approach provide similar evidence.



Ping Qing, China  
Enrolled 2003 and Graduated 2009

**Thesis title: Risk, Relative Standing and Property Rights: Rural Household Decision-Making in China.**

**Paper 1** examines the concern for relative standing among rural households in China. We used a survey-experimental method to measure to what extent poor Chinese farmers care about their relative income and found that the respondents cared to a high degree. Compared to previous studies in developed countries, the concern for relative standing seems to be equally strong among rural households in China. This should be seen in the light of the rapid change China has undergone, with high growth, increased inequality, and the highest urban-rural income ratio in the world. Thus, the rural population, which is lagging behind, is suffering not only from the low absolute income but also from low relative income.

**Paper 2** studies risky decision-making in a high-stakes experiment with couples in rural China. In the experiment, spouses chose between risky lotteries, first separately and then jointly. We are particularly interested in the (socio-demographic) factors determining (i) the similarity of spouses' individual decisions and (ii) women's influence on couples' joint decisions. We find that spouses in richer households have more similar individual risk preferences. The couple's joint decision is largely influenced by the husband, but women with higher income, more years of education, and communist party membership have a significantly stronger influence on the joint decision.

**Paper 3** investigates farmers' preferences for various property rights attributes of a forestland contract. We find that farmers are highly concerned with what types of rights a contract provides. Reducing perceived risks of contract termination and introducing a priority right in renewal of an old contract significantly increase farmers' marginal willingness to pay (MWTP) for a forest contract. An extended waiting time for rights to harvest the forest reduces a farmer's perceived value of a contract. We also investigate whether accounting for the fact that farmers ignore one or more attributes when answering stated preference questions affects the MWTP, and find it to be systematically lower in the model where we consider that respondents ignore attributes.

**Paper 4** assesses the impact of tenure types, property rights, and harvest quota regulation on farmer investment behavior in Chinese collective forests. We investigate the issue using household survey data from *Fujian* province. The results indicate that investment incentives increase due to the tenure reform. In the reform property rights are gradually established, and confirmed to the individual farmers via a contract. However, some issues remain. Farmers still perceive some tenure arrangements to be more uncertain, which discourage them to undertake plot investments. The harvest quota regulation, introduced for stock conservation purposes, acts as a disincentive in forestry management and development. These evidences imply that there could be even further improvement in investment incentives, if some of these constraints were relaxed through a policy reform.



Precious Zikhali, Zimbabwe  
Enrolled 2003 and Graduated 2008

**Thesis title: Land Reform, Trust and Natural Resource Management in Africa**

**Paper I** investigates what impact Zimbabwe's Fast Track Land Reform Programme, launched in 2000 as part of an ongoing land reform and resettlement programme aimed at addressing a racially skewed land distribution, has had on its beneficiaries' perceptions of land tenure security and subsequent decisions to invest in soil conservation. Evidence suggests that the programme has created some tenure insecurity, which has adversely affected soil conservation investments among its beneficiaries. We find support for the contention that households invest in land related investments to enhance security of tenure. The results underscore the need for the government of Zimbabwe to clarify and formalize land tenure arrangements within the programme.

**Paper II** uses data on beneficiaries of Zimbabwe's Fast Track Land Reform Programme and a control group of communal farmers to investigate programme impacts on the agricultural productivity of its beneficiaries. The results suggest that the programme's beneficiaries are more productive than farmers in communal areas. The source of this productivity differential is found to lie in differences in input usage. In addition, we find that programme beneficiaries gain a productivity advantage not only due to using more fertilizer per hectare; they also attain a higher rate of return from its use. Furthermore, differences in the use of capital assets, which are found to be a significant determinant of productivity, suggest that policies aimed at alleviating poverty would have a positive impact on agricultural productivity. We also find evidence that soil conservation, among other factors, has a significant impact on productivity.

**Paper III** proposes that ethnicity coupled with ethnic nepotism may reduce interpersonal generalised trust. We use the 2001 wave of the World Values Survey data for eight African countries to test this claim, and show that ethnicity and ethnic nepotism are each important in affecting generalised trust levels, and in addition their interaction has a self-reinforcing and negative effect. The results underscore the importance of institutions in controlling ethnic nepotism and thus contributing to mitigating the adverse effects of ethnicity on trust.

**Paper IV** focuses on the mopane worm, which is the caterpillar form of the Saturnid moth *Imbrasia belina* Westwood, a vital source of protein in southern African countries. The worms live and graze on mopane trees, which have alternative uses. Increased commercialisation of the worm has degraded its management to almost open access. This paper develops a bioeconomic model to show that for some optimal allocation of the mopane forest stock, the restrictive harvest period policy advocated by community leaders may not lead to sustainable harvesting of the mopane worm unless it is accompanied by an optimal tax. This tax should correct for (1) undervaluation of the scarcity value of the mopane stock under the restrictive harvest period policy, (2) differences in harvest costs and (3) a stock externality. Comparative static analyses indicate that the optimal tax rate is negatively related to the benefit discount rate but positively related to the number of harvesters.



Miguel Quiroga, Chile  
Enrolled 2003 and Graduated 2009

**Thesis title: Microeconomic Policy for Development: Essays on Trade and Environment, Poverty and Education**

**Paper 1:** *Do Countries with Lax Environmental Regulations Have a Comparative Advantage in Polluting Industries?* We study whether lax environmental regulations induce comparative advantages, causing the least-regulated countries to specialize in polluting industries. We seek to improve three areas in the empirical literature based on the Heckscher-Ohlin-Vanek's factor content of trade, more specifically in Tobey's (1990) approach: the measurement of environmental endowments, the possible endogeneity due to an omitted variable that has not been considered, and the influence of the industrial level of aggregation. For the econometrical analysis, we use a cross-section of 71 countries to examine the net exports in the most polluting industries in the year 2000. As a result, we find that industrial aggregation matters and we find some evidence in favor of the pollution-haven effect.

**Paper 2:** *Poor Areas or Poor People: Decomposing differences in living standards and poverty.* Several studies report large and persistent differences in standards of living and poverty within a country. In this paper, we study whether the observed differences in poverty incidence in urban areas are due to differences in the attributes of the population living in these zones or come from differences in the value of these attributes in the different areas. For this purpose, we apply decomposition analysis. We illustrate the methodology comparing urban areas in 13 Chilean regions for the year 2003. We found that even after controlling for an ample set of household characteristics, differences in the parameters are an important determinant of household income and poverty within a country.

**Paper 3:** *Absenteeism and Time-Inconsistent Behavior. Should we make lecture attendance compulsory?* We investigate the problem of absenteeism in an educational program with time consistent and naïve time-inconsistent students and the effect that mandatory attendance has on the behavior and well-being of the students. We observe that time-inconsistent students tend to postpone lecture attendance such that they are more likely to be absent from lectures located in the first part of the term while they later show up in the second part of the course. Absenteeism rates are not necessarily lower for naïve time-inconsistent vis-à-vis time-consistent students; nevertheless, the performance of time-inconsistent students is worse in any case. We showed that the well-being of myopic time-inconsistent students could be dramatically reduced because of the shortcoming in their intertemporal preferences. Therefore, it seems as mandatory attendance could benefit these students in the classroom, although there is some possibility of harming the time-consistent. The outcome depends on the distribution of the benefits and costs of lecture attendance along the term, which requires empirical evaluation.



Yonas Alem, Ethiopia  
Enrolled 2006

**Thesis title: Essays in food price shocks, welfare and technology adoption in Ethiopia.**

**Paper 1:** *Does fertilizer use respond to rainfall variability? Panel data evidence from Ethiopia.* (Completed and has been accepted for publication in *Agricultural Economics*). This paper uses farmers' actual experiences with changes in rainfall levels and their responses to these changes to assess if patterns of fertilizer use are responsive to changes in rainfall patterns. Using panel data from the Central Highlands of Ethiopia matched with corresponding village level rainfall data; results show that current year's intensity of fertilizer adoption is positively associated with higher rainfall levels experienced in the previous year. Variability of rainfall, on the other hand, impacts adoption decisions negatively implying that variability raises the risks and uncertainty associated with fertilizer adoption. Abundant rainfall in the previous year could depict relaxed liquidity constraints and increased affordability of fertilizer, which makes rainfall availability critical in severely credit-constrained environments. In light of similar existing literature, the major contribution of the study is that it uses panel data to explicitly examine farmers' responses to actual weather changes and variability and the importance of addressing credit and insurance market failures in rural Ethiopia.

**Paper 2:** *Subjective well-being and its determinants in urban Ethiopia: (Completed)* This paper studies the determinants of subjective well-being or satisfaction in life with a focus on the effect of environmental quality. Outdoor pollution as a result of improperly disposed waste from households is a serious problem in urban Ethiopia. I use proxies for clean environment and measure the effect of living in such places on welfare by using standard happiness functions. Results show that environmental quality is an important variable in affecting peoples' subjective well-being and thus, improving access to modern waste disposal facilities, which have public good nature, improves welfare significantly. A working paper version of the paper is completed.

**Paper 3:** *Household level consumption in urban Ethiopia: the effect of food price inflation and idiosyncratic shocks (Completed).* The main aim of this paper is measuring the impacts of food price inflation that Ethiopia experienced in 2007-2008 and other idiosyncratic shocks. Results show that high food price inflation was by far the most adverse economic shock between 2004 and 2008 in urban Ethiopia, and that a significant proportion of households had to adjust food consumption in response. Assets improved households' ability to cope with the shock, and that casual workers were particularly adversely affected by high food prices. The results are interpreted as pointing to the importance of growth in the formal sector so as to generate more well-paid and stable jobs. We also note that our results imply that aid programs responding to food price shocks can be made more efficient by targeting low-asset households with members on the fringe of the labor market. The paper is completed and ready to be sent for publication.

**Paper 4:** *Does climate change induce migration: Evidence from household level panel data from rural Ethiopia: (In progress).* Climate change affects people in developing countries in various ways. One of the effects that didn't get attention in empirical literature is climate change induced rural urban migration. Using household data from rural Ethiopia matched with village level data on actual rainfall, we study the relationship between climate change and variability with rural urban migration.



Haoran He, China  
Enrolled 2006

**Paper 1:** *The Effects of an Environmental Policy on Consumers – Lessons from the Chinese Plastic Bag Regulation.* With its worldwide use plastic bags have brought convenience to human being's daily life while at the same time generating a considerable amount of environmental pollution. In order to reduce environmental pollution of plastic bag litter, on June 1st, 2008, China introduced a nationwide regulation requiring all retailers to charge for the, until then free, plastic shopping bags. Retailers became required to charge a price that is no less than the acquisition cost. By using the policy implementation as a natural experiment and conducting two counterpart surveys before and after the implementation, we investigate the impact of the regulation on people's plastic shopping bag use. We find that the regulation has a remarkable impact, causing a 49% reduction in the use of new plastic shopping bags and it also affects various aspects of plastic shopping bag use behaviors besides the bag consumption. Nevertheless, the effects of the regulation differ largely among groups of consumers and among places.

**Paper 2:** *Can Stated Preference Methods Accurately Predict Responses to Environmental Policies? The Case of a Plastic Bag Regulation in China*

By using a plastic bag regulation implementation as a naturally occurred policy change with between-subject design, this study investigates the validity of stated preference (SP) estimates to predict the change in consumption of an everyday good. Before the regulation, plastic bags in China were provided by shops free of charge for carrying sold commodities back home. We utilized a stated preference (SP) survey technique to elicit consumers' contingent bag consumption behaviors in certain hypothetical regulation scenarios of bag pricing. Moreover, after the regulation, we conducted another survey using a comparable sample pool for collecting information on actual use of the bags and other relevant information. We thus have unique data to compare consumers' stated contingent behavior with their revealed actual behavior in connection to a regulation implementation. The comparison results show that consumers' behavioral reactions to a policy change can be reasonably well predicted by a stated preference (SP) technique.

**Paper 3:** *Easy Come, Easy Go - The Role of Windfall Money in Lab and Field Experiments.* A growing number of experimental studies focus on the differences between the lab and the field. Importance in this issue is the role of windfall money. By conducting a dictator game, where the recipient is a charity organization, in exactly the same way in the laboratory and in the field, we investigate the influence of windfall and earned endowment on behavior. We find a strong effect on donation amounts of earned endowment in the lab and the field. Subjects donate more if the endowment is a windfall gain. Thus, windfall money is important not only in a lab environment. However, even for earned endowment, there is a significant difference in behavior between the lab and the field.

**Paper 4:** *Ownership, Autonomy, Incentives and Efficiency: Evidence from Forest Product Processing Industry in China.* China's state-owned forest areas have experienced reforms focused on institutional and managerial systems since 1990s. Using enterprise-level data in forest product processing industry in the Northeast-Inner Mongolia state-owned forest area, this study aims to evaluate the impact of current institutional and managerial systems resulted from the gradualist reform on the productivity of processing mills in China. The productivity is measured by technical efficiency, which identifies the relative performance of one mill to the most efficient mills, and is estimated by non-parametric data

envelopment analysis (DEA). The results indicate that ownership type, autonomy level and incentive schemes strongly affect technical efficiency: privatized mills, mills that have the authority to employ and dismiss workers and mills that closely link manager's rewards to enterprise's performance are relatively more efficient. These results provide support for the ongoing reform and implications for future development of this sector.

**Paper 5:** *Measuring the influence of individual preferences on joint decisions in households: A field experiment.* In this paper, we study the link between individual and household decision-making on time preferences by first letting the spouses to separately making their individual decisions and then jointly in multiple pair-wise choices. By using a random parameter modeling approach, we present a novel approach where based on the retrieve coefficients for each spouse in the sample, the relative bargaining power of the females can be calculated. We evaluate how the time preferences of the two spouses aggregate when couples jointly make decisions in relation to time preferences. Our empirical data is based on 18 pair-wise inter-temporal choices that spouses first made separately then jointly. We use a random sample of households in rural China. In 17% of the households, the females have more influence on the joint decision than the males.



Clara Inés Villegas Palácio, Colombia  
Enrolled 2006

**Thesis title: Formal and informal regulations: enforcement and compliance**

**Paper 1:** *Does disclosure crowd-in cooperation?* This paper investigates whether disclosure crowds-in or crowds-out contributions to a public good using a one-shot public goods experiment. We compare four different treatments using a between-subject design; (i) no disclosure, (ii) disclosure of contributions only to group members, (iii) disclosure to all participants in a session without revealing group identity, and (iv) joint disclosure to all participants together with revealing group identity. We find a small positive but insignificant effect of disclosures on contributions to the public good, and heterogeneity in contributions increased for joint disclosure. Our results are evaluated against the predictions of models considering image motivation to explain pro-social behavior.

**Paper 2:** *Does monitoring matter if enforcement is weak? Substitution between monitoring and enforcement efforts.* Most of the literature on enforcement of environmental regulations assumes that once a firm is caught violating, a monetary sanction is successfully imposed. However, in some contexts weak enforcement results in only a fraction of detected violators being actually monetarily sanctioned. By using a laboratory experiment, we investigate if violation of an environmental regulation is affected by varying probability of monitoring and probability of sanctioning given detection when keeping the joint probability fixed. Our subjects consist both of environmental managers in Colombian firms and university students. Our participants chose a violation size lower than the predicted by standard theory for risk neutral agents. Different combination of the probabilities resulting in the same joint probability of detection and sanctioning did not affect the violation behavior among managers, while students violate relatively less when facing a higher sanctioning probability for a given joint probability. Our analyses of environmental managers suggest that policy-makers should invest in monitoring and successful law enforcement such that each monetary unit spent in monitoring and in sanctioning should lead to the same reduction in violations.

**Paper 3:** *Conditional cooperation and social groups. Experimental results from Colombia.* In contrast to previous studies on cross-group comparisons of conditional cooperation, we keep cross- and within-country dimensions constant. The results reveal significantly different cooperation between social groups in the same location.

**Paper 4:** *On the Interaction Between Imperfect Compliance and Technology Adoption: Taxes vs. Tradable Emissions Permits.* This paper analyzes the effects of the interaction between technology adoption and incomplete enforcement on the extent of violations and the rate of abatement technology adoption. We focus on price-based and quantity-based emission regulations. First, we show that in contrast to uniform taxes, under tradable emissions permits (TEPs), the fall in permit price produced by technology adoption reduces the benefits of violating the environmental regulation at the margin and leads firms to modify their compliance behavior. Moreover, when TEPs are used, the deterrent effect of the monitoring effort is reinforced by the effect that technology adoption has on the extent of violations. Second, we show that the regulator may speed up the diffusion of new technologies by increasing the stringency of the enforcement strategy in the case of TEPs while in the case of uniform taxes, the rate of adoption does not depend on the enforcement parameters.

**Paper 5:** *Market Based Environmental Regulation: Targeted Enforcement and the Diffusion of New Abatement Technologies.* This paper studies how, under market based policy instruments, a targeted

enforcement strategy influences the rate of technology adoption and the aggregated emissions level. In contrast with previous literature we find that a regulator who wants to minimize aggregated emissions under uniform taxes should monitor non-adopters more closely than adopters. Under this targeted enforcement scheme, we find that increasing non-adopters monitoring probability increases adoption rate under both uniform taxes and tradable emissions permits, but it has an ambiguous effect over aggregated emissions under TEPs. In contrast, increasing adopters monitoring probability decreases adoption rate under uniform taxes but increases aggregated emissions while its effect under TEPs is parameter dependent.



Kofi Vondoli, Ghana  
Enrolled 2006

**Paper 1:** *Enforcement of exogenous environmental regulations, social disapproval and bribery*, joint work with Wisdom Akpalu & Håkan Eggert, *Journal of Socio-Economics* 38 (2009): 940 – 945. Many resource users are not directly involved in the formulation and enforcement of resource management rules and regulations in developing countries. As a result, resource users do not generally accept such rules. An enforcement officer who has social ties with the resource users may encounter social disapproval and possible social exclusion from the resource users if he/she enforces the regulation zealously. The officer, however, may avoid this social disapproval by accepting bribes. In this paper, we present a simple model that characterizes this situation and derive results for situations where the officer is passively and actively involved in the bribery.

**Paper 2:** *Bioeconomic model of spatial fishery management in developing countries*, joint work with Wisdom Akpalu.

*Fishers in developing countries do not have the resources to acquire advanced technologies to exploit offshore stocks. Since most stocks of interest are migratory, the offshore serves as a natural marine reserve (i.e., a source) to the inshore (i.e., sink). However, the United Nations Convention on the Law of the Sea mandates these countries to sign partnership agreements with distant water fishing nations (DWFNs) to fish offshore. These partnership agreements produce spatial externality. In this paper, we present a bioeconomic model in which a social planner uses a landing tax (ad valorem tax) to internalize this spatial externality. We found that the tax must reflect the biological connectivity between the two patches, intrinsic growth rate, the price of fish, cost per unit effort and social discount rate. Using data on Ghana, we found a line of causality between the catch levels of artisanal and semi-industrial fleets.*



Pham Khanh Nam, Vietnam  
Enrolled 2006

**Paper 1:** *The role of social capital in adaptation to climate change: a quantitative analysis from the Mekong river delta of Vietnam* (Single author paper). The study aims to examine the role and the extent of social capital in shaping adaptation measures to climate change. A household survey and a natural field public good experiment were conducted to collect data on actual adaptation measures and the multi-dimensions of social capital. Estimation results show that the standard adaptation model, which is framed by the social-economic-political-environmental arrangements, can be enriched by incorporating social capital at individual level. A notable example is that the cooperative capacity of a household tends to deteriorate its demand for individual adaptation in ways of life.

**Paper 2:** *Funding a new bridge in Vietnam: a natural field experiment on the role of Social influence* (with Fredrik Carlsson and Olof Johansson-Stenman). While the ability to provide public goods is essential for economic and social development, there is very limited empirical evidence with respect to measuring contributions to a real local public good in developing countries. This paper analyzes a field experiment with real contributions to an archetypical public good, a bridge, in rural Vietnam. In particular, we study the role of two kinds of social influence: *i*) conditional cooperation, i.e. that people may be more willing to cooperate if others are also doing so, and *ii*) the effects of the default alternative, i.e. that people are often found to be influenced by the default alternative presented to them in the choice situation. We find significant and substantial effects of both kinds of influence.

**Paper 3:** *Stability of cooperative preferences over time and across naturally-occurring decision contexts* (with Fredrik Carlsson and Olof Johansson-Stenman). The legitimacy of the measurement of social preferences by experiments is often questioned by the argument that social preference is often likely highly context dependent and non-robust. This study, by examining relationship between contribution to a real public good in a public good game framework and several naturally occurring behaviors of the same subjects in similar voluntary contribution frameworks, found evidences for stability of social preferences across different contexts and over time.

**Paper 4.** *Is conditional cooperation affected by disclosure?* (with Clara Villegas and Peter Martinsson). To investigate the effect of disclosure on cooperation, and also if culture matters, we conduct a public goods experiment using the strategy method in catholic Colombia and Buddhist Vietnam. Our results show that introducing disclosure increases the proportion of conditional cooperator and has a similarly positive but insignificant effect on contribution levels in both countries. Our results indicate that disclosure crowds out non-image motivations.

**Paper 5:** *Are Vietnamese farmers concerned with their relative position in society?* (with Fredrik Carlsson, Martin Linde-Rahr and Peter Martinsson) in *The Journal of Development Studies*, Vol 43 (7) 2007. This paper examines the attitude towards relative position or status among rural households in Vietnam. On average, respondents show rather weak preferences

for relative position. Possible explanations are the emphasis on the importance of equality and that villagers are very concerned with how the local community perceives their actions. We also investigate what influences the concern for relative position and find, among other things, that if anyone from the household is a member of the Peoples Committee then the respondent is more concerned with the relative position.

