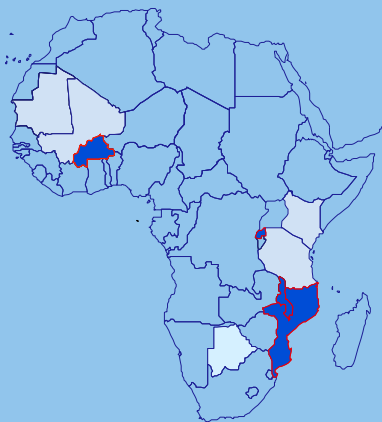




STORIES OF CHANGE FROM AFRICA



UNDP-UNEP Poverty-Environment Initiative



*Empowered lives.
Resilient nations.*

This publication may be reproduced in whole or in part and in any form for educational or non-profit purposes without special permission from the copyright holder provided acknowledgement of the source is made. The UNDP-UNEP Poverty-Environment Facility would appreciate receiving a copy of any publication that uses this publication as a source. No use of this publication may be made for resale or for any other commercial purpose whatsoever without prior permission in writing from UNDP and UNEP.

The views expressed in this publication are those of the authors and do not necessarily reflect the views of UNDP and UNEP. The designation of geographical entities in this report, and the presentation of the material herein, do not imply the expression of any opinion whatsoever on the part of the publisher or the participating organizations concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

* All dollar (\$) amounts refer to US dollars.

Director of Publication: Naysan Sahba

Coordinator: Mohamed Atani

Design & Layout: Paul Odhiambo

Printing: UNON/Publishing Section Services, Nairobi/ISO 14001:2004-certified
D1 14-00818/500 copies/June



UNEP promotes environmentally sound practices globally and in its own activities. This report is printed on paper from sustainable forests including recycled fibre. The paper is chlorine free and the inks vegetable-based. Our distribution policy aims to reduce UNEP's carbon footprint.

STORIES OF CHANGE FROM AFRICA

Joint UNDP-UNEP
Poverty-Environment Initiative





Foreword

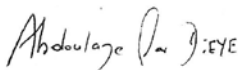
As Government leaders around the world, civil society and the private sector discuss the post 2015 development agenda, inclusive economic and social development and environmental sustainability is emerging as a key focus for the sustainable development goals (SDGs). In Africa, where economic growth remains heavily dependent on natural resources, the significant degradation of the natural environment coupled with the impacts of climate change continue to impede sustainable human development. Achieving pro-poor environmentally sustainable economic growth will require an enhanced understanding of how sustainable use of natural resources can help reduce poverty and support economic growth. With the support of the joint UNDP-UNEP Poverty-Environment Initiative (PEI), nine countries in Africa Botswana, Burkina Faso, Kenya, Malawi, Mali, Mauritania, Mozambique, Rwanda and Tanzania – are already committed to take practical steps towards an inclusive, pro-poor green economy.

Established in 2005 during The World Summit on Sustainable Development, the PEI supports governments in integrating poverty reduction and environmental outcomes into development planning, budgeting, and implementation. Based on PEI-supported economic studies that highlight the economic benefits of investing in pro-poor environmental sustainability and institutional capacity-building approaches, 15 national and sub-national policies and poverty reduction strategy papers, as well as 22 sector policies and plans in all nine PEI Africa countries include objectives that link poverty and environmental aspects. In five of the countries public resource allocations for pro-poor environmental sustainability have increased since the start of the programme.

On the ground this will have a significant impact on large parts of the population that depend on natural resources for their livelihood. For example, in Malawi soil erosion alone was estimated to reduce agricultural productivity by at least 6%, and if this yield is recovered, an additional 2 million people could be lifted out of poverty. The policy and budget changes being applied will help to reverse these trends.

With rapid economic growth in Africa largely driven by agriculture and extractive industries, two sectors with significant sustainable development challenges, the work of PEI is becoming more relevant than ever. Based on the success of the PEI Africa pilot phase and continued demand from the nine countries, the programme has entered into a third phase (2014-2017) to address the implementation challenge of integrating the poverty-environment nexus into national development planning and budgeting processes. The initiative has been backed by strong technical and financial support from the governments of Belgium, Denmark, Germany, Ireland, Norway, Spain, Sweden, the United Kingdom, the United States, and the European Commission, together with strategic partnerships with local and international think-tanks.

This short publication brings together inspiring ***Stories of Change from Africa*** which we hope will motivate governments, stakeholders, and the international development community to continue to work together to break down the silos between poverty and environment, essential to achieve the future we want. We also hope this publication will catalyze support and investments into poverty-environment mainstreaming across the globe as one element of the transition to an inclusive, green economy.



Abdoulaye Mar Dieye
Director
Regional Bureau for Africa
UNDP



Mounkaila Goumandakoye
Director
Regional Office for Africa
UNEP



Acknowledgements

Authors

Moa Westman & Marta Baraibar

Editor

Charlie Avis

Photos

UNDP-UNEP PEI and UNDP

This ***Stories of Change from Africa*** is the second in the PEI *Stories of Change* series, which seeks to capture and describe the rich experiences gathered in PEI countries. The series was inspired by joint work between PEI and the International Institute for Environment and Development (IIED) in producing the original *Stories of Change*, published in 2013. Authored by IIED's Emily Benson, and since translated into French, Russian and Spanish, that publication is available at www.unpei.org. The Malawi chapter in ***Stories of Change from Africa*** is an edited version of IIED's work in the original *Stories of Change*.

Substantial input and review was provided by staff from the Poverty-Environment Facility in Nairobi and New York, the PEI Africa Regional Team and relevant PEI National Teams.

For more information on the ***Stories of Change from Africa***, please contact Moa Westman at moa.westman@unep.org. For more information on the *PEI Stories of Change* series, please contact Charlie Avis at charles.avis@unep.org

This publication was authorized by the Co-Directors of PEI.



Contents

Regional Story

Nine African countries lead the way towards an inclusive green economy7

Rwanda

Greening policies and villages for poverty reduction19

Burkina Faso

Championing the need to invest in sustainable development29

Mozambique

Poverty and Environment cuts across sectoral boundaries39

Malawi

Changes course after analysing the real costs and benefits of policy choices 47





Nine African countries lead the way towards an inclusive green economy

When the global financial crisis began in 2008-09, environmental sustainability dwindled as a policy priority for many countries and budgets for environment and sustainable management of natural resources were cut across the globe. For the nine African countries where the UNDP-UNEP Poverty-Environment Initiative (PEI) has been working since 2005, however, a different kind of response was discernible. In Botswana, Burkina Faso, Kenya, Malawi, Mali, Mauritania, Mozambique, Rwanda and Tanzania, governments were already convinced that investing in pro-poor sustainable environment management is a prerequisite for sustained economic benefits from natural resources, and that to avoid negative impacts on GDP, poverty-environment mainstreaming should not just continue but even intensify. In Mali, for example, environmental mainstreaming is deemed so important that in the country's recovery plan from the crisis in 2012/13, the integration of environment into policies and strategies was identified as a key priority area for immediate support. This is the story of how these nine countries became pioneers of taking practical steps towards an inclusive, pro-poor green economy on a continent where economic growth largely is driven by natural resources.

The Poverty-Environment Nexus: a complex problem

African economies and rural livelihoods remain heavily dependent on natural resources, particularly renewable resources such as soil and water, and on the associated productive sectors such as agriculture and forestry. Environmental degradation and unsustainable natural resource use therefore have direct negative impacts on poverty reduction and national development. Stories from across the continent are all too familiar with small-holder farmers in Malawi and Tanzania experiencing reduced yields as a result of soil degradation; artisanal miners in Burkina Faso facing increasing health problems after prolonged exposure to chemicals; and people searching for new livelihood opportunities in urban areas and abroad in the face of diminishing economic and social returns from natural resources or lack of benefits sharing. Many of these pressing problems are exacerbated by climate change and the resultant increased vulnerability to natural disasters, erratic weather events and long-term environmental change.

Tackling the links between poverty and environment is a complex undertaking. There are multiple root causes which require to be addressed simultaneously at several – interconnected – levels of government planning, budgeting and implementation processes. With the youngest and fastest-growing population in the world and institutional capacity constraints, tackling these root causes represents an enormous challenge in Africa. Despite these constraints, and while the international community is still debating and attempting to define the Sustainable Development Goals (SDG), the nine PEI-supported governments are committed to lead the way in finding tangible and practical ways to mainstream pro-poor sustainability into the machinery of government because, as the Rwandan President Mr. Paul Kagame puts it, *‘even when we look beyond agriculture, tourism, mineral wealth and fisheries, our economies depend critically on good environmental stewardship’*¹.

