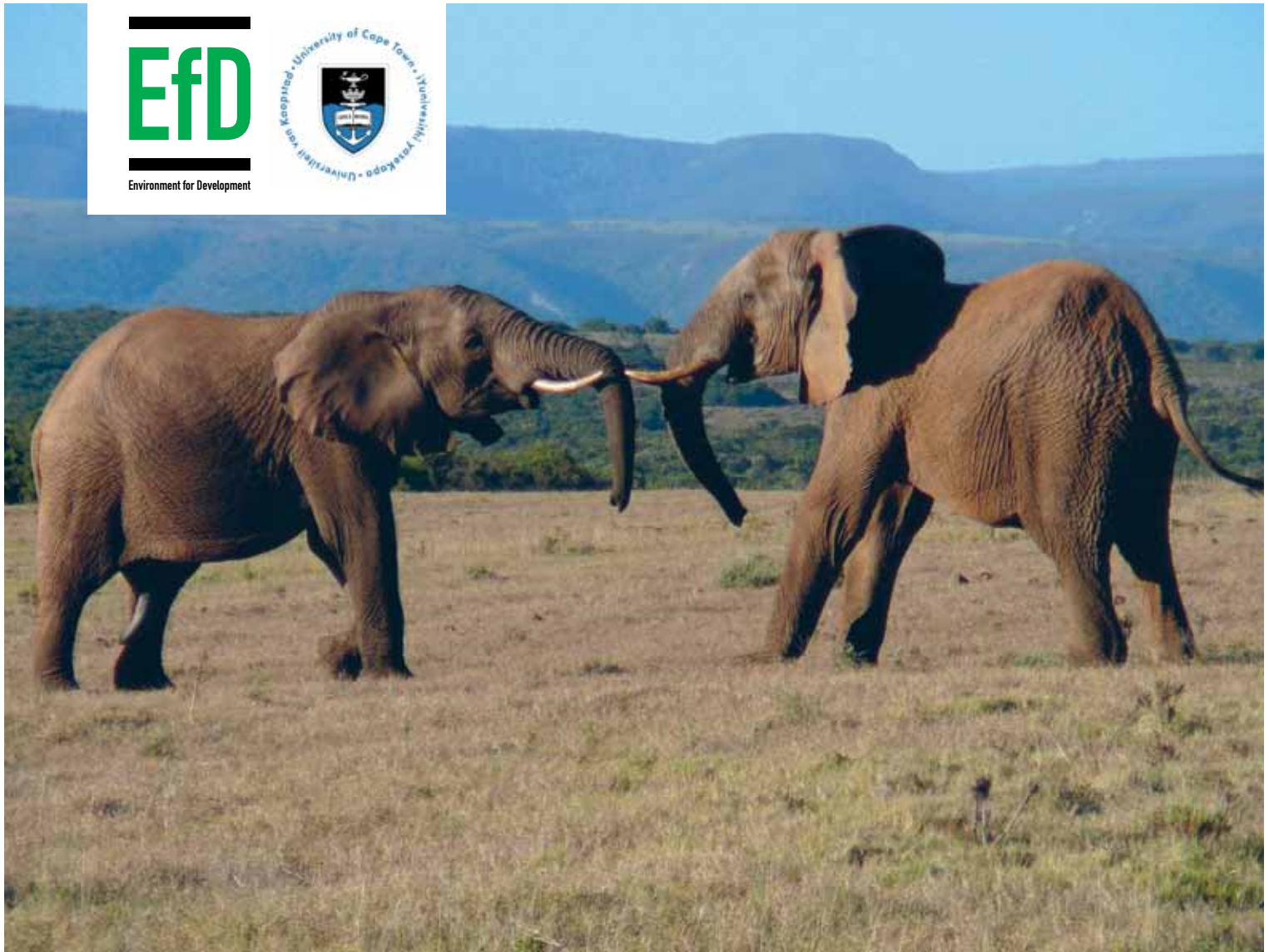


EfD

Environment for Development



**EFD INITIATIVE
CENTER REPORT 2010:**

SOUTH AFRICA

The Environmental Economics Policy Research Unit (EPRU) is a collaborative association of academic researchers specializing in environmental and natural resource issues. EPRU works to promote sustainable development and poverty reduction in Southern Africa.



THIS REPORT

This report presents EfD South Africa, its members and work during 2010. The South African node of the Environment for Development initiative is based at:

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Cover photo by Francisco Alpizar: Elephants in Addo Elephant National Park, South African National Parks

Other photos:

Gunnar Köhlin, Jane Turpie, Karin Backteman, Karin Jonson, Johāny Cohen, Kerri Brick, Francisco Alpizar, Stephanie Giamporcaro, Helena Ekbo, Kuyasa CDM Pilot Project, Maria Damon and Rolf Hallin

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Hout Bay sentinel in Cape Town, South Africa.

The sentinel is the mountain peak that guards the entrance to the Hout Bay harbour. It is situated west of the "harbour village", comprising of Hout Bay heights and Hangberg at the base of the Sentinel. Adjacent to the sentinel is the Karbonkelberg marine sanctuary which forms part of the Table Mountain National Park Marine Protected Area. The main purpose of the establishment of the sanctuary was the preservation of the West Coast Rock Lobster (WCRL). An Honours student of University of Cape Town, Timothy Harrison, under the supervision of EfD research fellow Edwin Muchapondwa, quantified the amount of illegal WCRL harvest by the Hangberg community from the sanctuary and gave evidence of its street value.

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EfD Centers

A small South African wetland. In a case study from the Western Cape, South Africa, EfD fellow Jane Turpie and her research colleagues did an estimation of the water quality amelioration value of wetlands, see EfD Discussion papers, page 10-11.

“Wetlands are among the most threatened habitats globally, and continue to be replaced or degraded by human activities. A major factor contributing to this is that their value is poorly understood. A study conducted in the Western Cape, South Africa, shows that small wetlands can play a significant cumulative role in the amelioration of the quality of water emanating from their catchment areas, and that the value of this service is high enough to warrant their protection.”

From the research brief description Water quality amelioration value of wetlands, on page 11.



Mare Sarr

MESSAGE FROM OUR COORDINATOR

2010 has been a great year but not just because of the successful World Cup in South Africa. It has been full of great achievements for EPRU (EfD South Africa) too. Over the past four years, EPRU has strived to produce policy-relevant research in areas that are of great importance for the country: community-based wildlife conservation and poverty mitigation, climate change, marine protected areas and coastal management, sustainable and responsible investment. In 2010, a great deal of the research EPRU has undertaken during these years has turned into a number of actual peer reviewed publications, both in local and international journals. This is a very encouraging development and is testimony of the quality of our research EPRU has produced in all our fields of interest. In addition, it is exciting to see that our promising junior research fellows, who have been trained and supervised patiently by the senior fellows, have actively contributed to our publications. This indicates that the effort of local capacity building in which EPRU is fully committed is showing clear signs of success.

EPRU has also been active on the policy front. In addition to the usual demand-driven

research, we have also offered supply-driven and innovative research to local policy makers. A good example of this is the ongoing project involving the role of social norms in lowering household electricity consumption undertaken by Martine Visser, and Grant Smith, in collaboration with various departments of the City of Cape Town. The results have shown that providing such information to a treatment sample influenced their electricity consumption significantly. The experiment will be extended to pre-paid electricity meters as well. Our fellows have also obtained funding from the Water Research Commission to extend the study to water consumption.

EPRU continues to be strongly involved in the teaching of Environmental and Resource Economics both at the undergraduate and graduate level at the University of Cape Town (UCT). In 2010, we have also participated in the teaching of the Collaborative Masters Programme at the African Economic Research Consortium. This involvement provides us a platform to expose students from various African countries to resource economics within the African setting, and attract talented African

students who would like to pursue further research in our fields of interest.

2010 has seen EPRU start diversifying its sources of funds. In addition to Sida's invaluable contribution, we have relied on the support of the African Climate and Development Initiative and the UCT Vice Chancellor Strategic fund. In the coming year, we plan to diversify even further our sources of funding by bidding for larger research projects that will enhance collaboration among EPRU research fellows, with other researchers and, importantly, with key stakeholders.

Finally, I would like to thank Sida for its continued support. The recent signature of the 2011-2014 agreement between Sida and EfD is a breath of air that will help us to meet the challenges of establishing a long lasting centre that strives for excellence and serves the community by producing and disseminating research in natural resource management that helps fight poverty.

Mare Sarr
Coordinator EfD South Africa/EPRU



FOURTH EFD ANNUAL MEETING COMPLETED

THE EFD ANNUAL MEETING 2010 IN ETHIOPIA, October 28-31, started with one day at UN Economic Commission for Africa focusing on how to make the most use of environmental economics research for development. Three days of research presentations and discussions followed together with key note speeches and a lecture on a multi-disciplinary approach to analyze Social Ecological Systems, designed by Nobel Laureate Elinor Ostrom and applicable for EfD's planned thematic research collaboration.

"Our objectives of the Policy Day was to disseminate selected work of EfD's research and its potential contributions to a key policy institution, UNECA, and other key stakeholders present at the meeting. We also wanted to share information across EfD centers on successful research-policy interactions, as well as increase our learning on how to translate research to policy more in general", says EfD Director Gunnar Köhlin.

The Policy Day was hosted by UN Economic Commission for Africa (UNECA) together with the Ethiopian EfD Center (Environmental Economics Policy Forum for Ethiopia which is hosted by the Ethiopian Development Research Institute).