**Paper 6:** *Intra-household decision making in rural Vietnam: evidences from a choice experiment survey on demand for rainwater harvesting system* (With Fredrik Carlsson, Semra Ozdemir, Mark Elliot and Dale Whittington). This paper examines joint and separate decisions by couples in the context of choice experiment for rainwater harvesting system in the Mekong delta of Vietnam. The paper also offers a test on order effects of joint and separate decisions.



Jorge Alexander Bonilla Londoño, Colombia  
Enrolled 2008

Jorge enrolled in autumn 2008 and he is still having compulsory courses. During the first year 2008/2009 he took courses in microeconomics, mathematics, econometrics and macroeconomics.

During 2009/2010 he is taking specializing courses such as behavioral and experimental economics, environmental valuation, climate and ecosystems change (which was jointly organized by the Beijer Institute and the University of Gothenburg), environmental policy instruments, academic writing and applied econometrics.

In addition Jorge participated in the natural resource economics course during Spring 2008.



Hailemariam Teklewold, Ethiopia  
Enrolled 2008

Hailemariam enrolled autumn 2008 and he is still having compulsory courses. During the first year 2008/2009 he had courses in microeconomics, mathematics, econometrics and macroeconomics.

During 2009/2010 he is taking specializing courses such as Behavioral and Experimental Economics, Environmental Valuations, Climate and Ecosystems Change (which was jointly organized by the University of Gothenburg and the Beijer Institute), Environmental Policy Instruments, Applied Econometrics and Academic Writing.

In addition, Hailemariam also participated in the Natural resource Economics course (one of the specializing courses in University of Gothenburg) during Spring 2008.



Haileselassie Medhin, Ethiopia  
Enrolled 2008

Students enrolled autumn 2008 are still having compulsory courses. During the first year 2008/2009 Haileselassie took courses in microeconomics, mathematics, econometrics and macroeconomics.

During 2009/2010 he is expected to complete an academic writing course and the following specialization courses: Behavioral economics, Environmental Valuation, Climate and Ecosystems Change, Climate Change and Ecology (which was organized by the Beijer Institute) Environmental Policy Instruments and Natural Resource Economics. Haileselassie spent one month during summer

2009 at the Environmental Economics Program in Peking University, China. During his visit, he worked on the development of a research project that links the Sloping Land Conversion Program (SCLP) in China to the Ethiopian highlands.

**Paper 1:** *Attitudes toward Uncertainty among the Poor: Evidence from Rural Ethiopia* (with Alpaslan Akay, Peter Martinsson and Stefan T Trautmann). We looked at risk and ambiguity attitudes among Ethiopian peasants and compared their attitudes to a standard Western university student sample elicited by the same decision task. Strong risk aversion and ambiguity aversion were found among the Ethiopian peasants. Ambiguity aversion was similar for peasants and students, but peasants were more risk averse. Testing for the effect of socio-economic variables on uncertainty attitudes showed that poor health increased both risk and ambiguity aversion.

**Paper 2:** *Does Positional Concern Matter in Poor Societies? Evidence from a Survey Experiment in Rural Ethiopia* (with Alpaslan Akay and Peter Martinsson). We investigated attitudes toward positionality among rural farmers in Northern Ethiopia, using a tailored survey experiment. On average, we found positional concerns neither in income per se nor in income from aid projects among the farmers. These results support the claim that positional concerns are positively correlated with absolute level of income of a country

**Paper 3:** *Land Reform in Africa: No-Intervention Agreements* (work in progress with Martin Dufwenberg, Peter Martinsson and Gunnar Köhlin). This paper investigates the role of a local institution, mediator, in the attainment of voluntary agreements in land conflicts using a framed field experiment in the highlands of Ethiopia. A game theoretical model to describe this situation is constructed including a discussion related to social preferences, which subsequently the experimental design is based on. Our results indicate that conflict is the dominant outcome when there is no mediator. When there is a mediator option, almost one-third of farmers choose this costly option. Among those not choosing mediator when available, a higher proportion choose equal split.

**Paper 4:** *Inequality Aversion, Efficiency, and Maximin Preferences in Simple Distribution Experiments among the poor in Ethiopia* (work in progress with Peter Martinsson). The paper attempts to contribute to the ongoing debate on the people's preference towards equity versus efficiency in situations where one can only be realized at the expense of the other. We examine preferences for efficiency and inequality among rural Ethiopians. Our results indicate that inequality aversion dominates efficiency concerns.

Appendix 1.



Simon Ndritu Wagura, Kenya  
Enrolled 2008

Simon enrolled in autumn 2008 and he is still having compulsory courses. During the first year 2008/2009 he took courses in microeconomics, mathematics, econometrics and macroeconomics.

During 2009/2010 he is taking specializing courses such as behavioral and experimental economics, environmental valuations, climate and ecosystems change (which was jointly organized by the Beijer Institute and the University of Gothenburg) and Environmental policy instruments, Academic writing and Applied Econometrics.

In addition Simon participated in the Natural Resource Economics course during Spring 2008.



Xiaojun Yang, China  
Enrolled 2008

Students enrolled autumn 2008 are still having compulsory courses. During the first year 2008/2009 Xiaojun took courses in microeconomics, mathematics, econometrics and macroeconomics.

During 2009/2010 Xiaojun is taking her specializing courses such as applied econometrics, environmental valuations, climate and ecosystems change, climate change and ecology (which was organized by the Beijer Institute and the University of Gothenburg), Environmental policy instruments and development economics. In addition, she has also taken academic writing and natural resource economics.

## APPENDIX 2

### Peer-reviewed publications and Working papers

#### Peer-reviewed Publications 2007-09

The following lists give an indication of the academic environment that has been supported by the Sida-core support. The authors that have received funding from Sida as PhD students, researchers or supervisors are indicated in bold. The studies are fully, partly or not at all funded by the project.

#### Forthcoming

**Akpalu, W.** and **O. Johansson-Stenman** "Internalized Contribution Norms and Learning in a Public Goods Experiment in Ghana", Public Finance and Management (Invited paper for a special issue on Public Finance and the Environment), forthcoming.

Aronsson, T. and **O. Johansson-Stenman** "Positional Concerns in an OLG Model: Optimal Labor and Capital Income Taxation", International Economic Review, forthcoming.

**Carlsson, F.** (2010) Design of stated preference surveys: Is there more to learn from behavioral economics, *Environmental and Resource Economics*, accepted for publication.

**Carlsson, F. and O. Johansson-Stenman** "Should we trust hypothetical referenda? Test and identification problems", Journal of Environmental Economics and Management, forthcoming.

**Carlsson, F. and O. Johansson-Stenman** (2010) Scale factors and hypothetical referenda: A clarifying note, *Journal of Environmental Economics and Management*, accepted for publication.

**Carlsson, F. and P. Qin** (2010) It is better to be the head of a chicken than the tail of a phoenix: a study of concern for relative standing in rural China, *Journal of Socio-Economics*, accepted for publication.

**Carlsson, F.**, D. Daruvala and H. Jaldell (2010) Value of statistical life and cause of accident: A choice experiment, *Risk Analysis*, accepted for publication.

**Carlsson, F.**, M. Kataria and E. Lampi (2010) Do EPA administrators recommend environmental policies that citizens want? *Land Economics*, accepted for publication.

**Carlsson, F.**, M. Kataria and E. Lampi (2010) Ignoring attributes in choice experiments, *Environmental and Resource Economics*, accepted for publication.

Coria, J. and **T Sterner**, (2010), "Tradable Permits in Developing Countries: Evidence From Air Pollution in Chile", *The Journal of Environment and Development*", (forthcoming)

**Garcia, J H.**, R Bluffstone, **T Sterner** (2009): Corporate Environmental Management in Transition Economies: The Case of Central and Eastern Europe, *Czech Journal of Economics and Finance*, 59(5):410-425.

**Ibanez, M. and F. Carlsson** (2010) A choice experiment on coca cropping, *Journal of Development Economics*, accepted for publication.

**Johansson-Stenman, O.** and J. Konow "Fairness Concerns in Environmental Economics: Do They Really Matter and If So How?", *Environmental and Resource Economics* (Invited paper for a special issue on Behavioral Environmental Economics), forthcoming.

Maier-Rigaud, F.P., **P.Martinsson** and G. Staffiero (2010) Ostracism and the provision of a public good: Experimental Evidence, *Journal of Economic Behavior and Organization*, accepted for publication.

Svedäng H., J. Stål , **T. Sterner**, & M. Cardinale, (2010) “Consequences of subpopulation structure on fisheries management: cod (*Gadus morhua*) in the Kattegat and Öresund (North Sea)”, *Reviews in Fisheries Science*, (forthcoming).

## 2010

**Johansson-Stenman, O.** "Risk Aversion and Expected Utility of Consumption over Time", *Games and Economic Behavior*, 68, 208-219.

## 2009

**Akpalu, W. ; Eggert, H. ; Vondolia, G. K.** (2009). Enforcement of exogenous environmental regulation, social disapproval and bribery. *The Journal of Socio-Economics*. 38 p. 940-945. No. 99130

**Akpalu, W., E. Muchapondwa, and Zikhali, P.** (2009). Can the restrictive harvest period policy conserve the mopane worms in southern Africa? A bioeconomic modelling approach. *Environment and Development Economics*, 14: 587-600.

**Alem, Y., Bezabih, M., Kassie, M., and Zikhali, P.** (2009). Does Fertilizer Use Respond to Rainfall Variability? Panel Data Evidence from Ethiopia. Accepted by: *Agricultural Economics*.

Andersson, C., **Mekonnen, A. and Stage, J.** (2010): Impacts of the Productive Safety Net Program in Ethiopia on livestock and tree holdings of rural households. Forthcoming in the *Journal of Development Economics*

**Carlsson, F., G. Gupta and O. Johansson-Stenman** “Keeping up with the Vaishyas: Caste and relative standing”, *Oxford Economic Papers* 61, 52-73, 2009.

**Eggert, H. ; Olsson, B.** (2009). Valuing multi-attribute marine water quality. *Marine Policy*. 33 (2) p. 201-206. No. 84653

**Garcia, J. ; Afsah, S. ; Sterner, T.** (2009). Which firms are more sensitive to public disclosure schemes for pollution control? Evidence from Indonesia's PROPER Program. *Environmental Resource Economics*. 42 (2) p. 151-168. No. 89413

**Ibanez Diaz, M. ; Czermak, S. ; Sutter, M.** (2009). Searching for a better deal: On the influence of team decision making, time pressure and gender. *Journal of Economic Psychology*. 30 p. 1-10. No. 89365

**Johansson-Stenman, O. M. Mahmud and P.Martinsson** "Trust and Religion: Experimental Evidence from Rural Bangladesh" *Economica*, 2009, 76, 462-485.

**Kassie, M. and Zikhali, P.** (2009). Innovation Brief on Sustainable Agriculture, prepared for the United Nations Department for Economic and Social Affairs (UNDESA).  
[http://www.un.org/esa/dsd/resources/res\\_pdfs/publications/ib/no7.pdf](http://www.un.org/esa/dsd/resources/res_pdfs/publications/ib/no7.pdf)

Kassie, M., **Zikhali, P.**, Manjur, K., and Edwards, S. (2009). Adoption of sustainable agriculture practices: Evidence from a semi-arid region of Ethiopia. *Natural Resources Forum*, 33: 189–198.

**Kateregga, E. and T. Sterner** (2009), Lake Victoria Fish Stocks and the Effects of Water Hyacinth" *Journal of Environment and Development*, March, Vol 18:1 pp 62-78.

**Martinsson Peter, Clara Villegas-Palacio,** and Conny Wollbrant (2009)–“[Conditional Cooperation and Social Group: Experimental Results from Colombia](#)” EFD Discussion Paper 09-16, Environment for Development Initiative and Resources for the Future, Washington DC, September 2009. *Submitted to Economics Letters (Under review)*

**Stage, J.** (2010): Economic valuation of climate change adaptation in developing countries. *Annals of the New York Academy of Sciences* 1185: 150 – 163

**Stage, J.,** and McGranahan, **G.** (2010): Is urbanization contributing to higher food prices? Forthcoming in *Environment and Urbanization* 22 (1)

**Sternier, T.** and Lozada, A. (2009), " The Income Distribution Effects of Fuel Taxation", *Gaceta de Economica INE-ITAM*,

**Sternier, T.** B Turnheim, (2009), “Innovation and diffusion of Environmental Technology: Industrial NOX abatement in Sweden under Refunded Emission Payments”, *Ecological Economics*, Vol 68:12 (October) pp: 2996-3006

**Zerfu, D. ; Zikhali, P.; Kabenga, I.** (2009). Does Ethnicity Matter for Trust? Evidence from Africa. *Journal of African Economies*. 18 (1) p. 153-175. No. 93381

## 2008

**Alpizar, F., F. Carlsson and O. Johansson-Stenman** “ Does context matter more for hypothetical than for actual contributions? Evidence from a natural field experiment”, *Experimental Economics* 11, 299-314, 2008.

**Alpizar, F., F. Carlsson, and O. Johansson-Stenman** “Anonymity, reciprocity, and conformity: Evidence from voluntary contributions to a national park in Costa Rica” *Journal of Public Economics* 92, 1047-1060, 2008.

Aronsson, T. and **O. Johansson-Stenman** “When the Joneses' consumption hurts: Optimal public good provision and nonlinear income taxation” *Journal of Public Economics* 92, 986–997, 2008.

Asche, F., **Eggert, H.**, Gudmundsson, E., Hoff, A. Pascoe, S. “Fisher's behaviour with individual vessel quotas-Over-capacity and potential rent” *Marine Policy*, 32 (6), p. 920-927, 2008.

**Bezabih, M.** “Agrobiodiversity Conservation under an Imperfect Seed System: The Role of Community Seed Banking Schemes” *Agricultural Economics*, 38(1), 77-87, 2008.

Brekke, K. A. and **O. Johansson-Stenman** "The Behavioral Economics of Climate Change" *Oxford Review of Economic Policy*, 24(2), 280-297, 2008.

**Carlsson, F.** and M. Kataria “Assessing management options for weed control with demanders and non-demanders in a choice experiment”, *Land Economics* 84, 517-528, 2008.

**Carlsson, F. and P. Martinsson** (2008) “How much is too much? - An investigation of the effect of the number of choice sets, starting point and the choice of bid vectors in choice experiments”, *Environmental and Resource Economics*, 40, 165-176.

**Carlsson, F. and P. Martinsson** “Does it Matter when a Power Outage Occurs? – A Choice Experiment Study on the Willingness to Pay to Avoid Power Outages”, *Energy Economics* 30, 1232-1245, 2008.

Flood, L., N Islam and **T Sternier** (2008) “Are demand elasticities affected by politically determined tax levels?” *Applied Economics Letters*, Accepted October 2007.

**Garcia, J.H., S. Afsah, T. Sternier** (2008), “Which Firms are More Sensitive to Public Disclosure Schemes for Pollution Control? Evidence from Indonesia’s PROPER Program”, *Environmental Resource Economics*, Volume 42, Issue2 (2009), Page 151.

**Gundimeda, H. and G. Köhlin**, “Fuel demand elasticities for energy and environmental policies: Indian sample survey evidence”, *Energy Economics*, Vol. 30/2 pp 517-546, 2008.

**Johansson-Stenman, O.** "Who are the trustworthy, we think?" *Journal of Economic Behavior and Organization*, 68, 456-465, 2008.

**Johansson-Stenman, O.** ; Brekke, K. A. (2008). The Behavioral Economics of Climate Change. *Oxford Review of Economic Policy*. 24 (2) p. 280-297. No. 77829

**Johansson-Stenman, O.** “Mad cows, terrorism and junk food: Should public policy reflect perceived or objective risks?” *Journal of Health Economics* 27, 234–248, 2008.

**Johansson-Stenman, O.** and H. Svedsäter "Measuring hypothetical bias in choice experiments: The role of cognitive consistency". *B-E. Journal of Economic Analysis and Policy*, 8(1), topics, article 41, 2008.

**Johansson-Stenman, O. and Martinsson, P.** “Are some lives more valuable? An ethical preferences approach.” *Journal of Health Economics*, 27(3), 739-52, 2008.

**Kassie, M., J. Pender, M. Yesuf, G. Köhlin, R. Bluffstone, E. Mulugeta** ”Estimating Returns to Soil Conservation Adoption in the Northern Ethiopian Highlands” *Agricultural Economics* 38(2), 213-232, 2008.

**Kocher, M., P. Martinsson, and M. Visser** “Does Stake Size Matter for Cooperation and Punishment?” *Economics Letters* 99(3), 508-511, 2008.

**Köhlin, G. ; Cooke-St. Clair, P.C.; Hyde, W. F.** (2008). Fuelwood, Forests and Community Management - Evidence from household studies. *Environment and Development Economics*. 13 p. 103-135. No. 68922

**Köhlin, G. ; Gundimeda, H.** (2008). Fuel Demand Elasticities for Energy and Environmental Policies: Indian sample survey evidence. *Energy Economics*. 30 (2) p. 517-546. No. 68923

Mendelsohn R, **T Sterner**, M Persson and J P Weyant, (2008), “Comments on Simon Dietz and Nicholas Stern's Why Economic Analysis Supports Strong Action on Climate Change: A Response to the Stern Review's Critics”, *Review of Environmental Economics and Policy* Vol 2:2 pp 309-313, DOI 10.1093/reep/ren012

**Muchapondwa, E., F. Carlsson, and G. Köhlin** “Wildlife management in Zimbabwe: Evidence from a contingent valuation study”, *South African Journal of Economics* 76:4, 2008.

**Stage, J.** (2008). Speaking up for economic-sciences modelling (Correspondence/Insändare). *Nature*. 456 (7222) p. 470. No. 79707

**Stage, J.** ; Reid, H. ; Sahlén, J. et al. (2008). Climate change impacts on Namibia's natural resources and economy. *Climate Policy*. 8 (5) p. 452-466. No. 73576

**Sterner, T** and A. Müller “Output and Abatement Effects of Allocation Readjustment in Permit Trade”, *Climatic Change*, vol. 86 pp 33-49, 2008.

**Sterner, T** and M. Persson “An Even Sterner Report”: Introducing Relative Prices into the Discounting Debate, *Review of Environmental Economics and Policy*, vol. 2, issue 1, 2008.

**Sterner, T** and M. Persson “Comments on Simon Dietz and Nicholas Stern’s „Why Economic Analysis Supports Strong Action on Climate Change: A Response to the Stern Review’s Critics” *Review of Environmental Economics and Policy* 2(2), 310-313.

## 2007

**Akpalu, W.** and P. Parks “Natural Resource use Conflict: Gold Mining in Tropical Rainforest in Ghana” *Environment and Development Economics*, 12(1), 55-72, February 2007.

- Carlsson, F.** and **P. Martinsson**, “Willingness to Pay Among Swedish Households to Avoid Power Outages – A Random Parameter Tobit Model Approach”, *Energy Journal* 28, 75-89, 2007.
- Carlsson, F., O. Johansson-Stenman and P. Martinsson** “Do You Enjoy Having More than Others? Survey Evidence of Positional Goods”, *Economica* 74, 586-598, 2007.
- Carlsson, F., P. Frykblom and C.J. Lagerkvist** “Farm Animal Welfare – Testing for Market Failure”, *Journal of Agricultural and Applied Economics* 30, 61-73, 2007.
- Carlsson, F., P. Frykblom and C.J. Lagerkvist** “Preferences With and Without Price Variation – Does the Price Attribute Affect Behavior in Stated Preference Surveys?” *Environmental and Resource Economics* 38, 155-164, 2007.
- Carlsson, F., P. Frykblom and C.J. Lagerkvist** ”Consumer Willingness to Pay for Farm Animal Welfare – Transportation of farm animals to slaughter versus the use of mobile abattoirs”, *European Review of Agricultural Economics* 34, 321-344, 2007.
- Carlsson, F., P. Frykblom and C.J. Lagerkvist**, “Consumer Benefits of Labels and Bans on GM Foods –Choice Experiments with Swedish Consumers”, *American Journal of Agricultural Economics* 89, 152-161, 2007.
- Carlsson, F., P. Nam, M. Linde-Rahr and P. Martinsson** “Are Vietnamese Farmers Concerned with their Relative Position in Society?”, *Journal of Development Studies* 43, 1177-1188, 2007.
- Eggert, H. and R. Lokina** “Small-scale Fishers and Risk Preferences” *Marine Resource Economics* 22(1): 63-82, 2007.
- Eggert, H. and R. Tveterås** “Potential Rent and Overcapacity in the Swedish Baltic Sea Trawl Fishery” *ICES Journal of Marine Science* 64(3): 439-445, 2007.
- Flood, L., N Islam and **T Sterner** Are demand elasticities affected by politically determined tax levels?, *Applied Economics Letters*, Accepted October 2007.
- Garcia, J., T. Sterner** and S Afsah, “Public Disclosure of Industrial Pollution” The PROPER approach for Indonesia” *Environmental and Development Economics*, Dec 2007.
- Hoel, M. and **T. Sterner** “Discounting and Relative Prices” *Climatic Change* 84(1-2), 2007.
- Kateregga, E. and T. Sterner**, “Indicators for an invasive species: Water Hyacinths in Lake Victoria”, *Ecological Indicators*, 7( 2), April, Pages 362-370, 2007.
- Samuelsson, E. and **Stage, J.** (2007): The size and distribution of the economic impacts of Namibian hunting tourism. *South African Journal of Wildlife Research* 37 (1): 41 – 52
- Sterner, T** “Gasoline Taxes a useful instrument for climate policy” *Energy Policy*, 35(6), June 2007.
- Sterner, T** “Unobserved Diversity, Depletion and Irreversibility The importance of subpopulations for Management of Cod Stocks” *Ecological Economics*, 61(2-3), 566-574, 2007.
- Sterner, T.** (2007). Fuel taxes: An important instrument for climate policy. *Energy Policy*. 35 (6) p. 3194-3202. No. 80834
- Tao, R. ; Qin, P.** (2007). How has rural tax reform affected farmers and local governance in China? *China & World Economy*. 15 (3) p. 19-32. No. 80413

## Working papers 2007-09

### 2010

Gebreegziabher, Zenebe, **Alemu Mekonnen, Menale Kassie, and Gunnar Köhlin** (2010), "Household Tree Planting in Tigray, Northern Ethiopia: Tree Species, Purposes, and Determinants", EFD Discussion Paper 10-01.

