

EfD

Environment for Development



EFD INITIATIVE CENTER REPORT

TANZANIA 2012/13

The main goal of EfD Tanzania is to support poverty alleviation and sustainable development through increased use of environmental economics capacity in policy making processes.

THIS REPORT

This report presents Efd Tanzania, its members and work during 2012/13. The Tanzanian node of the Environment for Development initiative is based at:

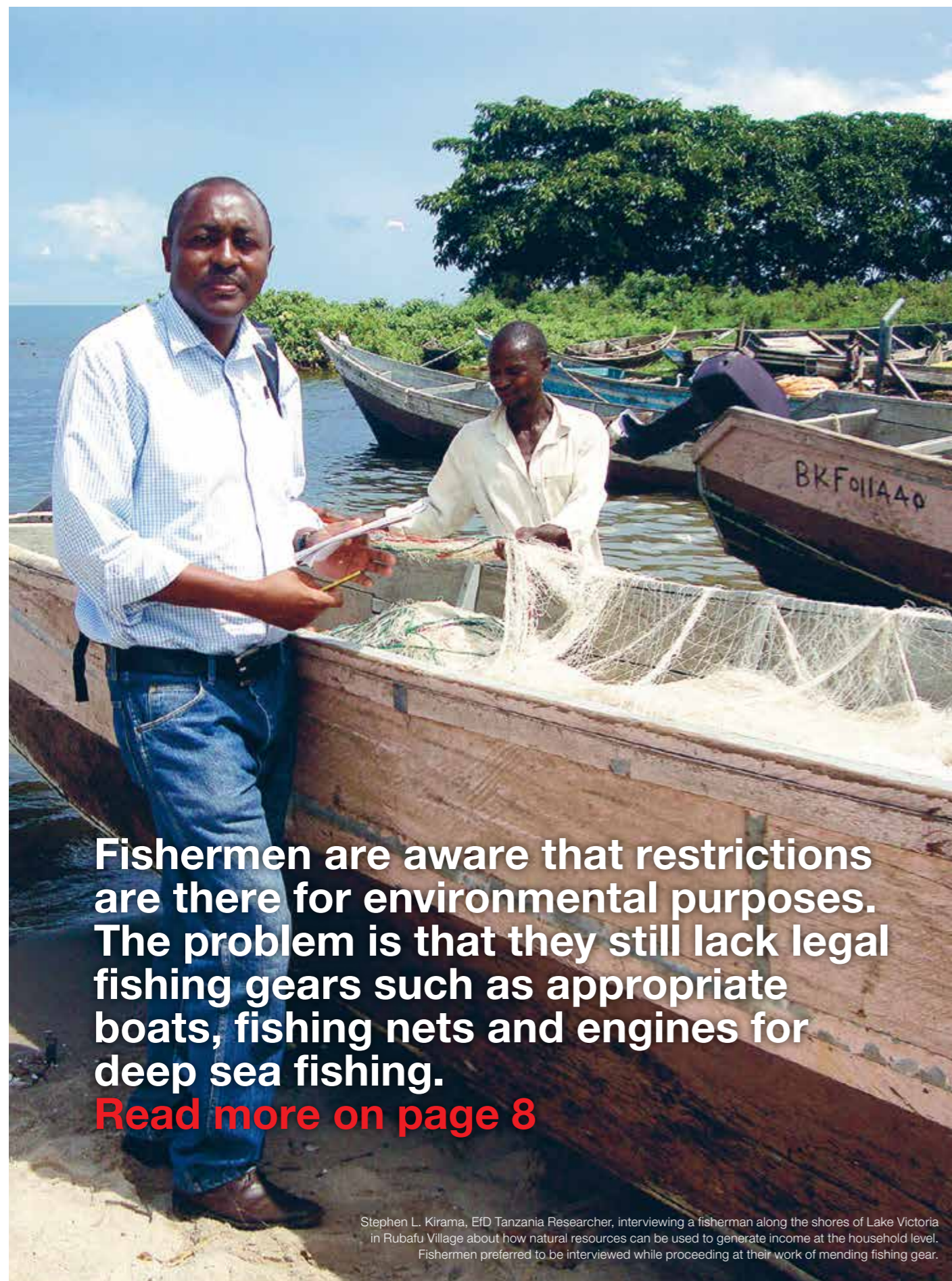
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Cover photo: A 150 minute trip to Bumbire Islands, Mahaiga Village in Muleba District Kagera Region. Efd Tanzania Researcher Mr. Stephen L. Kirama, second from right, leading a team of Research Assistants, from left: Muganyinzi, Tumanelli, Ashura-Soni and Lucas Bahati to Bumbire Island in Lake Victoria for data collection on the Locally-based Ecosystems Solutions Study in December, 2012.

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Part of the forest in Ruvuma region, which 10 years ago had tall trees and heavy forest. Due to deforestation, the area has been left with very little vegetation.



Fishermen are aware that restrictions are there for environmental purposes. The problem is that they still lack legal fishing gears such as appropriate boats, fishing nets and engines for deep sea fishing.

Read more on page 8

Stephen L. Kirama, EfD Tanzania Researcher, interviewing a fisherman along the shores of Lake Victoria in Rubafu Village about how natural resources can be used to generate income at the household level. Fishermen preferred to be interviewed while proceeding at their work of mending fishing gear.



Razack B. Lokina, Director

MESSAGE FROM OUR CENTER DIRECTOR

Tanzania has recently discovered huge deposits of natural gas, both offshore and inshore. The country is therefore geared to the energy economy. At this time, more than ever before, we need to take a leading role in policy advice and dissemination activities on the best way of making use of these and other natural resources for the livelihood of the rural community. As academicians and researchers, we need to be more conscious of the task at hand to protect our environment and the economy. The health of Tanzanian society going forward depends upon the country's ability to care for the environment and all that live in it, to provide resources and opportunities for all members to work and make meaningful contributions, to resolve biodiversity degradation and deforestation, and to reduce poverty and inequalities. It is important that the country's resources are properly exploited and managed so that the country can outgrow its dependence on fossil fuel resources and diversify its economic activity. An important challenge to policy makers is to find ways to do this. If natural resource revenue is man-

aged well, it can educate, heal, and provide jobs for the people. To accomplish these goals, we at EfDT, in collaboration with other researchers, need to take a leading role in research and policy advice

Many organizations, agencies, and research centers are in the process of addressing these challenges, and we are pleased to be working closely with a number of experts and researchers from all segments. The task of preparing environmental economists and researchers to perform proficient research within these various settings is a responsibility that we take seriously and fully embrace at EfDT.

Through the Department of Economics, we have developed viable curricular programs that provide insights into a wide range of professional settings where researchers and other experts are doing important work. By providing better information about the ways that economics and environmental skills are employed in various settings, we help our graduate and junior researchers make decisions with greater

confidence regarding their own career choices and pursuits. This is beneficial to the individual junior researcher, valuable to the organizations that employ them, and, in an overall sense, helpful to society for the way it assures the reduction of poverty with study that is meaningful, sustaining, and necessary.

Finally, I would like reiterate my earlier call for more collaboration from local and international donors to join the center's effort in building capacity in the areas of research in environment and natural resources economics, as well as poverty and policy. We look forward to working with you, whether as collaborator, partner, consultant, or associate in prospective research and capacity building. Please make use of the many resources and the expertise of the EfDT initiative to develop new collaborative research on themes that align the reduction of poverty with a healthy environment for better livelihoods.

Razack B. Lokina (PhD),
Director EfD Tanzania





The 6th Annual Meeting of the Environment for Development (EFD) Initiative took place in La Fortuna, Costa Rica, between October 25 and 29, 2012. More than 70 people participated.

THE EFD ANNUAL MEETING 2012 IN COSTA RICA

The 6th Annual Meeting of the Environment for Development (Efd) Initiative took place in La Fortuna, Costa Rica, between October 25 and 29, 2012. More than 70 people participated at the rendezvous this year, including researchers from all Efd centers around the world and their collaborators, as well as key stakeholders, to discuss and exchange research results from Efd projects, ideas, and proposals.