Among the speakers were Desalegn Mesfin, Deputy Director General, Federal Environmental Protection Authority of Ethiopia, who opened the meeting. Anders Ekbom, EfD Research Fellow and policy analyst at the University of Gothenburg, spoke about research-policy interactions: models, approaches and lessons learned. Chantal Line Carpentier, Sustainable Development Officer, Division for Sustainable Development United Nations Department of Economic and Social Affairs, spoke about needs and opportunities to strengthen policy-research links on the economics of environment and climate change – perspectives from UNDESA.

Successful cases of EfD research-policy interactions were presented



The EFD Annual Meeting 2010 in Ethiopia was held at UNECA, UN Economic Commission for Africa, in Addis Abeba, and in Debrezeit. In the photo spread (page 6-7) from the left: Rahel Deribe, (lunch break in Africa Hall), Francisco Alpizar, Precious Zikhali and Wilfred Nyangena, group: Lunyu Xie, Edwin Muchapondwa, Ping Qin, and Razack Lokina. Precious Zikhali. Middle row: Ping Qin, Jintao Xu. Bottom row: Roger Madrigal, Razack Lokina, group: Thomas Sterner, Wisdom Akpalu, Peter Berck, and Chantal Line Carpentier, Jo Albers and Alemu Mekonnen, Mare Sarr, Gunnar Köhlin.

by Menale Kassie, former Efd Research Officer and now working for CIMMYT in Kenya, and by the Efd coordinators Jintao Xu, Professor at Peking University, and Francisco Alpizar, CATIE, Costa Rica. Please see all Policy Day speakers in the full program below.

The following three days of the Efd annual meeting were hosted by Alemu Mekonnen, Efd Research fellow and Coordinator of Efd Ethiopia, and held at Kuriftu Resort in Debrezeit. Most of the time was devoted to presentations and discussions on ongoing and planned Efd research.

One of the key note speakers was Roger Sedjo, RFF Senior Fellow and Director of RFF's Forest Economics and Policy. Sedjo spoke on the role forests can play in carbon capture: principles, costs and policies. The other key note speaker was World Bank Lead Economist Klaus Deininger, who spoke on large scale land acquisitions.

Efd Research Fellow Roger Madrigal from Costa Rica gave a lecture on the Social Ecological System Ontological framework, designed by professor Elinor Ostrom, who was awarded the 2009 Nobel Memorial Prize in Economic Sciences for her analysis of economic governance, especially the commons. Roger Madrigal made a long research visit to professor Ostrom at Indiana University before she received the prize, in order to develop the design of his research project on drinking water management.

"The ontological framework is a conceptual map for analyzing the interactions between humans and ecosystems. It builds on the last decades of findings in the literature of common-pool resources and collective action towards the management of natural resources", says Madrigal:

"This framework might help to conduct systematic diagnosis of the structure of the interactions between humans and ecosystems analyzed by Efd's scholars in different parts of the world."

RESEARCH POLICY INTERACTION

EPRU research fellows have extensive links with policy makers and practitioners in South Africa and have worked with various government units. EPRU works with a number of local and national policy stakeholders on medium-size projects, such as The South African National Parks in the wildlife sector, The Department of Water Affairs in the water sector, The Department of Environmental Affairs on marine and coastal management, and the City of Cape Town on air quality management and energy savings.

EPRU RESEARCH FELLOW Dr Leiman and Junior Research Fellow Kerri Brick were asked by Marine and Coastal Management to provide an analysis of anchovy products traded globally and imported into South Africa. The report recommended that the industry investigate the feasibility of targeting shoals of larger anchovies, and sets up onboard facilities to preserve the fish in chilled or refrigerated sea water.

Through this report, EfD/EPRU provided demand-driven research for policy makers.

EPRU Research Fellow Martine Visser and her masters student, Grant Smith, have shown the City of Cape Town that providing certain information to households influences their electricity consumption significantly.



EfD research fellow Martine Visser and Grant Smith have been involved in an ongoing project involving the role of social norms in lowering household electricity consumption. In total 6310 households are included in the sample.

Reporting average electricity consumption makes households consume less

Reporting to people about their own and the average consumption of electricity caused all kinds of households in suburbs of Cape Town to significantly reduce their electricity consumption. This is the conclusion of initial research results from EfD South Africa. Households in the middle income suburbs were the most responsive, followed by lower income suburbs. The upper income suburbs responded the least.

“THIS INITIAL RESULT is noteworthy because it demonstrates, at least in Cape Town, that higher income households are less responsive to comparative social norms feedback as an instrument to mitigate electricity consumption,” says Grant Smith, Graduate student at School of Economics, University of Cape Town, who conducted the study together with EfD Research Fellow Martine Visser. The main research result from this natural field experiment is that reporting the average elec-

tricity consumption in the city or neighbourhood to households decreases consumption substantially.

“This is especially encouraging from an environmental policy point of view. Our result points toward what could quite possibly be a successful policy for future mitigation of electricity consumption in the developing world, and thereby a policy for mitigation of related degradation of the natural environment,” says Smith.

The finding extends similar results found

The City of Cape Town has been very enthusiastic about these results and requested that the study be extended to pre-paid electricity meters as well. In addition, the Water Research Commission will further extend the study to water consumption within Cape Town.

EPRU has partnered with SANParks to address key socio-economic questions concerning conservation planning at a bioregional scale in South Africa, so that SANParks may be better assured of success in the implementation of bioregional conservation plans.

EPRU Research Fellow Dr Jane Turpie was asked to address the Namib-

ian government on predicting and addressing the direct and indirect impacts of climate change on the protected area system, and on developing a sustainable financing strategy for Namibia's protected areas.

In 2010, EPRU has been also involved in general exchange with policy makers and practitioners around Biodiversity, Water Conservation, Sustainable and Responsible Investment and Climate Change through research presentations in workshops and forums where policy makers were invited.



in the developed world context of the US to the developing world context of Cape Town in South Africa.

"This is the first study we are aware of to extend this result to a developing world context," says Smith.

Possibility to reduce environmental damage

Electricity is a scarce resource in South Africa and is generated largely by coal-fired power stations, which is a fairly dirty technology. If consumption can be reduced, it may be possible to reduce the environmental damage resulting from generating power in this fashion.

Twelve Cape Town suburbs were selected in order to provide an experimental population that represents three major income groups in the city. The experiment was conducted from January to December 2010.

There were five different treatment groups: A control group was composed of households that received no treatment but came from the same neighborhoods as the households in the four active treatment groups. Two city-level groups received feedback about the consumption of an average household in the city in the previous month, to which their consumption in that previous month was compared. Two neighborhood-level groups received the same sort of descriptive norm feedback, except that the feedback was for an average household in their neighborhood. Injunctive norm feedback was added to one group of each kind – one of the two city-level groups and one of the two neighborhood-level groups.

"The injunctive norm feedback was displayed

using an emoticon. We reported a smiling emoticon for households consuming less than or at the average and a frowning emoticon for households consuming more than average," says Smith.

The feedback was printed on A4 paper inserts that were then mailed in the same envelopes as households' electricity bills. The inserts also contained treatment group-relevant information together with electricity-saving tips. Each insert was in the household's home language.

"It seems that, within income groups, the differentiated elements of our interventions generally did not exert a noticeable influence on consumption. Instead, it seems like it is receiving a comparative norm report about your electricity consumption that is the key factor," says Smith.

According to Smith and Visser it could be expected that households in upper income suburbs would respond more strongly to comparative norm reporting about electricity use:

Middle and lower income households responded most

Upper income households are generally better educated and therefore more likely to be aware of the impact of electricity consumption on the natural environment. Households in upper income areas are also more likely to consume more electricity per person, since the cost of electricity generally comprises a smaller portion of their income. It could be expected that they use more than they necessarily need, and hence they may more easily reduce their consumption.

Lower income households, on the other hand, would probably already be very close to

conserving as much as they possibly could.

"Contrary to our expectations, it appears that households in the middle income and lower income suburbs responded most dramatically to our treatments. Compared to their untreated peers, households in the middle income suburbs consumed 8.08 percent less and the lower income households consumed 5.75 percent less. Both of these figures are significantly greater savings than the 2.81 percent realized by households in the upper income suburbs," says Smith.

This result has the additional merit of beginning to extend the literature across a larger income spectrum than before. The households in the US-based studies are largely mimicked in terms of income characteristics by households in the EfD South African upper income sample. However, the South African households in the lower income category are located in very poor shanty towns and the South African households in the middle income category are suburbs with exceptionally low income by developed world standards.

"That the effect of reporting comparative norms extends even to these low income households is truly significant. But it does not seem to be a linear relationship across income groups. Rather, the effect seems to peak in the middle income group. Why this is, is something we are extremely interested in getting to the bottom of" says Smith.

Smith and Visser are currently completing analysis on the full year's worth of data for 2010 and hope to be able to comment on further issues such as whether response to the comparative norms weakens with time or remains strong throughout the year.

RESEARCH POLICY INTERACTION

Developing Anchovy industries

– Marine & Coastal Management

South Africa's anchovy catch is predominantly used for fishmeal, despite the fact that a redirection of the resource towards human consumption could provide nutrition for the rural poor, create employment in coastal regions, and develop new opportunities in the fisheries industry. EfD researchers were sought out by the Marine and Coastal Management, Department of Environmental Affairs, to participate in an inter-disciplinary investigation of the feasibility of utilizing a resource portion of anchovy landings for direct human consumption. The government's vision is that a significant portion (at least 10 percent) of the anchovy resource be used for human consumption.