### 2009

**Akay, A., P. Martinsson and H. Medhin** (2009 August) Does Positional Concern Matter in Poor Societies? - Evidence from a Survey Experiment in Rural Ethiopia, IZA Discussion Paper 4354.

**Akay, A., P. Martinsson, H. Medhin** and S. Trautmann (2009 June) Attitudes toward uncertainty among the poor: Evidence from rural Ethiopia, IZA Discussion Paper 4225.

**Alem, Y. ; Bezabih, M. ; Kassie, M.** et al. (2009). Does Fertilizer Use Respond to Rainfall Variability? Panel Data Evidence from Ethiopia. Göteborg: Nr. 83451

**Alpizar, F. ; Carlsson, F. ; Naranjo, M.** (2009). The effect of risk, ambiguity, and coordination on farmers' adaptation to climate change: A framed field experiment. Göteborg: University of Gothenburg. No. 99102

**Andersson, C. ; Mekonnen, A. ; Stage, J.** (2009). Impacts of the Productive Safety Net Program in Ethiopia on Livestock and Tree Holdings of Rural Households. No. 91351

**Aronsson, T. ; Johansson-Stenman, O.** (2009). Conspicuous Leisure: Optimal Income Taxation when both Relative Consumption and Relative Leisure Matter. Göteborg: University of Gothenburg. No. 95415

**Aronsson, T. ; Johansson-Stenman, O.** (2009). Positional Concerns in an Olg Model: Optimal Labor and Capital Income Taxation. Göteborg: University of Gothenburg. No. 92529

**Asrat, S. ; Yesuf, M. ; Carlsson, F.** et al. (2009). Farmers' Preferences for Crop Variety Traits: Lessons for On-Farm Conservation and Technology Adoption. Göteborg: University of Gothenburg. No. 95416

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Sida's Environment and Climate Change Team

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EME, SEI, SwedBio, Swedish EA-Center

## Report: Environmental Economics Expert function

Reporting date: Jan 28 2010

The report covers the period: September 21 – December 31, 2009

### Comments

Relatively less work on country strategy development support: During the reporting period relatively less time has been allocated to support *formulation* of cooperation strategies, compared with earlier periods. This is due to a reduced number of requests from Sida during the period. Support to implementation and follow-up has however increased.

More advice and support to methodological development, training and methodological development in international processes: During the period the demand from Sida has been high on advice and support to methodological development, training and methodological development in international processes. The increased number of requests indicate a high and broadened demand our services.

Relatively more work on climate change capacity building and support: Due to the increased focus climate change in development countries and in development cooperation during the end of 2009, with COP15 in Copenhagen as the main event, the EE Helpdesk spent considerably more time and more work on climate change capacity building and support within Sida teams including the embassies during the period.

Temporarily more administrative work: During the period the EE expert function spent relatively more time on administration. This is mainly due to the finalization of the current agreement between Sida and EEU, the planning and discussions on the new agreement, the discussions and support to Sida's review of Helpdesks and the evaluation of the EEP program (which included the EE Expert function). Although time consuming, these processes also offered opportunities for learning and program development

Increase in analytical support: At Sida's request the EE Expert function produced two substantial analytical reports during the reporting period, one on climate change financing and one on lessons learnt from Swedish support to environmental capacity development. Both reports have been well received at Sida. We believe that this type of analytical reports is a good example of inputs that Sida can get from EEU. We would welcome more requests of this type.

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## **Cooperation Strategies**

### **Africa**

Comments to the program document for NREP Rwanda: At Sida's request the Environmental Economics (EE) Expert function was asked to give comments to the program document for the NREP Rwanda. Comments were sent to Sida (attn. Robert Nygård) on the 30<sup>th</sup> of October, 2009.

South Africa: After a request from the Swedish Embassy in Pretoria (attn: Marianne Milligan), the EE Expert Function submitted a statement on "Proposed Areas for Partner Driven Environment and Climate Change Cooperation" in South Africa, the 10<sup>th</sup> of November, 2009. The statement was also used as an input to Sida's Partner Driven Cooperation (PDC) in Botswana and Namibia. Furthermore, EEU attended a PDC-seminar at Sida Stockholm on 10<sup>th</sup> of December, 2009.

### **Latin America**

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### **Asia and the Middle East:**

Cambodia: A final version of the Environment and Climate Change Policy Brief was submitted to the Embassy of Sweden in Phnom Penh (attn: Karl-Anders Larsson) on 9<sup>th</sup> November 2009. The Policy Brief is intended both as an input to the Environment and Climate Change Workshop held in Phnom Penh (see training below) as well as to the upcoming strategy process. Other activities included: submission (attn: Per Nordlund) of literature on decentralisation and environment/climate change governance 11<sup>th</sup> November 2009, and communication related to an Climate Change Screening of the Cambodia Cooperation Strategy and portfolio (27<sup>th</sup> November 2009, attn: Alexandra Wachtmeister).

MENA: Sida (attn: Ingrid Sandström) initiated a discussion with EE Expert Advice Function on a need of a concept paper related to transboundary water issues in the MENA region as an input to the future strategy process. A first proposal of what such a concept note could include was submitted to Sida on 6<sup>th</sup> of November, 2008.

Asia regional: Upon Sida's request (Olof Sandkull), the EE Expert Advice Function reviewed and provided comments to the Regional Development Analysis for regional Asia, on 17<sup>th</sup> and 19<sup>th</sup> of November, 2009.

### **Europe**

Bosnia-Herzegovina: At Sida's request the EE Expert Advice Function did a search for relevant environment and climate change documents for Bosnia-Herzegovina. A list of documents was sent to Sida (attn. Gunnar Olvik) on the 16<sup>th</sup> of October, 2009. The EE Expert Advice Function, in collaboration with SEI Oxford, reviewed and assessed some existing country analysis documents. In a telephone conversation with Sida (attn: Gunnar Olvik) and the Embassy (attn: Katica Hajrulahovic) on 9<sup>th</sup> of November, 2009, it was concluded that existing environment and climate change information related to BiH will suffice as an input to the upcoming strategy process. There may, however, be a future need to arrange a meeting with the country team to discuss environment and climate change issues.

## **Methodological Development and Advice**

Environment and Climate Change Indicators: The work with environmental and climate change indicators continued. After receiving comments on the document regarding disaster risk reduction and climate change a new version was submitted to Sida (attn. Kristin Sinclair) on the 11<sup>th</sup> of December, 2009.

Overview of Sida support to environmental capacity development: At the request of Sida the EE Expert Function undertook a study to analyse and give an overview of Sida support to environmental capacity development. The EE Expert function conducted a few interviews for the study and a seminar was held at Sida on the 9<sup>th</sup> of November. A draft version of the study was submitted to Sida (attn. Annika Otterstedt and Camilla Andersson) on the 20<sup>th</sup> of November. A final draft of the report was sent to Sida (attn. Annika Otterstedt and Camilla Andersson) on the 9<sup>th</sup> of December, 2009. A second seminar is planned to be held at Sida on Feb 11.

Swedish policy for environment and climate change in development cooperation: The EE Expert Advice Function has been invited to participate in the External Reference Group and has, as a part of this assignment, provided advice to Sida in the elaboration of a background document for the Environment and Climate Change Policy. Advice was submitted in writing (22<sup>nd</sup> of September, 2009). The EE Expert Function participated by telephone at the first external reference group meeting on 23<sup>rd</sup> of September 2009.

Upon Sida's request (attn: Ewa Hagvall), EEU provided support to Sida/Marknad's review of the Environment and Climate Change Policy on trade and financial systems. Comments were submitted in writing 27<sup>th</sup> of October, 2009.

### Input to Sida's "resultsbilaga"

At Sida's request the EE Expert function was asked to write a short paper with suggestion on structure and references to the "resultatbilaga". A document was sent to Sida (attn. Kristin Sinclair) on the 23<sup>rd</sup> of September, 2009.

Comments to the Migration Policy: At Sida's request the EE Expert function was asked at two occasions to comment on the Migration Policy. The first comments were written by EEU together with input from Tom Downing, SEI. The second comments were written by the EEU. Comments were sent to Sida (attn. Elisabeth Folkunger) on the 2<sup>nd</sup> of October and the 6<sup>th</sup> of November, 2009.

Comments on draft Policy on Trade and Development: At Sida's request EEU commented on the draft policy on Trade and Development (att: Consultant Jens Sivik, Sep. 30 and Eva Hagwall, Oct.8).

Comments to the Gender Policy: At Sida's request the EEU provided input on the gender policy (attn. Annika Otterstedt on the 16<sup>th</sup> of December).

Comments on the Terms of Reference for the Evaluation of the EA Helpdesk: At Sida's request the EE Expert function was asked to give comments to the ToR for the Evaluation Study of the EA Helpdesk. Comments were sent to Sida (attn. Annika Otterstedt) on the 12<sup>th</sup> of October, 2009.

Budget analysis: At the request of Sida (attn. Kristin Sinclair/True Schedvin) the EEU provided input on environment and climate change budget analysis as preparation to Sida seminar on budget analysis. The input was submitted on October 1<sup>st</sup>.

Environment and climate change analysis: At Sida's request (att: Lisa Roman, Annika Otterstedt), the EE Expert function has pursued a dialogue with Sida and updated the draft document Guidance on Environment and climate change analysis in the integrated poverty/development analysis. The EE Expert function also conducted a seminar at Sida (Nov 18, 2009) where the Guidance was discussed.

Climate change guidance: At Sida's request the EEU reviewed the Climate change guidance document and provided comments (attn. Ulrika Åkesson on the 27<sup>th</sup> of November).

Environment and climate change financing study: At Sida's request (Ulrika Åkesson/Maria Berlekom) the EEU made an extensive overview of environment and climate change financing and the role of development cooperation ("Old, New and Future Funding for Environment and Climate Change - the Role of Development Cooperation"). The study can be downloaded at: [www.hgu.gu.se/item.aspx?id=19542](http://www.hgu.gu.se/item.aspx?id=19542).

The purpose of the study was to inform and feed into the development of the new environment and climate change policy. The final draft was submitted on Nov 16 (attn. Ulrika Åkesson). The study was communicated to the reference groups and mentioned during a Swedish side event at COP 15 in Copenhagen.

OECD DAC Green Growth Strategy: Sida requested the EE Expert Advice Function to review the OECD Green Growth Strategy proposal. Written comments were submitted on 16<sup>th</sup> of November, 2009, to Sida (attn: Maria Berlekom).

SEI-Climate Change: The EE Expert Function had a one-day seminar with Ben Smith (SEI Oxford) to pursue our cooperation related to environment and climate change advice to Sida.

## **Training and Communication**

Environment and Climate Change workshop - Phnom Penh: EEU coordinated a workshop on environment and climate change in Phnom Penh, 12<sup>th</sup> – 15<sup>th</sup> of October, 2009. The workshop was held back-to-back with the report-back seminar of the Commission on Climate Change and Development. The workshop informed the subsequent operational planning of the Cambodia team. A joint travel report was elaborated with the EA Expert Function and Sida, where the EE Expert Advice contribution was submitted to Sida (attn: Ulrika Åkesson) on 26<sup>th</sup> of October.

Climate Change workshop – Maputo: The Embassy of Sweden in Maputo (attn: Mirjam Palm) has requested assistance to arrange climate change workshops for the (i) Embassy staff, (ii) the Environment Working Group, and (iii) other Sectoral Working Groups, in Mozambique. An initial telephone communication was held on 16<sup>th</sup> of December, 2009 and notes from that meeting were submitted that same day. A first outline of workshop programmes for (i) and (ii) was submitted to the Embassy on 18<sup>th</sup> of December 2009.

Input to climate change presentations for Mozambique (and Zambia): At Sida's request (Mirjam Palm, Mozambique) the EEU was asked to prepare a power point presentation to be used for presentations for Heads of Mission and Heads of Cooperation in Maputo. The final input was submitted on the 6<sup>th</sup> of October (Mirjam Palm/Ulrika Åkesson) and on request submitted to (Eva Ohlsson, Zambia).

Phase II Environment and climate change training module

At Sida's request, the EEU together with the SLU has provided input to the development of a new training module (attn. Annika Otterstedt on the 18<sup>th</sup> of December).

## **Methodological Development in International Processes**

OECD DAC GPWSP TT Natural Resources Governance and Capacity Development:

At the request of Sida (Maria Berlekom) the EEU (Olof Drakenberg) participated in the Task team meeting in Paris on September 24-25. A travel report was submitted on Sept 30<sup>th</sup> (Maria Berlekom). The EEU helped provide a joint Swedish response (Sida and Swedish EPA) to the OECD Secretariat.

Poverty Environment Partnership (PEP) Environmental Mainstreaming Survey: On Sida's request (attn: Annika Otterstedt) the EE Expert Function supported the EA Expert Function to provide substantial input (23<sup>rd</sup> of September, 2009) for a survey on environmental mainstreaming performed by the Poverty Environment Partnership.

World Bank Pilot Programme on Institution-Centered Strategic Environmental Assessment:

EEU undertook an evaluation of the SEA undertaken in Malawi as part of the World Bank Mineral Sector Review during 2008/2009. Interviews were conducted in Malawi October 4-11 and a draft report was submitted to the World Bank Environment Department on December 21st.

EEU also undertook planning for a similar evaluation of Kenya's Forestry sector reform scheduled to take place during January 2010. EEU finalized an Inception report for the evaluation study, which was submitted to, and endorsed by, the World Bank's Environment Department (att: Fernando Loayza, Dec 4 2009).

## **Capacity Development**

Global Forum: The EE Expert function visited the Global Forum at Svenska Mässan, Göteborg, on the 5<sup>th</sup> of October, 2009.

Public Financial Management (PFM)-workshop: the EE Expert function participated at the one day Sida PFM-workshop in Stockholm on the 12<sup>th</sup> of November, 2009.

During the period the EE Expert function attended a number of seminars arranged at the University of Gothenburg, including: Globalisation and Development, and Environmental Policy Integration.

## Administration

Administration during the period included quarterly reporting, budget follow-up (planning and reporting), and preparations of a new annual plan and the draft 4-year agreement and plan. Administration also included communication and documentation, and participation in EEU's general planning and implementation of the Environmental Economics Programme.

Besides the more regular administration, two external processes have affected the EE Expert Function administration during the period: the evaluation of the Environmental Economics Programme, and Sida's helpdesk review/assessment. The EE Expert Function has provided the evaluation team (ProDev) with documents and participated in meetings. Related to Sida's helpdesk review/assessment, the EE Expert Function was requested by Sida to explore different options related to our legal and institutional platform.

Webpage: The EE Expert Function has continuously been updating its webpage.

Activities	Time allocation (weeks); Period: 21/9 - 31/12 2009							weeks	%	Budget
	AE	DS	OD	EC	GÖW	Other				
Swedish dev. coop. Strategies	0,4	0,0	0,0	1,3	2,9	0,0		4	10%	40%
Methodology dev. and advice	1,4	3,1	6,2	4,3	2,3	0,0		17,1	43%	15%
Training & communication	0,1	0,0	1,0	0,0	2,9	0,0		3,95	10%	3%
Method. Dev. in Int. Processes	2,4	1,2	1,1	0,0	0,1	0,0		4,65	12%	20%
Project management; ext. Actors	0,0	0,0	0,0	0,0	0,0	0,0		0,0	0%	3%
Staff competence development	0,2	0,0	0,6	0,4	0,4	0,0		1,55	4%	5%
Administration	2,7	0,7	2,6	1,3	1,4	0,0		8,7	22%	15%
GRAND TOTAL:	7,2	5,0	11,5	7,3	9,9	0,0		40,0	100%	100%

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## Report: Environmental Economics Helpdesk

Reporting date: Sept 21 2009

The report covers the period: April 13- September 20, 2009

### Comments

- Relatively less work on country strategy development support, a gradual shift towards follow-up and support to monitoring implementation? During the reporting period relatively less time has been allocated to support to *formulation* of cooperation strategies, compared with earlier periods. This is due to a lower number of requests from Sida during the period. We foresee that that the demand for support to *formulation* of Cooperation Strategies will continue to be lower than normally also during the next period, as there are fewer/no (?) new Cooperation Strategy processes in the pipeline. One issue to consider is whether the EE Helpdesk should allocate more time to provide support the country teams/Operations for implementation and follow-up of the newly developed strategies? So far this has not been proven to be easy and, if so, we need to discuss ways, means and focus of such support.
- More short-term requests, reducing strategic focus and high-quality long term support to country teams: During the period the demand from Sida has been high and has included considerably more short-term notice requests. A high number of such ad-hoc assignments may result in difficulties for the EE Helpdesk to plan its work, and loss of strategic focus including the long term support to country teams.
- Relatively more work on climate change capacity building and support: Arguably due to the Government's emphasis on (environment and) climate change as a thematic priority and the general focus on climate change globally, the EE Helpdesk has spent considerable time and relatively more work on climate change capacity building and support within Sida teams including the embassies.

## **Cooperation Strategies**

### **Africa**

Burkina Faso: Communication with the country team regarding country analytic work and cooperation with Poverty Environment Initiative (att: Albert Campaore, Emilie Göransson, Göran Björkdahl) August 17<sup>th</sup> and 24<sup>th</sup>.

Regional Africa: The EE Helpdesk submitted the final revised version of the Africa regional Environment and Climate Change Policy Brief (att: Åsa Bjällås, May 25, 2009). The EE Helpdesk commented on the Cooperation Strategy for Regional Africa (att: Åsa Bjällås). Comments were submitted on the 8<sup>th</sup> of September.

Namibia and Botswana: At Sida's request (att: Lennart Jemt) EE Helpdesk has provided advice (Sept 3, 2009) on possible areas and tools for intervention in the thematic area of environment and climate change in Sweden's selective cooperation with Namibia and Botswana in the coming strategy period.

### **Latin America**

Regional Latin America and the Caribbean: After comments a final draft of the Environment and Climate Change Policy Brief was submitted on 12<sup>th</sup> of May 2009 (attn: Karin Oskarsson). A two page summary of the Policy Brief was submitted (13<sup>th</sup> of May 2009, attn: Karin Rohlin) and presented at a meeting with the LAC reference group at Sida in Stockholm (18<sup>th</sup> of May 2009).

### **Asia and the Middle East:**

Cambodia: An Environmental Policy Brief for Cambodia was elaborated and draft versions submitted at several occasions: an outline of the Policy Brief was submitted on 12<sup>th</sup> of June, a zero draft 25<sup>th</sup> of June, and two more drafts on 6<sup>th</sup> and 9<sup>th</sup> of September, 2009. There has been frequent communication between the EE Helpdesk and the Embassy of Sweden in Phnom Penh, and the process has been participatory.

### **Europe**

Georgia: Advice was given to the Georgia team related to indicators and the results matrix (telephone meeting 3 June and 2 July 2009).

Ukraine: Advice was given to the Ukraine team related to indicators and the results matrix (telephone meeting 15 May 2009).

Macedonia: The EE Helpdesk submitted a revised version of the Environment and Climate Change Policy Brief for Macedonia (attn. Lisa Mossberg May 4<sup>th</sup> 2009).

Moldova: The EE Helpdesk commented on the Moldova National Human Development Report 2010. Comments were submitted to Sida Sept 3 (att: Gunnar Olvik, Madeleine Hägg Liljeström and Lilia Razlog).

SEI: The EE Helpdesk and SEI had a follow up meeting in Göteborg on August 20<sup>th</sup> (Göran Axberg Nilsson, Ben Smith, SEI-Oxford (skype)) to discuss cooperation on analytical input to Sida's cooperation strategies.

## **Methodological Development and Advice**

Environment and Climate Change Indicators: The work with environmental and climate change indicators continued. After receiving the newly defined sectors the EE Helpdesk submitted a revised language checked version of the "Environmental and Climate Change Indicators for Cooperation Strategies" (attn. Kristin Sinclair, Sept 17<sup>th</sup> 2009)

EIA rule/environmental screening note: EEU submitted written comments on environmental screening note and/or the EIA rule on 20 of April and 18<sup>th</sup> of May and August 28<sup>th</sup> (att: Annika Otterstedt).

Methodology development: Environment and Climate Change in Integrated Economic Analysis: At Sida's request (att: Lisa Roman, Kristin Sinclair), the EE Helpdesk updated the draft annex on Environment and climate change to the IEA methodology (May 5<sup>th</sup>). Following comments from Johan Kiessling a revised version was submitted (att: Johan Kiessling, Kristin Sinclair, Aug 25<sup>th</sup>)

Methodology development: Environment and Climate Change analysis in Integrated Poverty Analysis: At Sida's request (att: Annika Otterstedt), the EE Helpdesk submitted a revised draft of Environment and climate change analysis (Sept 11, 2009) as one of four analyses making up the Integrated Poverty Analysis, following comments by Maria Berlekom and Annika Otterstedt.

World Development Report 2010: At Sida's request, the EE Helpdesk provided comments on World Development Report 2010 (draft) in collaboration with Swedbio and the EA Helpdesk. Comments were also provided on the final version on 16<sup>th</sup> of September (Att: Håkan Berg, SwedBio).