Decisions and Discussions on Research

The highlight of the meeting this year was the establishment of Efd as an independent legal entity which will be governed by a board with representatives of the Efd centers. The Board will be the highest decision making body and will appoint the Research Committee and the Secretariat. "This is a historic moment!" said Gunnar Köhlin, Director of the Environment for Development (Efd) Initiative, and a professor in the Department of Economics at the University of Gothenburg. "This will enable Efd to become a truly global organization, with the ambition of becoming the largest and most efficient organization to channel funds for research on environmental economics in developing countries."

The meeting opened with an enthusiastic welcome by Gunnar Köhlin, followed by welcoming

remarks by Francisco Alpizar, director of the Efd Central America Center (Efd-CA), based in Costa Rica. There were three keynote speeches and a panel discussion. The first keynote speech, by Ed Barbier of the University of Wyoming, was on Structural change, dualism and economic development. The second, entitled Measuring the impacts of environmental policies on the environment and the poor: protected areas and ecosystems services, was by Paul Ferraro, from Georgia State University. Lastly, Erin Sills of North Carolina State University gave a presentation on Understanding REDD: What and how can we learn from pilot projects? (REDD stands for Reduced Emissions from Deforestation and Forest Degradation.)

In addition, there were several very informative presentations during the plenary session and the parallel sessions. These covered a series

of issues, including interdisciplinary synthesis research, adaptation to climate change, transportation and congestion, water use and pricing, and fisheries. All of these presentations were given by experts from around the world.

The next Efd Annual meeting will be held in South Africa in 2013.

Efd Policy Day at the Annual Meeting

The Policy Day is becoming a tradition during Efd Annual meetings. This event serves as a stage for researchers, policymakers, and politicians to interact around seminal policy-relevant issues to which Efd researchers can contribute. The 2012 Policy Day kickoff on October 25 brought together more than 55 participants in Santo Domingo de Heredia, Costa Rica. This invited group included both current and

former members of the Costa Rican Congress, ministers of the government of Costa Rica, and representatives from seven government agencies. There were also national and international representatives from eight NGOs, five research institutions or universities, and two private corporations.

The central theme of the Policy Day was research and policy interactions in climate change, water, and conservation of natural resources. Francisco Alpizar, the director of Efd-CA, celebrated the presence of a diverse group of people interested in moving forward research-based policymaking. "We are here to position Efd in the national context, to present developments in research that is relevant for policy design and decision making, to identify key needs for research on issues around the theme of the day, and to facilitate a dialogue between researchers, policy makers, and stakeholders working on defining policies around these subjects," said Alpizar. Most importantly, he added, "we are here because we want to help and to hear from you about the issues on which you need our help; researchers at Efd can provide a small contribution to resolving some of the myriad issues we need to confront."

After Alpizar's opening remarks, Jose Joaquin Campos, the Director General of the Tropical Agriculture and Higher Education Center (CATIE), gave a presentation about climate-smart territories and stressed the opportunities for CATIE and Efd to support human well-being in Latin America and the Caribbean. Campos praised the quality of work and accomplishments of Efd and wished for an even more productive, successful, and consolidated presence of Efd in the region. This presentation was followed by a talk by Efd director Gunnar Köhlin. Köhlin presented on The impact of international cooperation through Efd's research and capacity building. One of his key messages was that, through capacity building, rigorous research, and communication of issues, Efd's

work around the world contributes to well-grounded environmental analysis. This analysis supports key national plans and policies, as he demonstrated with an extended list of examples. Finally, the welcoming session closed with two presentations about cooperation to advance research and capacity building as part of South-South cooperation toward the "green economy." One was by Sergio Musmanni of the German Agency for International Cooperation (GIZ) Office in Costa Rica. The other was by Dr. Yue Zhai, First Secretary for Science and Technology, based at the embassy of the People's Republic of China in Costa Rica, who gave his talk in Spanish.

The Policy Day continued with three plenary sessions. The first brought up the topic of Opportunities for development: from adaptation and mitigation to climate change, starting with a presentation by Thomas Sterner. Sterner is Professor in the Department of Economics at the University of Gothenburg, an Efd Senior Research Fellow, and Visiting Chief Economist at the Environmental Defense Fund (EDF). He spoke about policy options and political feasibility in climate change and other environmental policies. Then, Álvaro Umaña, a Senior Research Fellow at Efd-CA, talked about needed changes in international negotiations on climate change en route to a low carbon economy. He was followed by Celia Harvey, Vice President for Global Change and Ecosystem Services, Conservation International (CI). Celia presented a newly launched collaboration between CATIE and CI called Ecosystem-based Adaptation for Smallholder Subsistence and Coffee Farming Communities in Central America: The CAS-CADE Project.

The second session focused on challenges and opportunities for the green economy and conservation with two presentations. Juan Robalino, another Senior Research Fellow at Efd-CA, presented his work about impacts of conservation policies. After that, Jorge Mario Rodríguez Zúñiga, Executive Director of The

National Forestry Financing Fund (FONAFIFO), talked about the future prospects for REDD+ and other Payment for Environmental Services (PES) schemes in Costa Rica. (The "plus" in REDD+ is for forest conservation, sustainable forest management, and the enhancement of carbon stocks.)

The last session on research and policy interaction on water and climate change consisted of three presentations. First, Róger Madrigal, Research Fellow at Efd-CA, showed the work the center is doing on adaptation to climate change and water governance. Maureen Ballesterro from the Global Water Partnership for Central America and former member of Congress in Costa Rica talked about shaping and advocating for the political agenda on water. Dr. Darner Mora, Director of the Blue Flag Program and the National Water Laboratory, Institute of Aqueducts and Sewage (AyA), ended the session with his presentation about the role of the AyA and its programs in water management.

The Policy Day was a cordial meeting full of exchanges between the speakers and the audience. For a moment, the participants were stranded under the colonial tile roof of the conference venue, which was at a distance from the restaurant where a delicious lunch was being served. The loud sound of the rain falling did not dim the lively discussions and enthusiastic questions between politicians, civil servants, and researchers alike. More than one person suggested that "this type of meeting should take place more often for all to learn and start speaking in the same language".

The media was also present during the day and covered a lot of the issues being discussed. Several Efd researchers and other participants were interviewed by both local and international news reporters. To see the list of media coverage for the Policy Day, visit media coverage Efd in media on www.efdnitiative.org.



Jesper Stage, Research Fellow, Sweden, Stephen Kirama, Research Fellow, Tanzania, Sied Hassen, PhD Student, University of Gothenburg, Moses Ikiara Research Fellow, Kenya



Adolf Mkenda, Research Fellow Tanzania, Thomas Sterner, Research Fellow Sweden and Mintewab Bezabih, Research Associate, Ethiopia



Yonas Alem, Research Fellow Ethiopia and Efd Research Officer, Sweden, Francisco Alpizar, Centre Director and Research Fellow Central America, Simon Wagura, Junior Research Fellow Kenya and PhD Student at the University of Gothenburg. In the back: Jonathan Colmer, PhD Student, London School of Economics, Miguel Quiroga, Universidad de Concepción



Panel discussion with Dr. Darner Mora, Director of the Blue Flag Program and the National Water Laboratory, Institute of Aqueducts and Sewage (AyA), Maureen Ballesterro, Global Water Partnership for Central America and former member of Congress in Costa Rica, Róger Madrigal, Research Fellow Central America and María A. Naranjo, Deputy Director and Research Fellow, Central America.



Participants in the 6th annual Efd meeting



Jane Mariara and Peter Kimuyu, Research Fellows, Kenya



RESEARCH POLICY INTERACTION

The EfD initiative is built on the premise that, if relevant applied research is introduced in policy making processes, then this will result in improved policies and subsequently poverty reduction and a more sustainable development path. EfD Tanzania works to strengthen the research capacity in environmental economics at the Department of Economics and the interface between academia and policy makers in the quest for sustainable development.

What a catch! Stephen Kirama, EfD Tanzania Researcher admiring a Nile Perch, popularly known by its Swahili name Sangara, at Kyamalange Village on the shores of Lake Victoria. The species was introduced in Lake Victoria in the 1980s. This is one of the best known fish species in Lake Victoria, the one that has attracted fish processing industries along the shores of Lake Victoria in Tanzania, Kenya and Uganda. It is also responsible for reducing the stock of indigenous fish species at Lake Victoria, such as Tilapia (Sato). Fish catch is usually stored in ice-filled containers along the shores, waiting for the fish industry trucks for sorting and loading.