Dr Antony Leiman and Kerri Brick were approached to undertake the study in conjunction with CapFish (a consulting firm). The fact that they were actively sought out by Marine and Coastal Management for participation, suggests EfD/EPRU is providing demand-driven research as opposed to just supply-driven. It was important for us to show that we can respond to policy makers' research needs. EfD researchers provided an analysis of anchovy products traded globally and imported into South Africa. Assessments of which anchovy products could be developed for the South African market and of the implications of expanding the anchovy industry for employment were also considered. The investigation found that in the past, several initiatives to divert the use of the anchovy catch had been undertaken in South Africa by local pelagic fishing companies aiming to utilize a portion of the anchovy catch for direct human consumption. Their products included cured anchovy, canned anchovy fillets with capers, anchovy paste and dried anchovies, and were sold on the local and export markets. However South African production of anchovy for human consumption ceased mainly because of the decrease in the average size of the anchovies, and the manual labor required. The researchers recommended that the industry investigate the feasibility of targeting shoals of larger anchovies, and sets up onboard facilities to preserve the fish in chilled or refrigerated seawater. In the South African context, the manual labour requirements could provide significant work opportunities for semi and unskilled labour. The manual labour required has the potential to create employment in the impoverished coastal rural communities. Making use of this opportunity, along with the opportunities for small and medium enterprises (SMEs) to utilize South African anchovies instead of imported products and set the platform for the development of new SMEs. The report is currently being reviewed by Marine and Coastal Management.

Economically sound conservation planning - SANParks

The Environmental Policy Research Unit (EPRU) is working closely with local protected areas authorities, South African National Parks (SANParks), in tackling the main difficulties in achieving a sustainable system of national protected areas (NPA). South Africa is now conducting terrestrial conservation planning using a bioregions approach. Precise

boundaries of bioregions in South Africa are now being carved. To achieve conservation goals within bioregions it is necessary that the social and economic arrangements in society support this. For instance, it will be easier to achieve conservation goals if people can see that a well-conserved bioregion means increased welfare for them. Therefore ensuring the attainment of conservation goals requires the crafting of favorable social and economic arrangements in society. This task requires research inputs from a diverse number of disciplines, most notably economics and ecology. With that background, the EPRU and SANParks have organized a collaborative research program which focuses on several important questions. The answers will form an important input into the crafting of well-functioning bioregions. The questions in the South African program currently focus on (i) the welfare effects of different land-use configurations, (ii) the nature of incentive schemes for use in navigating a bioregion to economic sustainability, (iii) cost-benefit analyses of different ecological plans, e.g. choice among different conservation corridors, (iv) the stance to take on devolution of powers (concerning resource use and regulation), (v) the valuation of and payments for ecosystem services in bioregions, and (vi) the determination of optimal park entrance fees.

Policy links

The following are the institutions where EPRU is having its greatest impact, and the links to these institutions' websites are provided on the EPRU pages.

- 1) South African National Biodiversity Institute (SANBI)
- 2) Department of Environmental Affairs
- 3) Department of Water Affairs
- 4) South African National Parks

Policy seminars, workshops and conferences

Policy seminars

EfD/EPRU Researcher Dr Stephanie Giamporcaro presented the findings of the report: "Environmentally Responsible Investment in South Africa: The state of play" to investors, media and fellow academics in March 2010. The report presents data on current ERI practices, obstacles and enablers that the respondents identified in integrating environmental considerations in the South African investment industry. The report was based on desk-top and field research conducted in South Africa during 2009, including interviews with 22 of the 34 investment organisations targeted (asset managers, pension funds and service providers). Some of the key findings that were presented included the fact that there is a lack of investment products that are primarily driven by an environmental focus to clients, and there is a general lack of interest, with social goals

being seen as a more important concern. This will need to be addressed through a more binding environmental regulation framework that will lead investors to price environmental risk, and a stronger commitment from all institutional investors to follow the example of the Government Employees Pension Fund (GEPF) to implement responsible investment strategies and mandates. A lively debate discussing the findings took place after the presentation.

Environmental economics teaching exchange

The University of New York held an Environmental Policy and Sustainable Development course at UCT over a two-week period in July, led by Maria Damon (University of New-York). EfD research fellows Martine Visser and Edwin Muchapondwa lectured on the course. The course explored the ways that economic analysis can help identify underlying problems and formulate effective policy responses to them. Major topics included in the lectures were: approaches for understanding behavior and social preferences in poor communities; what these imply for the management of natural resources; choosing optimal policy instruments for pollution reduction and environmental protection; and relationships between human health and the environment. Students also participated in behavioral experiments related to common property resource management, public goods, and climate risk and went to field trips. An excursion was made to the Kuyasa Clean Development Mechanism Pilot Project. This project involves the retrofitting of solar water heater (SWHs), insulated ceilings and energy efficient lighting in over 2,300 low-cost homes in the Khayelitsha townships. Students were highly motivated by the exposure to such a pragmatic solution to climate change and that will see an immediate impact on the social, health and economic well-being of the targeted beneficiaries.

45th Annual Congress of the Grassland Society of Southern Africa

The Grasslands Society hosted their 45th congress on Sustainable and Adaptive Practices in Range and Pasture Systems, with an Emphasis on Arid Regions, in Kimberly on 19- 25 July 2010. The Grassland society congress was mostly attended by ecologists, botanists, plant and animal scientists. EPRU was represented by Johane Dikgang, one of the only two participants with an economics background. Johane presented a paper on "The effect of the Land Restitution Programme on Poverty Reduction among the Khomani San in the Kgalagadi Transfrontier Park Project". Johane spoke in a parallel session that focused on community based natural resource management. His presentation gave useful information on some critical driving factors behind unsustainable land uses in arid areas. The society's members appreciated a presentation that made them more aware of the role that economics can play in the grassland field. Multi-disciplinary collaborations between EPRU researchers and Grassland Society members were discussed after Johane's presentation.

Putting a Price on Carbon Conference

Kerri Brick, EfD research fellow, and Martine Visser, EfD research fellow and coordinator, presented a paper at the Putting a Price on Carbon Conference, held in Cape Town on 23 and 24 March, 2010. The purpose of the conference was to build on the discussions undertaken at a side-event at the 2009 Climate Change Summit where Brick and Visser also presented a paper. The paper presented by Brick and Visser explored meeting a national emission reduction target in an experimental setting. The paper concluded that voluntary cooperation results in insufficient cooperation in the context of meeting a national target. With the introduction of communication, cooperation was significantly improved, indicating that stakeholder participation is important in facilitating compliance. In the context of taxation, when the frequency of free-riding is high, taxation improved cooperation. Conversely, amid high levels of cooperation, taxation dampened cooperative behaviour.

South African Biodiversity Planning Forum

The South African National Biodiversity Institute (SANBI) and the Department of Environmental Affairs (DEA) co-hosted and co-sponsored the 2010 Biodiversity Planning Forum from the 2nd to the 5th March 2010. The Biodiversity Planning Forum was established in 2004 to provide an opportunity for individuals, agencies and departments involved in spatial biodiversity planning to share and synthesise valuable lessons from biodiversity planning projects across South Africa. Leading policy makers such as the Chief Executive Officer (CEO) of the South Africa National Biodiversity Institute (SANBI) and the Director General from the Department of environmental affairs and Tourism (DEAT) were present. Consultants, municipality, SANBI and DEAT biodiversity planners and academics shared their views around the future of biodiversity in South Africa. EPRU Junior Research Fellow Johane Dikgang and Rhodes University PhD student Gladman Thondhlana presented their works on the use of economic incentives in the Kgalagadi landscape. Johane presentation dealt with the question of valuation of Biodiversity Conservation in the Kgalagadi area. A total of around 200 people attended the 2010 Forum from all over South Africa.

International Flood-Pulse Symposium

The International Flood-Pulse Symposium was held in Maun, Botswana, in January 2010. This symposium draws international experts in all facets of wetland and integrated river basin management. Although dominated by ecologists, it also draws a range of social and economics-oriented researchers. EPRU Research Fellow Dr Jane Turpie presented two papers, one on "The Livelihood value of the natural resources of the Okavango Delta, Botswana, and implications of changes in environmental flows and management", and another on "Exploring scenarios to restore the Kirua Swamp in the Pangani River Basin, Tanzania". These papers emphasized the importance of taking a multidisciplinary view in the management of freshwater flows to maintain wetland ecosystems, and demonstrated the importance of these systems to local livelihoods.

RESEARCH 2010: PUBLICATIONS

PEER REVIEWED

Resources, Conflict and Development Choice: Public Good Provision in Resource Rich Economies

M. Sarr and K. Wick, 2010, "Resources, Conflict and Development Choice: Public Good Provision in Resource Rich Economies", *Economics of Governance*, 11:183–205.

On the Looting of Nations

M. Sarr, E. Bulte, C. Meissner and T. Swanson, 2010, "On the Looting of Nations", *Public Choice*, In Press.

A cost-effectiveness analysis of options for reducing pollution in Khayelitsha township, South Africa

Muchapondwa, E. (2010). "The cost-effectiveness analysis of options for reducing pollution in Khayelitsha township, South Africa", *TD The Journal for Transdisciplinary Research in Southern Africa*, Volume 6, No. 2, (December) pp 333-358.

River flows and offshore crustacean fisheries in South Africa

Turpie, J.K. & Lamberth, S.J. 2010. Characteristics and value of the Thukela Banks crustacean and linefish fisheries, and the potential impacts of changes in river flow. *African Journal of Marine Science* 32: 613–624.

Development of the South African Water Resource Classification System (WRCS): a tool towards the sustainable, equitable and efficient use of water resources

Dollar, E. S. J., Nicolson, C. R., Brown, C. A., Turpie, J. K., Joubert, A. R., Turton, A. R., Grobler, D. F., Pienaar, H. H., Ewart-Smith J. and Manyaka, S. M. 2010. Development of the South African Water Resource Classification

System (WRCS): a tool towards the sustainable, equitable and efficient use of water resources in a developing country. *Water Policy* 12: 479–499.