¹ The honorable president of Rwanda, Mr. Paul Kagame on the occasion of the 3rd African Ministerial Conference on Financing for development: “Climate Change: Financing Opportunities and Challenges to achieve the MDGs in Africa.”, Kigali, 2009

Box 1. Defining Concepts

The concept of Poverty-Environment (P-E) linkages – sometimes termed the Poverty-Environment Nexus (or PEN) – integrates pro-poor environmental sustainability, including sustainable use of natural resources, adaptation to climate change, a focus on poverty reduction and equity especially for marginalised groups (including women and indigenous peoples), and working towards inclusive green growth.

Poverty-Environment (P-E) Mainstreaming is thus the iterative process of integrating poverty-environment objectives into policymaking, budgeting and implementation processes at national, sector and subnational levels. It is a multi-year, multi-stakeholder effort that entails working with State actors (such as head of state's office, environment, finance and planning bodies, line Ministries, Parliaments and local authorities) and non-State actors (such as civil society, academia, the private sector, general public and communities, and the media).



Small holder farmers in Tanzania are experiencing reduced yield as a result of soil degradation

Operating through cross-ministerial cooperation with support of economic valuations

'To be successful in addressing complex problems you need to be a learning organization that is flexible and responsive to change' says the PEI Africa Manager, Mr. David Smith. When the first PEI projects were initiated back in 2005 they were hosted by the Ministries of Environment and the emphasis was placed on finding the entry points and making the case through the use of integrated ecosystem assessments. But the team and the Ministries of Environment quickly realized that it is not the Ministries of Environment that need to be convinced about the importance of investing in pro-poor sustainability, but rather other sectors and especially, the Ministries of Planning and Finance. Hence, PEI placed more emphasis on gathering economic evidence of the benefits of investing more in environmental sustainability.

PEI learned that to mainstream environmental sustainability and poverty alleviation into the “arteries and veins” of government, it must get into the core of planning agendas and processes through closer collaboration with those Ministries. New and more meaningful partnerships with these ministries were sought and when setting up new country programmes, for example in Botswana and Malawi in 2008, PEI was housed in the Ministries of Finance and Planning respectively. Mr. Themba Kalua, who was involved in setting up the PEI office in Malawi, describes how it was an uphill struggle to convince all departments of the necessity of being based in such a central department, when *'most people thought that we should be in the Environment Ministry.'*

To convince policy makers about the importance of planning and investing in pro-poor sustainability, the language of economics, of costs and benefits, is more easily heard. Money talks across sectoral boundaries and *'economic valuations proved to make a powerful case for investing in environmental sustainability, climate change resilience and green economy approaches'* says Mr. Alex Mulisa, the coordinator for Rwanda's National Fund for Environment and Climate Change (FONERWA). Thus PEI Africa increasingly used economic valuations of natural resources and the environment. In the process it produced powerful findings and communicated those clearly. For example, such evaluations have

shown that in Burkina Faso, Mali, Mauritania and Mozambique, the costs of unsustainable natural resource use is equivalent to between 17-22 % of GDP.

Once such numbers are accepted and understood, other branches of government rapidly take note. Botswana's Minister of Minerals, Energy and Water Resources, the Honourable Mr. Onkokame Kitso Mokaila, highlighted this in a speech to Parliament in April 2013. *'Understanding the economic value of natural resources is an important step in pursuing sustainable natural resources management and integrating the value of natural capital in development planning, budgeting and decision-making. We are therefore in the process of developing flow and monetary accounting for sectors such as water, energy, agriculture and tourism...Botswana's participation in global programmes such as the Poverty-Environment Initiative...is important to determining the value of natural resources and ecosystems to socio-economic development.'*

These economic valuations have been instrumental in creating high-level commitment for poverty-environment mainstreaming and natural capital accounting, anchored in key and strategic government offices. For example, in Mauritania such findings were used to advocate for the integration of poverty-environment related objectives into the National Poverty Reduction Strategy (Cadre Stratégique de Lutte Contre la Pauvreté) and instrumental in the decision to change the project lead agency from the Ministry of Environment to the Ministry of Finance. Today, PEI is based in key Ministries such as Planning, Finance, and the Office of the President in six out of nine countries, a positioning which facilitates cross-ministerial cooperation.

Using the outputs and country mechanisms to generate policy change

The most important and also most challenging aspect of PEI's work is to support the Governments to use the findings from the economic evaluations and similar assessments for positive policy changes. In addition to high-level commitment, fulfilling this goal requires strategic, proactive, and energetic technical support and engagement in national and sectoral policy and planning

processes. By working through - and supporting - government mechanisms, PEI has been careful of developing real and sustainable changes to government systems and policies, rather than micro-projects with questionable replicability.

As Mr. Heikki Holmas, the Norwegian Minister for International Development, pointed out during Rio+20 in 2012, PEI *'assists developing countries in very practical ways to plan and develop a greener economy, it works through existing structures rather than setting up new ones, and it responds to the country-specific requirements rather than imposing a one-size-fits-all model from outside'*. For example, in Mozambique, PEI and the Danish International Development Agency (DANIDA) supported the development and application of an integrated cross-sector planning matrix encompassing eight cross-cutting issues, including environment and gender. When the matrix was approved, a member of the Environment Working Group said that *'this decision is an important step in mainstreaming environmental considerations in the planning and evaluation of activities in the different sectors'*² as it is applied during the preparation of sectoral annual plans. This led to poverty-environment objectives being integrated in the National Poverty Reduction Strategy and in eight annual sector plans. Equally important as influencing the sectors is to have an impact at the sub-national level in order for the changes to have an impact on the ground – a key focus of the next phase of PEI Africa..

The story of policy change is similar in all the PEI Africa countries and in total poverty and environment objectives have been integrated in 15 national and sub-national policies and poverty reduction strategy papers, as well as in 22 sector policies and plans. The other stories in this booklet tell the story of how these changes are having an impact on the ground.

2 PEI Africa Annual Report, 2011



Every year the PEI Africa regional meeting brings 9 African countries together to share experiences and lessons learned regarding poverty-environment mainstreaming.



The Government of Botswana emphasizes that understanding the economic value of natural resources is an important step in pursuing sustainable natural resources management.

Influencing budget processes to catalyze investments for poverty-environment objectives: Kick starting a virtuous cycle

Shifting the current development trajectory to a greener alternative that also helps reduce poverty is not an easy task. For policy changes, aiming to promote sustainability, to have an impact on the ground they need to be implemented. This seemingly self-apparent statement conceals a great number of challenges. Policy implementation requires budgetary allocations and other investments to be realized and thereby a first step has been to understand how much is spent, on what. Public Environment Expenditure Reviews (PEERs) are useful to highlight the typically low budget allocations and expenditure for sustainable environment and natural resource management measures across sectors. Comparison of this audit to the results of other PEI economic studies can reveal some powerful conclusions.

For example, in Mozambique the average environmental expenditure for the period 2007-2010 was 1.4% of GDP, whilst the economic valuation estimated that 9 % of GDP is required to recover the 17% of GDP lost annually to environmental degradation and inefficient natural resource use. Similarly, in Mali environmental expenditure was estimated to be 1 % of GDP, despite the fact that the costs of inaction with regards to environmental sustainability amount to 21 % of the GDP, negatively impacting on the livelihoods of the poor. Thus, the return from investing in sustainable natural resource use is high, yet at present that benefit is not being fully captured. The other stories in this booklet provide additional examples and explain these paradoxes in more detail.

When the amount of environmental expenditure is presented in relation to the costs of environmental degradation, Ministries of Planning and Finance are motivated to take steps to increase investment in sustainability. With the support of PEI, the annual budget call circular, or guidelines, in several of the nine countries now ensures that sectors actually budget for environmental sustainability and natural resource use. The 2013-14 and 2014-15 Malawi Budget Guidelines are a good example, stating that: *'for the Budget preparation, it is imperative that Budget Agencies ensure environment and climate change priorities are appropriately*

reflected in the Budget submissions in accordance with the environment and climate change mainstreaming guidelines.' The Guidelines further recognize the importance of poverty and environment linkages and encourage that environment and natural resources are being used *'as a vehicle for poverty alleviation and as an entry point for communities to appreciate their environment better.'* In Mali the Government is further looking at introducing an annex on poverty-environment to the finance law to secure the budgets assigned to these objectives.

In five of the PEI-supported countries, public resource allocations for pro-poor environmental sustainability have increased since the start of the programme. In Burkina Faso the innovative Investment Programme for Environment and Sustainable Development and in Rwanda the FONERWA are continuing to catalyze sustained investments in pro-poor sustainability. In Rwanda this has led to an increase in environmental and climate expenditure from 0.4% of GDP in 2010 to 2.5% in 2013.