Poor fishermen and farmers lack benefits from government sustainable growth investments

A child was killed by bees from the new beehives. The fish in the new fishpond did not survive. These were two sad outcomes of the investments in alternative income sources for fishermen in marine protected areas in Tanzania. Field observations by EfD researchers were reported directly to policy makers at an experts' policy meeting in 2012. An EfD review of how the country's most important policy documents are addressing sustainable growth and poverty reduction was presented at the dissemination workshop in January, 2013. The review will include a discussion of the outcomes, good and bad, of ongoing efforts to link poverty reduction with environmental protection.

HIGHLIGHTS 2012

After concluding one year with the Ministry of Water and Irrigation in June 2012, Dr. John K. Mduma joined a team of three experts charged with the task of developing a successor strategy to the Joint Assistance Strategy for Tanzania (JAST: 2006 - 2011). JAST was the national framework for managing the development partnerships among Tanzanian and donor agencies. This process was aimed at reducing transaction costs and enhancing aid effectiveness. The successor strategy was prepared following the Busan 4th High Level Summit on Aid Effectiveness. The summit formally recognized the changed "global aid architecture," which is now characterized by new

players, including emerging donors such as the BRICS, private foundations, climate change financing mechanisms, etc. The presence of new players on the development cooperation scene is of particular interest to EfD. While some of the players are thirsty for environmental/natural resource from developing countries like Tanzania (extractive camp) in order to fuel their rapidly growing economies, others have taken the opposite side—that of being pro-environmental conservation. This fact, among others, will greatly influence the aid coordination and dialogue structure, as well as the scope of the successor development cooperation strategy for Tanzania.

“We are fishermen by tradition.

Beekkeeping is not our area,” said a fisherman in one of Tanzania's marine protected areas to EfD Tanzania researcher Stephen Kirama, when he visited the park with his research colleagues.

“An important finding from the field is that we need to better address how to associate sustainability with poverty reduction. By talking with fishermen, we realize how enforcement of the restrictions in marine protected areas affects fishermen's livelihood, and why they are so angry with the management of protected areas,” says Stephen Kirama.

Fishermen are prevented from fishing in their traditional areas, and are supposed to fish in deep waters instead. Also, there are restrictions regarding the types of fishing gear, for example, concerning mesh size of fishing nets.

“Enforcement of restrictions, like confiscation of fishing gear, should come with a fair exchange to legal gear. Fishermen are aware that restrictions are there for environmental purposes. The problem is that they still lack legal fishing gear, appropriate boats, and engines for deep sea fishing,” says Kirama.

He explains that, while some fishermen have received fishing nets and boats from the government through the marine management programme, others have had their equipment confiscated. The limited funds for providing legal equipment have been used for those who heeded the call to form user groups. User groups allow communities to collectively manage resources in order to reduce the overuse of a common pool of resources.

“The key point is that the wider population is lacking the knowledge that environmental sustainability can increase productivity, harvest, and income, and alleviate poverty,” says Kirama. “If people can see these links, they will understand that they are right now jeopardizing their own present and future.”

Since 2007, EfD Tanzania has conducted research in the marine protected areas of Mafia, Tanga, Mnazi Bay and Ruvuma Estuary Marine Park (MBREMP). An equally important area for research policy interaction is agriculture. “Agriculture first” or “Kilimo Kwanza” in Kiswahili is Tanzania's most important current policy aimed at boosting agricultural productivity. EfD researcher Aloyce Hepelwa is conducting research on subsidies on fertilizers and seeds to poor farmers.

“Our observations in the field revealed that the fertilizer subsidy voucher covers only a quarter of the costs, since the price of fertilizer has gone up,” says Aloyce Hepelwa. “Moreover, subsidies are either not delivered to farmers, or they are delivered too late. They are not used as intended for maize and rice, and farmers are selling them instead of using them on their own land. In addition, the quality is not good. Our recommendation is to increase both the quality and the fertilizer subsidy value.”

This field research demonstrates how EfD associates can form a link between local communities and policy outcomes, figuring out what does and doesn't work. Years of high quality research has brought EfD Tanzania to a new level of research policy interaction, according to Kirama and Hepelwa. The research in recent years on marine protected areas, peri-urban forests, REDD mitigation, and agriculture has been particularly important.

Now the government can approach EfD Tanzania directly rather than going through the Department of Economics as it has done in the past. One example is the assignment that EfD Tanzania received from the Planning Commission of the President's Office to analyze how policy documents in different

POLICY LINKS

The EfD Tanzania has been interacting with international agencies, government departments, and non-governmental organizations on policy issues. The center has worked very closely with the Environment Division of the Vice President's office. This is the unit that is responsible for coordinating environmental management for the improvement of the welfare of Tanzanians. <http://www.vpo.go.tz/> In addition, the Institute of Resource Assessments has formed a REDD task force that collaborates with the center on some issues. Poverty Eradication Division (PED), in the Ministry of Finance (MOF), has supported conducting a short training course on "Introduction to Stata with Application to Poverty Measurement <http://www.tanzania.go.tz/ministriesf.html>

EfDT and Ministry of Natural Resources and Tourism is intending to form a Collaborative Project Proposal on Park Pricing in which EfD Tanzania, in collaboration with Serengeti Park and Ngorongoro Conservation Areas <http://www.tanzania.go.tz/natural.htm>.

The National Environment Management Council (NEMC) is working with EfDT in some projects like study of the Cost-Benefit Analysis for Plastic Bag Ban in Tanzania Mainland <http://www.nemc.or.tz/>

The EfD fellows, had joined the Ministry of Water to provide expertise in monitoring and evaluation of the Water Sector Development Program (WSDP). <http://www.maji.go.tz/>

The EfD fellows more often work with the Tanzania Forest Conservation Group (TFCG) in REDD Project at Kilosa and Lindi <http://www.tfcg.org/>

POLICY SEMINARS, WORKSHOPS AND CONFERENCES

In 2012, the EfD Tanzania center continued to participate in local and international workshops, conferences, and seminars by presenting papers and playing other important roles. One example is EfDT's contribution to the panel that would produce a bold and ambitious report that would feed into the post-2015 development agenda. The Planning Commission of the President's Office has engaged the University of Dar es Salaam, through the Department of Economics, to organize consultative activities on the post-2015 global development agenda. EfDT staffs are among the key resource persons in conducting these consultation dialogues. This process responds to the fact that, during the first decades of the new millennium, the world has been preoccupied with the twin challenges of huge unmet human needs and growing environmental degradation. The worsening environmental degradation is laid at the door of economic growth, population growth, and growing per capita resource consumption. At the same time, poverty still haunts the globe, with about two billion people living on less than two dollars per day, many of them lacking even basic sanitation or clean drinking water. It is these two challenges that are at the core of the Post-2015 Global Development Agenda. Five consultative meetings were held in Bagamoyo, Arusha, and Zanzibar.

The consultations are inspired by the UN's vision for an inclusive global agenda, and it is crucial for stakeholders in Tanzania to focus the dialogue on issues of the future world they want to live in. Thus, the Government of the United Republic of Tanzania, the Revolutionary Government of Zanzibar, and other stakeholders view the national dialogue process on the post-2015 Global Development Agenda as an opportunity to assess the implementation of the Millennium Development Goals, in terms of achievements recorded and challenges faced, and to use the assessment



A discussion session on post 2015 development agenda in which EfDT Researchers were involved. From Left Adolf Mkenda, EfDT Senior Researcher Fellow, Hon. Zitto Kabwe, Member of Parliament; Humphrey Moshi from Department of Economics and Amon Manyama, EfDT Board Chairman.

as a building block for a vision and targets beyond 2015. Hence, the national consultations will be useful in two ways. First, they will stimulate and contribute to the global discussions among Tanzanians, and garner inputs

and ideas for a shared global vision of "The Future We All Want". They will also serve to establish how Tanzania wants to use this process and its results for its development planning.