EU strategy for integrating environment in development cooperation: The EEU submitted comments on the EU strategy to Sida (att: Maria Berlekom on the 22<sup>th</sup> of April.) At Sida's request the Helpdesk participated at the meeting in Brussels on the 16-17<sup>th</sup> of September where the strategy was discussed. Co-travelers Ulrika Åkesson, Sida, Anja Beier, MB Helpdesk.

Climate change guidance: At Sida's request the Helpdesk was asked to work on a guidance document for adaptation and mitigation. Drafts were sent to Sida (att: Ulrika Åkesson Aug 14<sup>th</sup> and 31<sup>st</sup>). The Helpdesk also provided comments on the related document on Climate change and the EU presidency (att: Ulrika Åkesson, Sep 1<sup>st</sup>).

Sida policy on environment and climate change-literature review: At Sida's request the Helpdesk identified a list of 35 key documents to feed into the work on a new policy at Sida. A broad range of institutions within and outside of Sweden and several Sida teams were contacted. Draft reports were submitted to Sida (att: Annika Otterstedt) on the 16<sup>th</sup> and 28<sup>th</sup> of June and a final report on Aug 10<sup>th</sup>.

Sida policy on environment and climate change-summary documents based on literature review: At Sida's request the EE Helpdesk summarised over 15 documents from the list of 35 key documents identified in the literature review. A draft version was submitted to Sida on the 4<sup>th</sup> of September 2009 (attn. Annika Otterstedt).

Assessment of Sida support Strengthening Environmental Institutions: At Sida's request (att: Annika Otterstedt) the EE Helpdesk has initiated an assessment of Sida support to strengthening environmental institutions in various partner countries. Initially, discussions have been conducted on focus and purpose of the assessment, and development of ToR for the task.

Sida policy on environment and climate change-overview of other actors policies: At Sida's request the EE Helpdesk reviewed other actors environment and climate change policies as a part of the background studies undertaken for the new policy at Sida. A draft version was submitted on the 14<sup>th</sup> of July 2009 (attn. Annika Otterstedt).

Sida's background document to an Environment and Climate Change Policy: The EE Helpdesk has been asked to comment on draft versions of Sida's background document to the Swedish Environment and Climate Change Policy. Comments were submitted twice, on 1<sup>st</sup> and 10<sup>th</sup> of September. At Sida's request, the EE Helpdesk attended the first internal reference group meeting in Stockholm on 11<sup>th</sup> of September, 2009.

OECD DAC Environet WP-STAT: At the request of Sida the EE Helpdesk participated at the OECD DAC Environet WP-STAT meeting in Paris on the 26<sup>th</sup> of June. A travel report was submitted to Sida on the 1<sup>st</sup> of July 2009 (attn. Ulrika Åkesson and Elisabeth Folkunger).

EU SWAps ENR meeting: At the request of Sida the EE Helpdesk participated as resource persons at the EU brainstorming meeting regarding Sector Wide Approaches (SWAps) in the Environment and Natural Resources sector in Brussels on the 26<sup>th</sup> of August. A travel report was submitted to Sida on the 1<sup>st</sup> of September (attn. Kristin Sinclair).

## **Training and Communication**

Coaching Burkina Faso: As a follow up to the coaching undertaken during the workshop in Ouagadougou in March, the Helpdesk has provided support to Albert Campaore and Susanne Spets.

Coaching Mali: As a follow up to the coaching undertaken during the workshop in Bamako in March the Helpdesk has provided support to Desiré Ballo, Mamby Fofana, Susanna Hughues and Malin Synneborn-Lundberg. The Helpdesk provided written comment on the PEI study on Mali and economics of environmental degradation (att: Jonathan Duwyn, PEI Nairobi) on the 15<sup>th</sup> of May and commented on a consultancy study for the climate change initiative (att: Mamby Fofana) on 5<sup>th</sup> of June.

NPO training at Sida: The EE Helpdesk participated as expert at Sida's National Programme Officer (NPO) training at Sida (April 22, 2009). Focus of the training was applications of Results Based management and the Results Matrix, and how they can be developed and followed up in a country context. Namibia was used as example. The training was followed

up with participants by provision of useful material and good examples, which may be used in their work as NPOs.

Mapping of donor training on climate change and environment: At the request of Sida (Ulrika Åkesson) the Helpdesk undertook a study of how other donor agencies are working with capacity development for their own staff. The mapping revealed upcoming initiatives from World Bank Institute and Train4Development and OECD DAC. The Helpdesk has been involved in various discussions to improve donor harmonisation around these issues. Contacts have also been made with Sida Team Competence (Låtta Brodén/Peter Swartling). A draft report was sent around to contributors and shared at the OECD High Level Meeting in May. The final report was shared extensively within OECD and other networks (att: Ulrika Åkesson, 16<sup>th</sup> of June). The Helpdesk presented the report at the EU meeting in Brussels on the 17<sup>th</sup> of September.

Climate change adaptation training workshop in Nairobi: At Sida's request (att: Ulrika Åkesson) the EE Helpdesk coordinated the planning of, and participated as experts in, the climate change-workshop for Sida (REED and Kenya teams) in Nairobi May 5-7, 2009. The aim of the workshop was to support the integration of climate change adaptation in Swedish development cooperation in the Africa region and in Kenya and Somalia.

UTSAM Network competence development days: At Sida's request the Helpdesk co-chaired a break out session on the theme Environment, climate change and growth on September 8<sup>th</sup>. The session was prepared and undertaken in collaboration with Kristin Sinclair, Sida.

Input to ITP training on climate change: The Helpdesk has provided input to SMHI for their planned ITP trainings in West Africa (Lisa Ekberg, May 3<sup>rd</sup>, Katarina Losjö, Aug 24<sup>th</sup>).

Coaching Nairobi: As a follow-up to the coaching session held at Nairobi workshop, the EE Helpdesk, in cooperation with SwedBio, submitted written support to Linda Bystedt (28<sup>th</sup> of May) and Anna Tufvesson (2<sup>nd</sup> of June).

Environment and Climate Change workshop in Phnom Penh: At Sida's request, the EE Helpdesk has been asked to coordinate the environment and climate change workshop for the Sida teams Regional Asia, Cambodia, Bangladesh, and Laos. The workshop is planned to be held during 13-15<sup>th</sup> of October in Phnom Penh, and is coordinated with the report-back seminar (12<sup>th</sup> of October) of the international Commission on Climate Change and Development. Until current date, the working group has held 4 telephone conferences. Furthermore, invitations have been distributed, and a draft program has been developed.

Sida Network days on Health and Education: Sida (attn: Ulrika Åkesson) requested the EE Helpdesk to provide input to the network day related to the thematic priority Environment and Climate Change, the linkages to the other thematic priorities and to the sectors health and education.

Sida Competence Development Days – Sustainable Services, Environment and Climate Change: Sida (attn: Pelle Persson) requested the EE Helpdesk to act as speaker (theme: "Environmental Economics in Development") and discussant at Sida's Competence Development Days – Sustainable Services, Environment and Climate Change (Aug 24, 2009).

## **Methodological Development in International Processes**

Country level environmental assessments: At Sida's request (att: Annika Otterstedt) the helpdesk provided input to the meeting in Paris 18<sup>th</sup> of June (att: Poonam Pillai, World Bank, and Tamara Levine, OECD) on the 28<sup>th</sup> of May. The Helpdesk also participated in the meeting that was held jointly with the OECD SEA Task Team. Travel report submitted 10<sup>th</sup> of August (att: Annika Otterstedt).

EC Draft Guidelines on the integration on environment and climate change in development cooperation: At Sida's request the EE Helpdesk submitted comments on draft EC guidelines with particular focus on Country analytic work and budget support (att: Ulrika Åkesson, Sep 1<sup>st</sup>). Further comments were also communicated during the EC workshop in Brussels on Sep 16-17.

World Bank, Environment Strategy: Anders Ekbom and Daniel Slunge met with Mrs. Yewande Awe (June 9, 2009) at the World Bank and discussed the World Bank's new Environment Strategy, as well as Sida's new Environment and Climate Change Policy. Contacts were made between Mrs. Yewande Awe and counterparts at Sida.

World Bank, Sida Trust Fund support to Environment Dept: The EE Helpdesk discussed implementation and future plans with the World Bank (in Washington DC June 9) in its use of Sida's Trust Fund support to the Environment Dept on work tasks such as development of Institutions centered SEA, poverty- environment analysis, integration of environment in PRS and Country Assistance Strategies (att: Kirk Hamilton, Glenn-Marie Lange, Ksenya Lvovsky, Jan Bojöö). The discussions were followed up with Sida (att: Kristin Sinclair) by providing comments on e.g. World Bank propositions on the use of unused funds, and its activity report for FY 2008.

World Bank, Workshop on Institutions centered SEA: The EE Helpdesk participated as experts, speakers and discussants in a workshop on development of Institutions centered SEA held at the World Bank (in Washington DC June 10-11). The I-SEA methodology and conceptual framework (developed by the EE Helpdesk (att: Slunge and Ekbom) and co-authors in Erasmus Universtiy and Netherlands Commission of Env Assessment) was presented and discussed, as well conducted and planned pilot I-SEAs in a set of countries on issues such as Forestry sector reform, Mining sector reform etc.

## **Management of Project Support to external actors**

### **Capacity Development**

Seminar on Climate change at Sida on the 2<sup>nd</sup> of June: The EE Helpdesk (Olof Drakenberg) participated at the seminar climate change adaptation presenting the findings of the Commission on climate change arranged by Sida.

Sustainable agriculture – policy-research links: The EE Helpdesk participated as resource person together with researchers, policy makers and practitioners, including Sida-representatives, at a UN Expert Meeting on Sustainable Land Management and Agricultural

Practices in Africa: Bridging the gap between research and farmers, at University of Gothenburg April 16-17 2009.

Research seminars: The EE Helpdesk has been attending research seminars at EEU as a part of our internal capacity building. *Examples* of seminars attended during the period are: Health impacts of extreme weather events in Sub-Saharan Africa (Limin Wang, World Bank); Making REDD (Reduced Emissions from Deforestation and Degradation) work for the Poor (Leo Peskett, ODI).

## Administration

Administration during the period included quarterly reporting, annual planning (2010 EEP Workplan), financial follow-up (budget planning and reporting (to Sida June 2009), and preparations of a new 5-year plan (2011-14). Administration also included communication with Sida and documentation of reports, statements etc., and participation in EEU's general planning and implementation of the Environmental Economics Programme.

Webpage: The EE Helpdesk has continuously been updating its webpage.

Activities	Time allocation (weeks); Period: 13/4-2009 -- 20/9 2009							weeks	%	Budget
	AE	DS	OD	ED	GÖW	Other				
Swedish dev. Coop. Strategies	2.2	0.0	2.4	2.4	3.4	0.0	10.4	18%	40%	
Methodological Dev. and advice	3.3	0.0	9.0	7.0	2.9	0.0	20.9	37%	15%	
Training & communication	3.0	0.0	2.8	1.2	5.1	0.0	11.9	21%	3%	
Method. Dev. In int. Processes	3.6	3.3	1.1	1.4	0.0	0.0	8.6	15%	20%	
Project management; ext. Actors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0%	3%	
Staff competence development	0.0	0.0	0.2	0.2	0.1	0.0	0.4	1%	5%	
Administration	0.8	0.2	1.0	1.2	1.1	0.0	4.3	8%	15%	
GRAND TOTAL:	12.9	3.5	16.4	13.3	12.5	0.0	56.3	100%	100%	

AE=Anders Ekbohm, 031-7864817

OD=Olof Drakenberg, 031-7862657

DS=Daniel Slunge, 031-7862638

ED=Emelie Cèsar, 031-786 2687

GÖW=Gunilla Ölund Wingqvist, 031-786 1902



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UNIVERSITY of GOTHENBURG  
Department of Economics

Sida's Environment and Climate Change Team

Att: Maria Berlekomp, Kristin Sinclair, Annika Otterstedt

105 25 Stockholm

cc.: Ulrika Åkesson, Elisabeth Folkunger, Klas Markensten, EME, SEI, SwedBio, Swedish EA-Center,

## Report: Environmental Economics Helpdesk

Reporting date: 21 April 2009

The report covers the period: December 10, 2008 – April 12, 2009

### Comments

- In addition to providing a analytical input to the cooperation strategy processes, the Environment and Climate Change Policy Briefs could and should be seen as a tool for learning. The information is highly relevant to the target groups and comes at a time when there is genuine interest for information on environment and climate change issues.
- There is a pertinent need for Sida to respond to the demands from operations particularly when it comes to guidance on how to integrate environment and climate change issues in new and existing programs, budget support and projects including the role of Strategic Environmental Assessments (SEAs), and how to measure results.
- Although the cooperation strategy processes are important there is scope for more alignment with and harmonisation among donors, including more frequent contacts with for example the donor lead in partner countries.
- Based on for instance the screening of Sweden's cooperation strategies performed by the EE Helpdesk during the previous reporting period, it appears that the area of environment and climate change is becoming increasingly important as a response to the Swedish government's thematic priorities. An increased demand is foreseen regarding (support to) formulation of goals (which may be adequately evaluated), identification of environment and climate change indicators, and monitoring implementation of the Cooperation Strategies. There is an emerging opportunity to investigate possibilities of using the Environment and Climate Change Policy Brief as a resource also during implementation and follow-up.
- There is a risk that the increased demand for training, coaching and information related to environment and climate change from operations and various policy teams cannot be matched. We think that there is need for a strategy/action plan on how to respond to the demand by use of various forms of training, coaching, information, the network for environment and climate change, Sida Inside etc.

## **Cooperation Strategies**

### **Africa**

Botswana: The EE Helpdesk submitted a suggestion of environmental and climate change impact, outcome and output indicators for the results' matrix to be attached to the cooperation strategy (att: Ulf Ekdahl ) 11<sup>th</sup> December 2008. The results matrix was presented at a meeting at Sida on the 15<sup>th</sup> of December.

Burkina Faso: The EE Helpdesk was invited to Ouagadougou (2-6 February) by the country team (Emilie Göransson, Albert Campaore) to participate in workshops on climate change organized by the Ministry of Environment and CILSS, to start planning for the workshop and to participate in meetings with Ministries.

Namibia: The EE Helpdesk submitted a suggestion of environmental and climate change impact, outcome and output indicators for the results' matrix to be attached to the cooperation strategy (att: Christina Danielsson) 11<sup>th</sup> December 2008. The results matrix was presented at a meeting at Sida on the 15<sup>th</sup> of December. The EE Helpdesk complemented the Namibian results matrix and submitted a new version to Sida (att: Christina Danielsson and Ulf Ekdahl) on 14<sup>th</sup> January, 2009.

Regional Africa: The EE Helpdesk participated at a start-up meeting with the regional Africa team at Sida Stockholm on 11<sup>th</sup> February. A first draft of a regional Environment and Climate Change Policy Brief for Sub-Saharan Africa was written together with colleagues in SEI-Oxford (Ben Smith and Anna Taylor) and was submitted to Sida (att: Åsa Bjällås) on 27<sup>th</sup> March.

### **Latin America**

Regional Latin America and the Caribbean: A first draft of a regional Environment and Climate Change Policy Brief for Latin America and the Caribbean was submitted to Sida (att: Karin Oskarsson, Managua) on 13<sup>th</sup> March. A telephone meeting between the EE Helpdesk, SEI Oxford, the Embassy in Managua and Sida HQ was held 24<sup>th</sup> March, to discuss the Policy Brief and next steps.

### **Asia and the Middle East:**

China: EEU complemented the submitted Environment and Climate change policy brief with an environment and poverty analysis and a brief overview of Swedish-Chinese actor cooperation. A new version of the Environment and Climate Change policy brief was submitted to Sida (att: Åsa Hedén) 10<sup>th</sup> of December.

### **Europe**

Georgia: A draft Environmental and Climate Change Policy Brief for Georgia was submitted to Sida (Att. Gunnar Olvik) on 30<sup>th</sup> January. The Policy Brief was followed-up by a telephone call to Gunnar Olvik and an e-mail message to the Embassy in Tbilisi.

Turkey: A draft Environmental and Climate Change Policy Brief for Turkey was submitted to Sida (att. Thomas Nyström) on 13<sup>th</sup> December.

Macedonia: A draft Environmental and Climate Change Policy Brief for FYR Macedonia was submitted to Sida (att. Lisa Mossberg) on 9<sup>th</sup> April.

## **Methodological Development and Advice**

Indicators: The work with environmental and climate change indicators continued. The EE Helpdesk submitted a revised version of the “Environmental and Climate Change Indicators” together with a results matrix case where Namibia was used as an example, to the MB-helpdesk as an input to the joint helpdesk work (EA and EE Helpdesks and SwedBio) with developing a framework for RBM and environmental sustainability indicators. Furthermore, the EE Helpdesk has participated at three indicator meetings (15<sup>th</sup> of December 2008; 6<sup>th</sup> of March; and 26<sup>th</sup> of March 2009) at Sida Stockholm during the period.

Environment and climate change in Cooperation strategies – matrix: EEU complemented the ‘cooperation strategy results matrix’ with new information on the level of environment and climate change mainstreaming in cooperation strategies. A new version of the “cooperation strategy results matrix” was submitted to Sida (att: Annika Otterstedt) on 5<sup>th</sup> March.

Development of SEA approach for Sida: In December Olof Drakenberg (EE Helpdesk), Anna Axelsson (EA Helpdesk) and Annika Otterstedt (Sida) participated in a series of workshops and meetings in Vietnam with the aim to develop Sida’s approach to SEA. A travel report from the OECD task team meeting on SEA in Vietnam, discussions with the Swedish embassy in Vietnam and with the Vietnamese Ministry on Environment was submitted to Sida (att: Annika Otterstedt) on the 17<sup>th</sup> of December 2008.

Guidance for the climate change initiative: At the request of Sida (att: Ulrika Åkesson) the Helpdesk provided comments on the new guidance for the climate change initiative, on the 26<sup>th</sup> of February.

Methodology development on Climate coaching: At Sida’s request (att: Ulrika Åkesson), the EE Helpdesk participated in a workshop at Sida (March 27<sup>th</sup>) on experience sharing and planning of climate change integration and coaching in Sida’s various work programs and teams.

World Development Report 2010: At Sida’s request, the EE Helpdesk provided comments on World Development Report 2010 (draft) in collaboration with Swedbio and the EA Helpdesk.

EU strategy for integrating environment in development cooperation: The EEU submitted comments on the EU strategy to Sida (att: Annika Otterstedt on the 27<sup>th</sup> of February and Kristin Sinclair on the 3<sup>rd</sup> of April). On the first occasion the Helpdesk also coordinated input from SwedBio and the Helpdesk for Environmental Assessment.

## **Training and Communication**

Mali- and Burkina Faso workshop: At the request of Sida (att: Annika Otterstedt) the Helpdesk was asked to coordinate the planning for the workshop in Burkina Faso and co-

coordinate the workshop in Mali (with the Helpdesk for Environmental Assessment). The work included preparation of the program, giving oral and written directions to external consultants, fine tuning the program, preparing presentations and group discussions and facilitating the workshops. Emelie Dahlberg and Olof Drakenberg participated as subject experts and facilitators in the workshops and prepared a draft “Experiences and lessons learned from the workshops in Mali and Burkina Faso” to Sida (att: Annika Otterstedt) on the 6<sup>th</sup> of April.

Coaching Burkina Faso: As a follow up to the coaching undertaken during the workshop in Ouagadougou in March, the Helpdesk has provided support to Albert Campaore and Susanne Spets.

Coaching Mali: As a follow up to the coaching undertaken during the workshop in Bamako in March the Helpdesk has provided support to Desiré Ballo, Mamby Fofana, Susanna Hughes and Malin Synneborn-Lundberg.

Coordination other Helpdesks: The EE Helpdesk met with Swedbio (Pernilla Malmer, Maria Schultz) in Gothenburg March 16 to plan and coordinate helpdesk activities vis-à-vis Sida.

Concept paper for Sida’s training initiative on Environment and Climate change: Following the workshop in Bolivia the Helpdesks for Environmental Economics and Environmental Assessments together with the Environment and climate change policy team developed a concept paper for training. A draft was submitted to Sida (att. Ulrika Åkesson, Annika Otterstedt) on the 9<sup>th</sup> of January.

Mapping of donor training on climate change and environment: At the request of Sida (Ulrika Åkesson) the Helpdesk undertook a study of how other donor agencies are working with capacity development for their own staff. Answers have been received from IR, DK, NO, EU, DE, UK, CH and WB. There are two main purposes; first to inform Sida’s planned training sessions and second, to identify opportunities for joint training. Findings were used during the planning of training for Burkina Faso, Mali and the regional workshop in Nairobi. Preliminary findings were also shared with Sida (att: Ulrika Åkesson etc) at the meeting on climate coaching on the 27<sup>th</sup> of March. Contacts have also been made with Sida Team Competence (Låtta Brodén). The report will be finalized in April.

Input to Sida’s network on environment, climate change and sustainable services: The Helpdesk submitted a targeted description to the network of the new OECD working paper “Greening development planning – a review of country case studies to make the economic case for improved management of environment and natural resources”. The document has been written for the OECD task team on Natural resources governance and capacity development by the Helpdesk for Environmental Economics, Sida and Swedish EPA. Attention Anna-Lena Erkén, 16<sup>th</sup> of February.

Training – climate change adaptation: At Sida’s request (att: Ulrika Åkesson) the EE Helpdesk has coordinated the planning of the Sida-workshop scheduled to take place in Nairobi May 5-7, 2009. The workshop aims at supporting integration of climate change adaptation in Swedish development cooperation in the Africa region and in Kenya and Somalia.