It then becomes paramount to be able to track, measure, and evaluate the actual spending of such allocations and to quantify the benefits of new policies and projects made possible as a result of this greater investment. In Mozambique, the Ministry of Finance introduced a budget code for climate change, based on a recommendation from the 2012 PEER. Likewise the Government of Tanzania has integrated poverty-environment related indicators in the monitoring and evaluation frameworks for its national and district policies in order to facilitate measuring progress towards the achievement of agreed development goals.

In some cases close to 90 per cent of the GDP of the poor is linked to nature or natural capital such as forests and freshwaters.³ With this in mind, generating information to effectively track environment and climate expenditure is instrumental not only for accurate accounting and identifying investment gaps for sustainable environment and natural resource management, but also for the potential accessing of global climate funds to bridge these gaps and address poverty.

3 UNEP, 2011, Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication: <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=659&ArticleID=6902>

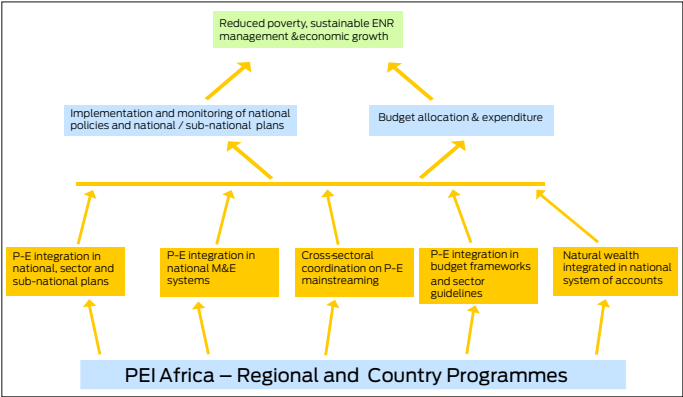
Influencing national, regional and global debates

Raising awareness is part of the story. “*Media is an important instrument to help people and policy makers to understand and take ownership of concepts such as sustainable development and the green economy*” says the Poverty-Environment Champion and head of a leading Burkina Faso newspaper, Mr. Eduardo Ouedraogo. The dissemination of key findings from the economic valuations and PEERs through the media has been instrumental to this process. The findings have been highlighted in TV shows in Malawi and Burkina Faso, in radio programmes in Mozambique and Rwanda, and in newspapers across all of the nine PEI-supported countries. Civil society organizations, Poverty-Environment Champions and other partners have used the media to continually advocate for pro-poor sustainable development and to place – and keep – the issue in the spotlight, encouraging parliamentarians and policy-makers to take note and take action. Spreading the message to the public is important in other ways, and as the Malawian Minister of Environment and Climate Change Management, Catherine Gotani, noted at the launch of Malawi’s Climate Change Communication Strategy in 2012 ‘*we in the Ministry visualize a Malawi that is well-informed about environment and climate change....by engaging people and transforming them from an unclear understanding about the causes of environmental degradation and climate change, to a situation where they will make informed choices and decisions.*’

In addition to its central focus on mainstreaming poverty-environment objectives into policies, plans, and budgets at the country level, PEI also contributes to create regional and global best practices towards sustainable development. At the Summit for Sustainability in Africa hosted by Botswana before the Rio+20 conference, PEI—together with Conservation International—highlighted the need to prioritize natural capital accounting and economic valuation of natural resources and ecosystems. One of the outputs of the summit was the Gaborone Declaration, co-signed by 10 African states, highlighting natural capital accounting as an important vehicle for sustainable development.

In 2013, the Final Report of the Thematic Consultation on Environmental Sustainability in the Post-2015 Agenda - a landmark document intended to inform the new wave of globally-agreed

PEI-Africa Theory of Change



sustainable development goals, or SDGs - highlighted learning from PEI experiences and in particular from Botswana, Burkina, Malawi, and Rwanda in making the economic case for public investments in natural resources. The report sets the stage for the post-2015 development landscape in this vibrant and rapidly growing regional economy. In PEI Africa’s experiences, strengthening a global focus on the linkages between environmental sustainability and human development would offer not only a sustainable way to guide national economic development, but also a practical and realistic approach for reducing poverty and inequality. While the world is recovering from the global financial crisis, Africa is experiencing rapid economic growth largely driven by agriculture and extractive industries, two sectors with significant equality and environmental challenges, making poverty-environment mainstreaming more relevant than ever.





Greening policies and villages for poverty reduction

Set on the steep hills in the north of the country, Rubaya village, located 1507m above sea level, is a typical village in Rwanda – the country of a thousand hills. Heavy rainfall washes away the most fertile soil and sometimes even houses, or large chunks of the hills. Such soil erosion, precipitated by over-cultivation of land for agriculture and inadequate soil conservation, is leading to ever lower productivity. Yet since 2010 a profound change has taken place here, for now the village serves as an inspirational model on how to integrate economic development with environmental sustainability, how to reduce poverty through reducing vulnerability, and how to make the environment everyone's business, including those in central government. Ms. Muhawenimana Solange, the young leader for the cooperative in the village, says that since the village adopted a more holistic approach to environmental sustainability 'we are getting more crops, yields are bigger and we live in better houses'.

Soil erosion impacts significantly on people's livelihoods as agriculture generates 80% of employment, 90% of national food needs and over 30% of GDP.⁴ Rwanda's economy and its people depend heavily on natural resources; land, forests, waters and wildlife as they provide the basis for farming, fishing, household energy and tourism. Simultaneously, these resources are under increasing pressure from population density, unsustainable use, soil erosion, deforestation and the impact of climate change. The result is a steady decline in economic opportunities and well-being among poor and vulnerable groups and as such, the achievement of national development goals.

'We need no reminder that our planet's biodiversity is under serious threat due to pressures from population growth, massive deforestation, climate change, pollution, and the unsustainable manner of exploiting our natural capital' said Rwanda's president, Paul Kagame⁵. Since 2005 the joint UNDP-UNEP Poverty-Environment Initiative (PEI) has supported the Government of Rwanda to bring solutions to these challenges and to enhance the contribution of sound environmental management to poverty reduction.

Unsustainable use of natural resources is expensive

Inspired by findings from a PEI-supported study "Economic Analysis of Natural Resource Management in Rwanda" (2006), the Government embarked on a programme to adopt policies to reverse soil erosion, for example, the first EDPRS introduced a specific target on soil erosion control, and promote sustainable agricultural practices through village level site visits. The analysis found that because of environmental degradation, poverty had increased, livelihood opportunities had declined, provincial health budgets were escalating, and soil loss of 15 million tons per year was costing the country 2% of its GDP annually. This was equivalent to a reduction in the country's capacity to feed 40,000 people a year. A government representative that participated in a dissemination session of the study findings explained that *"this information*

⁴ World Bank, Promoting pro-poor growth in Rwandan agriculture: What are the policy options, April, 2008

⁵ President Speech at Rio read out by the Minister of Natural Resources

is essential in order to understand not only the relationship between economic development and the environment, but also for individual sectors to understand how unsustainable use of the environment can have a negative influence on their own sector's targets.”⁶

By using the study findings, the PEI team worked together with Rwanda's Environment Management Authority (REMA) to successfully advocate for the integration of environmental sustainability into the Economic Development and Poverty Reduction Strategy (EDPRS) 2007-2013. The Ministry of Finance and Economic Planning (MINECOFIN) led and coordinated the development of the EDPRS and this realization of the importance of environmental sustainability for development and poverty reduction was key. MINECOFIN played an important role in raising the profile of poverty-environment among the different sectors.

The economic analysis contained two case studies on the economic value of the ecosystem services provided by two specific habitats: Gishwati forest and Rugezi wetland. Striking results showed that the cost of electricity increased by up to 167% per unit cost following the degradation of the forest and the wetland. The analysis revealed that siltation from soil erosion and the reduced water levels in the lakes and the hydropower reservoirs downstream from the Rugezi wetland decreased electricity generation and resulted in an extra cost of \$65,000 per day in fossil-fuel generated electricity. The results were telling and showed the detrimental cost of the wetland degradation on local communities' livelihoods and the need for more sustainable ecosystem management.

'Informed by the analysis REMA rehabilitated the wetland. Rehabilitation efforts restored water levels and power levels to original power production' explains the coordinator for Rwanda's Climate and Environment Fund, Mr. Alex Mulisa. Alongside the rehabilitation of the wetlands a large scale programme was put in place to resettle farmers and introduce more sustainable farming techniques and other income generating activities. On behalf of the Government of Rwanda, REMA received the internationally renowned Green Globe Award in October 2010 in recognition

of its efforts to restore the Rugezi wetland. This case has also informed other national policies, including energy and agriculture, to integrate more sustainable environmental practices, including amongst others, sustainable watershed management.