Stephen Kirama and Aloyce Hepelwa

sectors of the economy are addressing linkages between environmental sustainability, growth, and poverty, and to point out what is lacking. The report from sectors such as natural resources, agriculture, fishery, forestry, minerals, and energy were presented at the dissemination workshop in January, 2013.

"EfD Tanzania is conducting research that results in important information with policy implications. Yet, this will not help anyone if the findings are not communicated. So this is why the Planning Commission decided to fund our outreach in 2012, through an experts' policy meeting on forest and fisheries management, and through policy briefs that we are now finishing," says Kirama. That meeting was held in May 2012.

When asked about successful ways for researchers to approach policy, Kirama and Hepelwa do not hesitate. "It is important to bring research to the areas that are the topics of the day and that are relevant to the problems facing our country," says Kirama. "We must orient our research on current problems of Tanzania, invite policy makers, and make sure that our research is up to date and relevant for the policy issues of the moment," added Hepelwa.

An equally important element for success, underlined by Kirama and Hepelwa, is that key players in the country's decision making are members of EfD Tanzania's policy board. For example, the Chairman of the EfD policy board is Mr. Amon Manyama, Assistant Resi-

dent Representative at the United Nations Development Program (UNDP). In this initiative, EfD Tanzania is undertaking a number of research and consultative works in the areas on Poverty Environmental Indicators and Public Expenditure Reviews on the environment and locally based ecosystems solutions. In addition, EfD Tanzania has also received some funding to facilitate dissemination in the areas of marine, fishery, and forestry resources, as well as agriculture.

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 ensure sustainable use of natural resources. A major challenge in developing countries is, however, the lack of comprehensive research to inform national strategic plans and policies on environmental resource management and poverty alleviation. Policymakers, farmers, donors, and others need research-based information, not only to design policies but also to evaluate their efficiency in reaching their objectives.



Firewood for domestic purpose is still the main source of fuel in the Tabora region. Women and children are still dedicated to the activity of collecting firewood. Photo: April 2012

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Reports

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PROJECTS 2012

For more information on each project, please see the website.

Poverty and local ecosystems income generation using economic instruments for sustainable utilization of environmental resources: Case study—Lake Victoria Basin

Lake Victoria basin is Africa's largest inland water, hosting more than 300 endemic fish species (NBI 2001). The basin is endowed with a wealth of natural resources: land, forest resources, minerals, fish (particularly Nile Perch), wildlife, rivers and streams, wetlands, and other biological resources, which provide unique opportunities for socioeconomic development. Like in other places, the natural resources found in this basin offer avenues, mostly to poor people, to undertake economic activities for poverty reduction and sustainability of livelihoods.

The Lake Victoria Basin is important to the region and globally. It provides a fishing sanctuary, water transport linkage, and water for domestic, industrial, and commercial purposes for the five East African countries. It is also a major climate modulator and is quite rich in biodiversity. The fishery resources from the lake are, directly or indirectly, a source of livelihood to more than 3 million people engaged in subsistence, artisanal, and commercial fishing. However fish catch is declining due to increased fishing effort and illegal fishing methods.

In terms of agriculture, more than 70% of the inhabitants of the Lake Victoria Basin are farmers of both food and cash crops. Major food crops grown include maize, bananas, cassava, sorghum, millet, rice, sweet potatoes, and an assortment of vegetables and fruits. Main cash crops include coffee, cotton, and sugar cane. Agriculture in this basin is characterized by low crop yield, mainly due to over-dependence on rainfall. With the changing climatic conditions, crop production is increasingly placed at high risk. Livestock is another significant livelihood in the basin and is still practiced using traditional methods. This has environmental, cultural, and economic implications. In addition, livestock keeping is faced with the problem of declining open spaces for grazing and pressure for land.

Gold mining, quarrying, and sand mining are some of the major mining activities in the basin. This, however, poses a threat to the lake and its flora and fauna if it is not carried out in a responsible manner. Mercury, which is mainly used by small-scale miners for the processing of gold, is a heavy metal which accumulates in the food chain and may be dangerous once the amounts accumulated are large and widespread.

The purpose of this study is to argue the case for a new strategy for poverty eradication and sustainable natural resource management in the Lake Victoria Basin, using new initiatives in local ecosystem-based income generation methods.

Effects of deforestation on household time allocation among rural agricultural activities: Evidence from Central and Southern Tanzania

Trees in forested and agricultural landscapes are particularly important because they provide high values of environmental services and biodiversity. In this proposed study, the idea is to establish the link between deforestation and time allocated to fuelwood collection and agriculture. The study will use a non-separable (non-recursive) model to test the participation of households in fuelwood collection and farming activities, using data from Central and Southern Tanzania. The analysis will look at how labour time, gender composition of the household, seasonality, and agro-ecological differences affect household labour allocation decisions.

The study also will establish whether, when deforestation increases and fuelwood gets scarce, these conditions force household members to divert time away from farming. If no reallocation of time takes place, the results will imply that agriculture is the relatively more important activity and that fuelwood products have not become costly enough to significantly tighten household labour constraints.

The impact of fertilizer subsidy on cereal crops production and land conservation in Tanzania

One of the policy measures adopted in the recent past by the government of Tanzania, during the implementation of the Agricultural Sector Development Program and the Kilimo Kwanza Strategy, is a subsidy to fertilizer and other agricultural inputs through a voucher system.

Farmers who are the beneficiaries of these subsidies were expected to increase productivity and production level, and hence reduce shifting cultivation practices that extend the area under cultivation. This study is an attempt to evaluate the effects of the fertilizer subsidy on the output of cereal crops (maize and rice), as well as whether land conservation results from reducing the extension of farmland. The proposed study will estimate the production function to analyse the effect of subsidy on output of the cereals produced, including estimation of the relationship of land spared from farming and increase of yield as result of fertilizer use. The study is being conducted in two regions in Tanzania, namely, Ruvuma and Tabora. The two study cases are the regions with the highest and lowest fertilizer use. Data is collected by surveys of farmers, traders in food crops, and fertilizer dealers in the study areas.

Group decisions over the allocation of REDD payments: An example from Tanzania

REDD—Reduced Emissions from Deforestation and Forest Degradation—is a new form of payment for environmental services that has potential to fund forest protection in Tanzania.

A key challenges for implementing REDD is that payments may be made to groups and therefore not create appropriate forest use incentives for individuals. In Tanzania, REDD is being piloted in 31 forests by the NGO Tanzania Forest Conservation Group (TFCG) and the first payments to REDD villages have been made to the villagers. Each of these villages have been given the opportunity to choose independently whether the REDD payment goes to a community project or to individuals in the village.



In Tabora, drying of tobacco requires a large amount of firewood. This is the tobacco drying hut in the Urambo District. Photo April 2012

The objective of our research project is to determine the drivers of the choice between allocation of incentives to the community or individual, and how this choice affects forest management. The study will provide a foundation for future research to link REDD payment mechanisms to carbon storage outcomes. The project is being implemented in close collaboration with TFCG in the 31 villages where REDD pilots have been introduced in Tanzania. Possible outcomes include analysis of REDD pilot projects that would not otherwise be done. This research will inform implementation of REDD in Tanzania and other African countries on a broader scale.

Assessing Tanzania's Marine Protected Areas: Incentives, opportunities, and constraints

Tanzania's seven Marine Protected Areas (MPAs) are governed by the same set of national laws and regulations, but face different opportunities and pressures that depend in part on location, tourism opportunities, and the number of local communities dependent on the marine resources.

This newly proposed research project builds on the Efd-funded "Incentives for Villages to Cooperate with Marine Protected Areas as a

Function of Location: Mnazi Bay Ruvuma Estuary Marine Park Case Study." The team intends to provide specific policy suggestions to MPA managers that will enable them to improve the long-term management of Tanzania's MPAs. Goals include an improved understanding of how park policies affect marine-dependent villagers and how these villagers react to park policies, improved allocation of funding across the MPAs, and reduced conflict between the park managers and marine-dependent communities.