Tools and web sites on climate change adaptation: At the request of the country teams for Mali and Burkina Faso during the workshops, the EE Helpdesk, supported by SEI and Sida produced a guide to tools and web sites on climate change adaptation. The guide was sent to the country teams and the environment and climate change team on the 30<sup>th</sup> of March.

## **Methodological Development in International Processes**

Poverty-Environment Partnership: The EE Helpdesk participated at the 14<sup>th</sup> PEP-meeting in Geneva. The major themes discussed at the meeting included Green Economics, Environmental mainstreaming, Climate change and the International financing architecture. A travel report was submitted to Sida (att: Annika Otterstedt) on 8<sup>th</sup> April 2009.

Meeting with WWF-MPO: The environmental economics Helpdesk at EEU discussed and followed up on Sida's support to WWF Macroeconomics Program and generally identified results and conclusion useful to Sida's work in a telephone meeting with Jonathan Cook, Senior Program Officer, WWF Macroeconomics Program Office (MPO)

## **Management of Project Support to external actors**

No activities during the period.

## **Capacity Development**

Seminar on Forest and Climate change: The EE Helpdesk (Emelie Dahlberg) participated at the seminar Forest and Climate Change arranged by the Forest Initiative in Stockholm on the 16<sup>th</sup> of December, 2008.

Sustainable agriculture – policy-research links: The EE Helpdesk participated as resource person together with researchers, policy makers and practitioners, including Sida-representatives, at a UN Expert Meeting on Sustainable Land Management and Agricultural Practices in Africa: Bridging the gap between research and farmers, at University of Gothenburg April 16-17 2009.

## **Administration**

Administration during the period included quarterly reporting, annual reporting (2008 Annual report), budget follow-up (planning and reporting). Administration also included communication and documentation, and participation in EEU's general planning and implementation of the Environmental Economics Programme.

Videoconference facilities at the EEU: The Environmental Economics Helpdesk hosted a course regarding the e-conference system Marratech for the EEU with Carmen Parazajder and Svante Eriksson, IT-service University of Gothenburg, 21th January 2009, with the purpose of enhancing the Unit's and the EE Helpdesks opportunities to use e-conferencing to reduce on traveling to meetings.

<b>Time allocation (weeks): 09-12--2008 -- 04-12-2009</b>										
<b>Activities</b>	<b>AE</b>	<b>DS</b>	<b>OD</b>	<b>ED</b>	<b>GÖW</b>	<b>Other</b>	<b>weeks</b>	<b>%</b>	<b>Budget</b>	
Swedish dev. Coop. Strategies	1.9	0.6	2.5	5.0	4.7	0.0	14.6	37%	40%	
Methodological Dev. and advice	0.6	0.0	2.6	2.8	1.1	0.0	7.1	18%	15%	
Training & communication	1.2	0.0	5.2	3.5	0.0	0.0	10.0	25%	3%	
Method. Dev. In int. Processes	1.7	0.3	1.1	0.3	1.0	0.0	3.9	10%	20%	
Project management; ext. Actors	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0%	3%	
Staff comptence development	0.1	0.0	0.2	0.2	0.2	0.0	0.7	2%	5%	
Administration	1.2	0.0	0.7	0.7	1.1	0.0	3.7	9%	15%	
GRAND TOTAL:	6.7	0.9	12.3	12.5	8.1	0.0	40.0	100%	100%	

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OD=Olof Drakenberg, 031-7862657

DS=Daniel Slunge, 031-7862638

ED=Emelie Dahlberg, 031-786 2687

GÖW=Gunilla Ölund Wingqvist, 031-786 1902



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Sida's Environment and Climate Change Team  
Att: Maria Berlekom, Jessica Andersson, Annika Otterstedt  
105 25 Stockholm  
cc.: Ulrika Åkesson, Elisabeth Folkunger, Klas Markensten, EME, SEI, SwedBio, Swedish  
EA-Center, Daniel Talje

## Report: Environmental Economics Helpdesk

Reporting date:

The report covers the period: September 25, 2008 – December 9, 2008

### Comment

There is a need to clarify and communicate Sida's requirements and support tools as well as good practice regarding environmental integration/assessment in budget, sector and project support and in the strategic dialogue. This was one of the lessons learnt from the workshop in Bolivia on environment and climate change issues.

Increased demand for advice and support on climate change related issues in Swedish development cooperation as an effect of the Swedish Government's thematic priorities. This calls for close cooperation with Sida's climate change advisors and more coordination with SEI and others doing work on climate change in development cooperation which obtain Sida-support.

Sida's increased focus on results has the last few months initiated a new and plausibly growing demand for helpdesk input related to impact-, outcome-, and output indicators for environmentally sustainable economic growth and sustainable development.

## Cooperation Strategies

### Africa

Botswana: EEU submitted written comments on a draft version of the Swedish cooperation strategy for Botswana (att: Annika Otterstedt, Oct 08, 2008). EEU is elaborating outcome indicators for the results' matrix to be attached to the cooperation strategy (request from Ulf Ekdahl and Annika Otterstedt, Nov 20, 2008).

Namibia: EEU submitted written comments on a draft version of the Swedish cooperation strategy for Namibia (att: Annika Otterstedt, Oct 08, 2008). EEU is elaborating outcome indicators for the results' matrix to be attached to the cooperation strategy (request from Ulf Ekdahl and Annika Otterstedt, Nov 20, 2008).

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DRC: EEU submitted written comments on a draft version of the Swedish cooperation strategy for Democratic Republic of Congo (att: Jessica Andersson,

Rwanda: EEU submitted written comments on a draft version of the Swedish cooperation strategy for Rwanda (att: Jessica Andersson, Oct 10, 2008).

South Africa: EEU submitted written comments on a draft version of the Swedish cooperation strategy for South Africa (att: Annika Otterstedt, Oct 08, 2008).

### **Latin America**

Bolivia: EEU provided comments on the draft country strategy for Bolivia (att: Johanna Teague, October 2 and November 18). Daniel Slunge participated as a resource person in the planning and implementation of a workshop which took place in La Paz, Bolivia November 11-13. The purpose of the workshop was to build capacity on environment and climate change for Sida staff in La Paz and to initiate the development of a more general training module on these issues for Sida staff. EEU also coordinated the development of a Climate Change Analysis for Bolivia written by SEI. This study was submitted to Sida on November 3 (att: Sara Martinez-Bergström).

### **Asia and the Middle East:**

China: EEU has worked on developing and complementing the Environment and Climate Change Policy Brief for China based on comments received from Åsa Hedén, Sida. EEU collaborates with Ping Højding, SNV at the Embassy in China, Ben Smith at SEI and colleagues at Peking University.

Timor-Leste: After receiving comments on the draft Policy Brief for Timor-Leste from SwedBio and the EA-helpdesk, EEU submitted a final Environmental and Climate Change Policy Brief to Sida (att: Kerstin Lindberg, Oct 1, 2008).

### **Europe**

Georgia: EEU has agreed on Terms of Reference and initiated work to develop an Environment and Climate Change Policy Brief for Georgia at the request of Gunnar Olvik, Sida. The Policy Brief is scheduled for submission of a first draft by Jan. 30 2009

## **Methodological Development and Advice**

Swedish International Agricultural Network Initiative (SIANI): EEU hosted a meeting regarding the new Sida funded initiative SIANI, with Rasmus Klocker Larsen from SEI. The objective was to give input to this process by providing information on work done by the EEU and also make contact for future work. (Nov 20, 2008).

Indicators on environment and climate change: EEU submitted a written draft with suggestions of indicators for environment and climate change issues (att: Annika Otterstedt, Nov 21, 2008)

Development of new Climate Policy: EEU has initiated discussions and tentative planning for contributions to Sida's new Climate Policy. Suggested activities include conducting a seminar at Sida as a scientific input and guidance to the policy process.

Environment and climate change in Cooperation strategies – matrix: EEU reviewed current and up-coming Swedish cooperation strategies to systematically provide information on the level of environment and climate change mainstreaming. A 'cooperation strategy results matrix' was submitted to Sida (att: Jessica Andersson, Oct 27, 2008).

Pilot country cases for Environmental and Climate Change Analysis: EEU has been participating in the preparations of two pilot cases to test at country level the method for Environmental and Climate Change Analysis. Pilot countries are proposed to be Mali, Burkina Faso and Cambodia (att: Annika Otterstedt, Nov 28, 2008).

Method development of Policy Briefs: EEU is developing its internal procedures and methods to streamline and improve the environmental and climate change Policy Briefs.

## **Training and Communication**

Training Module on Environment and Climate Change: Based on the experiences from the workshop on environment and climate change in Bolivia, EEU, in collaboration with the EA helpdesk and the Environment and Climate change team, has initiated the development of a training module.

Web page: The environmental economics Helpdesk at EEU has been updating its webpage <http://www.handels.gu.se/eehelpdesk>

## **Methodological Development in International Processes**

Integrated Economic Analysis (IEA): The Helpdesk finalized the Annex on environment and climate change in the IEA for Mali (Mamby Fofana, Jessica Andersson) on Oct 23. The Annex was distributed to the Commission on Climate change during their meeting in Mali during the last week of October. The Helpdesk also provided comments to the IEA Burkina (att: Yves Bourdet, Jessica Andersson, 5 Nov).

OECD DAC/GPWSP Task team on Natural resources governance and capacity development for environment: Comments on Lessons learnt from public environmental expenditure within multi-year budgetary frameworks. The Helpdesk provided written comments to OECD Environmental secretariat (Nelly Petkova) on the 17 Oct, with copies to Jessica Andersson, Sida and Mats Olsson (SEPA). The Helpdesk also wrote a text on the Swedish experience of cooperation between Sida and SEPA to OECD Environmental secretariat (Roberto Hurtado) on Oct 17, as requested by Jessica Andersson, Sida and Mats Olsson, SEPA.

OECD DAC ENVIRONET: The Helpdesk provided written and oral input to the Environet meeting (att: Maria Berlekom).

OECD DAC/WPGSP TT Climate change adaptation: The Helpdesk provided written input to the draft (att: Elisabeth Folkunger, Nov 2008)

World Bank Pilot Program on Institutions Centered Strategic Environmental Assessment: In collaboration with researchers at Erasmus university EEU wrote a first draft Literature Review on institutions centered SEA which was discussed by invited experts at a workshop hosted by EEU in Gothenburg October 27-28. A second draft was finalized December 5. The literature review will guide the subsequent evaluation of the different SEA Pilots in the program.

World Bank/OECD Country analytic work: Together with Sida and SEPA, EEU participated at a workshop organized by the World Bank and OECD in Paris on Oct 28, 2008. The workshop was attended by multi- and bilateral agencies and had the purpose of sharing lessons of country environmental analytic work and improving donor coordination. EEU had a review meeting with Ben Smith, SEI (Oct 27, 2008) related to the cooperation between EEU and SEI on integrating climate change issues into Swedish cooperation strategies (att: Annika Otterstedt).

Contact with WWF: The environmental economics Helpdesk at EEU has made contact with WWF's Macro-Economics Programme Office (MPO) to follow up on Sida's support and generally identify results and conclusion useful to Sida's work.

## **Administration**

Videoconference facilities at the EEU: The environmental economics Helpdesk hosted a meeting regarding videoconference facilities for the EEU with Carmen Parazajder, IT-service University of Gothenburg, Nov 12, 2008.

Administration during the period included quarterly reporting, annual planning (2009 Annual Plan), budget follow-up (planning and reporting). Administration also included communication and documentation, and participation in EEU's general planning and implementation of the Environmental Economics Programme.

AE=Anders Ekbohm, OD=Olof Drakenberg, DS=Daniel Slunge, ED=Emelie Dahlberg  
GÖW=Gunilla Ölund Wingqvist



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cc.: Gunilla Eitrem, EME, SEI, SwedBio, Swedish EA-Center, Daniel Talje

## Report: Environmental Economics Helpdesk

Reporting date: Sept 26 2008

The report covers the period: May 20 2008 – September 25, 2008

### Comment

- Environmental assessment of General Budget Support (GBS): The EE Helpdesk is, from time to time, requested to provide advice on environmental issues in GBS (recently Mali and Burkina Faso). In the absence of very precise guidelines and expectations of this work we argue that there is a need to discuss (expectations of) the EE helpdesk's input to GBS and discuss improved methods.
- Positive collaboration with SEI on climate change: The collaboration with SEI Sthlm as well as the Oxford office has, in our view yielded very positive experiences regarding analytical input on climate change issues (adaptation, mitigation) in several Cooperation Strategies since they recruited staff (Ben Smith, SEI Oxford) with clear ToR for the task. EEU has received very useful input on a number of countries for which we have developed Environment and Climate Change Policy Briefs (e.g. Indonesia, China, South Africa, Timor Leste, Kosovo, Albania).
- Need to disseminate information from international joint analytical work: A question which has grown in importance over time is: how to bring in information from international processes into Sida and Swedish Development Cooperation? eg. the OECD/DAC and PEP-studies on Making the Economic case for Sustainable NR use, Pro-Poor Growth and Sustainable NR Management, etc. We think there is a need to discuss and identify appropriate channels for disseminating such information as well as tools (newsletter, briefs, seminars etc.).
- Inventory of Swedish environmental capacity and actors: Work in Cooperation Strategy processes, particularly in Strategies for selective cooperation based on actors collaboration, has raised the need to identify actors in the environmental field, Swedish capacity, and specific tools and areas for cooperation. Since this is outside the competence and mandate of the EE Helpdesk a suggestion is to let a consultant make an inventory of these issues (Swedish environmental capacities, comparative advantages and actors) and present it to Sida including the Embassies.

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- Engagement and feedback from World Bank Trust Fund on Environment and Development: Although there is in-depth collaboration regarding parts of the Sida-funded World Bank work on Strategic Approaches to Environment and Development, (namely the pilot programme on Institutions-centered SEA), more engagement with the World Bank on the other components of this programme would be useful.

## Cooperation Strategies

### Africa

Botswana: EEU submitted an Environmental and Climate Change Policy Brief revised final version (att: Rolf Folkesson, May 29, 2008).

EEU submitted written comments on a draft version of the Swedish cooperation strategy for Botswana (att: Annika Otterstedt, Aug 26, 2008).

DRC: EEU finalised and submitted an Environmental and Climate Change Policy Brief on June 5, 2008 (att: Petra Smitmanis Dry, Sida, och Åsa Palmgren, UM Kinshasa).

Namibia: EEU submitted an Environmental and Climate Change Policy Brief revised final version (att: Rolf Folkesson, June 04, 2008).

EEU submitted written comments on a draft version of the Swedish cooperation strategy for Botswana (att: Annika Otterstedt, Aug 29, 2008).

Mali: EEU submitted comments on the Swedish PM on budget support (att: Jessica Andersson, MIL, Sep 19th).

Burkina Faso: EEU submitted comments on the Swedish PM on budget support (att: Jessica Andersson, MIL, Sep 9th).

South Africa: EEU submitted an Environment and Climate Change Analysis (att: Anders Rönquist, Swedish Embassy, Pretoria, May 30, 2008).

EEU submitted written comments on draft versions of the Swedish cooperation strategy for South Africa (att: Annika Otterstedt, Aug 18)

EEU submitted suggestions on specific support (issues, potential actors) in the area of environment and climate change as part of the finalization of the Swedish cooperation strategy for South Africa (att: Annika Otterstedt, Sept 25)

Ethiopia: EEU submitted comments on the draft Country Strategy (att: Mats Åberg, May 30, 2008).

EEU submitted comments on the draft Country Strategy; draft Aug 19, 2008 (att: Mats Åberg, Aug. 22, 2008).

## **Latin America**

### **Regional:**

Daniel Slunge participated in a meeting at Sida with the Director of Catie on June 10 to discuss issues related to regional environmental cooperation and a program proposal developed by Catie.

Daniel Slunge participated in Sida's "Latin America day" in Stockholm on August 20.

**Colombia:** The final version of the policy brief *Environment, Climate Change and Conflict in Colombia* was submitted to Sida (att: Torgny Svenungsson, June 2).

**Bolivia:** Daniel Slunge participated in a meeting at Sida with staff from Sida's office in La Paz and NARTUR with the purpose of planning a workshop on capacity building in environment and climate change for Sida staff in La Paz. The workshop will take place November 11-13. Sida has asked EEU to provide comments on the draft country strategy for Bolivia (September 22).

## **Asia and the Middle East:**

**India:** EEU presented the policy brief on Environment and Climate Change at Sida on June 12<sup>th</sup> (att: Jan Essner, ASIA and Jens Bergren, NATUR).

**Indonesia:** EEU and Sida discussed a draft version of the Environmental and Climate Change Policy Brief for Indonesia at a meeting in Stockholm (att: Kerstin Lindberg, August 20, 2008). Thereafter, EEU submitted the final version of the Policy Brief (att: Kerstin Lindberg, Sida, and Frederik Frisell, Swedish Embassy, Jakarta, Sept 08, 2008).

**China:** EEU submitted an Environmental and Climate Change Policy Brief draft (att: Gunilla Eitrem, Sept 01, 2008).

**Timor-Leste:** EEU submitted a draft Environmental and Climate Change Policy Brief (att: Kerstin Lindberg, Sept 19, 2008).

**Regional:** EEU submitted a draft version of key regional environmental trends for South Asia and Southeast Asia, as an input to the regional poverty analysis for Asia (att: Emelie Dahlström, May 20, 2008). After comments provided to EEU at a meeting in Stockholm (att: Nasrin Hoseini, August 20, 2008), a finalized version was submitted to Sida (att: Olof Sandkull and Nasrin Hoseini, September 23, 2008).

## **Europe**

**Kosovo:** EEU submitted written comments on a draft version of the Swedish cooperation strategy for Kosovo (att: Annika Otterstedt, September 1, 2008).

## **Methodological Development and Advice**

### Preparation High Level Forum Accra 2008:

EEU assisted Sida in gathering information about Sida supported SEA work in Vietnam and commented on a short information note (att: Annika Otterstedt, Aug.21) about this work which was to be used at the high level forum on Aid Effectiveness in Accra.

Sida SEA group: Daniel Slunge participated in a seminar at Danida in Copenhagen June 16 to discuss tentative conclusions from a consultancy report on how to work with SEA in Danish development cooperation. EEU participated in a meeting with Sida's SEA group on August 29.

Integration of climate change in cooperation strategies: EEU developed and formalized a contract on cooperation on climate change integration in cooperation strategies with SEI (att: Göran Nilsson-Axberg, SEI) which is circulated for comment within Sida and among the contract parties before signature.

African Centre for Technology Studies (ACTS) Strategy 2009-2013: EEU provided written comments on African Centre for Technology Studies (ACTS) Strategy 2009-2013. The comments were written at the request of Sida's (att: Mats Åberg; Sept 18, 2008).

World Bank Strategic Framework for Climate Change and Development: After consultations with WRI, EEU provided written comments to the Framework strategy (att: Madeleine Hägg-Liljeström, May 30, 2008), and (att: Susanna Nilsson, September 15, 2008).

World Bank: Zambezi River Basin Multi-Sector Investment Opportunities Analysis: EEU reviewed and submitted written comments to the Inception report of a World Bank multi-sector/multi-country investment opportunity analysis in the Zambezi river basin (att: Therése Sjömander Magnusson, August 14, 2008). Furthermore, Gunilla Ölund Wingqvist participated at a meeting in Stockholm with the World Bank, the Embassy of Sweden in Maputo, Norad and Danida on August 20, 2008), where the Inception report and the continuation of the study was discussed.

## **Training and Communication**

OECD Environmental Outlook to 2030 seminar: Emelie Dahlberg participated at the OECD Environmental Outlook to 2030 seminar at Naturvårdsverket in Stockholm June 17, 2008

## **Methodological Development in International Processes**

PEP: Gunilla Ölund Wingqvist attended the 13<sup>th</sup> meeting with the Poverty Environment Partnership network in Manila, June 9-11, 2008. A written report was submitted to Sida on June 2, 2008 (att: Jessica Andersson).

OECD DAC EPOC Task team Climate Change Adaptation: Olof Drakenberg participated in the Task Team meeting in Zurich 29-30 May and provided submitted written comments on the OECD document Jun 9<sup>th</sup> (att: Jens Berggren/Mirjam Palm Sida MIL).

OECD DAC EPOC Task Team Natural resources Governance and Capacity Development:  
The EEU in collaboration with the Swedish EPA and Sida (Jessica Andersson) submitted the final version of the report “Greening Development Planning – making the economic case for improved management of environment and natural resources” to OECD Sep 12 (Remy Paris, OECD DAC).

World Bank-Sida Trust Fund Strategic Approaches to Environment and Development: EEU provided written comments on the World Bank Progress Report for the Trust Fund (att: Jessica Andersson, June 4). Important changes to one of the components in the program were proposed by the World Bank. These were briefly discussed in a meeting in Gothenburg June 27 with Kirk Hamilton, World Bank, Jessica Andersson, Sida and Daniel Slunge, EEU. Further attention should be devoted to the development of the World Bank program during the coming year.

World Bank SEA Pilot Program:

EEU has initiated the work on a literature review which will guide the subsequent evaluation of the SEA Pilot Program. The literature review is undertaken in collaboration with researchers at Erasmus University (which have been contracted by the Netherlands Commission for Environmental Assessment). As part of the literature review a first workshop was organized in Rotterdam on September 8 and a second workshop will be organized in Gothenburg on October 27-28.

## **Staff Competence Development**

World Water Week. Gunilla Ölund Wingqvist participated at the World Water Week seminar in Stockholm August 17-22, 2008.

## **Administration**

Administration during the period included annual reporting, budget follow-up (planning and reporting). Administration also included communication and documentation, and participation in EEU’s Steering group.