The Government takes the lead

“Now in Rwanda, due to the [economic] valuation, we know very well the importance of ecosystem services...then it is the role of institutions like us, to conduct assessments to bring facts to the table, share the policy recommendations, and then take proper actions” says Dr. Rose Mukankomeje, Director General of REMA. REMA now takes the lead on mainstreaming poverty-environment linkages across sectors. With the support of PEI, a landmark study, known as a Public Environment Expenditure Review (PEER), was carried out in 2009 in order to assess environment-related spending in different sectors.

The review showed that only 0.4% of the overall national budget was allocated to environment and climate change. The PEER provided additional rationale to push for the mainstreaming of climate and environment into other sector plans and budgets. Mr. Fred Sabati, the PEI National Manager, explains that since it became clear how sustainable environment and natural resource management is linked to improved livelihoods, the MINECOFIN made the request to all ministries to plan and budget for the environment through the annual budget call circular. Since 2011, the budget call circular also stipulates environmental impact assessments as a requirement for all sectors. To facilitate this change in planning and budgeting processes, the training of national planners and budget support staff is now an annual event.

As a result, all district development and sector strategic plans in Rwanda incorporate poverty-environment and climate change related objectives and investments in environmentally sustainable agricultural practices have been enhanced in 30 districts. Now the challenge is to ensure that the integration of the environment into all sectors leads to sustainable management of natural resources and ecosystems, which in turn benefits the poor.



Rwanda's economy and its people depend heavily on natural resources - land, forests, waters and wildlife - as they provide the basis for farming, fishing, household energy and tourism.



Rwanda: the country of a thousand hills creating challenges of soil erosion and water retention

Demonstrating change on the ground

To demonstrate in practical terms how this could be achieved, REMA and partners, including PEI, began an initiative in 2009 which has transformed the Rubaya village into a model for pro-poor sustainable development. Based on the twin and interconnected concepts of integrated environmental management and poverty reduction, a transformation is underway. Since the project initiation, poverty has been reduced in clear and measurable terms for a majority of the villagers. Mr. François Mugiraneza, a farmer in the model village, went from a capital stake of Rwf. 300,000 (\$464) in 2004 to owning 10 hectares of wheat, a 2,000-bird poultry farm, 8 cows and 89 pigs in 2011.⁷ As reported by the New Times in 2011 (a Rwandan Newspaper) he also contributes to the local economy by employing about 80 people during the harvesting season.⁸

Terracing and the use of organic manure have increased soil fertility, reduced soil erosion and increased water retention in Rubaya. The water that flows downhill is collected in reservoirs to be used for irrigation, and rainwater from the roofs is collected in big underground tanks used by the villagers for domestic purposes. Having water closer to hand spares women and children the burden of having to walk up to three hours up and down hill, carrying water containers. Ms. Solange, the leader of the cooperative in the village, explains that during some periods the children could not go to school because they were helping out collecting water and firewood, now their time can be spent on other productive activities such as school work. The price of jerrycans, which are used for carrying water, has also come down from 200 to 10 Rwandan Francs as they are now being sold by the project cooperative.

Thus the inhabitants of this village, deep in northern Rwanda, have demonstrated that creativity and hard work can improve agriculture, education and access to energy, while preserving natural resources. The key benefits of integrated environmental management is that it increases food security, reduces poverty, and improves opportunities for children and women. The

⁷ Rwagatare Joseph, New Times, Rwanda's Village of the Future, New Times, 2011-06-30

⁸ Ibid.



Ms. Muhawenimana Solange, the young leader for the cooperative in the village for the Rubaya Demonstration Project

demonstration project has been scaled up by the Ministry of Local Government to be part of the Integrated Development Programme. The scale up was supported by the Government of Rwanda and the Swedish International Development Cooperation Agency (SIDA).

The National Climate and Environment Fund - FONERWA

Rubaya is but one village, and the Gandhian challenge to transform the world one village at a time is made easier if poverty-environment considerations are more systematically mainstreamed into all sectors of the economy, including investments. Rwanda is committed to reduce pollution, biodiversity loss, soil erosion and deforestation. Pursuing such a pro-poor sustainable development path has many challenges to truly support large investments in order to “green” the different sectors. In 2012, Rwanda created FONERWA, a National Climate and Environment Fund, in order to finance the shift to a greener, more inclusive economy. Mr. Mulisa explains that it *“was designed with input from PEI to address the issue of sustainable financing of poverty-environment linkages at the national and local level.”*

The UK Department for International Development (DFID), supported the fund design and capitalised it with US\$ 36 million to invest in pro-poor green activities, starting in 2012.

“Since its operationalization, FONERWA has demonstrated that it is indeed a conducive vehicle to mobilize, harmonize, coordinate [donor and government] resources at the national level” emphasizes Mr. Mulisa. Funds are being used to support green, climate-resilient projects and investments including for projects related to renewable energy, ecosystem rehabilitation, sustainable land and forest management, integrated water resources management, and responsible mining. It is expected that the investments will contribute to reduce poverty for the vast majority of the Rwandan population which depends on natural resources for their livelihoods.

Making the environment everybody's business

Thus through the use of economic valuation studies, PEERs and integrated ecosystem assessments, PEI has helped to demonstrate the links between environmental sustainability and poverty reduction. By presenting the quest for environmental sustainability in economic terms, in particular at national level, as a percentage of GDP, the environment has become everybody's business and a policy shift has occurred with poverty and environment objectives now being integrated into national and sector development plans and budgets.

It is not just REMA that is spearheading poverty-environment mainstreaming in Rwanda. MINECOFIN has demonstrated leadership towards integrating environmental sustainability, climate change and inclusive green economy as key areas of focus for the EDPRS I and II. It leads a cross-sector partnership around the green growth and climate-resilient strategy that incorporated FONERWA as a sustainable financing mechanism to support action on these issues. The cross-government commitment to pro-poor sustainable development is the key factor behind Rwanda's success in mainstreaming poverty-environment across sectors. In 2013 the second PEI supported Public Expenditure Review for Environment and Climate Change noted that since 2004 the

country's expenditure on the environment and climate change has increased six fold from 0.4 to 2.5 %.

On the ground for people like Ms. Solange this means that poverty can continue to be reduced and living conditions improved through more environmentally sustainable practices. Solange says that *'before at this site, the poor people were the poorest among the poor but if you see them now, they look better off. Living conditions are better.'*



Burkina Faso



Burkina Faso championing the need to invest in sustainable development

Drumming, music and dance take over the streets of Ouagadougou, the capital of Burkina Faso, in the heart of West Africa. The pulse is high in this landlocked nation known in the past as 'le pays des homes intègres' (the land with men of integrity) but droughts, degrading soils and political instability has contributed to it remaining one of the worlds' poorest countries. Large parts of the population depend on natural resources for their livelihood and it is estimated that natural resources contribute to 30.9 % of the Gross Domestic Product (GDP), fuelling key strategic sectors such as mining and agriculture.⁹

'I love my community and I depend on its natural resources. I take care so that they do not disappear' says Bishop (emeritus) Anselm Titiaman Sanou from Bobo Dioulasso, Burkina Faso's second city. Bishop Sanou is a Poverty-Environment "Champion", an ambassador of the joint UNDP-UNEP Poverty-Environment Initiative (PEI), which has operated in the country since 2010. Despite Bishop Sanou's commitment, the work of the government and the UN, and the prevailing importance of the environment for economic and social development, sustainable management of natural resources is still often overlooked in Burkina Faso.

⁹ Burkina Faso's 2011-2015 Development Plan (SCADD), Annex 1, 2011

Low agricultural productivity, degraded soils, deforestation and pollution from the inappropriate use of chemicals in the mining and cotton sector, combine to minimise economic opportunities for poor marginalized groups, pose serious threats to health, and prompt large seasonal migration of people to neighbouring countries in search of alternative livelihood opportunities.

PEI supports the Government of Burkina Faso to bring solutions to these challenges by promoting pro-poor sustainable development. By mainstreaming poverty-environment objectives into policies, plans, budgets and investment frameworks at the national, sector and sub-national level, it is possible to harmonise the needs of the environment with efforts to lift people out of poverty.

Unsustainable use of natural resources is expensive

Before such harmonization can be achieved, solid and reliable data is required. In 2011, with the support of PEI, the Ministry of Economy and Finance (MEF) and the Ministry of Environment and Sustainable Development (MEDD) commissioned an economic assessment of the contribution of the environment and natural resources to Burkina Faso's national economy and the costs of environmental degradation. The study found that environmental degradation costs the government 18-22% of annual GDP: an equivalent of US\$1.7 billion. Conclusions from the study indicate that sustainable management of natural resources is fundamental to the economy and efforts to reduce poverty.