Four observations from Mnazi guide our project. First, whether an enforcement regime focuses on technology, quotas, access restrictions, or permit systems affects conservation and equity outcomes. Second, poverty alleviation projects typically generate low incomes in comparison to lost fisher folk revenues due to restricted access to the fisheries. Third, MPA managers tend not to have the expertise to implement and understand the incentives that poverty alleviation projects create. Fourth, enforcement budgets tend to be low, suggesting actions to induce cooperation through other means are needed.

Our methodological starting point is a structured comparison of the seven MPAs in Tan-

zania, in which data are compiled on the park records on tourism revenues; permit revenues; enforcement activities; location of violations; outcome of violations; park and NGO income-generating projects; fish landings and market prices; and production of basic maps of each MPA that identify fish landing sites, middle men purchase points, and fish markets. With these statistics, the study will look for trends and responses to policies over time and begin to work with MPA managers to understand their budget allocation across activities and across locations, with the aim of improving those allocations in order to facilitate biomass recovery without burdening local communities.

The study will then explore the hypothesis that the pressure on fisheries is an inverted U shape as a function of distance from markets, by developing a framework that links distance to markets with the types of alternative income projects and employment activities available in different settings; the various ecosystem-disrupting activities, including fishing and tourism in different settings; and the role of markets/urban centers. Using that framework, we can evaluate how increased spatial differentiation of management across MPAs could improve biodiversity conservation and poverty alleviation outcomes.

PROJECTS 2013

Poverty and local ecosystems income generation using economic instruments for sustainable utilization of environmental resources: Case study – Lake Victoria Basin

Theme: Agriculture, Fisheries, Climate Change
PI: Razack B. Lokina

The impact of fertilizer subsidy on cereal crops production and land conservation in Tanzania

Theme: Agriculture
PI: John Kedi Mduma

Effects of deforestation on household time allocation among the rural agricultural activities: Evidence from Central and Southern Tanzania

Theme: Agriculture, Forestry, Climate Change
PI: Razack Lokina, Robert Mabelle

Group decisions over the allocation of REDD payments: A natural experiment from Tanzania

Theme: Forestry, Climate Change, Policy Design
PI: Elizabeth Robinson, Razack Lokina

Improving the potential for successful implementation of REDD in Tanzania

Theme: REDD and Common Property Resource Management and Enforcement
PI: Elizabeth Robinson

Assessing Tanzania's Marine Protected Areas: Incentives, opportunities and constraints

Theme: Marine Resource and Forestry
PI: Jo Albers

The Vulnerability of Households Welfare to Shocks in Tanzania

Theme: Climate Change/Policy design
PI: Adolf F. Mkenda

Land Conservation Technologies Adoption and its Impact on Smallholder Agriculture in Tanzania: A case study of REDD Implementing Areas

Theme: Agriculture
PI: John Mduma

Sustainable financing options of the climate change and climate variability adaptation measures by rural smallholder farmers in Tanzania

Theme: Agriculture and climate Change
PI: Aloyce Hepelwa



Tobacco farm owned by a household in the Urambo District. Drying of tobacco leaves contributed greatly to deforestation in the Tabora region. (Photo April 2012)



Arusha Forest, Tanzania

RESEARCH PRESENTATIONS

Academic conferences

Environment for Development Initiative 6th annual conference October 2012, Costa Rica

- Dr. Adolf Mkenda, Mr. Stephen Kirama

Park Pricing Workshop Hazyview Protea Hotel - Mpumalanga Province, September 20-23, 2012 - Republic of South Africa

- Mr. Stephen Kirama: Pricing Marine Protected Areas: The Case Study of Mafia Island Marine Park in Tanzania

IIFET's 16th Biannual Conference, Dar es Salaam, Tanzania, July 16-20, 2012 Visible Possibilities: The Economics of Sustainable Fisheries, Aquaculture and Seafood Trade.

- Dr. Adofl Mkenda, Dr. Razack Lokina, Mr. Stephen Kirama

PEI Africa Regional Forum, November 8-11, 2010, Nairobi, Kenya

- Stephen Kirama: Economic Valuation of Ihefu Wetland

Invited speaker at Food Security: The Value of Vegetables, Warwick Crop Centre, Wellesbourne, July 11, 2012.

- Elizabeth Robinson: Vegetables and their markets in Africa

2012 Annual World Bank Conference on Land and Poverty 23-26 April 2012, Washington DC, USA

- Elizabeth Robinson: Improving the potential for successful implementation of REDD in Africa

Academic seminars

Panel Data Econometrics (PhD) Linear Static & Dynamic Model Training - Tanzania

- Dr. Adolf F. Mkenda, Mr. Stephen Kirama, Mr. Salvatory Macha, Mr. Wilhelm Ngasamiaku

Post 2015 Global Development Agenda National Consultations Dialogue-Tanzania

- Adolf Mkenda: Management of Extractive Industries
- Razack Lokina, Aloyce Hepelwa, Stephen Kirama: Environmental Issues and Climate Change

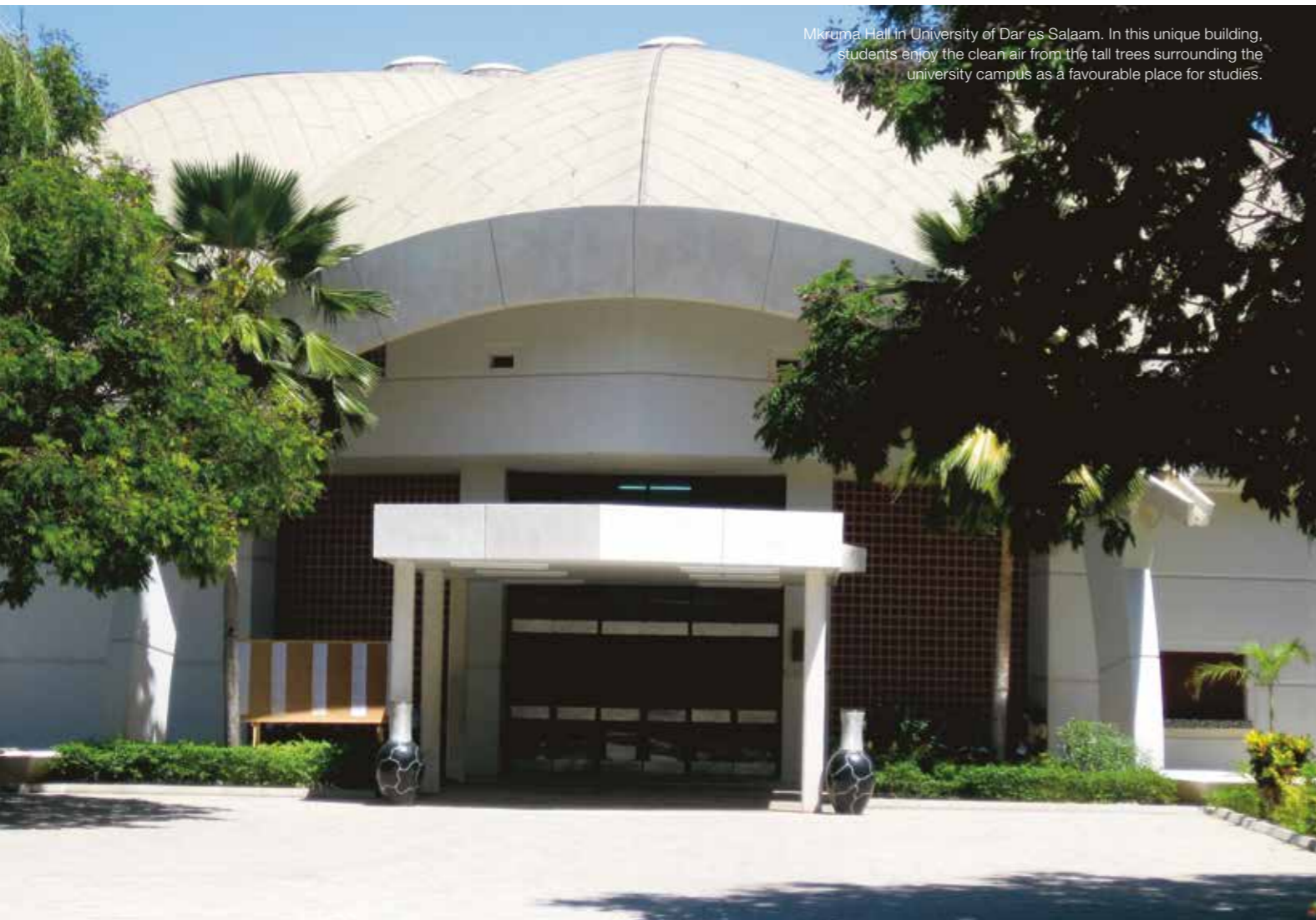
All Party Parliamentary Group on Agriculture and Food for Development UK Parliamentary Inquiry into the Integration of Smallholder Producers in Supply Chains in the Developing World, Roundtable participant March 2012.