<b>Activities</b>	<b>Time allocation (weeks); Period: 20/5-2008 -- 25/9 2008</b>							<b>weeks</b>	<b>%</b>	<b>Budget</b>
	<b>AE</b>	<b>DS</b>	<b>OD</b>	<b>ED</b>	<b>GÖW</b>	<b>Other</b>				
Swedish dev. Coop. Strategies	1.5	1.7	2.3	8.0	6.1	0.0	16.4	37%	40%	
Methodological Dev. and advice	5.6	0.5	1.3	0.6	0.8	0.0	8.8	20%	15%	
Training & communication	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0%	3%	
Method. Dev. In int. Processes	1.2	3.7	5.7	0.5	1.4	0.0	11.2	25%	20%	
Project management; ext. Actors	0.0	0.0	1.0	0.0	0.0	0.0	1.0	2%	3%	
Staff comptence development	0.3	0.4	0.6	1.6	1.6	0.0	4.5	10%	5%	
Administration	0.8	0.5	0.7	0.4	0.5	0.0	2.9	6%	15%	
<b>GRAND TOTAL:</b>	<b>9.4</b>	<b>6.8</b>	<b>11.6</b>	<b>11.1</b>	<b>10.4</b>	<b>0.0</b>	<b>44.8</b>	<b>100%</b>	<b>100%</b>	

AE=Anders Ekbohm, OD=Olof Drakenberg, DS=Daniel Slunge, ED=Emelie Dahlberg  
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## Report: Environmental Economics Helpdesk

Reporting date: May 20, 2008

The report covers the period: Jan 1 2008 –May16 2008

### Comment

- The reporting period has been intensive in the sense that many new cooperation strategy processes have been initiated. The work has been challenging since the cooperation strategies are of various types with very different expectations, requests for support and different thematic focus. This point at the need to clarify the services provided by the EE Helpdesk.
- The government's identification of environment and climate change as a thematic priority has also increased the workload and attention to these aspects.
- During the period work has also been initiated to develop the method(s) for environmental and climate change analysis. This is done as a part of the methodology development for Sida's Integrated Poverty Analysis. This methodology work is timely and much needed, in particular in view of the large number of cooperation strategies under way, the increased interest in these thematic issues and the government's explicit thematic prioritization.
- The EE Helpdesk has taken part in two different cooperation strategy workshops organized by Sida. This is a rather new form of developing the strategies, and calls for a discussion on how MIL and the EE Helpdesk jointly best utilize these opportunities to integrate the environmental and climate change issues in the strategies.
- The EE Helpdesk finalized its process of recruiting new personnel and is very pleased with having employed Gunilla Ölund-Wingqvist Feb 1, 2008. She is a civil engineer with long experience of environment and development issues, and has worked around ten years at Sida.

## Cooperation Strategies

### Africa

Botswana: EEU performed an environmental and climate change analysis for Botswana as an input to the process of developing a Strategy for Selective Cooperation. The draft document was submitted to Sida (Rolf Folkesson, INEC) on 18 April 2008. Sida's comments were received 15 May and will be included into the final document.

DRC: EEU performed an Environment and Climate Change Analysis for DRC, as an input to the cooperation strategy process. A draft document was submitted to UM Kinshasa (Åsa Palmgren) and Sida (Eva Ladeborn, AFRA) on 18 April 2008. EEU presented the document at a country meeting in Stockholm 12 May.

Namibia: EEU performed an environmental and climate change analysis for Namibia as an input to the process of developing a Strategy for Selective Cooperation. The draft document was submitted to Sida (Rolf Folkesson, INEC) on 30 April 2008. Sida's comments were received 15 May and will be incorporated into the final document.

Liberia: EEU submitted an Environment and Climate Change Analysis (att: Åsa Bjällås NATUR and Anders Hellgren AFRA Feb 4 and Apr 28). On Feb 5<sup>th</sup> we had a telephone meeting to discuss findings and on Mar 12<sup>th</sup> the EEU submitted comments on the proposed country strategy and on Apr 2 additional comments (att: Annika Otterstedt).

Rwanda: EEU submitted an Environment and Climate Change Analysis (att: Åsa Broman AFRA and Arne Ström Kigali Mar 14<sup>th</sup> and Apr 29). On Apr 1<sup>st</sup> we had a telephone conference to discuss findings (AFRA, NATUR, Kigali) and on Apr 10<sup>th</sup> the EEU gave a brief on the analysis to (LUV and INEC) during the meeting in Uganda .

Zambia: EEU submitted comments on the Swedish cover note to the Joint Assistance Strategy (att: Alexandra Wachtmeister, MIL, Jan 21<sup>st</sup>).

Mali: EEU submitted comments on the Swedish PM on budget support (att: Jessica Andersson, MIL, Mar 17<sup>th</sup>).

Burkina Faso: EEU submitted comments on the Swedish PM on budget support (att: Jessica Andersson, MIL, Mar 17<sup>th</sup>).

Sudan: On two occasions EEU submitted written comments on draft versions of the Swedish cooperation strategy for Sudan (att: Anna Tufvesson, Jan. 31 and Feb 12)

Regional: EEU assisted Sida's Regional Water Initiative for Southern Africa (Embassy of Sweden in Maputo) to develop terms of references for a poverty analysis on a river-basin level in southern Africa.

Ethiopia: EEU submitted an Environment and Climate Change Analysis (att: Mats Åberg,). EEU submitted comments on Planning Document 1 (att: Mats Åberg) and the draft Strategy (att: Mats Åberg,). EEU also visited the Swedish embassy in Ethiopia (att: Margareta

Sundberg; March 18, 2008) and discussed integration of environment and climate change issues in the development of the first draft of the cooperation strategy.

### **Latin America**

Regional: EEU provided background documentation on environment and climate change to Sida's regional workshop on cooperation strategies for Latin American countries held in Guatemala in February 11-15. EEU also provided background documentation on environment and climate change in Latin America to the Foreign Ministry as background to a speech by the minister for development cooperation (att: Margareta Nilsson, April 17)

Colombia: EEU commented upon a 2 page document on linkages to the armed conflict to land issues and coca production. EEU was later asked by Sida to develop this into a broader analysis of environment and conflict linkages. EEU submitted a draft analysis titled *Environment, Climate Change and Conflict in Colombia* to the Sida office in Bogotá (att: Monica Wulfing, May 14).

Bolivia: EEU submitted written comments on a draft report on Politics and Land Tenure in Bolivia written by a team of consultants (Att: Sara Martínez Bergstrom, Sida's office in La Paz, March 12)

### **Asia and the Middle East:**

India: EEU submitted an Environment and Climate Change Analysis (att: Jens Bergren MIL Mar 14th). On May 13<sup>st</sup> we discussed complimentary work on the analysis and agreed to present the analysis at Sida on Jun 12<sup>th</sup> (Jan Essner ASIA).

Indonesia: Initial contacts have been taken on the drafting of an Environment and Climate Change Analysis for Indonesia (att: Linda Bystedt) at the Strategy Workshop in Härnösand (April 5-9, 2008). EEU also explained its services and how Environment and Climate Change issues may be addressed.

China: Initial contacts have been taken on the drafting of an Environment and Climate Change Analysis for Indonesia (att: Åsa Hedin) at the Strategy Workshop in Härnösand (April 5-9, 2008). EEU also explained its services and how Environment and Climate Change issues may be addressed.

Regional: Sida's Dept for Asia asked EEU to submit a brief document discussing regional environmental trends, defining issues and binding constraints in South- and Southeast Asia, as an input to Sida's regional poverty analysis. The document will be submitted 16 May 2008.

### **Europe**

Albania: EEU was asked to update the Environmental Policy Brief for Albania, which was developed during 2007, with climate change related information, as an input to the cooperation strategy process. An updated version was submitted to Sida (att: Lisa Mossberg, EUROPA) on 7 March 2008.

Kosovo: EEU was asked to update the Environmental Policy Brief for Kosovo, which was developed during 2007, with climate change related information as an input to the cooperation strategy process. An updated version was submitted to Sida (att: Fatos Mulla/UM Pristina and Gunnel Unge, EUROPA) on 11 March, 2008.

Ukraine: EEU provided comments on potential areas for an update of the Sida INEC-UUM commissioned report (co-authored by Karlberg, Nilsson and Carlsson; draft July 2005) on support to Ukraine and Belarus in the area of environment and climate. The comments below are formulated at the request by Lars Eklund, Sida-INEC and written by Anders Ekbohm (Feb 20, 2008).

EEU provided a summary of key policy documents in the environment, climate and energy areas. The summary was formulated at the request by Lars Eklund, Sida-INEC and written by Anders Ekbohm (April 15, 2008).

## **Methodological Development and Advice**

At Sida's request (Jens Berggren, 2008-01-29) EEU drafted a statement on Sweden's Response to the European Commission's (DG Development) draft Questionnaire on Member States Environment Integration Strategies.

Global Monitoring Report 2008: At Sida's request (Jessica Andersson, 2008-03-22) EEU provided comments on the joint publication by the World Bank and IMF "Global Monitoring Report 2008 - MDGs and the Environment: Agenda for Inclusive and Sustainable Development" (March 28, 2008).

EEU also participated with resource person (discussant, panelist) at a Sida seminar where the World Bank presented and discussed the "Global Monitoring Report 2008 - MDGs and the Environment: Agenda for Inclusive and Sustainable Development" (April 25, 2008).

State of Food and Agriculture 2008 – Payments for Ecological Services: EEU participated with resource person (speaker, panelist) on an SNF, FAO seminar where e.g. FAO presented the report "State of Food and Agriculture 2008 – Payments for Ecological Services" (April 24, 2008).

Preparation High Level Forum Accra 2008: At Sida's request (Annika Otterstedt, 2008-03-19) EEU assisted MIL in preparing for a preparatory meeting in the Accra process including identifying resource persons (Mar 28<sup>th</sup>).

Sida SEA group: EEU provided some initial ideas for the first meeting with an internal SEA group at Sida (att: Annika Otterstedt, April 4). By contacting Sida's office in Hanoi, EEU facilitated Sida with information about SEA work conducted which can be used as input to the preparations for the Accra conference (follow up of the Paris Declaration).

At Sida's request (Jens Berggren, 2008-05-05) EEU reviewed and commented the EU 2008 Annual Action Programme implementing the "Thematic Strategy Paper for the Environment and Sustainable Management of Natural Resources, including Energy (ENRTP) for the period 2007-2010" (May 7<sup>th</sup>, May 13<sup>th</sup>).

Integration of climate change in cooperation strategies: EEU, SEI and the Helpdesk for Environmental Assessment had organized a working meeting in Oxford (5-6 Feb). The objective was to improve collaboration and better integration of climate change adaptation in Environment and Climate change Analysis for Sida.

## **Training and Communication**

Sida Workshop: At Sida's request (Annika Otterstedt), EEU attended a 'writing-workshop' as a resource for Sida and field personnel involved in the process of developing Strategies for Selective Cooperation. The workshop was held in Härnösand between 6<sup>th</sup> and 9<sup>th</sup> of May.

At Sida's request (Joakim Beijmo, INFO, 2007-12-28) Olof Drakenberg participated on behalf of Sida in discussions on climate change with high school students. The meeting was organized as part of Al Gore's visit to collect the Gothenburg's International Environmental Prize on Jan 22.

At Sida's request (Anna-Lena Erkén/Mirjam Palm MIL, 2008-02-19) EEU provided an update on climate change adaptation of the e-learning material (Feb 20<sup>th</sup>, Mar 19<sup>th</sup>).

NATUR/RRD regional meeting Uganda: EEU participated in the annual regional meeting in Uganda. The objective was to inform about our work, make contacts for future work, contribute to the discussions and improve our knowledge of the work at Embassy level. (Uganda, Apr 6-11).

## **Methodological Development in International Processes**

OECD DAC SEA Task Team: EEU supported the Helpdesk for environmental assessment in commenting upon advisory notes on SEA and Climate change and SEA and Ecosystem services (Att Anna Axelsson, jan/feb).

OECD DAC SEA Task Team: EEU supported the Helpdesk for environmental assessment in commenting upon advisory notes on SEA and Climate change and SEA and Ecosystem services (Att Anna Axelsson, jan/feb).

OECD Environet in Paris Feb 26-28. At Sida's request (Alexandra Wachtmeister, MIL 2008-02-22) Olof Drakenberg participated in the ENVIRONET meeting on the 26th to support Åsa Wiberg, UD. The meeting was held back to back with the Task Team meeting on Natural Resources Governance and Capacity Development and the joint meeting between OECD DAC Environet and OECD WPGSP. Travel report 2008-03-31 (att: Alexandra Wachtmeister).

OECD DAC EPOC Natural resources Governance and Capacity Development: The EEU has a leading role in writing a report on one of the sub themes for the Task team. In close cooperation with Swedish EPA we are working on "Making the economic case for improved management of environment and natural resources governance in National development plans". Proceedings were presented at the OECD Task team meeting in Paris in February.

Meetings/work shops between EEU, Sida and Swedish EPA has been held in Stockholm on Feb 19<sup>th</sup> and Apr 23<sup>rd</sup>. (Att: Jessica Andersson). Work is ongoing.

World Bank SEA Pilot Program: EEU commented on a draft version of a joint work program (World Bank, Netherlands Commission for Environmental Assessment, Sida's helpdesk for environmental assessment and EEU) for the implementation of the pilot program (att: Fernando Loayza, World Bank, Feb.2). As part of the work program EEU will lead the work with a literature review on SEA at the policy level. A draft Terms of Reference for the literature review was sent to the working group for comments on May 2. EEU also invited Sida's helpdesk for gender analysis to provide written and oral comments on how gender issues can be better integrated in the SEA Pilot Program. A meeting with the gender helpdesk was held in Gothenburg on January 15.

## Administration

Administration during the period included annual reporting, budget follow-up (planning and reporting). Administration also included communication and documentation, and participation in EEU's Steering group.

During the period Emelie Dahlberg, environmental economist at EEU, extended her employment at the EE Helpdesk, and Gunilla Ölund-Wingqvist was employed Feb. 1, 2008. She is a civil engineer with a masters degree from Chalmers in Gothenburg, with long experience of environment and development issues. She has worked around ten years at Sida, with experiences from water resources management in Southern Africa.

Activities	Time allocation (weeks); Period: 1/1-2008-- 16/5 2008							%	Budget
	AE	DS	OD	ED	GÖW	Other	weeks		
Swedish dev. Coop. Strategies	5.3	2	6.4	9.3	8.2	1	32.2	47%	40%
Methodological Dev. and advice	4.7	0.2	3.6	0.2	0.5	0	9.2	14%	15%
Training & communication	0	0	0	1.3	0	0	1.8	3%	3%
Method. Dev. In int. Processes	3.3	1.7	6.2	5.7	0	0	15.7	24%	20%
Project management; ext. Actors	0	0	0	0	0	0	0	0%	3%
Staff comptence development	1	0.4	1	0.6	0	0	4	6%	5%
Administration	1.8	0.5	0.7	0.7	2	0	5.7	8%	15%
GRAND TOTAL:	15.9	4.8	17.9	16.4	13.3	1.0	68.1	100%	100%

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## Report: Helpdesk for Environmental Economics

Reporting date: 2008-03-07

The report covers the period: 2007-08-25 – 2007-12-31

### Comment

- After a period of policy formulation by the new Swedish government, the type and number of countries scheduled for cooperation strategies was clarified during this reporting period. This enabled the EE Helpdesk to be more pro-active in its work to integrate environmental issues in the planned cooperation strategies.
- In response to the new government's Budget Bill, the EE Helpdesk strived to strengthen its competence and capacity regarding climate change in development cooperation, by working more actively with resource persons within and outside Sida (e.g. SEI), with a particular focus on the cooperation strategies. Most likely this will imply revisions in methodologies as well as working procedures.
- The EE Helpdesk has also started to work on developing a new conceptual methodology regarding development and integration of environment and climate issues in the cooperation strategies, as well in the Integrated Poverty Analysis.
- The EE Helpdesk initiated a process of recruiting new personnel.

### Cooperation Strategies

#### Africa

Ethiopia: EEU submitted written comments on the EU Country Strategy Paper (att: Jessica Andersson, Oct.22).

Burkina Faso: EEU submitted written comments on the EU Country Strategy Paper (att: Richard Bomboma and Alexandra Wachtmeister, 19 Nov).

Rwanda: EEU submitted written comments on the EU Country Strategy Paper (att: Richard Bomboma and Alexandra Wachtmeister, 1 Nov).

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Mali: EEU submitted written comments on the EU Country Strategy Paper (att: Richard Bomboma ,Alexandra Wachtmeister, 19 Nov).

Sudan: As an input to Sida's cooperation strategy mission to Sudan EEU submitted a draft environmental policy brief on November 2<sup>nd</sup> (att: Anna Tufvesson). A final report, with more elaborate emphasis on conflicts and natural resources management, was submitted to Sida on December 5<sup>th</sup> and on December 7<sup>th</sup> a list of people with whom EEU had been in contact with during the analysis was sent to Sida in order to facilitate further contacts (att: Anna Tufvesson).

Tanzania: EEU submitted written comments on the EU Country Strategy Paper (att: Richard Bomboma, Nov 1). EEU also commented upon a draft report on budget support and environment in Tanzania (att: Åsa Bjällås, Nov 22). The report was one of four case studies conducted by ODI on behalf of the donor initiative on environmental integration in budget support.

Lake Victoria: Final version of the Environmental Policy Brief submitted (att: David Nilsson, Dec 19).

### **Latin America**

Bolivia: EEU submitted written comments on a draft Integrated Economic Analysis (att: Arturo Beltran, Sida La Paz, Nov.23).

### **Asia and the Middle East:**

#### **Europe**

Albania: EEU submitted an updated Environmental Policy Brief for Albania (att: Peter Troste, Sida Tirana, Oct 12).

Kosovo: EEU submitted an updated Environmental Policy Brief for Kosova (att: Fatos Mullah, Sida Pristina, Oct 12).

Montenegro: EEU developed an Environmental Policy Brief for Montenegro which was submitted to Sida on September 28 (att: Nela Jovic, Sida, Belgrad).

### **Methodological Development and Advice**

Gender and environment: EEU participated in a meeting at Sida on August 29 about gender and environment. EEU has commissioned the gender helpdesk at the School of Global Studies at Göteborg University to analyze how gender aspects can be better integrated in the Sida funded World Bank Programme on Strategic Environmental Assessments.

Meetings with other helpdesks: EEU participated in coordination meetings with the helpdesk for environmental assessment October 25<sup>th</sup> and the gender helpdesk at the School of Global Studies at Göteborg University on October 26<sup>th</sup>.

International helpdesk-meeting: EEU participated in the international meeting of Helpdesks in Uppsala on September 18-19. It included participation from Danida, GTZ, EU, SLU and the Netherlands Commission for Environmental Assessments, Swedbio and Sida.

SENSA: At Sida's request EEU provided oral comments on SENSA's annual plan (att: Gunilla Eitrem, MIL (Sept. 12)).

Environmental Economics Program at UNEP: EEU contributed with written comments and oral advice related to Sida/SwedBio funding of a UNEP proposal to undertake environmental economic valuation of ecosystem services (att: Maria Schultz, Swedbio, December 19<sup>th</sup>).

Environment and Climate Analysis: Discussions have been held with Sida, SEI and SwedBio on developing a new conceptual methodology and brief practical guidelines to Sida staff on conducting an Environment and Climate Analysis as part of Sida's Integrated Poverty Analysis, and as an input to CS development. A meeting to discuss the issue was held at Sida on the 24<sup>th</sup> of November together with representatives from Sida and Swedbio at the request of Alexandra Wachtmeister.

OECD Climate change: The EEU provided comments on the *DAC Guidance on Integrating Climate Change Adaptation into Development Co-operation* (att: Mirjam Palm, November 15<sup>th</sup>)

Climate Change: Meetings have been held with Mirjam Palm on the 6<sup>th</sup> of November and SEI and Mirjam Palm on the 24<sup>th</sup> of November to discuss greater cooperation between the Helpdesk and SEI.

Integrated Economic Analysis (IEA): Method development related to integration of environment and climate change in the IEA for Mali, see above. The draft was discussed with Sida MIL, POM, AFRA and Yves Bourdet on the 24<sup>th</sup> of October.

## **Training and Communication**

World Development Report 2008: The World Bank's World Development Report 2008, Agriculture for Development was presented by World Bank representatives at the School of Business, Economics and Law, Göteborg University November 16 with resource persons represented by Sida (Lasse Krantz) and other organizations and universities.

Indicator workshop: Olof Drakenberg and Daniel Slunge participated in a workshop at Sida on October 11 about results based management and environmental indicators, arranged by Sida's environmental policy division.

Training event on poverty analysis: EEU participated in a training event on poverty analysis for Sida staff going on mission abroad (Stockholm, November 29).

Stockholm forum for disaster reduction and recovery: The EEU (Gunnar Köhlin/Olof Drakenberg) participated in the conference on Disaster Reduction and Recovery and Climate Change on the 23-24<sup>th</sup> of October.

## **Methodological Development in International Processes**

#### PEP paper on Poverty, Health and Environment:

The Helpdesk facilitated communication within Sida to promote the signing of the interagency paper on Poverty, Health and Environment (att: Alexandra Wachtmeister/Susanne Lokrantz).

OECD DAC SEA Task Team: In collaboration with the Sida helpdesk for environmental assessment EEU provided comments on guidance notes for SEA and climate change and SEA and ecosystem services respectively (att: Barry Dalal-Clayton, Dec 19).

World Bank SEA Pilot Program: EEU arranged a workshop on institutions centred SEAs on October 1<sup>st</sup> at the University. Presenters were Fernando Loayza from the World Bank and Rob Verheem from the Netherlands Commission for Environmental Assessment. Anna Axelsson from the Sida EA-helpdesk also participated in the planning of the joint work related to the Pilot Programme which formed part of the workshop. On October 2<sup>nd</sup> Daniel Slunge and Fernando Loayza participated in a workshop related to the pilot programme at Sida. Fernando Loayza gave four different presentations.