Climate Change in a Public Goods Game: Investment Decision in Mitigation versus Adaptation

Hasson, Reviva, Åsa Löfgren, and Martine Visser (2010), "Climate Change in a Public Goods Game: Investment Decision in Mitigation versus Adaptation", *Ecological Economics*, 70 (2010) 331–338

Meeting a national emission reduction target in an experimental setting

K, Brick and M. Visser, (2010). Meeting a national emission reduction target in an experimental setting. *Climate Policy*, Volume 10, Number 5, 2010, pp. 543-559(17)

Enhancing consumers' voluntary use of small-scale wind turbines to generate own electricity in South Africa

Brendan Whelan and Edwin Muchapondwa, "Enhancing consumers' voluntary use of small-scale wind turbines to generate own electricity in South Africa", *Forthcoming, Journal of Energy in Southern Africa*.

A Bio-Economic Model of Community Incentives for Wildlife Management Under CAMPFIRE

Carolyn Fischer, Edwin Muchapondwa, Thomas Sterner, "A Bio-Economic Model of Community Incentives for Wildlife Management Under CAMPFIRE", 2010, *Environmental and Resource Economics*.

Health facility choice in HIV- and Aids-affected households in two South Africa communities

F, Booysen and M. Visser, (2010). Health facility choice in HIV- and Aids-affected households in two South African Communities. *South African Journal of Economics*, Volume 78, Number 1, 2010, pp. 89-106

Calabashes for kilowatt-hours: Rural energy and market failure

Mark Howells, Sandra Jonsson, Emilia Käck, Philip Lloyd, Kevin Bennett, Tony Leiman and Beatrix Conradie. Calabashes for kilowatt-hours: Rural energy and market failure. *Energy Policy*, Volume 38, Number 6, 2010, pp. 2729-2738

EFD DISCUSSION PAPERS

Responsible Investment: A Vehicle for Environmentally Sustainable Economic Growth in South Africa

Stéphanie Giamporcaro, Lise Pretorius and Martine Visser (2010), "Responsible Investment: A Vehicle for Environmentally Sustainable Economic Growth in South Africa" *EfD Discussion Paper 10-17*, Environment for Development Initiative and Resources for the Future, Washington DC, June 2010.

Estimation of the Water Quality Amelioration Value of Wetlands: A Case Study of the Western Cape, South Africa

Jane Turpie, Elizabeth Day, Vere Ross-Gillespie, and Anton Louw (2010) "Estimation of the Water Quality Amelioration Value of Wetlands: A Case Study of the Western Cape, South Africa" *EfD Discussion Paper 10-15*, Environment for Development Initiative and Resources for the Future, Washington DC, June 2010.

Behavioral Response to Plastic Bag Legislation in Botswana

Johane Dikgang and Martine Visser (2010), "Behavioral Response to Plastic Bag Legislation



A woman fetching water, South Africa.

in Botswana", EFD Discussion Paper 10-13, Environment for Development Initiative and Resources for the Future, Washington DC, May 2010.

RESEARCH BRIEFS

The livelihood value of Botswana's Okavango delta

Turpie, J.K., 2010, "The livelihood value of the natural resources of the Okavango Delta" Policy Paper Series, April 2010, Environmental Policy Research Unit, University of Cape Town, South Africa.

Water quality amelioration value of wetlands

Turpie, J.K., 2010, Water quality amelioration value of wetlands, policy paper, Environmental Policy Research Unit, University of Cape Town, South Africa.

Analysis of the plastic-bag levy in South Africa

Johane Dikgang, Martine Visser and Tony Leiman., "Analysis of the plastic-bag levy in South Africa, ERSA policy paper number 18, July 8, 2010, University of Cape Town, South Africa.

BOOKS

Values of Water inflows into selected South African Estuaries: The Heuningnes, Kleinmond, Klein, Palmiet, Cefane, Kwelera and Haga-Haga.

Johane Dikgang and Stephen Hosking, 2010, "Values of Water inflows into selected South African Estuaries: The Heuningnes, Kleinmond, Klein, Palmiet, Cefane, Kwelera and Haga-Haga", Lambert Academic Publishing

REPORTS

What scope for environmentally responsible investment in South Africa?

Stéphanie Giamporcaro presented to inves-

tors, media and fellow academics the findings of the report: Environmentally Responsible Investment in South Africa: The state of play.

The state of play: a survey of responsible investor opinions and practices.

Stéphanie Giamporcaro, 2010, "Environmentally Responsible Investment, the state of play. A survey of responsible investor practices and opinions", EPRU Research Report March 2010.

The valuation of estuary services in South Africa specifically regarding changes to estuary services as a result of reductions to fresh water inflows - Main report.

Johane Dikgang et al., 2010. Report to the Water Research Commission August 2010. Departments of Economics, Statistics and Zoology, Nelson Mandela Metropolitan University

Wetland ecosystem services and their valuation: a review of current understanding and practice. This publication provides a comprehensive review of the nature of the services provided by wetlands, how they are measured and valued, giving case study examples from around the world.

Turpie, J.K., Lannas, K., Scovronick, N. & Louw, A. 2010. Wetland Valuation Vol I. Wetland ecosystem services and their valuation: a review of current understanding and practice. Wetland Health and Integrity Programme, Water Research Commission Report TT440/09, Pretoria. 115pp.

Case studies of the valuation of provisioning, regulating and cultural services provided by wetlands. This publication is a compilation of five wetland valuation case studies carried

out on different provisioning, regulating and cultural services and at different scales in South Africa in Lesotho.

Turpie, J.K. (ed) 2010. Wetland Valuation. Vol II. The valuation of provisioning, regulating and cultural services provided by wetlands: case studies from South Africa and Lesotho. Wetland Health and Integrity Programme, Water Research Commission Report TT441/09, Pretoria. 101pp

The Wetland Livelihood Value Index: A tool for the assessment of the livelihood value of wetlands. This publication provides an explanation of the social benefits provided by wetlands in rural and urban areas, and a logical and straightforward way in which to quantify and compare the importance of individual wetlands in terms of their livelihood contribution.

Turpie, J.K. 2010. Wetland Valuation. Vol III. The Wetland Livelihood Value Index: A tool for the assessment of the livelihood value of wetlands. Wetland Health and Integrity Programme, Water Research Commission Report TT442/09, Pretoria, 54pp.

A protocol for the quantification and valuation of wetland ecosystem services.

Turpie, J.K. & Kleynhans, M. 2010. Wetland Valuation Vol IV. A protocol for the quantification and valuation of wetland ecosystem services. Wetland Health and Integrity Programme, Water Research Commission. Water Research Commission Report TT442/10, Pretoria, 66pp.

PROJECTS



Risk experiments conducted with small-scale farmers in the Western Cape in 2010. Xolani Klaasen was the facilitator, here together with Feri Gwata, who conducted the experiments together with Martine Visser and Kerri Brick.

Measuring climate change risks aversion

Investigators: Dr. Martine Visser, Feri Gwata (Masters)

Funding: EFD/Sida

Experimenting behavioural economics

Investigators: Dr. Martine Visser, Grant Smith (Masters)

Funding: EFD/Sida, African Climate Development Initiative/UCT

Small scale farmers, Risk and Climate Change

Investigators: Dr. Martine Visser, Kerri Brick (PhD), Feri Gwata (Masters)

Funding: EFD/Sida, VC Strategic Funding/UCT, African Climate Development Initiative/UCT

The valuation of biodiversity conservation by the South African San "Bushmen" community

Investigators: Edwin Muchapodwa & Johane Dikgang

Funding: EFD/Sida

Impact of Climate Policy on Environmentally Responsible Investment Behaviour

Investigators: Dr. Martine Visser, Kerri Brick(PhD), Zoe van der Hoven (Honours)

Funding: EFD/Sida

The land Restitution Programme Effect on the Welfare of the Khomani San People

Investigators: Edwin Muchapodwa, Johane Dikgang

Funding: EFD/Sida

A Natural Field Experiment with electricity consumption and Social norms

Investigators: Dr. Martine Visser, Grant Smith (Masters), Boipuso Modise (Masters),

Funding: EFD/Sida

Estimating Optimal Conservation Fees in the Kgalagadi Transfrontier Park between Botswana and South Africa

Investigators: Edwin Muchapodwa & Johane Dikgang

Funding: EFD/Sida

Regulatory Announcements on provision of public goods

Investigators: Dr. Martine Visser, Dr. Wisdom Akpalu (Penn-State Univ.), Grant Smith (Masters), Jamil Moorad (Honours)

Funding: EFD/Sida

Local Environmental Impacts in Wellbeing

Investigators: Dr. Martine Visser, Brennan Hodskinson (Honours), Adewara Sunday

Funding: EFD/Sida, African Climate Development Initiative/UCT

RESEARCH PRESENTATIONS AT WORKSHOPS, MEETINGS & CONFERENCES

Development Finance Conference, Cape Town, 18-19 March 2010.

Stephanie Giamporcaro

- 1 Responsible investment: a vehicle for sustainable economic growth in South Africa?
- 2 A market for environmentally responsible investment? Identifying impediments to commodification of environmental factors in the South African investment industry

Putting a Price on Carbon, University of Cape Town, Cape Town, South Africa, March 2010

Kerri Brick

What is Fair? Meeting a National Emission Reduction Target in an Experimental Setting

PRI academic conference 2010, Mainstreaming responsible Investment, Copenhagen, 5-7 May.