- Prof. Elizabeth Robinson

Mwalimu Nyerere Development Symposium 2012 "Enhancing Human Capital and Productivity for Faster Development in Tanzania" at Karimjee Hall December 12-13, 2012. Organised by Mwalimu J.K.N. Chair in Development and the Department of Economics funded by UNDP and planning commission

- Adolf Mkenda; Political Economy of Growth and Distribution
- Aloyce Hepelwa: Enhancing Capacity and Instruments: A Fiscal Regime for Maximizing Benefits from Natural Gas Exploitation
- Razack Lokina, Stephen Kirama





Mkruma Hall in University of Dar es Salaam. In this unique building, students enjoy the clean air from the tall trees surrounding the university campus as a favourable place for studies.

ACADEMIC CAPACITY BUILDING

The EfD academic capacity building component is designed to minimize the shortage of trained environmental economists in developing countries by supporting undergraduate and postgraduate studies in environmental economics and by building the capacity of local public universities through teaching support, research grants, books, and other support. Linking research with academia is one of the unique features of EfD.

There are two Collaborative Graduate programs at the Department of Economics, University of Dar es Salaam. These are the Masters in Economics (M.A Economics) and Ph.D. by Coursework and Dissertation. These programs are run in collaboration with the African Economic Research Consortium (AERC). The EfD Tanzania members are involved in teaching and super-

vising the students. The project also provides financial support to graduate students who write their dissertation in the areas of environmental and resource economics and poverty analysis.

The collaborative MA and PhD programme in the Department of Economics University of Dar es Salaam is for sub-Saharan Africa. The pro-

grams are conducted through coursework and dissertation. The University of Dar es Salaam is one of the four host universities in the region. The first two academic years are devoted to coursework covering core courses of micro-economics, macroeconomics, and quantitative methods, plus two optional courses. Students then join colleagues from other host universities

at a joint facility for electives (JFE) in Nairobi for instruction in the optional courses. After coursework (core courses and electives), students prepare for their comprehensive examinations. During the third and fourth academic years, students work on their research proposals, conduct research, and prepare dissertation write-ups and presentations.

The Research Fellows at EfD Tanzania offer academic support in supervising graduate students writing on environmental and poverty analysis issues. We do this by supporting students in building their individual capacities. We assist those writing on environment and poverty to not only meet their learning or research goals, but to be innovative in the process and to foster relationships with key partners, in formal and informal settings. For those MA and PhD students who are studying environmental economics and poverty issues, this process leads to both formal academic qualifications and inclusion in the professional world of environmental economists.

Our capacity building strategies include conducting training for civil servants from government departments and agencies and for the staff of non-governmental institutions. We have developed a training manual that aims at developing and facilitating effective mainstreaming of environmental and poverty concerns into policy, planning, and monitoring processes in Tanzania, through articulating the linkages between poverty and environment on the one hand and economic growth on the other. The main objective is to provide references to concepts, strategies, policies, and guidelines. We address strategic issues related to planning, implementation, and evaluation of environmental policies and strategies and identify key actors and stakeholders. The manual itself is intended to:

- Impart skills needed by policy makers and practitioners in order to analyse the poverty-environment linkage

- Familiarize stakeholders with approaches used in analysing the poverty-environment linkage
- Identify roles and responsibilities of different actors and stakeholders in the continuum of policy process related to the poverty-environment linkage;
- Assist in developing poverty-environment indicators for monitoring policies and strategies,
- Identify approaches to financial resources mobilization for environmental management.

PhD Thesis titles and names

Ms. Madina Guloba

Gender and Household Welfare: Analysis of Responses to Climate Variability and Change in Uganda

Supervised by Razack Lokina

Mr. Wilhelm Ngasamiaku

Environmental Factor and Health Outcomes in Tanzania: The Case of Infant and Child Mortality Using Household Level Data

Supervised by Adolf Mkenda and Razack Lokina

Mr. Onesmo Selejio

Factors and Impact of Land Conservation Technologies Adoption on Smallholder Agriculture in Tanzania

Supervised by Razack Lokina, John Mduma, and Elizabeth. J. Robinson

Ms. Tafah Akwi

Climate Change Mitigation and Adaptation in the Cameroon Forest Sector: Impact on Rural Communities in the Context of REDD.

Supervised by Dr. Razack Lokina and Dr. Godius Kahyarara

MSC Themes and Names

Ms. Innocencia John

How Successfully Have Payments for Environmental Services Improved Welfare? The Case of Uluguru Mountain - Morogoro

Supervised by Dr. Razack Lokina and Dr. Godius Kahyarara

Ms. Matilda Ntyakunze

Valuation of Recreational Sites in Tanzania: The Case of Coco Beach, Dar es Salaam

Supervised by Dr. Razack Lokina and Dr. Adolf Mkenda

Ms. Germana Ijiko

Determinants of Household Choice to Adopt Soil Conservation Technologies in Tanzania

Supervised by Dr. Aloyce Hepelwa

Ms. Hossana Mpango

Households' Willingness to Pay for Avoidance of Power Outages in Dar es Salaam City

Supervised by Dr. Razack Lokina and Prof. Amon Mbelle

Mr. Victor Wanzagi

A Hedonic Approach to the Real Estate Market in Tanzania: The case of Kinondoni District

Supervised by Dr. John Mduma

Mr. Miamba Aulelus

Estimating the Value of Eco-Tourism Resources the Case of Kilimanjaro National Park

Supervised by Dr. Aloyce Hepelwa and Prof. Robert Mbelle

Mr. Stambuli Benedict

An Econometric Analysis of the Impact of Economic Growth on Oil Consumption (1972 – 2010): A Case Study of Tanzania

Supervised by Dr. Aloyce Hepelwa

COURSES TAUGHT BY EFD-TANZANIA RESEARCH FELLOWS INCLUDE:

Undergraduate courses in environmental economics:

- Environmental and Resources Economics

Master courses(3)

- Environment Economics I
- Environmental Economics II





First row: Mr. Maduka Kessy (with a laptop), EfDT board member and Deputy Secretary of the Planning Commission of the President's Office. Back row (from right): Mr. Amon Manyama, Chairman of the Board of EfDT and Assistant Resident Director for UNDP; and Mr. Stephen Kirama, EfDT Communication and Dissemination Officer, attending a Poverty Environmental Indicators (PEIs) workshop organized by UNEP in Nairobi in November, 2013. EfDT Tanzania is currently working on preparing the PEI in cooperation with the Five Year Development Plan (FYDP). Read more on the website www.efdinitiative.org/centers/tanzania/news-press

SPREADING THE WORD

News about research and policy interaction

2012-12-17

EfD-T contribution to the consultations to inform the Post-2015 Development Agenda

The Planning Commission of the President's Office has engaged the University of Dar es Salaam, through the Department of Economics, to organize consultative activities on the Post-2015 Global Development Agenda. EfDT staff are among the key resource persons conducting these consultation dialogues.

2012-09-12

Dr. Mkenda appointed Chairman of Board of Trustees of the National Pension Fund

President Jakaya Mrisho Kikwete of Tanzania recently appointed EfDT's Dr. Adolf F. Mkenda to be the chairman of the Parastatal Pension Fund, PPF, which is one of the largest pension funds in Tanzania.

2012-09-04

Panel Data Econometrics (PhD) Linear Static & Dynamic Model Training

Yonas W. Alem (PhD), Department of Economics, University of Gothenburg, EfD Research Director, conducted a training on Panel Data Econometrics from July 2-6, 2012, at the University of Dar es Salaam.