The Government of Burkina Faso recognised both the magnitude and the urgency of the problem, and looked to learn from other African nations to help identify the way forward. In 2010 a delegation of government officials visited Tunisia to learn about successes there in operationalizing strategic policies on sustainable natural resource management. The following year a visit to Mauritius was organized to draw on programme-based budgeting experiences within the environment and natural resources sector, in the context of that country's innovative "Ile durable" ("sustainable island") path. Inspired by these exchanges and alarmed by the findings of the study, the MEF and MEDD

jointly took the lead in making the mainstreaming of poverty-environment linkages into policies and plans an urgent priority.

Burkina Faso's 2011-2015 Development Plan (SCADD), and five sector policies (Agriculture, Mining, Health, Transport and Rural Development) have all now incorporated environmental sustainability as a cross-cutting issue and, at the local level, the Po region has developed an Agenda 21 framework for sustainable development, with the support of PEI.

'PEI's approach is consistent with Burkina Faso's vision of sustainable development as the new orientation of our government. PEI is assisting us to mainstream poverty-environment issues into national and decentralized policies, sector policies, our Poverty Reduction Action Plan and all budgets. With its participatory and partnership approach, and with all the economic tools developed, PEI is making a valuable contribution to promoting sustainable development and pro-poor economic growth' said Jean Koulidiati, the Minister of MEDD, in 2011¹⁰.



Government officials from Burkina Faso visit Mauritius to learn from their experience of promoting sustainable development.

¹⁰ PEI Annual report 2011

Implementation - investing in sustainable development

'Sustainable development is a source for job creation, poverty reduction and economic growth' says Mr. Taladidia Thiobiano, CEO of the Centre d'Etudes, de Documentation et de Recherche économiques et sociales (CEDRES), but changing policies and plans is not enough to implement innovative approaches for pro-poor sustainable development, it also requires budgetary allocations. To that end, the MEF created a budget line to support environment and natural resource management and developed an Investment Programme for Environment and Sustainable Development (2012-2016), including a chapter on Green Economy to promote green investments.

By identifying the current investment needs for a more sustainable development path, a US\$ 2 million increase in public resource allocations for sustainable development has been sanctioned and the budget for the MEDD has increased by four billion CFA Francs, equivalent to US\$ 834,000. The Public Investment Plan has set an annual investment target of 4 % (about US\$128 million) of the national budget for pro-poor environmentally sustainable investments, as opposed to the current 0.5–0.8 %.

Reforestation and the creation of new economic opportunities for women

On the ground, policies for pro-poor sustainable development are being put into action. The Yanta Union in Bobo Dioulasso promotes the social and economic advancement of women, and has 940 members, the majority of whom are refugees or widows. In the past the women used to earn their livelihoods from cutting and selling wood for fuel, thus contributing to deforestation and desertification. After forming the Union with the support of several other organizations, the women became aware of the negative effects of cutting the forest, whilst to address the loss of income from fuel wood they received training on other income generating activities such as the processing of non-timber products like cashew nuts.

Ms. Elisianne, a member of the Union, says that *'before I went into the forest to cut wood to be able to buy supplies for my children. Now I work with hulling cashews and my life conditions have changed. Now I can pay for school fees and clothes for my children.'* Other women in the Union explain that PEI has helped them to increase their awareness about deforestation and that they now also take part in reforestation activities. This is an inspiring example of how poverty and economic opportunities are intrinsically linked to natural resources and how unsustainable patterns can be reversed

The Member of Parliament, the Honourable Ms. Assita Ouattara, is another active Poverty-Environment Champion and in September 2013, she, together with Bishop Sanou launched a reforestation campaign in Bobo Dioulasso. Ms. Ouattara says that *"Sustainable Development is also taking gender into account, if women are not involved we cannot have a sustainable and equitable development...[and their] traditional knowledge should be valued."*

To reward efforts taken to highlight poverty-environment and gender issues, PEI Burkina Faso and the Ministry of Environment took the opportunity to present an award to the movie that best highlights these issues at the Pan-African Film and Television Festival of Ouagadougou (Fespaco) in March 2013. Among the entries, 'Le Bois de la Survie' (The wood of survival) was announced the winner for bringing attention to the role of women in wood collection. The film highlights the economic and social value of wood for the survival of the whole community and the role of women in safeguarding natural resources. Burkina Faso's Minister of Environment presented the award to the Guinean movie director, Abraham Fofana.



The women of the Yanta Union are increasingly using non-timber products from the forest instead of timber as a source for income.

Increasing health costs due to unsustainable chemical use in the cotton and mining sector

When the water of the Buriba river, an important local source of water for both domestic and agricultural use, turned red and animal mortality rapidly increased, local people suspected that chemical use in gold panning was starting to pose a danger to the environment, the economy and people's health, says Poverty Environment Champion, Mr. Mathias Manti Hien, the former president of the Regional Council of the Southwest Region. PEI, in collaboration with the Swedish Chemical Agency and the UNDP-UNEP Strategic Approach to International Chemicals Management (SAICM), supported the MEDD to conduct an assessment of the costs of inaction related to the unsustainable use of chemicals in the cotton and mining sectors, and reviewed regulations governing the use of chemicals in these sectors.

The studies showed that the total cost of unsustainable chemical use and management is US\$ 24.2 million/year in the artisanal mining sector and US\$ 9.3 million/year in the cotton sector. Large parts of the costs are related to deteriorating human health resulting from contaminated drinking water and from

prolonged exposure to chemicals. The reports also identified shortcomings in the national environmental legal framework with regard to chemicals. Improved chemicals management in Burkina Faso could recover an economic loss of 0.35 % of the annual GDP and reduce health problems for 850,000 people.

Based on the findings of the reports and inputs from PEI, the Government of Burkina Faso has now improved the environmental framework law and developed a manual outlining legal enforcement measures to safeguard livelihoods and health for rural and urban populations across the country. Furthermore, steps are being taken to improve the current practices of chemical use in the artisanal mining sector to become more sustainable.

At the local level, sustainable chemical management has been integrated into local development plans and the findings from the studies have supported local leaders in their discussions with companies on the control of chemicals. *"Our country is provided with immense gold resources, which in order to operate responsibly, should not use cyanide or mercury"* says Mr. Hien. However, convincing the private sector is challenging as some companies dispute the findings from the studies, and also because it is the government and people, especially the local communities, who currently bear the costs of unsustainable chemical use and not the companies. Through south-south cooperation with Senegal, the Government of Burkina Faso is now learning how to work with companies to enhance their environmental and social responsibility in the cotton and mining sector so that both costs and benefits are more equitably shared.



Burkina Faso is reviewing the regulations and laws for the use of chemicals in the mining sector

Poverty-Environment Champions - advocating for progress towards sustainable development

Through the use of the economic valuation studies PEI helped to put pro-poor environmental sustainability high on the political, as well as the public, agenda. Public figures including politicians, artists, religious leaders, traditional chiefs, activists, parliamentarians and academia are now contributing as Poverty-Environment Champions. The champions play a critical role in advocating for and influencing Burkina Faso's progress towards a sustainable development path by highlighting poverty-environment issues in the media and other platforms. *"Investing in energy efficiency, renewable energy, green buildings and sustainable agriculture is a way of adapting to climate change and creating jobs"* is a message that Poverty-Environment Champion Ms. Fatoumata Diendéré, a current Member of Parliament, wants to spread.

For example, in 2012 one of the most-watched TV programmes in Burkina Faso, *Eco Finance*, arranged a debate about the environment, finance, economy and growth which drew heavily on the data and evidence for PE mainstreaming. The Minister of Environment and Sustainable Development, Jean Couldiaty, highlighted how Burkina Faso loses 20 % of its GDP to unsustainable natural resource management each year. Following the programme's screening, poverty-environment related issues have received increased publicity both in the media, in political discussions, and in the parliament.

Conclusions

Building on the economic evidence of the costs of unsustainability and the lessons learned from other African nations, Burkina Faso is changing its development trajectory. The high-level commitment of national leaders and prominent public figures is ensuring that the move towards a greener, more inclusive economy is high on the agenda, and also contributes towards improving the understanding of the linkages between poverty, environment and sustainable development. Working across sectors and with the involvement of the private and public sectors, together with civil society, the government is revising policies, plans, legislations and budgets to

better promote a pro-poor inclusive green economy. Improved environmental and natural resource management and investments are already having a positive effect for women like Ms. Elisianne in Bobo Dioulasso, as well as for the thousands of people facing health issues due to over exposure to chemicals. And for the large number of seasonal migrants who leave the country in search of work each year, this is an investment most worthwhile, promising hope for the future.

The vision, while ambitious, is seen to be achievable. *'In the long term it is clear that we will have a healthy environment, it will improve the health of the population, and it will allow for savings to be re-invested into other sectors. All this has been established in the last two years with support of PEI and the Poverty-Environment Champions'* concludes Mr. Thiobiano. Perhaps in future, the music and the drums will tell the story of how the country's leaders took bold steps to ensure the future prosperity of those men, and women, of integrity.