Environmental Fiscal Reform: Daniel Slunge and Thomas Sterner participated as presenters at a the “special workshop on Environmental Fiscal Reform in Developing, Emerging and Transition Economies” hosted by BMZ/GTZ in Munich October 18-20. Moses Ikkiara from the Sida financed Environment for Development Center in Kenya (KIPPRA) also presented at the workshop. A report from the workshop was sent to Sida on November 4 (att: Jessica Andersson).

ACPEG: Daniel Slunge participated in a telephonemeeting with the steering group for the African Conference on Poverty, Environment and Growth on October 15<sup>th</sup>. A report from the meeting was sent to Sida (att: Mats Segnestam, Oct.16).

OECD DAC EPOC Natural resources Governance and Capacity Development: The EEU has a leading role in writing a report on one of the sub themes for the Task team. In close cooperation with Swedish EPA we are working on “Making the economic case for improved management of environment and natural resources governance in National development plans”. (Att: Jessica Andersson) The work is ongoing and case studies are to be presented at the task team meeting in Paris on 28<sup>th</sup> of February.

### **Management of Project Support to External Actors**

Agreement with IIED in support of the Work Programme of OECD DAC Environet Task Team on SEA: After several extensions of the contract period, EEU received the final report from IIED (the Task Team’s technical secretariat) on December 18.

### **Administration**

Administration during the period included annual and quarterly planning and reporting, including budget follow-up (planning and reporting). Administration also included communication and documentation, and participation in EEU’s Steering group.

During the period Antonia Sanchez Hjortberg decided to end her employment at the Helpdesk. She was temporarily replaced by Emelie Dahlberg, environmental economist at EEU. In parallel the EE Helpdesk started a process to recruit a permanent substitute to Sanchez Hjortberg. After interviews and evaluation of several applications EEU decided to recruit and employ Gunilla Ölund-Wingqvist. She took up her new position Feb. 1, 2008.

Time allocation (weeks); Period: 25/8-2007--31/12 2007								
Activities	Time use					weeks	%	Budget
	AE	DS	OD	ED	Other			
SEA IN SWEDISH DEV. COOP.STRATEGIES	0.65	0.5	5.7	4.05	0	10.9	33%	40%
METHODOLOGICAL DEV. AND ADVICE	0.55	1.5	3.65	0.9	0	6.6	20%	15%
TRAINING & COMMUNICATION	0	0.2	0	0	0	0.2	0.6%	2.5%
METHODOLOGICAL DEV. IN INT. PROCESSES	1	1.8	4.05	3.85	0	10.7	32%	20%
MANAGEMENT OF PROJECT SUPPORT	0	0	0	0	0	0	0.0%	2.5%
STAFF COMPTENCE DEVELOPMENT	0.25	0	0.9	0.65	0	1.65	5%	5%
ADMINISTRATION	1.85	0.45	1.2	0	0	3.5	10%	15%
<i>GRAND TOTAL:</i>	<i>4.3</i>	<i>4.25</i>	<i>15.5</i>	<i>9.45</i>	<i>0</i>	<i>33.4</i>	<i>100%</i>	<i>100%</i>

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## Report: Helpdesk for Environmental Economics

Reporting date: 2007-08-29

The report covers the period: 2007-04-25 – 2007-08-24

### Comment

- Responding to Sida demands of being a flexible support and dialogue partner for environmental integration in cooperation strategies, EEU has visited Sida offices in Serbia and Kenya during the reporting period. In order to meet Sida's demand for more thorough analyses related to Bolivia and Lake Victoria, the length of these Environmental Policy Briefs has increased considerably. Field consultations as well as writing longer documents are time-consuming which stresses the need for always discussing priorities in relation to involvement in cooperation strategy processes.
- The report about the time spent by EEU on different tasks included in this report will hopefully facilitate prioritization of time as well engagements.
- Given the multitude of themes and interactions associated with each cooperation strategies, and the decentralization of the CS formulation process, we believe it is important to discuss the role of the environmental policy division in the CS processes.

### Cooperation Strategies

#### Africa

Lake Victoria: ongoing work with an Environmental Policy Brief. Field trip in June 9-15 to Kenya for meetings with Lake Victoria Basin Commission, World Bank Regional Programme for Lake Victoria LVEMP II, Nile Equatorial Lakes Subsidiary Programme of the Nile Basin Initiative, City of Kisumu and Lake Victoria Regional and Local Authority Cooperation, Kenyan Ministry of Environment. Wilfred Nyangena of EFD Kenya participated in all meetings and David Nilsson of the Swedish Lake Victoria Initiative participated in several meetings and in a debriefing meeting. Ongoing work with Burundi, Tanzania, Rwanda, Uganda and Kenya (att: David Nilsson).

A first draft Environmental Policy Brief will be submitted to Sida on August 31.

Uganda: EEU submitted comments on Sida's assessment of preconditions for general budget support for poverty reduction (att: Anna Liljelund, June 7)

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Kenya: EEU submitted written comments upon a draft Swedish country strategy position in relation to KJAS (att: Anna Liljelund, June 7).

### **Latin America**

Honduras: EEU Submitted written comments on how environment had been integrated in the new draft PRSP (att: Marcela Lizana, RELA, May 3<sup>rd</sup>).

Bolivia: Responding to a request from Sida's office in La Paz regarding SEA and land reforms, EEU provided background information and facilitated contacts with the Netherlands Commission for Environmental Assessment who has been working with an SEA program in Bolivia (att: Emilie Göransson, May 10).

EEU submitted a draft Environmental Policy Brief on May 25<sup>th</sup> (Emilie Göransson). After adjusting for comments received upon an earlier draft, a final version (26 pages + appendices) was submitted to Sida on July 2 (att: Emilie Göransson).

### **Asia and the Middle East:**

#### **Europe**

##### ***West Balkan:***

Serbia: After incorporating comments on an earlier draft, a revised version of the Serbia Environmental Policy Brief (EPB) was sent to the Sida office in Belgrad (att: Nela Jovic, July 3).

Albania: EEU sent a draft Albania Environmental Policy Brief to Sida's Programme Officer (Peter Troste) in Albania on May 29 for comments. Parts of the draft EPB was used and presented by Peter Troste at Sida's seminar in Belgrade on 6 June. After incorporating comments on the first draft, a revised version of Albania EPB was sent on June 26 (att: Peter Troste).

Kosovo: A preliminary EPB was sent to Sida's Programme Officer (Fatos Mulla) in Kosovo before the Sida meeting in Belgrade on 6 June. A more elaborated version was submitted on 11 July and after adjustments for further comments, a revised version was submitted on 6 August (Att: Fatos Mulla and Tomas Nyström, INEC).

Montenegro: Literature search has been initiated and the work on an EPB on Montenegro will be taken up during the last week in August (a draft version shall be ready by Mid September).

Regional meeting for National Programme Officers on Environment, Belgrade: Daniel Slunge and Antonia Sanchez Hjortberg participated in a regional Sida meeting on June 6 in Belgrade. The main goals of the meeting were to exchange experiences and brainstorm for new ideas as an input in the planning of future Sida-assistance in the region. EEU gave a presentation on linkages between environment, poverty and economic growth, partly based on the environmental policy briefs which had been developed. A report from the meeting (by Nela Jovic, NPO Serbia) has been communicated to MIL (Jessica Andersson, 22 August). On June

4-5 EEU also participated in a Sida funded regional conference on local environmental action plans in Becej, Serbia.

## **Methodological Development and Advice**

Evaluation of Sida's work on environmental integration: Daniel Slunge participated at a meeting with MIL in Stockholm on May 7<sup>th</sup> where the process of responding to the evaluation was discussed. EEU commented (orally and in writing) on (1) the synthesis report "mainstreaming at Sida", (2) what EEU's response to the recommendations in the evaluation could be and (3) suggestions on what the environmental policy division should emphasize at a meeting about the evaluation with Sida's management in June.

Natural Resources in Sub-Saharan Africa: Assets and Vulnerabilities: Written comments on the report Natural Resources in Sub-Saharan Africa: Assets and Vulnerabilities (2007) written by Johan Holmberg, were submitted to Sida (att: Jessica Andersson, June 20, 2007). The report constitutes an input to the Swedish Government's Whitepaper on Africa.

Integrated Economic Analysis (IEA): A meeting with EEU, Jessica Andersson, Sida MIL, and Elina Eskola, Sida INEC, was held in Goteborg August 20. How to improve the integration of environmental aspects in IEA, and how Sida and EEU can collaborate in this respect, were discussed.

Environment as a dialogue issue at the Embassies: On going. Meeting with Alexandra Wachtmeister, Annika Otterstedt, Anna Axelsson 9<sup>th</sup> of May and pre meeting with Eva Stephansson and Anna Axelsson on the 26<sup>th</sup> of April.

Preparation for OECD DAC Environet meeting on the 23 of May: Comments on the different documents and agenda items were submitted to Mats Segnestam on May 18<sup>th</sup>.

Comments on OECD DAC/EPOC Study on "Environmental dimensions of policy coherence for development": Written comments on the study were submitted to Sida (Att: Mats Segnestam June 15<sup>th</sup>).

## **Training and Communication**

E-learning training module: The EEU contributed with final modifications and material for the launch at Sida (att: Anna-lena Erken, Annika Otterstedt). Meetings at Sida 9<sup>th</sup> of May and launch 29<sup>th</sup> of May.

## **Methodological Development in International Processes**

African Conference on Poverty, Growth and Environment (ACPEG): Daniel Slunge participated in a meeting with the steering group on June 20 in Copenhagen. The meeting concluded that in order to revitalize the ACPEG-process the managers After a period of inactivity

PEP-meeting in Copenhagen June 18-20: EEU participated at the PEP meeting (Olof Drakenberg and Antonia Sanchez Hjortberg, June 18-19; Daniel Slunge, June 20) and submitted a report from the meeting to Sida (att: Alexandra Wachtmeister, July 4).

## Management of Project Support to External Actors

OECD DAC Task Team on SEA: After discussions with the chairman and the secretariat it was agreed that the remaining Sida funds should be used to produce key sheets on specific themes (e.g. SEA and climate change).

### Administration

Administration during the period included planning, reporting, communication and documentation, with the purposes of improving administrative and organizational structure, enhance budget follow up and reporting to Sida (including time management). Administration also included planning and conducting internal meetings and participation in EEU's Steering Group.

The period was extra-ordinary in the sense that it included the employment and introduction of Antonia Sanchez Hjortberg to her work tasks. As a new way of reporting, this report includes information below on time use in relation to different helpdesk activities during the period January 1<sup>st</sup> to August 24<sup>th</sup> 2007.

ACTIVITIES	Time allocation (weeks); Period: 1/1-24/8 2007							
	AE	DS	OD	ASH	Time use		Budget	
					weeks	%		
SEA IN COOPERATION STRATEGIES	1	8.1	8.1	8	25.2	47%	40%	
METHODOLOGICAL DEV. AND ADVICE	1	0.4	4.6	1.6	7.6	14%	15%	
TRAINING & COMMUNICATION	0	0	0.2	0	0.2	0.4%	2.5%	
METHODOLOGICAL DEV. IN INT. PROCESSES	0.6	8.4	5.4	0.6	14	26%	20%	
MANAGEMENT OF PROJECT SUPPORT	0.2	0	0	0	0.2	0.4%	2.5%	
STAFF COMPETENCE DEVELOPMENT	1	1.2	0.8	3	6	11.1%	5%	
ADMINISTRATION	2.9	2.3	2	1.1	8.3	15.4%	15%	
GRAND TOTAL:	5.7	20.0	16.5	12.7	53.9	100%	100%	

AE=Anders Ekbohm, OD=Olof Drakenberg

ASH=Antonia Sanchez-Hjortberg, DS=Daniel Slunge



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## Report: Helpdesk for Environmental Economics

Reporting date: 2007-04-27

The report covers the period: 2006-11-02 – 2007-04-24

### Comment

There are a few things that EEU would like to highlight related to the period covered by the report:

- After investing time and energy in an ambitious recruiting process, EEU was happy to welcome Antonia Sanchez-Hjortberg as a new colleague at the helpdesk on April 16.
- Despite the decision by the Swedish government to put cooperation strategy processes on ice, demand for helpdesk analytical input has continued, particularly related to Lake Victoria, West Balkan and Bolivia. In addition the helpdesk has been asked to comment on a number of Sida's budget support assessments (see "Cooperation Strategies" below). There is a continued need to develop and discuss appropriate methodologies for environmental integration in budget support, cooperation strategies and Sida's poverty analyses.
- The demand from Sida on helpdesk participation in international processes continues to be high (with ACPEG and the DAC/EPOC working group as two of several novelties). There is a need for continuous dialogue between MIL, relevant Swedish ministries and the helpdesk in order for making maximum use of the helpdesk participation in international processes. Such a dialogue has been pursued in relation to PEP, ACPEG and DAC but there is a need to elaborate on the forms for this dialogue. How MIL and the Helpdesk are to work with issues related to the European Union merits further discussion.

### Cooperation Strategies

#### Africa

Regional and Sub-regional Development Cooperation in Sub-Saharan Africa: Written comments were submitted on a revised Regional Strategy draft (att: Alexandra Wachtmeister, Nov. 14).

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Kenya: Joint Assistance Strategy. Written comments were submitted on the Performance Assessment Framework of the Kenyan JAS (att: Alexandra Wachtmeister, Apr 18<sup>th</sup>).

Lake Victoria: ongoing. A concept note has been agreed (att: David Nilsson, Mar 29). Work will involve Efd Tanzania and Efd Kenya.

Ethiopia: EU Country Environmental Profile. Written comments were submitted on an EU Country Environmental Profile (att: Ingrid Löfström-Berg, Nov. 28).

Zambia: Joint Assistance Strategy Written comments were submitted on JASZ (att: Jessica Andersson, Feb 12).

Burkina Faso: Budget support assessment: Literature and input was provided as input to a discussion on budget support (att: Jessica Andersson, Nov 22).

Mozambique: Budget support assessment. The EEU submitted written comments on the assessment of budget support (att: Pernilla Stålhammar, Mar 6<sup>th</sup>).

Mali: Budget support assessment: The EEU submitted written comments on the assessment of budget support (att. Lollo Darin, Mar 29<sup>th</sup>).

### **Latin America**

Central America: Daniel Slunge participated in a preparatory meeting (Sida, November 7) with NATUR with the purpose of discussing key poverty-environment issues in the different policy briefs produced with the head of NATUR prior to the different Country Meetings in Central America.

Colombia: EEU submitted written comments on the ToRs for a study on poverty and conflicts in Colombia (att: Monica Wulfing, Nov.15). At RELAs and MILs request EEU initiated the work on a policy brief about poverty and environment issues. The work has been postponed until new directives from the government are ready.

Bolivia: In collaboration with the Sida office in La Paz, EEU has developed ToRs for a desk study on poverty and environment issues in Bolivia. Sida in La Paz would like EEU to write a 15-20 page paper instead of the normal 4-6 page policy briefs. The analysis shall include an assessment of a few specific sectors. A first draft shall be submitted to Sida on May 11. EEU provided written comments on the draft ToR for an Integrated Economic Analysis that Sida is planning to undertake in Bolivia (att: Johanna Teague, Dec.1).

### **Asia and the Middle East:**

Vietnam: Input to Mid Term Review. EEU submitted a note on Environmental issues and challenges in Vietnam as an input to the Mid-Term Review of Sweden's current cooperation strategy with Vietnam (Att: Annika Otterstedt, Feb. 1)

## **Europe**

Serbia: EEU submitted a 6 page policy brief as an input to a seminar in Belgrade where the upcoming strategy process will be discussed (att: John-Olov Vinterhav, Sida, Belgrade, April 19th).

Albania, Montenegro and Kosovo: EEU has initiated writing policy briefs. Drafts will be discussed at seminar in Belgrade in which EEU has been invited to participate.

## **Methodological Development and Advice**

DAC Environet meeting: EEU provided Mats Segnestam with written as well as oral input prior to his attendance to the meeting with DAC ENVIRONET (Nov. 11).

Study on environment and inequality in Kenya: KIPPRA submitted the final draft of the study to Sida on April 2<sup>nd</sup> (att: Ulrika Åkesson). At EEU's initiative the findings of the study were presented at a lunch meeting at the Swedish Embassy in Nairobi on February XX. EEU has contributed very actively to the report through several rounds of detailed commenting and through meetings with KIPPRA. At a seminar in Gothenburg on January 15 professor Arne Bigsten commented on the report which was presented by KIPPRA's director Dr. Moses Ikiara.

The Evaluation of Sida's Work with Environmentally Sustainable Development: EEU compiled the findings and recommendations of the evaluation in format that facilitated the discussions at an internal workshop arranged by the Environmental Policy Division. Daniel Slunge participated in the workshop in Stockholm, January 16 and 18. EEU also participated during the seminar at Sida on April 12 when the final evaluation report was presented by the consultants.

Environment as a dialogue issue at the Embassies: The EEU has interviewed selected people at the Swedish embassy in Kenya and developed a proposal for further work with the issues. A teleconference was held on March 5<sup>th</sup> with Annika Otterstedt and Alexandra Wachtmeister.

RRD: EEU met with representatives from RRD in Nairobi on February 7<sup>th</sup>.

Kenya Field Trips: Olof Drakenberg and Daniel Slunge participated in the NATUR and Embassy field trips to Kisumu (Feb.4-6) and Wajir (Feb. 8-10). A report from the field trip and the different meetings in Kenya was submitted to Sida on March 28 (att: Alexandra Wachtmeister).

Sustainability guidelines for Urban Development: EEU provided oral and written comments on the draft Sida Guidelines for sustainable cities during a seminar arranged by INEC in Stockholm, March 15.

Sida support to World Bank trust fund on trade and environment: EEU submitted written comments related to the proposed support to the trust fund (Att: Martin Hessel, March 23). As part of the process of preparing the comment EEU interviewed the World Bank Trade and Environment specialist Mr. Muthukumara Mani. Minutes from this interview was sent to Sida (Att: Martin Hessel, April 3<sup>rd</sup>).

World Development Report: EEU submitted written comments on the draft WDR-08 (att: Daniel Asplund, April 16<sup>th</sup>).

Toolbox for integrating the income of the rural poor: EEU in collaboration with the helpdesk for environmental assessment provided written comments (att: Daniel Asplund, Nov 24).

EU: Environmental and Natural Resource Thematic Programme. The EEU submitted written comments on the thematic programme (att: Eva Joelsdotter-Berg, Mar 14<sup>th</sup> and Gunilla Eitrem, Apr 20<sup>th</sup>).

Kenya: Land policy. Written comments were submitted on the proposed Kenyan land policy (att: John Ndiritu, Apr 3<sup>rd</sup>).

Cooperation strategies: Input to discussion with POM. The EEU submitted written comments on the future work on analytical input to Sida's cooperation strategies (att: Jessica Andersson, Apr 23<sup>rd</sup>).

## **Training and Communication**

E-learning training module: The EEU has completed the test version of training material (att: Anna-lena Erken, Annika Otterstedt) and participated at meeting in Stockholm on Jan 17<sup>th</sup>.

Growth days at Sida: Thomas Sterner made several presentations on growth and environment issues during the Sida workshop on January 11<sup>th</sup>.

SEA Training in Copenhagen: On behalf of Sida, EEU presented experiences of working with SEA of Swedish cooperation strategies at a workshop in Copenhagen on December 12<sup>th</sup>. A report with some reflections from the meeting was submitted to Sida MIL on December 13<sup>th</sup>.

Articles for Omvärlden: The EEU, Olof Drakenberg has provided articles to Sida's paper Omvärlden on climate change (Nov 06) and Natural resources governance (April 07).

## **Methodological Development in International Processes**

OECD DAC SEA Task Team: EEU participated in a meeting with the Task Team in Helsinki on March 5-8. A report from the meeting was submitted to Sida (Att: Alexandra Wachtmeister).

Sida support to the World Bank Trust Fund on Strategic approaches to environment and development: At Sida's request EEU follows the development of the work in the supported trust fund. Formal letters have been exchanged between Warren Evans, Head of the World Bank Environment Department and Lennart Flod, head of the Department of Economics at Goteborg University, outlining the main elements around EEU-World Bank collaboration related to the Trust Fund. Informal discussions have been held with Jan Bojö in Nairobi (January 30) and with Fernando Loyaza in Helsinki (March 7).

African Conference on Poverty, Growth and Environment (ACPEG): At Sida's request EEU has participated in the following meetings with the ACPEG steering group: December 18 (tele-conference), January 29 (Nairobi) and March 28 (tele-conference). At a meeting with the Foreign Ministry on January 17<sup>th</sup> Daniel Slunge presented the ACPEG-plans to representatives from the Foreign Ministry, Environment Ministry and Swedish EPA. EEU has prepared several written reports about ACPEG to the Foreign Ministry (Att: Jakob Ström).

PEP-meeting: The EEU (Daniel Slunge, Olof Drakenberg) participated at the PEP meeting in Nairobi January 30 – February 1. A report from the meeting was submitted to Sida (att: Alexandra Wachtmeister, Feb.21).

Integrating environment in budget support: EEU provided written comments on a new ToR for a study on budget support (att. Helen O'Connor, Dec 7 and Jan 17).

OECD DAC Working group on Pro-Poor Growth and the Environment:

The EEU participated in a meeting in the Hague on Mar 19-20. Written comments are being prepared on the minerals section of the paper.