Stephanie Giamporcaro

Mainstreaming responsible investment in France: how calculative agencies shape and sustain market

Fourth World Congress of Environmental and Resource Economists (WCERE 2010), June 28 to July 2, 2010, Montréal, Canada

Edwin Muchapondwa

Modelling Fugitive Natural Resources in the Context of Transfrontier Parks

International Flood-pulse symposium, Maun, Botswana

Jane Turpie

The livelihood value of the natural resources of the Okavango Delta, Botswana, and implications of changes in environmental flows and management

45th Annual GSSA Congress; 19 to 23 July 2010 Kimberley, Northern Cape, South Africa

Johane Dikgang

The effect of the Land Restitution Programme on poverty reduction among the Khomani San

Social Dimensions of Environmental Change and Governance, Berlin (October 2010)

Attended via video link from the Graduate School of Business, UCT)

Kerri Brick

What is Fair? Meeting a National Emission Reduction Target in an Experimental Setting

NYU Abu Dhabi, November, 2010

Tony Leiman

Healthcare Costs of Urban Air Pollution in South Africa

International Flood-pulse symposium, Maun, Botswana

Jane Turpie (co-presenter)

Exploring scenarios to restore the Kirua Swamp in the Pangani River Basin, Tanzania

EUROPE-AFRICA Conference on Dynamic Interlinkages between Social and Ecosystem Changes Towards a Europe Africa Partnership Golden Tulip De Beyaerd, Hulshorst, NL, Netherlands, 8 - 12 November 2010

Johane Dikgang

The valuation of biodiversity conservation by the South African San "bushmen"

Global Development Finance Conference 2010, Valuing Growth Trends in Development Finance, Cape Town, 24-26 November 2010.

Stephanie Giamporcaro

Carbon Finance and Carbon Funds in South Africa, Lessons from the first commitment of the Kyoto Protocol

RESEARCH PRESENTATIONS AT WORKSHOPS, MEETINGS & CONFERENCES

International Flood-pulse symposium, Maun, Botswana

Jane Turpie, co-presenter

Economic value of the Okavango Delta, Botswana, and implications for management of water and wildlife

2010 Belpasso International Summer School; September 2010, Belpasso, Italy

Johane Dikgang

The valuation of biodiversity conservation by the South African San "bushmen" community

Stata Programming Course, University of Cape Town, 11 – 22 January 2010)

Kerri Brick, Martine Visser & Johane Dikgang

2010 Biodiversity Planning Forum; 2 – 5 March 2010; Forever Resorts, Warmbaths, South Africa

Johane Dikgang

The Transboundary Protected Areas Research Initiative (TPARI), hosted by the University of Johannesburg, South Africa and the International Institute for Social Studies (ISS), sixth teleseminar of the 2009-2010 teleseminar series, 14 April 2010, University of Cape Town, South Africa

Edwin Muchapondwa & Johane Dikgang

CEEPA's Ninth Biannual Research workshop, 10 – 14 May 2010, Protea Hotel Kruger Gate, South Africa

Edwin Muchapondwa

Applying Game Theory and Behavioral Economics to the Environment, Montreal, 27-28 June 2010

Edwin Muchapondwa

Social Accounting Matrix seminar. UCT, September 2010.

Reviva Hasson

ERSA Training Workshop on Bioeconomic Modelling of Natural Resource Use, Cape Town, 18-19 October 2010

Edwin Muchapondwa & Johane Dikgang

PhD Proposal Defense Seminar, 30 September 2010, School of Economics, University of Cape Town, South Africa

Kerri Brick

PhD Proposal Defense Seminar, 21 October 2010, School of Economics, University of Cape Town, South Africa

Johane Dikgang

Our Common Global Future Interdisciplinary Workshop organized by Volkswagen Stiftung, Hannover-Essen 3-6 November 2010

Stephanie Giamporcaro/ short presentation
Food production and Energy production in South Africa: the impossible dilemma?

Park Pricing workshop; 24th to 26th October, 2010; Lions Hill Game Lodge, Nakuru, Kenya

Edwin Muchapondwa & Johane Dikgang

4th annual EfD (Environment for Development) meeting; October 28th – November 1st 2010; Addis Ababa at UNECA conference room and Kurifu resort, Debrezeit, Ethiopia

Edwin Muchapondwa, Mare Sarr, Jane Turpie, Stéphanie Giamporcaro & Johane Dikgang

CEEPA's Tenth Biannual Research workshop, 15– 20 November 2010, Hyatt Regency Oubai Golf Resort and Spa, South Africa

Edwin Muchapondwa & Kerri Brick



The South African EfD Center – Environmental-Economics Policy Research Unit (EPRU) is hosted by University of Cape Town, Private Bag 7701, Rondebosch, Office: +27 (0)21 650 2982, Fax: +27 (0)21 650 2854
Coordinator is Mare Sarr. E-Mail: mare.sarr@uct.ac.za

ACADEMIC CAPACITY BUILDING

EPRU's research fellows are actively involved in the School of Economics, teaching programmes in environmental and natural resource economics as well as in the broader university (see section 5.2). Our strong involvement in teaching has undoubtedly helped us attract promising postgraduate students. In addition, in order to support talented students to undertake research in our fields of interest, EPRU provides 4 grants to Masters students. In addition, a significant share of our core budget and individual researchers' budgets has been allocated to fund PhD scholarships. We believe this is an investment that has a potentially return both for EPRU and more generally for South Africa. Finally, we also award prizes to reward the best Honours and Masters Thesis.

MSC THESIS TITLES AND NAMES OF MSC STUDENTS SUPERVISED BY RESEARCH FELLOWS

Peter Ngoma obtained a PhD in December 2010,

for his thesis titled "The welfare value of small-scale fisheries in the Zambezi River Basin", supervised by Dr Jane Turpie

Feri Gwata, Masters in Economics December 2010,

"Measuring risk aversion among asset poor small-scale farmers in the Western Cape, South Africa" supervised by M. Visser

Thulani D. S. Madinginye,

Masters in Economics December 2010,

"Nationalization as an Economic Tool" supervised by Tony Leiman

Carola Kirchner, Masters in Economics December 2010,

"Determinants of resource rents in the Namibian hake industry" supervised by Tony Leiman

Samson Mukanjari, Masters in Economics December 2010,

"Evaluating the Prospects of Benefit Sharing Schemes in Protecting Mountain Gorillas in Central Africa" supervised by Edwin Muchapondwa

Honours courses in environmental economics

ECO4052S - Environmental Economics

Master courses in environmental economics

ECO5052S - Natural Resource Economics

Visiting Lecturer, Environmental Economics I Joint Facility for Electives
African Economic Research Consortium (Nairobi)

Master courses in conservation biology

Environmental and resource economics module (4 weeks)

Students

10

Fellow

Tony Leiman

Students

5

Fellow

Edwin Muchapondwa, Martine Visser and
Tony Leiman,

29

Mare Sarr

12

Jane Turpie

SPREADING THE WORD

News about research and policy interaction.



Johane Dikgang, Stephanie Giamporcaro and Edwin Muchapondwa



EfD researchers during an internal workshop on Carbon Tax: Kerri Brick, PhD student, Reviva Hasson, PhD student, Martine Visser, Research fellow, Ant Dane, Master Student, and Anthony Leiman, Research Fellow.

2010-12-29

Mare Sarr new coordinator for EfD in South Africa

Mare Sarr takes over as the coordinator of the EfD Center in South Africa.

2010-12-07

Hot off the press: A book on water estuaries by Johane Dikgang EPRU junior research fellow

Given the overwhelming evidence available on the significance of freshwater inflow to estuary functionality in South Africa, it is clear that an important component of catchment management is the allocation of river water into estuaries. This book provides economic guidance on the matter through valuable comparisons of different estuaries.

2010-10-08

Water at stake: EfD-EPRU junior research fellow Johane Dikgang contributes to a Water Research Report

EfD-EPRU junior Research Fellow Johane Dikgang contributed to 3 of the 8 chapters (4,6&7) of the report_ The valuation of estuary services in South Africa specifically regarding changes to estuary services as a result of reductions to fresh water inflows_ released by the South African Water Research commission.

2010-10-06

UCT Monday Paper: EPRU post-doctoral fellow under the light

UCT weekly newspaper The Monday Paper published the 13 September 2010 a profile on EfD-EPRU post-doctoral fellow Dr Stephanie Giamporcaro and her research on environmentally responsible investment:

2010-08-30

A stimulating environmental economics teaching exchange Looking forward Sustainability:

The Environmental Policy and Sustainable Development course held at UCT from Mid-

July to End of July, piloted by Maria Damon (University of New-York) and including teaching by EfD research fellows Martine Visser and Edwin Muchapondwa, explored the ways that economic analysis can help identify underlying problems and formulate effective policy responses to them.

2010-08-30

Want to Curb Litter? Tax the Bag In a new Environment for Development discussion paper

Authors Johane Dikgang and Martine Visser analyze the success of the legislation of plastic bag in Botswana, and conclude—at least in the short-term—that the bag policies are working.

2010-07-30

Transdisciplinary dialogue between scientists during the 45th Annual Congress of the Grassland Society of Southern Africa South Africa Kimberly

The Grasslands Society hosted their 45th con-

Landing the catch, Cape Town.



Efd associate Maria Damon piloted a course at UCT in 2010. An excursion was made to the Kuyasa Clean Development Mechanism Pilot Project, which involves the retrofitting of solar water heaters, insulated ceilings and energy efficient lighting in over 2,300 homes in the Khayelitsha townships.

gress on Sustainable and Adaptive Practices in Range and Pasture Systems, with an Emphasis on Arid Regions. Efd-EPRU Research fellow Johane Dikgang presented his current work on arid regions.