Mozambique



Mozambique - Poverty and Environment cuts across sectoral boundaries

The coconut trees along the coastline of Zambezia - a province in northern Mozambique - provide livelihood opportunities for local communities (an estimated 1.7 million people) and foreign exchange for the government from export of coconut tree products. Since 2003, as many as 1 million coconut trees have been lost, due to a lethal yellowing disease in the Palms. At the present rate of spread, more than 50 percent of the coconut area is likely to be lost over the next years.¹¹ 'In this area people depended on the coconut tree for their income...now the community over-uses the mangrove instead...and it exacerbates the problem of soil erosion' says Tomas Victorino Amissande, the President of the civil society organization Associação dos Naturais e Amigos de Madal. Over-exploitation of mangroves has in turn increased riverbank erosion impacting negatively on housing, settlements, and agriculture. As a result, most riverbank villages have already been forced to relocate at least once. This is expensive and is a 'situation that affects both the community and the general population...as the coconut palm has enhanced both the local and national economy....it is a disaster affecting the district, the province and the country' says Mr.Juma Cassimo Amade, local officer from the Ministry of Environment Coordination Affairs (MICOA).

¹¹ MCA Mozambique Newsletter, July 2011, MacaHub, 'Mozambique: One million coconut palms replanted in Zambezia', 01-12-2008, MacaHub, 'Coconut palms in Zambezia, Mozambique affected by blight', 17-05-2011

Such vicious circles of poverty and environment are not uncommon. It is not only in Zambezia that the well-being of the Mozambican population is closely linked to the sustainable management of natural resources. In fact, nationwide, over 82% jobs depend on natural resources and it is estimated that natural capital contributes up to 50% of GDP.¹² Thus, efforts to improve natural resource management are key to poverty alleviation in the country. Since 2005 the Poverty-Environment Initiative (PEI) in Mozambique has supported the Government to mainstream poverty- and environment-related objectives into policy and budget processes at the national and provincial levels, to further efforts to achieve national development goals and to reduce poverty. This process has started to bear fruit.

Developing practical tools and procedures

Turning a vicious circle into a virtuous circle is difficult but not impossible. Making poverty-environment mainstreaming everybody's business and not only the responsibility of the Ministry of Environment is crucial. Recognizing that environmental and natural resource degradation is a cross-cutting issue, the Ministry of Planning and Development (MPD) and MICOA, with the support of PEI and the Danish International Development Agency (DANIDA), joined forces in 2011 to develop an integrated cross-sector mainstreaming matrix for eight key cross cutting issues, including environment and gender. Shortly after the mainstreaming matrix was launched a staff member at MPD said that *'2011 has been the first year when we have been able to provide uniform guidance for the preparation of the PES 2012 [social and economic annual plan] to all sectors about the importance for mainstreaming cross-cutting issues.'*¹³

The application of the mainstreaming matrix has since been a crucial tool to strengthen cross-sector coordination and the integration of pro-poor sustainable development objectives in at least eight sector plans and budgets. MICOA has used it in its efforts to coordinate cross-sector environment unit meetings for the annual sector planning process. Ms. Vilela de Sousa, Planning Director at the MICOA

¹² MICOA, PEI, Environmental Economic Analysis of Natural Resources Management in Mozambique, 2012

¹³ PEI Africa Annual report, 201

Department of Planning, highlights how many sectoral ministries, including the Ministry of Defence, now increasingly recognize their own responsibilities for promoting pro-poor sustainable development, and why it is beneficial for their own sectoral targets. The Ministry of Energy is, for example, planning to strengthen its environment unit and design a national action plan to replace charcoal use with alternative sources of energy. Such moves will not only benefit the environment locally, they will also have important and positive health impacts for people (especially women and children) previously exposed to eye and respiratory problems from everyday inhalation of smoke in the kitchen.

Estimating the costs and expenditure of natural resource management to catalyse change

If objectives in the plans are not implemented then the rural poor will not see any tangible benefits. The integration of poverty-environment objectives in sectoral and provincial plans is a positive step, but the issue of assigning appropriate budgets to get these objectives implemented proves to be an equally or even more challenging task.

MICOA and MPD recognized that there was further need to demonstrate the economic benefits of increasing policy priority and budget allocations for poverty-environment objectives, and



82% of jobs in Mozambique depend on natural resources and it is estimated that natural capital contributes up to 50% of GDP.

consequently, with PEI support, commissioned an economic valuation of the environment and natural resources in Mozambique. The valuation showed that the yearly economic loss due to environmental degradation and the inefficient use of natural resources is 17 % of GDP, around 45 billion MZN equivalent, or US\$1.5 billion per year. By contrast, the estimated cost to remediate these damages was calculated at only 9 % of GDP. Yet, in a separate study reviewing the level of public environmental expenditure, it was revealed that expenditure on environment was equivalent to only 1.4% of GDP – that is, expenditure is far below what would be justified on economic terms alone.

Such economic paradoxes go to the very core of the poverty-environment problem. For example, the economic valuation estimated that illness and death caused by lack of access to clean water alone results in an estimated annual cost of 3.7 billion MZN or more than US\$ 100 million. Agricultural soil degradation leads to an estimated annual damage of 4 billion MZN or some US\$ 108 million due to reduced productivity. These findings clearly demonstrate the value of ecosystem services and the sustainable management of natural resources.

The Public Environment Expenditure Review (PEER) shows that the government is investing in sustainable development, but that more needs to be done. Mr. Reinaldo Mendiante, the director of Planning at MICOA highlights that there is a need to design a strategy to improve the level of budgeting for sustainable development in Mozambique and that MICOA is currently working with the sectors to do so. PEER is an important tool in achieving this and its powerful economic findings alerted the Ministry of Finance (MoF) to the importance and cost-effectiveness of poverty-environment mainstreaming in Mozambique. For the first time the MoF appointed two environmental focal points to be a part of the cross-sector Environment Unit meetings and other sustainability fora. The focal points have worked towards introducing a climate change budget code for the 2014 budget process, based on a recommendation from the 2012 PEER. At the same time, MICOA has decided to test the feasibility of using a wider range of available codes, including those related to land management and physical and environment planning.

Mr. Mendiante, emphasizes how *'enhanced information on environmental expenditure is a pre-requisite for improving and increasing investments in sustainability, as it allows for more precise analysis of the investment in environment related activities'*. Generating information to effectively track environment and climate expenditure is instrumental

not only for accurate accounting and identifying investment gaps for sustainable environment and natural resource management, but also for the potential of accessing global climate funds to bridge these gaps. For the people living in Zambezia and other poor areas in Mozambique that depend on natural resources for their livelihood, increased investments in environment and sustainable natural resource management by the government and other development partners will ultimately lead to improved livelihood opportunities.

Demonstrating change on the ground

There is always a time lag before policy changes trickle down and shows impacts on the ground. However, when budgets are assigned to poverty-environment objectives in sector policies and plans, direct impact for people on the ground is possible. To demonstrate this PEI supported small-scale demonstration projects across the country. For example in Zambezia, communities decided upon a different strategy and response to the riverbank flooding and erosion: instead of re-locating, a programme of ecosystem-based adaptation approaches was developed together with local authorities and PEI.

'The erosion is harming our community assets and destroying our homes and that is why we do this work to attempt to decrease the rate of erosion' says Domingos Doa the Finance Director of the local organization Associação dos Naturais e Amigos de Inhassunge. Measures vary from planting of trees, reforesting the mangrove, using sandbag blocks and more sophisticated concrete walls. In Madal this has led to encouraging results. The community did not have to be relocated again and is now able to concentrate on income-generating activities inspired by sustainable agricultural practices. Providing the right support to communities and local governments to deal with riverbank erosion is crucial to avoid decreased access to food, education, and health.

Catalysing change

Partly inspired by PEI's work, the shift in policy making, and the changes on the ground, the Government of Mozambique has now begun scaling up similar initiatives, often supported by other donors and development partners. For example, in 2012 UNDP Mozambique

launched the 4-year Green Human Development programme building on PEI achievements, tools and approaches to ensure sustainability of poverty-environment mainstreaming in the country. Together with the World Wide Fund for Nature (WWF), the Government prepared and launched its Green Economy Road Map at the Rio+20 conference, using findings from PEI-supported studies. The Government is also continuing and expanding its work on poverty-environment mainstreaming, together with PEI.

The lost coconut trees of Zambezia are gone, yet the gains made by communities there and elsewhere in Mozambique offer hope for the future in a country where poverty-environment mainstreaming is becoming business-as-usual in decision making processes.



Ecosystem based approaches to prevent riverbank flooding are being piloted in Mozambique...