2012-06-15

EfD Tanzania Policy Board gets researchers and policy makers communicating

Four years ago, Razack Lokina, Research Fellow and Director of EfD Tanzania, took the initiative to establish a research policy board for this EfD Center. The aim was to facilitate transfer of research findings to decision makers and other stakeholders, as well as to bring in ideas about what types of research are actually needed by society. One of the direct results of the establishment of the board is EfD's participation in the review of Tanzania's National Strategy for Growth and Reduction of Poverty (2005-2010), commonly abbreviated as MKUKUTA in Kiswahili. The ideas to further enhance research policy dialogue are abundant.

2012-06-01

Tanzania: "Tax Cuts Could Save Fish Industry"

EfD fellow Stephen Kirama, University of Dar es Salaam, was interviewed by East African Business Week during a workshop to present key findings on forest management and marine protected areas, which was organized by Environment for Development Tanzania.

2012-05-29

EfD Tanzania conducts experts' policy meeting on forest and fisheries management

Environment for Development Tanzania (EfDT), an initiative hosted in the Department of Economics at the University of Dar es Salaam, organized a one-day experts' policy meeting, "Managing Tanzania's Natural Resources."

EFD TANZANIA IN MEDIA

2012-02-20

All Africa

Tanzania: Move to Curb illegal Fishing Succeeds.

This news was reported by the Daily News, Tanzania's daily paper, on February 13, 2012, and later appeared in the Tanzanian natural resources forum Wildlife Weekly E-Newsletter, linked to "all Africa" stories. <http://allafrica.com/stories/201202132036.html>

2012-05-19

All Africa

Tanzania: "Tax Cuts Could Save Fish Industry"

Dr. Elizabeth Robinson (University of Reading, UK) and Mr. Stephen Kirama (University of Dar es Salaam and EfD-T) gave presentations on forest management, fisheries policy, and common lessons from the two, based on EfD-

T's recent research findings. Bureau Chief Mr. Leonard Magonba from East African Business Week, a weekly paper, reported at <http://allafrica.com/stories/201205220715.html>

2012-12-05

Tanzania seeks to reform national development plan

DAR ES SALAAM -Tanzania has finalized a process to gather views on how to shape the next five years' national development plan. A statement from the Environment for Development (EfD) of the University of Dar es Salaam, made available to East African Business Week, said "as you might be aware, there is an ongoing global discussion on what the agenda should be after the Millennium Development Goals (MGDs) 2015." See more at <http://www.busiweek.com/news/tanzania/4111-tanzania-seeks-to-reform-national-development-plan>



REDD – Reduced Emissions from Deforestation and Forest Degradation – is a new form of payment for environmental services that has the potential to fund forest protection in Tanzania.





Mr Amon Manyama, Chairman, Efd Tanzania Policy Board

MESSAGE FROM CHAIRMAN POLICY BOARD

"We are the number one economy in the world, and we ought to continue to pursue those kinds of policies that ensure that we maintain that position, like innovation and like technology and like education and like just research and development and discovery."
Donald Evans

I am very pleased to see that the Environment for Development is continuing to grow from strength to strength with each passing year, and in the last year, it has added many feathers to its cap. I pray that God continue to shower His choicest blessings on the members of the Efd family and on all their endeavors.

As a result of the dedication, commitment, and hard work of staff, the center has been able to successfully progress, realizing its goals and vision. I am very happy that our researchers and graduates have performed exceptionally well in research and policy interaction. Their remarkable contribution to the national strategy for growth and reduction of poverty

speaks volumes about all the hard work put in by our staff. It is also very commendable that, in such a short period, the center has not only been affiliated with the Efd family but has now also progressed to collaborate with government ministries and agencies.

I would like to applaud the Director of EfdT, Dr. R.B Lokina. His indefatigable determination and efforts have resulted in the progress of EfdT in the region. I would like to also express my thanks to all our staff members for their dedication, hard work, cooperation, and interaction that has helped in taking the center to new heights. Kudos to the entire initiative team for their praiseworthy efforts!

We know that every year, many square kilometers of forest are lost. In many countries, water tables continue to drop, provoking chronic water shortages, and almost 25 percent of the planet's land area is being affected by the processes of desertification. These are challenges to researchers as they work to achieve a new set of "post-2015" global sustainable

development goals as a successor to the Millennium Development Goals (MDGs). These new goals should be a catalyst promoting positive change among people toward the construction of a global society. Through this process, EfdT researchers will need to liberate people from extreme poverty and all kinds of deprivation, in order to attain the future we want.

I believe that, in the years to come, armed with commitment and perseverance in the pursuit of research, training, capacity building, and consultancy, the EfdT will continue to prosper and serve the country. Last, but not least, my best wishes to the EfdT, its staff and all those associated with this center.

Ammon Manyama, Chairman,
Efd Policy Board.
(Senior Assistant Resident Representative,
Pro-Poor Policy Development and Wealth
Creation, UNDP- Tanzania)

THE TANZANIAN NODE IN THE EFD NETWORK

The Efd center in Tanzania, in the course of promotion of policy relevant and academically rigorous research, provides economic analysis that supports national environmental management and policy to reduce poverty and promote sustainable national welfare.



Salvatory Macha, Razack Lokina, Gunnar Köhlin, Adolf Mkenda, John, K.Mduma, Stephen Kirama



EfD Tanzania is located within the Department of Economics at the University of Dar es Salaam, the oldest university in the country. The Department of Economics is one of the leading economics departments in the region. It offers undergraduate, Masters and PhD specialization courses in environment and economics.

The EfD in Tanzania is among six centers in the EfD initiatives, an international network which is currently funded by the Swedish International Development Co-operation Agency (Sida). EfD Tanzania is working in collaboration with the Environmental Economics Unit (EEU) at Gothenburg University. The main goal of EfD Tanzania is to support poverty alleviation and sustainable development through increased use of environmental economics capacity in policy making processes. Specific objectives include:

- Increasing the number of trained environmental economists by creating an auspicious working environment for environmental economists. This is achieved through, among other things, providing research grants for local MA students in economics and Ph.D candidates writing on environmental and poverty issues.
- Strengthening the capacity of environmental economics and economics graduates to do applied research on poverty and environmental management.
- Increasing environmental awareness among policy makers and creating better understanding of environmental realities.
- Organizing workshops, conferences, and internal seminars.
- Distributing research publications and policy briefs
- Building capacity of civil servants and other stakeholders on environmental and development issues with the objective of increasing awareness of the link between environment management and poverty reduction.

EfD Tanzania vision

EfD Tanzania's vision is to be the leading center for environmental economics and a locus for interactions among researchers, civil servants and policy makers interested in policy oriented environmental research in Tanzania.

EfD Tanzania mission

The mission is to conduct a high profile research; to provide quality policy advice to the government and other stakeholders based on quality objective research; and to engage in capacity building to reduce poverty and contribute to sustainability. Members of the center have built links with government departments and agencies responsible for environmental management and poverty issues.

EFD TANZANIA CENTER STAFF

Local Researchers and Staff

Razack Bakari Lokina (PhD)
SENIOR LECTURER, DIRECTOR AND SENIOR RESEARCH FELLOW

John K. Mduma (PhD)
SENIOR LECTURER AND SENIOR RESEARCH FELLOW

Adolf Faustine Mkenda (PhD)
SENIOR LECTURER AND SENIOR RESEARCH FELLOW

Aloyce Hepelwa (PhD)
LECTURER AND SENIOR RESEARCH FELLOW

Wilhelm Ngasamiaku
ASSISTANT LECTURER AND RESEARCH FELLOW (PHD STUDENT).

Onesmo Selejio
ASSISTANT LECTURER AND RESEARCH FELLOW (PHD STUDENT).