2010-05-24

Investors needs to take stock of environment too, 20 May 2009

After the release of the EPRU research report on Environmentally Responsible Investment (ERI), Business Report (a business section included in five national daily papers including Cape Times and The Star in Johannesburg) opened its columns to Efd/EPRU fellow Dr Stephanie Giamporcuro to share her views on the future of ERI.

2010-04-07

Putting a Price on Carbon in South Africa

Exploring the potential of economic instruments to mitigate climate change Kerri Brick, Efd research fellow, and Martine Visser, Efd

research fellow and coordinator, presented a paper at the Putting a Price on Carbon Conference, held in Cape Town on 23 and 24 March, 2010. The purpose of the conference was to build on the discussions undertaken at a side-event at the 2009 Climate Change Summit where Brick and Visser also presented a paper.

2010-04-07

What scope for environmentally responsible investment in South Africa?

Efd/EPRU Researcher Dr Stephanie Giamporcuro presented to investors, media and fellow academics the findings of the report: Environmentally Responsible Investment in South Africa: The state of play.

2010-03-25

Policy design South Africa 2010

Biodiversity Planning Forum A platform for exchange between policy makers and academics

2010-03-09

Anchovy - from fishmeal to food for people

South Africa's anchovy catch is predominantly used for fishmeal, despite the fact that a redirection of the resource towards human consumption could provide nutrition for the rural poor, create employment in coastal regions, and develop new opportunities in the fisheries industry. Efd researchers are sought out by the Marine and Coastal Management, Department of Environmental Affairs, to participate in an inter-disciplinary investigation of the feasibility of utilizing a resource portion of anchovy landings for direct human consumption.

WEBSITE VISITORS AND NUMBER OF DOWNLOADS

The website is an important channel for making EfD research work visible – and it is becoming more and more visible. The web statistics for 2010 shows that more than 35,000 people visited our website this year, and the number of visits was 48,000. When we compare 2010 and 2009, we find that there are more visits, more unique visitors, and more pageviews in 2010 than in 2009. File downloads is another web statistics figure. In 2010, 267 different files have been downloaded a total of 4,901 times.

EfD Website

47,695

Visits in 2010

Of all these visits were 72.84 percent new visits, a 32.29 percent increase compared to previous year (36,054 visits.) Unique Visitors: 35,435 an increase of 34.58 percent compared to previous year (26,330 unique visitors.)

133,296

Pageviews in 2010

This is +16.26 percent compared to previous year (114,654 pageviews.)

4,901

File Downloads in 2010

In 2010, 267 different files have been downloaded a total of 4,901 times.

EfD South Africa Website Section

5,298

pageviews in 2010 (453 pages).

Top 7 Most visited South Africa webpages 2010

Home page South Africa	663 views	Projects	150 views
People	610 views	Publications-Projects	145 views
About	270 views	7th-african-financejournal-conference-managingafrica2019s-economic...	129views
Anchovyfrom-fishmeal-to-food-for-p...	229 views		

File downloads - Top 5 list of 2010

First a policy brief/workshop summary on "Policies to increase forest cover in Ethiopia: A summary of the main outcomes of a workshop in 2007". It has been downloaded 194 times this year.

Second is a journal article by Jesper Stage, "Economic valuation of climate change adaptation in developing countries". It has been downloaded 119 times this year.

Third is an EfD/World Bank report by Yesuf Mahmud, Alemu Mekonnen, Menale Kassie, John Pender, 2007, titled "Cost of Land Degradation in Ethiopia: A critical review of past studies", report, EfD/WB. It has been downloaded 109 times this year.

Fourth is an EfD Discussion Paper by Zenebe Gebreegziabher, Alemu Mekonnen, Menale Kassie, and Gunnar Köhlin, "Household Tree Planting in Tigray, Northern Ethiopia". It has been downloaded 102 times this year.

Fifth is a job advertisement from CIFOR seeking doctoral students interested in research on REDD for possible collaboration with their four-year Global Comparative Study on Reducing Emissions from Deforestation and Degradation (GCS-REDD). It has been downloaded 97 times this year.

Top Landing Pages

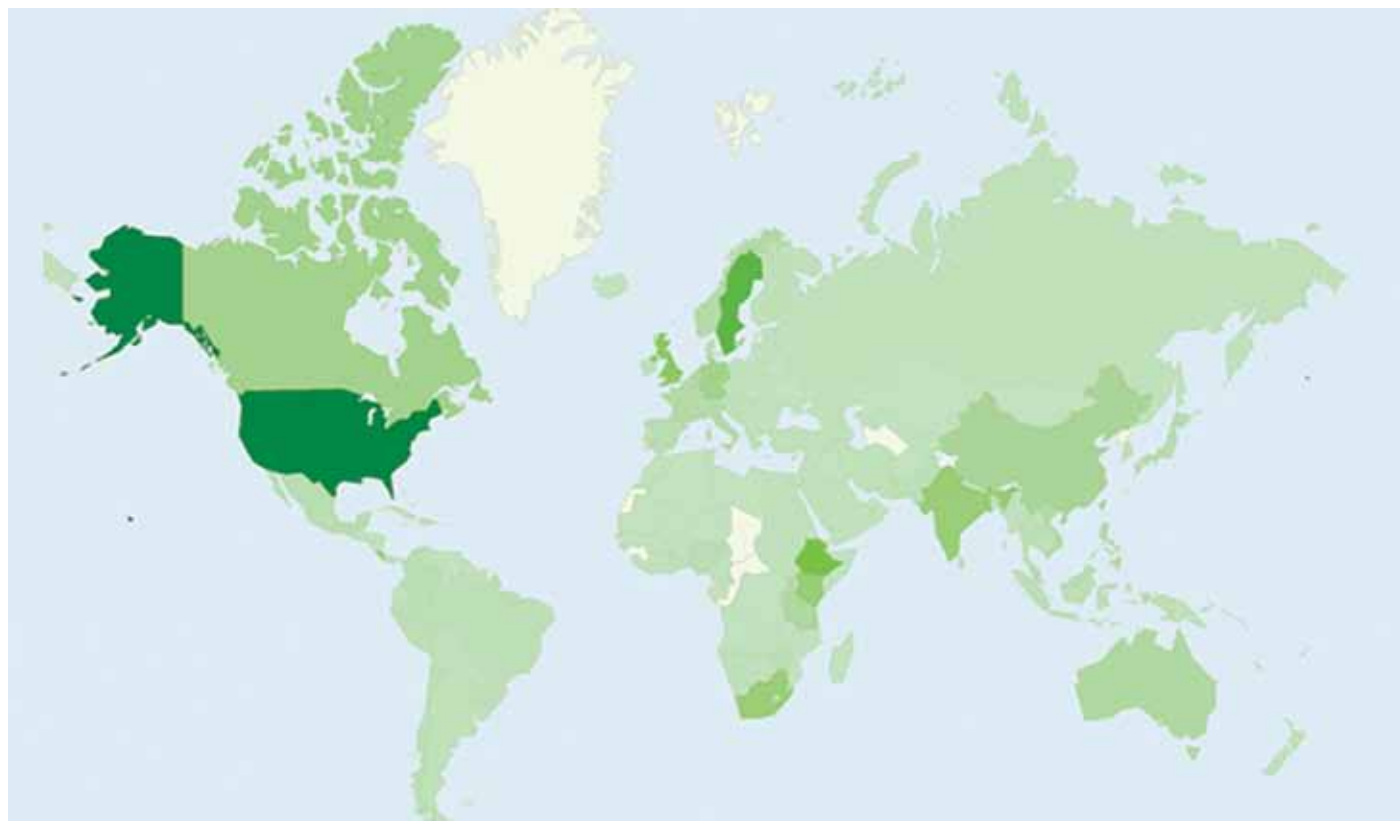
47,660 visits entered the site through 2,949 pages.

The Top Landing pages were:

First page	5,568 entrances
Over-fishing-of-nile-perch-in-lake-victoria	724 entrances
Kenya's natural resources need economic instruments-efd researchers invited to public hearing	611 entrances
Policies to increase forest cover in Ethiopia	555 entrances
The economics of solid waste management-	

the-case-of-kampala-uganda	546 entrances
Essays on environmental policy-making in developing countries applications to costa rica	481 entrances
Incentive based regulation of CO2 emissions from international aviation	479 entrances
The Kenya vision 2030 and the environment issues and challenges	479 entrances
The progress of GHG markets opportunities and risks	471 entrances
Case study 2-zimbabwe economy-wide policies and deforestation applied general equilibrium modelling	412 entrances
Unexpert group meeting how can researchers contribute to productive and sustainable agriculture in Africa	393 entrances
Job openings	336 entrances
Euu Sweden/Academic program-phd program	300 entrances

Top Countries: People in 190 countries visited the site and as seen in the map below there are few completely white nations on the world map. The darker green color indicates more web traffic.



Greenaccounting-puts-price-on-ethiopian-soil-erosion-anddeforestation 279 entrances
Workshop-on-accounts-of-land-resources-ofethiopia 266 entrances

Top Content

9,660 pages were viewed a total of 133,296 times.