...in order to prevent floods of the magnitude which often occur along the coastline





Malawi changes course after analysing the real costs and benefits of policy choices

From the shoreline of Malawi's great lake each evening you can see lights blinking on its surface as fishermen hang lamps to attract fish to their boats. It is from here that the famous 'Chambo' comes, a white bream fish and a much cherished national dish. It is sometimes said that "you have not visited Malawi until you have tasted Chambo". But in recent years fish stocks in Lake Malawi have been declining. Fishermen have been forced to move further into the deep waters of the lake to find their catch, requiring new equipment that most can ill afford.

Far away, on Capitol Hill in Lilongwe, in the corridors of central departments and ministries, the government is very aware of the kind of devastation that waning fish stocks are having on their communities. Fisheries generate jobs for 400,000 people and livelihoods for 2 million Malawians, and fish provides up to 40% of the protein consumed in the whole country¹⁴. The pressures of overfishing are being exacerbated

14 Malawi – Summary of economic valuation of natural resources study, 2010, PE

by shorter rainy seasons as a result of climate change, which reduces water levels in the country's lakes and disrupts fish breeding and nursery sites. As stocks deplete, local fishing communities are being forced to look to alternative activities to earn income to feed their families and meet other needs. Rising unemployment rates have also been linked to rising prostitution and increases in HIV/AIDs in fishing communities.

Prompted by recent economic analysis which provided evidence of poverty-environment linkages, the government of Malawi has revised its national development strategy. The new approach recognises the economic value of sustainable natural resource use and is catalysing change across government to build more economically, socially and environmentally resilient futures for Malawi's people.

The contribution of environmental unsustainability to poverty and other development problems is becoming all too familiar in Malawi and extends beyond the fisheries sector. Having witnessed increasing rates of deforestation in Malawi over the past decade Nyuma Moghogho, Assistant Director of Forestry, comments that 'Forestry's core business is protecting trees, but if people are so poor that they have no option than to cut them down it is a hard task'. In the Department for Wildlife, a beleaguered Deputy Director sits at a desk stacked with letters about the legal proceedings for poachers caught operating in Malawi's natural parks, a trend that has increased as food security has become a bigger issue in rural areas.

Until recently, recognising the linkages between poverty alleviation and government spending on the sustainable use of environment and natural resources has been a big challenge. Working for the Ministry of Tourism and Culture, Brighton Kumchedwa comments, 'in a country like Malawi where poverty levels are so high, to say that we need to look after our wildlife sounds like we do not care for humans'.

Counting the costs

In January 2011 a study initiated by the Poverty and Environment Initiative (PEI) shifted the terms of the debate. For the first time, the costs and benefits of sustainable and unsustainable natural resource management in Malawi were quantified focusing on four areas, forestry, fisheries, wildlife and soils. In stark terms the findings showed that unsustainable natural resource use is costing the country the equivalent of 5.3 % of GDP each year, more than the proportion of GDP allocated to education and health in the 2009 national budget. It also revealed the untapped potential of the country's wealth of natural resources for tackling extreme poverty. Soil erosion alone reduces agricultural productivity by at least 6 %, and if this yield was recovered, an additional 1.88 million people would be lifted out of poverty between 2005 and 2015¹⁵.

The study marked a turning point for both the government and its development partners. Jan Rijpma, from UNDP Malawi, comments that the analysis proved that *'we don't do environmental programs just because we want to protect a forest. They have a development meaning, they make economic sense'*. For civil servants working in several sectors, the power of the report was that it was written in a currency that everyone could understand irrespective of their particular priorities. The report also demonstrated that the value of environment had been underestimated. For example, previously it had been officially estimated that forestry and wildlife contributed 1.8% and 0% to GDP respectively. However, the economic study found that they contributed 6.1% and 2.7% to GDP¹⁶.

Maurice Makuwira, who manages extension services in the fisheries sector, describes how the study has galvanised government and broader stakeholders, *'I've sat in meetings where everyone is referring to the analysis that was done, where they're saying "look at these figures"*. For him, the economic analysis not only demonstrated the macro-economic contribution of natural resources to GDP but showed the links between investing in sustainability and reducing poverty and has marked a shift in the way that government institutions understand the issues.

¹⁵ Economic Study – Economic Analysis of Sustainable Natural Resource Use in Malawi, January 2011, PEI and Government of Malawi

¹⁶ Ibid.

From source to mouth

The findings of the economic analysis went far beyond the corridors of government. As a result of PEI's outreach work they also hit the national papers with headlines of 'US\$191 million lost on natural resources yearly' (*The Malawi Democrat* and *The Nation*). The headlines built on a wider narrative being spearheaded by the PEI through the launch of the Malawi State of Environment and Outlook Report (MSEOR). The publication provided a stock take of the state of natural resources and the environment, and brought together a wide range of academics and technicians from across the country.

Daisy Kambalame-Kalima, a representative of a local NGO working with the private sector and civil society, describes how collectively these publications are providing local advocacy groups with the tools and the confidence to lobby the authorities over environmental issues. For example, lobbying supported by PEI publications has contributed to the Forestry Department now being approached by tobacco companies and local businesses offering to support tree planting activities.

David Smith, the PEI Africa Manager, recalls that *'we didn't receive any negative pushback from the economic analysis [from the government] even though what it was saying was really tough'*. He puts this down to the innovative nature of the PEI approach and the government being open to evidenced-based decision-making. The PEI approach seeks to persuade development decision-makers to increase the priority attached to addressing environmental issues and thus targets the heart of the development decision-making process. In Malawi, the development planning nerve-centre of the government is the Ministry of Economic Planning and Development. It is here that the medium and long term strategic development plans are prepared and decisions on priorities are made, upon which budgets are decided and allocated by the Ministry of Finance. One civil servant describes it as the source of the 'master-plans from which all else follows' so it is the key place to target to move environmental sustainability higher up the development priority list.

Requests to have the Ministry of Economic Planning and Development lead the PEI Malawi programme was met with some



Forests in Malawi supply the majority of the population with fuel for cooking as well as building materials for industrial and domestic uses.



Fishing is a major occupation, source of income, and principal provider of dietary protein for the people of Malawi.

resistance. Themba Kalua, a Malawian national working for UNEP who was involved in setting up the PEI programme, describes how it was an uphill struggle to convince all departments of the necessity of being based in such a central department, *'most people thought that we should be in the environment ministry'*.

PEI experience is that to mainstream environmental sustainability into the development policies and budgets of government, it must engage with the core of planning agendas and processes, using economic evidence to demonstrate how investing more in sustainability environment and natural resource use can help achieve development priorities like poverty reduction and food security.

For Smith a critical part of the work in Malawi started months before the PEI Malawi project began implementation, *'we carried out a number of scoping missions and an institutional analysis to fully understand how key government processes really worked, not just at the macro level but also at the sector level'*. By mapping out the institutional 'lay of the land' PEI was able to trace lines of development and environment decision making, pinpointing different entry points in the system. This scoping stage included a series of field visits, meetings and presentations with government ministries – all of which emphasised the economic value of sustainability and how more sustainable use of natural resources would help Malawi achieve key development goals. The Director of Economic Planning, Yona Kamphale, recalls the moment that both he and his Principal Secretary were convinced of the approach, *'Being an economist, you listen to the arguments, you see the linkages. It has made us understand that the issues of the environment are not for one person. It is an issue for everyone'*.

Shifting course

PEI's strategy includes painstaking preparatory work, and an emphasis on relationship building and continuing engagement, which has proved key to generating the changes now happening in Malawi. The national development plan (the Malawi Growth and Development Strategy II for 2011 – 2016) detailing the macro-economic direction of the country for the next five years, identifies climate change and natural resource management as one of the

nine priority areas for the country – significantly due to the impact of the work of PEI Malawi. The government has announced that over the next five years it will allocate 19,028 million kwacha (close to US\$ 60 million) to environmental sustainability programmes including to support sectors to adapt to climate change. This figure marks a significant turning point for a government who had previously not invested significant funds in environmental sustainability as a means of tackling poverty and achieving other development goals.

Sector transformation

The shift in direction at the national level is prompting change across sectors. In the case of fisheries, the new policy currently being finalised has a stronger emphasis on the sustainable management and restoration of the shallow waters where fish breed to support capture fisheries and the livelihoods they support. At the same time, it promotes aquaculture fisheries as an alternative source of investment, but introduces tighter environmental standards for such activities. New monitoring stations on the lakes of Malawi will track any changes to the water quality as a result of aquaculture projects. Similarly, the new approach puts more emphasis on the role of fisheries in providing a source of nutrition for the country and measures are in place to ensure that final product reaches the consumer in good condition. The strategy encourages communities to inform the policy decisions and play an active role in monitoring social and environmental standards in the fisheries sector.