Salvatory Macha
PROJECT ADMINISTRATOR

Stephen Kirama
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Amosi Mutanaga
ACCOUNTANT

Domestic research associates

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International research associates

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Professor Thomas Sterner
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AT THE UNIVERSITY OF TORONTO

Professor Jesper Stage
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UNIVERSITY OF GOTHENBURG

Associate Professor Håkan Eggert
DEPARTMENT OF ECONOMICS, UNIVERSITY OF GOTHENBURG

More details about each person are available on the EfD website, in the "center" section, under EfD Tanzania, www.efdinitiative.org/centers/Tanzania



NETWORKS

The EfD Tanzania center has been working with the international agencies, government departments, and nongovernmental organizations on policy issues. Our closest association is with the Environment Division of the Vice President's Office. This is the unit that is responsible for coordinating environmental management for the improvement of the welfare of Tanzanians. <http://www.vpo.go.tz/>

EfDT researches works with IFPRI to seek sustainable solutions for ending hunger and poverty. We also work together to understand the economics of land degradation. Recently the discussion paper titled "The Supply of Inorganic Fertilizers to Smallholder Farmers in Tanzania, Evidence for Fertilizer Policy Development" was published, <http://www.ifpri.org/>

The center has drawn the policy board member from the following ministries: Minister for Finance Ministry of natural Resources and Tourism, and the National Environment Management Council (NEMC) these governmental sectors are important for networking especially in the question of prioritising the research themes.

The center continues to work with The Tanzania Forest Conservation Group (TFCG) and the Institute of Resource Assessments and has formed a REDD task force that collaborate with the center on some issues.

DONORS AND FUNDING

We sincerely thank the Swedish International Development Cooperation Agency (Sida), through the EfD initiative based at the Unit of Environmental Economics at Gothenburg University, for their continuing core support. We also thank the University of Dar es Salaam and the Department of Economics, in particular in the area of office space and facilities. We further extend appreciation to UNEP, to the President's

Office - Planning Commission, and to the Ministry of Finance - Poverty Eradication Division, for the support of center activities.

EfD Tanzania welcome donors and partners interested in supporting our center activities, especially on the issues related to environmental economics and poverty, as well as supporting training and policy workshops

Number of donors 4

List of Donors	Funding by Donor during 2012
1) University of Dar es Salaam	4%
2) UNEP/President Office – Planning Commission (PO-PC)	30%
3) Ministry of Finance Poverty Eradication Division	2%
4) Sida/EfD funding as share of total center budget (incl. univ. salaries)	64%

List of donors EfD Tanzania

CONTACT US

You are most welcome to contact EfD Tanzania:

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www.efdinitiative.org/centers/tanzania

A 150 minute trip to Bumbire Islands, Mahaiga Village in Muleba District Kagera Region. EFD Tanzania Researcher Mr. Stephen L. Kirama, second from right, leading a team of Research Assistants, from left: Muganyinzi, Tumanieli, Ashura-Soni and Lucas Bahati to Bumbire Island in Lake Victoria for data collection on the Locally-based Ecosystems Solutions Study in December, 2012



THE EFD INITIATIVE IN BRIEF

Our vision is green economy; sustainable economic growth founded on efficient management of ecosystems, natural resources and climate change impacts.

The Environment for Development initiative received its name from our conviction that with proper management the environment can be seen as a source of development and not as a constraint.

Our mission is to contribute to poverty alleviation and sustainable development through increased use of environmental economics' capacity in policy design and policy-making processes pertaining to management of ecosystems, natural resources and climate change impacts. We use environmental economics tools to both identify the roots to environmental problems in modern economies, and to find what social and economic mechanisms can be used to solve them.

The foundation of the Efd initiative is its members, environmental economists in a selection of countries. As research fellows and associates we

work for Efd centers hosted by well-established academic institutions in China, Costa Rica (for Central America), Ethiopia, Kenya, South Africa and Tanzania. Efd have an important partner organization in Resources for the Future (RFF), Washington DC, USA. A new partner to Efd Since 2012 is also Universidad de Concepción in Chile. Our associates are based at RFF and several universities across the world. One of them, University of Gothenburg in Sweden, hosts the Efd secretariat.

The Swedish International Development Cooperation Agency (Sida) is currently a major funder of the Efd research and capacity building program through core administrative support, a research fund, and funds to strengthen academic training and policy interaction.

EFD CENTERS AND PARTNERS

There are six Efd centers, hosted by universities or academic institutions in each respective country.

For more information on each center, please contact the Center Director/Coordinator:

EFD CENTRAL AMERICA

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EFD PARTNERS



UNIVERSITY OF GOTHENBURG
SCHOOL OF BUSINESS, ECONOMICS AND LAW

EEU, Environmental Economics Unit

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

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Sida

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



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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Environment for Development



To find out more about our work and the EFD initiative:

Please visit www.efdinitiative.org/centers/tanzania

You are most welcome to contact us:

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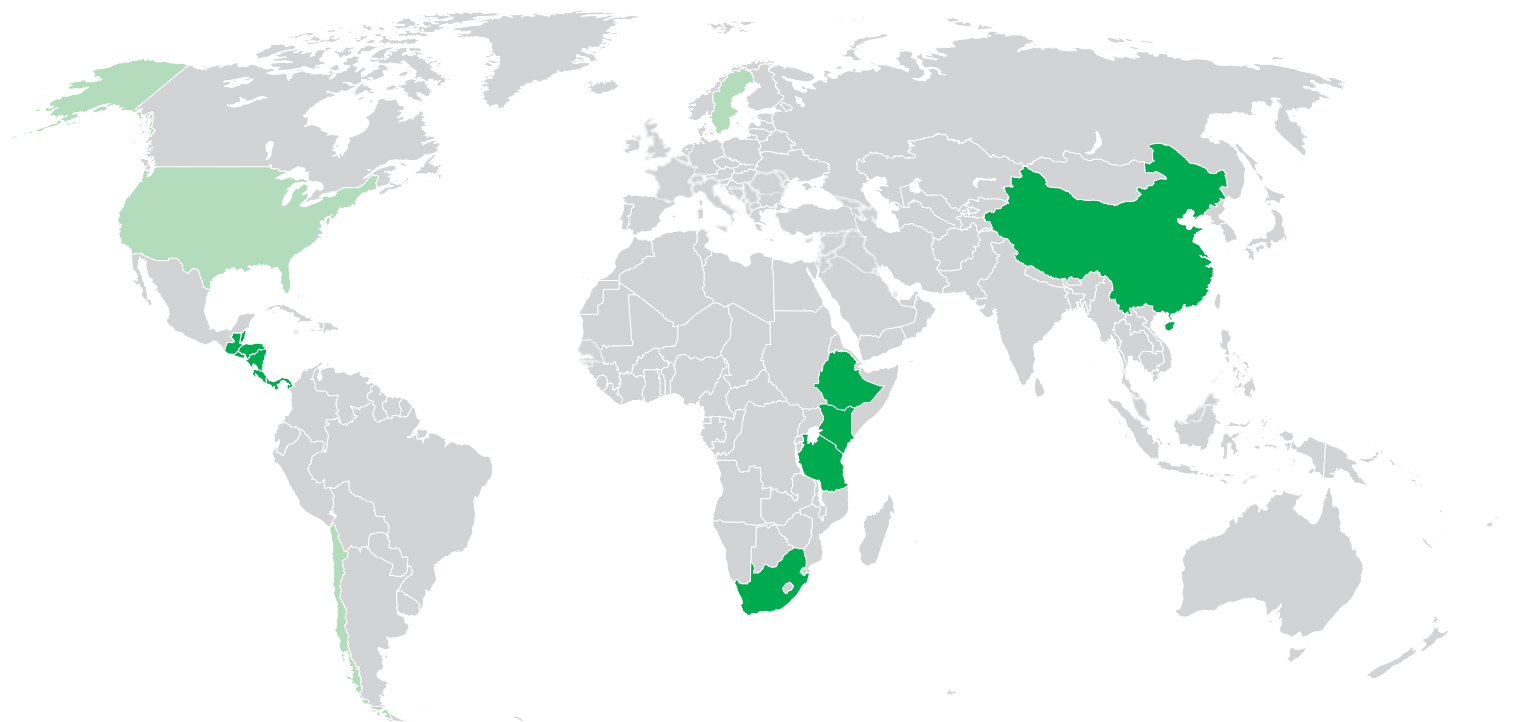
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