The most visited pages were:

First page	8,615 pageviews
Job-openings	2,083 pageviews
Ethiopia	1,235 pageviews
central-america	1,089 pageviews
EFD/About	1,037 pageviews
Central-america/People	863 pageviews
Policies-to-increaseforest-cover-in-ethiopia	805 pageviews
Overfishing-of-nile-perch-in-lake-victoria	794 pageviews
Kenya	782 pageviews

china	751 pageviews
Researchfellows	728 pageviews
Publications	691 pageviews
Kenyas-naturalresources-need-economicinstruments	681 pageviews
South-africa	663 pageviews
Funding	647 pageviews
The-economics-of-solidwaste-management-the-case-ofkampala-uganda	643 pageviews
People	631 pageviews
South-africa/People	610 pageviews
Tanzania	582 pageviews

Top 20 countries

People in 190 countries visited the site. The Top

Twenty countries were:

United States	9,266 visits
Ethiopia	4,213 visits
Sweden	3,321 visits

United Kingdom	2,968 visits
South Africa	2,212 visits
Kenya	2,182 visits
India	2,119 visits
Costa Rica	1,639 visits
Canada	1,448 visits
Germany	1,361 visits
China	1,090 visits
Tanzania	925 visits
Netherlands	800 visits
Australia	792 visits
Norway	624 visits
Italy	587 visits
France	573 visits
Philippines	558 visits
Vietnam	501 visits
Uganda	484 visits

THE SOUTH AFRICAN NODE IN THE EFD NETWORK

The Environmental-Economics Policy Research Unit (EPRU) is a collaborative association of academic researchers specializing in environmental and natural resource issues. The unit was established in 2007 to promote sustainable development and poverty reduction in Southern Africa. To achieve this, EPRU aims to enhance the effectiveness of environmental policy making by adopting a threefold strategy of research, teaching and policy consultation. EPRU is based at the School of Economics at the University of Cape Town (UCT) and is part of the network of the Environment for Development (EfD) initiative

During the last four years, EPRU has built extensive policy-relevant experience in research pertaining to ecosystems management, biodiversity conservation, air quality and water quality. The centre also has previous research capacity and experience relevant to the socio-economics of agriculture, fisheries and conservation. Specifically, this strain of research has been concerned with farm workers' wages, land use and rural poverty, inequality among subsistence fishermen, as well as the role of community-based wildlife conservation in poverty mitigation. EPRU has successfully worked with a number of local and national stakeholders on medium-size projects, such as The South African National Parks in the wildlife sector, The Department of Water Affairs and Forestry in the water sector, The Department of Environmental Affairs and Tourism on marine and coastal management, and the City of Cape Town on air quality management and energy savings. In the next few years, EPRU plans to bid for larger research projects that will enhance collaboration among EPRU research fellows, with other researchers and, importantly, with key stakeholders.

EPRU's Vision

Our vision is to establish EPRU as the primary centre of excellence in environmental and resource economics in Southern Africa where (i) Academics and policy makers are encouraged to interact in the process of rigorous environmental policy research; and (ii) policy makers will seek well-researched environmental policy advice

Our activities

Training

EPRU research fellows are involved in the teaching of environmental and resource economics courses in the School of Economics at

the University of Cape Town. EPRU also has the capacity to run short training programs for policy makers and civil servants. Such courses inform decision makers of the relevant environmental economic tools available to improve policy making and analysis.

Research

EPRU strives to produce and disseminate policy-relevant research of a high academic quality on current environmental economic issues in South Africa. A core activity of the EfD initiative is international research collaboration on poverty-environment issues and EPRU's research agenda is thus driven in part by EfD partnership projects.

Policy consulting

EPRU's main objectives in terms of policy interaction are to (i) be a resource where high quality research and economic opinion on environmental policy issues can be sought by policy-makers, and (ii) be a resource which engages with policy-makers in respect of agenda setting, policy design, formulation and implementation. EPRU's work caters to the demands of domestic institutions as well as international organizations. EPRU research fellows have extensive links with policy makers and practitioners in South Africa and have worked with various government units. Information is disseminated in the form of policy briefs and research papers.

Town. She received her doctoral degree in Economics from the University of Gothenburg in May 2007. One of her thesis projects dealt with inequality in the context of fishing rights and poaching behavior of nine fishing communities along the West Coast of South Africa, while the other focused on the role that social background has on cooperation and sanctioning behavior amongst teenagers from different ethnic populations in Cape Town. Martine has taught a number of courses within the School of Economics, including: Micro-economics/ Game Theory, Econometrics, Environmental Economics, and Resource Economics. Her current research interests include behavioral and experimental research and specifically studying the role of social norms and its application to environment and natural resource use.

Ph.D, Mare Sarr

COORDINATOR FROM NOV. 2010 & RESEARCH FELLOW

Mare Sarr is currently a lecturer in the School of Economics at the University of Cape Town and a research fellow of the Environmental Policy Research Unit (EPRU). His current teaching

Staff

LOCAL RESEARCHERS AND STAFF

Ph.D, Martine Visser

COORDINATOR UNTIL OCT. 2010 & RESEARCH FELLOW

Martine Visser is Associate Professor in the School of Economics at the University of Cape



Martine Visser

Our networks

EPRU has successfully worked with a number of local and national stakeholders on medium-size projects, such as South African National Parks (SANParksF) in the wildlife sector, South African National Biodiversity Institute (SANBI) on biodiversity issues, Water Research Unit and, the Department of Water Affairs in the water sector, The Department of Environmental Affairs on marine and coastal management, Energy Research Centre (ERC) on climate change issues, and the City of Cape Town on air quality management and energy savings. In the next few years, EPRU plans to bid for larger research projects that will enhance collaboration among EPRU research fellows, with other researchers and, importantly, with key stakeholders.

Funders/Donors

In 2010, EPRU received funding from the Swedish International Development Cooperation Agency (Sida), the African Climate & Development Initiative and the Vice Chancellor (VC) Strategic Funds – UCT. The lion's share of our funding is provided by Sida. The other two donors are UCT-related. The African Climate and Development Initiative (ACDI) was conceptualized in late 2009 under the leadership of Dr Max Price, the Vice Chancellor of UCT. It intends to bring together natural scientists, engineers, social scientists, lawyers, economists and urban planners, amongst others, from UCT and

beyond, to provide an African perspective, grounded in strong science, addressing issues relating to climate variability and global change affecting the African continent. In line with UCT's strategy to enhance its position as an "Afropolitan" university, funding has been secured from the VC's strategic fund to support research collaboration with partners in Africa or elsewhere in the global South. Grants awarded under this call are intended to strengthen existing collaborative research partnerships by providing top-up funding. In addition, the University of Cape Town contributes strongly to the sustainability of EPRU because most fellows are faculty members and therefore receive salary payment from the in the School of Economics. UCT also provides world-class academic facilities to EPRU, such as office space, library and IT resources, which contributes to an excellent working environment.

Total number of staff in full time equivalent:	11
Number of donors	3
1) Efd	SEK 2,638,000
2) African Climate & Development Initiative	R 380,000/SEK 380,000
3) VC Strategic Funds – UCT	R 370,000/SEK 370,000
UCT School of Economics (University Salaries)	R 2,560,000/SEK 2,560,000
Sida/Efd funding as share of total center budget (including university salaries)	44%

areas are Microeconomics, Macroeconomics, Growth, and Environmental and Resource Economics. He received his Ph.D. from University College London in November 2008. His Ph.D. thesis is titled "Essays on Institutions and Resources." Mare's current research interests include: The Political Dimension of the Curse of Natural Resources; Intellectual Property Rights and North-South Relationships in the Life Sciences Industries; Biodiversity Conservation in relation to Traditional Knowledge and Bio-prospecting; Africa-China Relations.

Ph.D, Edwin Muchaponda

RESEARCH FELLOW

Edwin Muchapondwa is research officer for the Efd initiative, a senior lecturer in the School of Economics at the University of Cape Town and a research fellow of the Efd in South Africa/the Environmental Policy Research Unit (EPRU). His current teaching areas are environmental and natural resource economics, microeconomics and econometrics. His current research deals with community-based and transboundary natural resource management, bioregional wildlife conservation and valuation of non-

market environmental amenities. He received his Ph.D. from the University of Gothenburg in September 2003. Edwin has previously taught at the University of Zimbabwe and has been a visiting lecturer at the African Economic Research Consortium administered Joint Facility for Electives (JFE) for the Collaborative MA Program in Economics for Anglophone Africa.

Ph.D, Jane Turpie

RESEARCH FELLOW

Jane Turpie has a PhD in Behavioural Ecology (1994) and has worked and taught in the



Mare Sarr



Kerri Brick



Johane Dikgang

THE SOUTH AFRICAN NODE IN THE EFD NETWORK

applied fields of Conservation Biology and Resource Economics for the past 16 years. Her interests and experience are broad, but tend to have in common her interest in getting to grips with the bigger picture, solving wide-scale and multidisciplinary, integrative problems. Her research has included economic aspects of protected areas in South Africa, nature-based tourism and tourism values of protected biodiversity, the economic value of coastal resources, the economic contribution of estuaries to South African fisheries, the economic value of fynbos ecosystems and implications of their invasion by alien vegetation, economic impacts of dams on subsistence communities, and the use, sustainability and economic values of wetland and woodland resources in communal lands throughout Southern and Eastern Africa. Her current research interests include integrating economics into conservation planning, and economic incentive and financing mechanisms, including payments for ecosystem services. She has published 33 scientific papers and 6 book chapters and has written more than 100 technical reports.

Anthony Leiman

RESEARCH FELLOW

Tony Leiman has been researching and teaching environmental economics since 1990. In 1993/4 he spent a sabbatical year at CSERGE (University College London) which further cemented his interest in the field. His work began with the economics of project appraisal; with this he began looking at water use and dam construction and his interests expanded over the years to include the economics of mining, fisheries, biodiversity, and pollution.