From policy to implementation

Now that a markedly higher policy priority has been given to environment and natural resources sustainability at national and sector levels, the focus is to meet the policy implementation challenge. A major step forward in this regard has been the inclusion of environmental sustainability in the latest budget guidelines setting the annual budget priorities. The 2014/15 chapter states that:

'The contribution from prudent use of natural resources, environmental management and climate resilience is crucial in order

for Malawi to achieve national sustainable development. There is need to ensure that all projects comply with environmental sustainability guidelines. This has immense potential to provide significant benefits from sustainable resource use and management and climate proofing of the economy and presents a rare opportunity for improved livelihoods of present and future generations of Malawians.'

Another implementation issue is ensuring internal consistency in sector policies so that they adequately address poverty-environment issues and there are some challenges here also. Daisy Kambalame-Kalima points out that the principles need to be translated from blueprints to daily decisions and for her there are still some inconsistencies in government policy. Supported by donors, the Ministry of Agriculture and Food Security spends 85 % of their budget, approximately 10 % of the total national budget, on the Farm Input Subsidy Programme, which subsidizes improved inputs like hybrid (maize) seeds and fertilizers. The sheer scale of the subsidy is hindering investment in other areas which could be more cost-effective in increasing agricultural productivity and meeting food security objectives - and in a more environmentally sustainable manner. For example, more sustainable use of agriculture land would reduce the need for synthetic fertilisers, save foreign exchange and still increase agricultural productivity. And here are questions around the impact of synthetic fertilisers on local ecosystems – an impact which imposes additional costs.

Conclusion

The process of hardwiring the connections between environmental sustainability and reducing poverty into Malawi's core development strategy is well underway. The changes are happening upstream and it will take time for all of the effects to filter down through the many tributaries of government. Thus, the next phase of PEI Malawi is focusing on the implementation challenge to accelerate improvements to peoples' lives. But already, for the lives of fishermen and women on the lakes of Malawi, the shift in policy direction signals more stable incomes, greater resilience to climate change and new opportunities for local entrepreneurship are on the way. As long as the momentum for change is not lost, it will also mean that that the famed Chambo fish species will thrive for future generations.

ACRONYMS

CEDRES:	Centre d'Etudes, de Documentation et de Recherche économiques et sociales
DANIDA:	Danish International Development Agency
DIFID:	UK Department for International Development
EDPRS:	Economic Development Poverty Reduction Strategy (Rwanda)
FONERWA:	Rwanda National Fund for Environment and Climate Change
GDP:	Gross Domestic Product
MEF:	Ministry of Economy and Finance (Burkina Faso)
MEDD:	Ministry of Environment and Sustainable Development (Burkina Faso)
MICOA:	Ministry of Environment Coordination Affairs (Mozambique)
MINECOFIN:	Ministry of Finance and Economic Planning (Rwanda)
MPD:	Ministry of Development Planning (Mozambique)
MSEOR:	Malawi State of Environment and Outlook report
PEER:	Public Environment Expenditure Review
PEI:	Poverty Environment Initiative
P-E:	Poverty Environment
PEN:	Poverty Environment Nexus
PRSP:	Poverty Reduction Strategy Paper
REMA:	Rwanda Environment Management Authority
SAICM:	Strategic Approach to International Chemicals Management
SDG:	Sustainable Development Goals
SIDA:	Swedish International development Cooperation Agency (SIDA)
UNDP:	United Nations Development Programme
UNEP:	United Nations Environment Programme
WWF:	World Wide Fund for Nature

REFERENCES

Photo Credits:

UNDP: Cover pages; Page 8; 30.

UNDP-UNEP PEI: Page 11; 15; 20; 25; 27; 33; 36; 37; 43; 47; 48; 53.

General

PEI Africa Annual Progress Report 2008, 2009, 2010, 2011 and 2011

Final Report of the Thematic Consultation on Environmental Sustainability in the Post-2015 Agenda

Burkina Faso:

Assessment of the costs of inaction related to the unsustainable use of chemicals in the cotton and mining sectors (PEI and the Government of Burkina Faso 2013)

Burkina Faso's Public Investment Plan (Government of Burkina Faso)

Economic assessment of the contribution of the environment and natural resources to Burkina Faso's national economy, and the costs of environmental degradation (PEI and the Government of Burkina Faso 2011)

Investment Programme for Environment and Sustainable Development 2012-2016, (Government of Burkina Faso)

Stratégie de croissance accélérée et de développement durable (SCADD) 2011-2015 (Government of Burkina Faso)

Interviews (conducted by Marta Baraibar):

Anselm Titiana Sanou, Bishop

Assita Ouattara, Member of Parliament

Eduardo Ouedraogo, Head of a leading Burkina Faso newspaper

Elisianne, Member of the Yanta Union

Fatoumata Diendéré, Member of Parliament

Mathias Manti Hien, Former president of the Regional Council of the Southwest Region

Taladidia Thiobiano, CEO of the Centre d'Etudes, de Documentation et de Recherche économiques et sociales (CEDRES)

Mozambique:

Environmental Economic Analysis of Natural Resources Management in Mozambique (PEI and the Government of Mozambique 2012)

Macauhub, 'Mozambique: One million coconut palms replanted in Zambezia', 01-12-2008

Macauhub, 'Coconut palms in Zambézia, Mozambique affected by blight', 17-05-2011

MCA Mozambique Newsletter, July 2011

Poverty Reduction Action Plan 2011-2014 (Government of Mozambique)

Public Environment Expenditure Review (PEI and the Government of Mozambique 2012)

Interviews (conducted by Marta Baraibar):

Domingos Doa, Finance Director, Associação dos Naturais e Amigos de Inhassunge

Juma Cassimo Amade, Local Officer, MICOA

Reinaldo Mendiata, Director of Planning, MICOA

Tomas Victorino Amissande, President, Associação dos Naturais e Amigos da Mada

Vilela de Sousa, Planning Director at the Department of Planning, MICOA

Rwanda:

Economic Analysis of Natural Resource Management in Rwanda (PEI and the Government of Rwanda 2006)

Economic Development and Poverty Reduction Strategy (EDPRS) 2007-2013 (Government of Rwanda)

President Speech at Rio+20 read out by the Minister of Natural Resources, Rio de Janeiro 2012

President Speech on the occasion of the 3rd African Ministerial Conference on Financing for development: "Climate Change: Financing Opportunities and Challenges to achieve the MDGs in Africa.", Kigali, 2009

Public Environment Expenditure Review (PEER) 2009 & 2013 (PEI and the Government of Rwanda)

Rwagatare Joseph, New Times, Rwanda's Village of the Future, New Times, 2011-06-30

World Bank, Promoting pro-poor growth in Rwandan agriculture: What are the policy options, April, 2008

Interviews (conducted by Marta Baraibar):

Alex Mulisa, Coordinator for Rwanda's Climate and Environment Fund

Fred Sabati, PEI National Manager

Muhawenimana Solange, Head of Kabeza/Rubaya Cooperative

Rose Mukankomeje, Director General of REMA.

Malawi

Economic Analysis of Sustainable Natural Resource Use in Malawi 2011 (PEI and Government of Malawi)

Summary of economic valuation of natural resources study, 2010 (PEI and Government of Malawi)

Malawi Growth and Development Strategy, 2011 – 2016, Government of Malawi

2013/14 and 2014/15 Government of Malawi Budget Guidelines

Interviews (conducted by Emily Benson)

Brighton Kumchedwa, Deputy Director for National Parks and Wildlife, Ministry of Tourism and Culture

Daisy Kambalame-Kalima, Country Manager, AICC

David Smith, PEI Africa Manager

Jan Rijpma, Assistant Resident Representative at UNDP Malawi

Maurice Makuwira, Assistant Chief Fisheries Officer, Ministry of Agriculture and Food Security

Michael Mwangisa, PEI, National Coordinator

Nyuma Moghogo, Assistant Director of Forestry, Ministry of Environment and Climate Change Mgt

Tithokoze Samuel, Assistant Director of Budgets, Ministry of Finance

Themba Kalua, Programme Officer, PEI

Yona Kamphale, Director of Economic Planning, Ministry for Economic Planning and Development



Belgian Development Cooperation



European Commission



Irish Aid



Spanish Ministry of Foreign Affairs and Cooperation



UK Aid



Danish Ministry of Foreign Affairs (DANIDA)



German Federal Ministry for Economic Cooperation and Development



Norwegian Ministry of Foreign Affairs



Swedish International Development Cooperation



US Department of State



UNDP-UNEP Poverty-Environment Initiative

P.O. Box 30552 - 00100 Nairobi, Kenya

Email: facility.unpei@unpei.org

Web: www.unpei.org

Fax: +254 20 762 4525

www.unep.org

United Nations Environment Programme

P.O. Box 30552 - 00100 Nairobi, Kenya

Tel.: +254 20 762 1234

Fax: +254 20 762 3927

e-mail: unep@unep.org

www.unep.org



Empowered lives.
Resilient nations.