DAC/EPOC Working Group: The EEU was asked to represent the Environment Policy Division at the first DAC/EPOC Working Group on Natural resources governance and capacity building in the Hague on Mar 21<sup>st</sup>. In preparation for the meeting the EEU provided written inputs (att: Alexandra Wachtmeister, Mar 13<sup>th</sup>).

EU: Country Strategy Papers. The EEU (Olof Drakenberg) participated at the EU meeting in Bruxelles January 19<sup>th</sup> together with Richard Bomboma, Sida. The EEU had prepared written comments as input to the meeting. The EEU provided written comments on Sida's guidelines for the review of Country Strategy Papers (att: Richard Bomboma, Feb 23).

PEP Working group on Joint analytical work: The EEU has facilitated a working group aiming at increasing joint analytical work and better information sharing. The EEU conducted interviews with World Bank, EU, GTZ, Danida and CIDA and organized a teleconference, April 19.

## **Management of Project Support to External Actors**

OECD DAC Task Team on SEA: After consultations with Sida, the end date for the agreement between EEU and IIED was extended to December 31<sup>st</sup> 2007 in order to allow for optimal use of the remaining Sida funds.

## **APPENDIX 4**

### **Advice, Speeches, Other capacity building**

#### **Advice to organizations, board meetings etc**

##### **2009**

Stage served as associate editor of *Ambio*, the Swedish Royal Academy of Sciences' cross-disciplinary journal on environmental issues.

Stage was an International Fellow of the International Institute for Environment and Development.

##### **2008**

Köhlin was elected member of the International Forest Committee of the Royal Academy of Agriculture and Forestry.

Köhlin acted as board member of the Center of Environment and Sustainability of Chalmers and University of Gothenburg.

Köhlin acted as a reviewer for IUFRO's Assessment report on forest adaptation to climate change.

Köhlin became a founding member of the board of the Swedish Research Network Sustainable Agriculture and Forestry for Development.

Köhlin became the chairman of the new Forest Climate and Livelihood Research Network (FOCALI).

Stage served as associate editor of *Ambio*, the Swedish Royal Academy of Sciences' cross-disciplinary journal on environmental issues.

Stage was an International Fellow of the International Institute for Environment and Development.

Stage wrote a report for the UNFPA on possible linkages between urbanization and the recent spike in food prices.

##### **2007**

F Carlsson served as member of Scientific Committee Lacey 2006-.

T S terners served as P resident-elect on t he boa rd of t he E uropean A ssociation of Environmental and Resource Economists

T Sterner was a Beijer Fellow at the Beijer Institute of the Swedish Royal Academy

T Sterner was a Member of the Editorial Board of the Review of Environmental Economics and Policy.

T Sterner was a Fellow of SANDEE, the South Asian Network for Development and Environmental Economics,

T Sterner served on the Research Advisory Committee for CEEPA, the Centre for Environmental Economics and Policy in Africa, 2006-.

T Sterner was an External Examiner for the African Economic Research Consortium

T Sterner wrote a review of Urvashi Narain for promotion to Fellow at Resources for the Future, Washington. Feb 2007.

T Sterner wrote a review of Vinnish Kathuria for Faculty Position at the HSS Department of the Indian Institute for Technology in Kanpur, feb 2007

T Sterner served as Chairman of the Evaluation Committee for a MISTRA application "SWECIA" for a research program proposal on climate adaptation including developing countries, May 10-11 2007.

## Speeches and short courses

### 2009

#### **"Rich and poor have different views on what are fair 2030 targets"**

T. Sterner was invited to speak at an EU side event at COP 15 "Getting Serious about 2030 Targets", EU Pavillion, Saturday, 12 December 2009, 3:30-5:30pm;

Thomas Sterner discussed the different perspectives that rich and poor countries have on the development of emissions and abatement obligations in different time perspectives. Global mitigation efforts are currently focused on 2020 targets, which are indispensable to push countries to implement ambitious greenhouse gas policies. This [EU side event at COP 15, "Getting Serious about 2030 Targets"](#) focused on the tension arising from this need and longer-term incentives for massive investment, and explored possible solutions. It dealt with issues concerning emission targets for the intermediate to long run, focusing on 2030. [See EEU news item](#)

#### **Book launch on COP15 – How did climate change become an economic issue?**

How can economics best contribute to the scientific and public debates? Professor Thomas Sterner, University of Gothenburg, together with Nicholas Stern, who wrote the The Stern Review, and Nobel Laureates Thomas Schelling and Robert Solow are among the scholars who explain in a new book both how economics has changed environmental understanding and how the study of climate change has modified the economy. The book was released at COP15. (Sterner, T (2009), "In defence of sensible economics", in Solow, R. & JP Touffut eds, "Changing Climate, Changing Economy", Cournot Centre for Economic Studies, Edward Elgar, 2009.) [See EEU news item](#)

#### **The Design of Policy Instruments for a Climate Policy in a Changing and Diversified World**

T. Sterner was invited to speak at an interparliamentary conference for chairs of parliamentary finance and budget committees on Sustainability in Public Finances and Economic Aspects of Climate Change, held at the Swedish Parliament (Riksdagen), in Stockholm, 6-7 September 2009. Thomas Sterner spoke on The Design of Policy Instruments for a Climate Policy in a Changing and Diversified World. [Link to press release at Parliament](#)

T Sterner: "Rättviseaspekter i klimatfrågan", Anförande på Göteborgs Energis Forskningsdag, 091207

T Sterner: "Efficient Environmental Regulation And Its Impacts", Invited Plenary at the Workshop on The Impacts Of Environmental Regulation By Macroeconomic Models. Focused on assessment of economic and environmental impact of environmental tax reform in the Czech Republic, Prague, Nov 23

T Sterner: Climate Change Training Course for CEEPA and the South African Treasury Department, Nov 12-13, Livingstone, Zambia,

T Sterner: Keynote speech: "Challenges and opportunities for research in climate change", Environment for Development Initiative-Kenya of the Kenya Institute for Public Policy Research and Analysis (KIPPRA), Naivasha, Kenya 3rd to 7th November, 2009

T Sterner: "Climate change: challenges and opportunities for African countries" Public Lecture, at The Environmental Economics Policy Forum for Ethiopia (EEPFE) of the Ethiopian Development Research Institute (EDRI) Monday, 2 November 2009 10:00 am at Harmony Hotel by Bole Medhanealem church Addis Ababa, Ethiopia. [See Efd news item](#)

T Sterner: "Climate and Poverty Alleviation: Time for a truly global deal" Centre For Globalization, U of Gothenburg, October 30th. [See EEU news item](#)

T Sterner: "Discounting with Intergenerational Habit Formation" w Gollier and Johansson-Stenman, presented at the CES-Ifo Area Conference on Energy and Climate Economics, Munich Oct 16-17.

T Sterner: Le "design" des instruments pour la lutte contre le changement climatique", Comment to the Report Tirole, Atelier Chaire Développement Durable, Ecole Polytechnique-EDF en collaboration avec Toulouse Sciences Economiques, Paris Oct 9 [See EEU news item](#)

T Sterner: Competition issues in relation to the US and EU emission trading systems, remarks at Climate policy development in Europe and the US in relation to the UNFCCC negotiations and the upcoming Swedish EU Presidency, Clipore seminar at The Swedish Embassy in Washington, Earth Day, April 22 2009 [See EEU news item](#)

T Sterner: "Ekonomisk kris och klimatkris I utvecklingsländerna", Sveriges Energiting 2009, Stockholmsmässan, 12 mars 09

T Sterner invited speaker at the ECT 2009 conference on energy, climate and technology, in Bergen, Norway, September 23-24. Also Kirk Hamilton from the World Bank was invited, and gave a luncheon presentation of the World Development Report 2010 on Development and Climate Change. Thomas Sterner spoke on "The urgency of emission reductions when the world – and relative prices – change". [See EEU news item](#)

T Sterner invited plenary speaker at the Global Development Conference; on "Natural Resources and Development", February 1-5, 2009 in Kuwait. The conference is organized by the [Global Development Network](#) and hosted by the Arab Fund for Economic & Social Development. Thomas Sterner will speak on the taxation and pricing of fossil fuels as an instrument to deal with Climate Change. [See EEU news item](#)

T Sterner invited speaker at the Grantham Institute for Climate Change in London on the 6th January. The Grantham Institute seminars are open to internal and external visitors. Thomas Sterner's seminar is entitled Discounting and relative prices. [See EEU news item](#)

J Stage spoke on "Using economics as a tool for water management" at the Centre for Environment, Entrepreneurship and Sustainable Development (CEESD), National University of Rwanda, August 2009.

## **2008**

Eggert held a inauguration speech at the launch of the Environment for Development Tanzania center, Dar es Salaam, Tanzania, January 2008.

Köhlin presented the environmental economics capacity building program at the retirement of Mats Segnestam at Sida in February, 2008.

## **2007**

G Köhlin presented the environmental economics capacity building program and the Environment for Development initiative at Resources for the Future, Washington D.C. September, 2007.

G Köhlin introduced the International Conference on Policies to Increase Forest Cover in Ethiopia, September 2007.

G Köhlin presented the environmental economics capacity building program and the Environment for Development initiative at IUCN, Gland, Switzerland, November, 2007.

G Köhlin presented the environmental economics capacity building program and the Environment for Development initiative at Department of Economics, Swedish University of Agricultural Sciences, December, 2007.

G Köhlin presented the environmental economics capacity building program and the Environment for Development initiative at Wageningen University, the Netherlands, December, 2007.

T Sterner gave a Public Talk "Policy Instruments for Sustainable Development at the Department of Economics, University of Dar es Salaam, Nov 21<sup>st</sup>

T Sterner delivered a speech "The Need for and the Design of appropriate Policy Instruments", Invited at the Europäisches Forum Alpbach, Tyrol, Austria, August 14<sup>th</sup> 2007.

T Sterner gave a presentation « Policy Instruments for the transport sector », invited at the Volvo Group Executive Committee, at Rossareds Säteri, August 29<sup>th</sup>.

T Sterner participated in a Sida meeting for Regional Networks organized by AnnaMaria Oltorp, SAREC, 25/4.

T Sterner gave a Short Course on Policy Design at the Tropical Agricultural Research and Higher Education Center (CATIE) campus in Turrialba, Costa Rica, from 26 – 30 March, 2007. This is closely integrated with the Regional Network LACEEP that also receives funding from SAREC.

T Sterner gave a Seminar on capacity building in environmental economics at the Mexican Instituto Nacional de Ecología, March 24<sup>th</sup>

T Sterner participated in a Short Course “The Economics of Natural Resources and the Environment”, in the Zaragoza Program on Capacity Building, Spain 23-24 January 2007

T Sterner gave a Seminar on “Environment and Pro-Poor Growth” at the Sida Workshop on Pro Poor Growth in Practice, Sida Stockholm, Jan 10-12.

J Stage lectured on natural resource economics in developing countries in a short course on “Dynamics in tropical land use” arranged by the Umeå Centre for Tropical Research and Education (UCTREE), October 2007.

## **Other capacity building activities**

### **2009**

Daniel Slunge, presented a draft report on results and lessons learned from Swedish support on environmental capacity development and facilitated a half day seminar on the same theme at Sida in Stockholm, November 9<sup>th</sup>, 2009.

J Stage acted as supervisor for Claudine Uwera, a Rwandan PhD student who was enrolled at the department in 2008 as part of the University of Gothenburg’s capacity building programme in environmental science for staff from the National University of Rwanda. This programme is supported by Sida.

### **2008**

J Stage acted as supervisor for Claudine Uwera, a Rwandan PhD student who was enrolled at the department in 2008 as part of the University of Gothenburg’s capacity building programme in environmental science for staff from the National University of Rwanda. This programme is supported by Sida.

### **2007**

T Sterner Research Advisory Committee for SANDEE, the South Asian Network for Development and Environmental Economics, 1999-2006. “SANDEE fellow” 2007-

T Sterner Research Advisory Committee for CEEPA, the Centre for Environmental Economics and Policy in Africa, 2006-.

T Sterner External Examiner for the African Economic Research Consortium

T Sterner Review of Urvashi Narain for promotion to Fellow at Resources for the Future, Washington. Feb 2007.

T Sterner Review of Vinish Kathuria for Faculty Position at the IIS Department of the Indian Institute for Technology in Kanpur, Feb 2007.

## APPENDIX 5

### Media coverage, press releases and EEU news

#### Articles and interviews in news media and popular press

Since 2007, we have listed news about the EEU and opinion articles by EEU researchers on the EEU website. **All of the 40 EEU in media items published 2007-2009 are available at:** [www.handels.gu.se/econ/eeu/EEU-in-media](http://www.handels.gu.se/econ/eeu/EEU-in-media).

**Here are links to some recent examples:**

#### [EurekAlert! Climate change financing -- the role of development cooperation](#)

"Development cooperation can play an important role in ensuring that the poorest countries will benefit from climate change funding," says Olof Drakenberg, policy analyst at the Environmental Economics University of Gothenburg, Sweden.

#### [TV4 Nyhetsmorgon 2009-12-04, 06.45: U-länder måste vara med i kampen för klimatet, men hur ska man få rika länder att satsa ordentligt med teknologi och resurser i världens u-länder?](#)

Gunnar Köhlin är gäst i programmet tillsammans med Gunilla Carlsson, biståndsminister, och Staffan Tillander, Sveriges klimatambassadör.

#### [The Financial Times 2009-11-09: Big advantage of discussing 2050](#)

By Professors Thomas Sterner, President of the European Association of Environmental and Resource Economics, and Roger Guesnerie, President of Paris School of Economics.

#### [Göteborgs-Posten, 2009-10-17: Olagligt fiske drabbar bestånden hårdast](#)

Håkan Eggert intervjuas i en artikel om tjuvfiske, ett av de stora hoten mot fiskets framtid både i Sverige och globalt. Problemen diskuterades vid ett seminarium i Göteborg där den så kallade "blå boken", Fishers, sustainability and development, presenterades.

#### [Miljöaktuellt 2009-09-07 - Miljöekonom: "Tack för hög bensinskatt"](#)

Thomas Sterner intervjuas av Miljöaktuellt i samband med sitt tal om utformningen av politiska instrument för en klimatpolitik i en föränderlig och diversifierad värld för 50 ledamöter från finans- och skatteutskott i över 20 europeiska länder, som vara samlade för ett möte ordnat av det svenska ordförandeskapet.

#### [GP Debatt 2008-06-27: "Världshälsan påverkas av våra miljöväl"](#)

Medicinskt bistånd kan inte ensamt förbättra hälsoläget i fattiga länder. Att minska takten i den globala uppvärmningen kan vara ett väl så viktigt sätt att rädda liv i framtiden, skriver Thomas Sterner och Dale Whittington, professorer som deltar i den pågående internationella konferensen för miljöekonomier i Göteborg.

#### [Göteborg-Posten 2008-06-25: "Kina börjar tänka på miljön"](#)

Intervju med professor Jintao Xu, koordinator för EfD-centret i Kina och forskaren Edwin Muchapondwa, koordinator för EfD-centret i Sydafrika, som båda deltog i miljöekonomikonferensen EAERE 2008. Faktaruta om EAERE, EfD och EEU:s doktorandprogram.

#### [Sveriges radio, Studio Ett, 2008-06-24: "Samhällets utveckling mäts i tillväxt och BNP"](#)

Thomas Sterner, professor i miljöekonomi, Göteborgs universitet, Mats Segnestam, tidigare

miljöchef på Sida, Dr. Edwin Muchapondwa, koordinator för [Efd](#) i Sydafrika och lektor från School of Economics, University of Cape Town, Sydafrika och Christian Azar, professor i Hållbara energi- och materialsystem, Chalmers, medverkar. (lyssna:) [Tema från Göteborg](#)

### [Dagens Nyheter 2009-07-29: Kan man verkligen äga luften?](#)

Sweden's largest daily newspaper Dagens Nyheter discusses the ownership of natural resources, and refers to research by [Ping Qin](#), EEU Associate and [Efd](#) Research Associate. Her research shows that secure right of usage is more important than ownership to China's forest farmers.

## **Press releases on Sida-financed doctoral theses**

Since 2007, we have produced and distributed press releases for all dissertations in environmental economics at the department. Press releases are also written about other research matters. **All of the 26 press releases published 2007-2009 are available at:** [www.handels.gu.se/econ/EEU/pressreleases](http://www.handels.gu.se/econ/EEU/pressreleases).

**Here are links to press releases of *Sida-financed doctoral theses*:**

- 2009-04-03 ["Oljeexporterande länders situation måste beaktas i klimatförhandlingarna"](#)
- 2009-02-12 [Secure right of usage more important than ownership to China's forest farmers](#)
- 2008-11-27 [Zimbabwe's land reform leaves farmers insecure](#)
- 2007-11-22 [Why doesn't everyone grow coca?](#)
- 2007-05-10 [Fattiga bidrar mest och straffar snålskjuts hårdast](#)

## **Press releases published in connection with EAERE 2008**

**All of the 26 press releases published 2007-2009 are available at:**

[www.handels.gu.se/econ/EEU/pressreleases](http://www.handels.gu.se/econ/EEU/pressreleases).

**Here are links to press releases published in connection with EAERE 2008:**

- Press invitation in Swedish:  
[www.hgu.gu.se/Files/nationalekonomi/EEU/news/PressinbjudanEAERE20080618\[1\].pdf](http://www.hgu.gu.se/Files/nationalekonomi/EEU/news/PressinbjudanEAERE20080618[1].pdf)
  - Press invitation in English:  
[www.hgu.gu.se/Files/nationalekonomi/EEU/news/press\\_invitation.pdf](http://www.hgu.gu.se/Files/nationalekonomi/EEU/news/press_invitation.pdf)
  - Press release on EAERE's Prize Award, given to Mats Segnestam:  
[www.hgu.gu.se/Files/nationalekonomi/EEU/Pressreleases/SegnestamEAEREPressm.pdf](http://www.hgu.gu.se/Files/nationalekonomi/EEU/Pressreleases/SegnestamEAEREPressm.pdf)
  - Press invitation to a debate on biofuels, food prices, and hunger:  
[www.hgu.gu.se/item.aspx?id=17764&preview=yes&lang=1](http://www.hgu.gu.se/item.aspx?id=17764&preview=yes&lang=1)
- More information on EAERE 2008 in the final conference report:  
[www.hgu.gu.se/Files/nationalekonomi/EEU/EAERE2008/EAERE2008\\_FinalReport.pdf](http://www.hgu.gu.se/Files/nationalekonomi/EEU/EAERE2008/EAERE2008_FinalReport.pdf)

## **EEU News**

**All of the 110 EEU news items and calendar events published 2007-2009 are available at:**

[www.handels.gu.se/econ/eeu/news-events](http://www.handels.gu.se/econ/eeu/news-events).

**Here are links to some recent examples:**

- 2009-12-11 [Rich and poor have different views on what are fair 2030 targets](#)
- 2009-12-10 [Climate change financing – what is the role of development cooperation?](#)
- 2009-12-08 [Book launch on COP15: How did climate change become an economic issue?](#)
- 2009-10-16 [Köhlin speaks at World Food Day 2009](#)
- 2009-10-16 [Eggert deltar i lansering av "Blå Boken" om hållbart fiske](#)
- 2009-09-07 [Sternen invited speaker at conference for parliamentarians from EU](#)

## APPENDIX 6

### Implementing Staff at EEU

The following persons are proposed to be responsible for managing and implementing the Sida-EEU agreement on environmental economics capacity building during 2007-2009:  
e-mail: [first.name.last.name@economics.gu.se](mailto:first.name.last.name@economics.gu.se) telephone: 031- 786+ extension.

<b>Name</b>	<b>Areas of responsibility; tasks</b>	<b>Extension</b>
Karin Backteman	Communications EEU and Environment for Development initiative	2595
Fredrik Carlsson	PhD program, Supervision Research on welfare, environment, gender, social capital and health	4174
Emelie César	Sida's External Expert Advice for Environmental Economics Policy Analyst Sida trainings, statements, EE indicators, cooperation strategies, international processes	2687
Olof Drakenberg	Sida's External Expert Advice for Environmental Economics Policy Analyst Sida trainings, statements, EE indicators, cooperation strategies, international processes	2756
Håkan Eggert	Supervision. Sustainable natural resource management (aquatic resources, fisheries)	4175
Anders Ekbon	Sida's External Expert Advice for Environmental Economics Researcher, Project leader Sida trainings, statements, EE indicators, SEA in cooperation strategies, international processes Sustainable natural resource management (agriculture)	4817
Elizabeth Földi	Project coordinator Project management, Ph.D.-program and course administration	1347
Gerd Georgsson	Economic controller Budgeting, financial follow up and reporting	1342
Olof Johansson-Stenman	Supervision Welfare, environment, gender, social capital and health	2538
Karin Jonson	Program Officer, general agreement follow-up with Sida in coordination with EfD Initiative;	4321
Gunnar Köhlin	Director, Environment for Development Initiative Agreements, Supervision Sustainable natural resource management	4426
Peter Martinsson	Supervision Behavioural, Experiment, Welfare, environment, gender, social capital and health	5255

Daniel Slunge	Sida's External Expert Advice for Environmental Economics Policy Analyst Sida trainings, statements, cooperation strategies, international processes, SEA in decision making	2638
Jesper Stage	Supervision Sustainable management of land, forest and marine resources	2514
Thomas Sterner	Head of EEU Responsible for the EEU-Sida cooperation, and specifically for applied research Policy instruments for Sustainable Development	1377
Gunilla Ölund Wingqvist	Sida's External Expert Advice for Environmental Economics Policy Analyst EE indicators, cooperation strategies, international processes	1902



Sida – EEU  
Environmental Economics Program  
Activity Report 2007-2009

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UNIVERSITY OF GOTHENBURG  
SCHOOL OF BUSINESS, ECONOMICS AND LAW