Ph.D Candidate, Kerri Brick

JUNIOR RESEARCH FELLOW

Kerri Brick is a junior research fellow at the Environmental Policy Research Unit (EPRU). Her current work focuses on the public goods dilemma synonymous with climate change, equity issues in global climate change negotiations, and the measurement of risk preferences using framed field experiments. She received her Master's degree from the University of Cape Town (UCT) in 2006 and is currently doing her PhD at the same institution.

MS.c. Johane Dikgang

JUNIOR RESEARCH FELLOW

Johane Dikgang joined EPRU in September 2008 as a Junior Research Fellow. He was previously a lecturer at Nelson Mandela Metropolitan University, NMMU (formerly University of Port Elizabeth, UPE). He lectured micro-economics, macroeconomics and supervised Bcom Honours treatise for the past three years. He obtained all his qualifications (Bcom, Bcom Honours & Mcom) at NMMU. His MCom was purely research in Environmental Economics for duration of two years.

MS.c., Reviva Hasson

JUNIOR RESEARCH FELLOW

Reviva Hasson has a BSc in Environmental and Geographical Science (2003), a BCom (Hons) in Economics (2004) and Master's degree in Applied Economics (2009), all obtained from UCT. Reviva is a Junior Research Fellow at EPRU and the unit's Media Liaison Officer. Her primary projects include the analysis of the plastic bag legislation in South Africa and studying the public goods dilemma as it relates to climate change.

Brenda Adams

ADMINISTRATIVE OFFICER

DOMESTIC RESEARCH ASSOCIATES

Ph.D., Stephanie Giamporcuro

UNIVERSITY OF CAPE TOWN

Stephanie Giamporcuro is a research associate at EPRU. From March 2009 to December 2010, she pursued her postdoctoral research on environmentally responsible investment. Her current research goal is to explore how innovative finance tools (SRI funds, greens funds, carbon finance, micro-finance) are implemented currently in South Africa and if the implementation of these responsible investment and finance strategies in the country's financial and investment sector can facilitate an environmentally responsible and a low carbon economic growth in South Africa. In July 2006, she obtained a PhD in sociology on innovative responsible investment approaches in France at the University Paris 5 La Sorbonne. During six years (2002-2007), she was also the head of SRI Research for Novethic, a professional

research centre on sustainable and responsible investment that is located in Paris, France.

Ph.D., Precious Zikhali

CGAIR, PRETORIA

Precious Zikhali completed her PhD thesis in economics at the Department of Economics, University of Gothenburg, Sweden. She is currently working at the International Water Management Institute, Southern Africa office (www.iwmi.org). Prior to this appointment she was at the Centre for World Food Studies, VU University Amsterdam. She has also worked as a lecturer and researcher in the Department of Economics, University of Zimbabwe. Her current research interests broadly include monitoring and evaluation of programs and policies mainly in the agriculture and water sectors as well as exploring the link between poverty and environment in developing countries.

Ph.D., Anthony Black

UNIVERSITY OF CAPE TOWN

Ph.D., Harald Winkler

ENERGY RESEARCH CENTER, UNIVERSITY OF CAPE TOWN

Ph.D., Andrew Marquard

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Edwin Muchapondwa, Wisdom Akpalu, and Precious Zikhali.



THE EFD INITIATIVE IN BRIEF

The overall objective of the EfD initiative is to support poverty alleviation and sustainable development through the increased use of environmental economics in the policy making process. Through local capacity building in environmental economics focusing on research, policy advice, and teaching, the EfD centers in Central America, China, Ethiopia, Kenya, South Africa, and Tanzania strive to contribute to better environmental policies and poverty reduction.

The EfD research emanates from the policy priorities of the host countries. This has led to a research focus on natural resources. The research-policy impact is increasing. The “EfD approach” is to build strong long-term collaborations between academics and with key ministries and decision makers. In addition, environmental economists are trained in master and doctoral programs in the respective country.

The Environmental Economics Unit at University of Gothenburg is coordinating the initiative. Resources for the Future in Washington DC is a partner involved in research and publication of the EfD/RFF discussion paper and book series. The EfD initiative started in 2007 and receives core support from the Swedish International Development Cooperation Agency (Sida). EfD builds on the environmental economics capacity building program that Sida has been supporting at University of Gothenburg since 1991 as a tool to implement sustainable development. The program, including EfD, is designed to enable researchers trained abroad to come home and become productive as applied researchers, teachers and policy advisors. By now 20 PhD's have graduated from the doctoral program in Gothenburg, and 17 of these are currently working in developing countries. In addition 7 post docs have been recruited to EfD centers from outside the program.

Research

Applied, policy relevant research is a core activity for the EfD initiative. Research is a critical input in a long-term strategy to reduce environmental degradation, eradicate poverty and to ensure sustainable use of natural resources. A major challenge in developing countries is, however, the lack of comprehensive research on environmental resource management and poverty alleviation which can inform national strategic plans and policies. Policymakers, farmers, donors, and others need research based information not only to design policies but also to evaluate their efficiency in reaching their objectives.

At the beginning of 2010, about SEK 2 million

was allocated to the EfD research fund. This fund supported at least 13 research projects of various sizes across the six centers. Some centers used this funding as seed money to crowd-in other funding. By the end of the year, about 29 research projects had been executed across the six centers. Research projects in 2010 focused on all the six EfD major themes: agriculture, climate change, fisheries, forestry, parks and wildlife, and policy design. However, the bulk of projects dealt with climate change and policy design.

EfD-Central America's four research projects which were fully funded by the EfD focused on climate change, fisheries, parks and wildlife, and policy design. EfD-China had eight research projects of which only one was fully funded by the EfD. EfD-China has successfully managed to crowd-in research funding from other sources. The center has demonstrated how beneficiaries from EfD research, especially government departments (notably the Chinese Ministry of Science and Technology, the Chinese Ministry of Environmental Protection and the Beijing Municipal Government), can be roped-in to share in the costs of producing policy-relevant research. The focus of the 2010 research projects in China has been on climate change and policy design, which represents a significant shift from the center's traditional focus on forestry. This demonstrates the center's capacity to respond to new research needs. The center in Ethiopia has largely continued with its focus on agriculture, an area of great need in that country. The center had four projects in 2010, two of which also addressed climate change, forestry and policy design aspects of agriculture. EfD-Ethiopia is one of the centers which still heavily relies on full EfD funding. EfD-Kenya had three research projects in 2010 which focused on forestry, climate change and policy design. These projects received full EfD funding. One of the Kenyan projects demonstrates a serious attempt by the EfD to promote research on forestry and REDD issues. Forestry and REDD will continue to be a major focus of EfD research in the future. The EfD center in Tanzania teamed up with the Tanzanian Forest Research Institute and the Ruvu

Fuelwood Project on two research projects co-funded by the EfD in fisheries and forestry. There is more work going on in Tanzania which seeks to directly address poverty issues in that country. EfD-South Africa had seven research projects in 2010. These fell into the following themes: climate change, parks and wildlife, and policy design. Three of the projects were co-funded by the Vice Chancellor of the University of Cape Town as part of the newly established African Climate Development Initiative at that university. The case at EfD-South Africa demonstrates how synergies between EfD research and universities' priorities can be exploited to secure additional financial support from host universities.

In terms of research output, 2010 was a successful year in terms of EfD discussion papers, peer reviewed articles and other outputs. There were 36 peer-reviewed articles, 27 discussion papers and 12 books and book chapters.. The figures for these categories represent an overall growth of 4 percent from the 2009 levels but the really remarkable fact is that the number of peer reviewed articles have increased to such an extent, from 14 in 2009 to 36 in 2010. The peer-reviewed articles mainly focused on agriculture (6), forestry (7) and policy design (15) even though there were outputs on each of the EfD themes. Notable in 2010 is that four of the centers also produced and disseminated policy briefs and other reports.

Historically, EfD-Central America and EfD-Ethiopia have been at the forefront in terms of the cumulative number of peer-reviewed publications. It is pleasing to note that EfD-China and EfD-South Africa have drastically increased the number of their peer-reviewed publications in 2010. These two centers jointly produced over two-thirds of peer-reviewed articles in the network. However, the momentum for producing peer-reviewed articles still exists in EfD-Central America and EfD-Ethiopia. This can be seen from the large stock of EfD Discussion papers produced in 2010. It is expected that the outcomes will be better in the future when EfD-Kenya and EfD-Tanzania improve their peer-review output levels. Publications can be found at efdinitiative.org/research/publications.

EFD CENTERS

There are six Efd centers, hosted by universities or academic institutions in each respective country. For more information on each center, please contact the coordinators:

CENTRAL AMERICA

Environment for Development Program for Central America
Centro Agronómico Tropical de Investigación y Enseñanza (CATIE)
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UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

EEU, Environmental Economics Unit

EEU at Göteborg University, Sweden, has initiated the Efd initiative and acts as coordinator and secretariat. For more information please contact:

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RFF, Resources for the Future

RFF in Washington DC, US, is an important partner of the Efd initiative. RFF's research fellows will work closely with their counterparts and RFF's communications staff will help to disseminate the new centers' research products. For more information please contact:

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Sida

Swedish International Development Cooperation Agency, provides the funding for the Efd initiative.



EfD research fellow Edwin Muchapondwa was teaching at the Environmental Policy and Sustainable Development course, held at UCT in 2010. The course was piloted by EfD associate Maria Damon and included teaching also by EfD research fellow Martine Visser.



More information & Contact us

Once you've read this report you might want to know more about our work and the EfD initiative.

For more information please visit www.efdinitiative.org/centers/south-africa

You are most welcome to contact us:

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