

## **ESRC White Rose Doctoral Training Centre Funded PhD Studentships**

### **Climate-Compatible Development Partnerships: Evaluating New Governance Systems for Valuing Ecosystem Services, Carbon Storage and Poverty Alleviation Benefits**

3 fully-funded ESRC +3 linked studentships are available in the area of Climate Compatible Development Partnerships, with joint supervision between the Universities of Leeds, Sheffield and York, as part of the ESRC White Rose Doctoral Training Centre.

This network comprises three studentships that will work together to ensure innovative trans-disciplinary (ie. both inter-disciplinary and stakeholder-engaged) research approaches are developed and applied, with best practice insights shared by the 9 supervisory staff together with input from partner institutions from the private sector, government departments and NGOs. The network is co-ordinated by Professor Andy Dougill from the University of Leeds.

**Application deadline for all studentships: March 31<sup>st</sup>, 2011** (see eligibility criteria and application details on outline of each project).

NB. As +3 awards applicants must be able to start study on October 2011 and have completed an ESRC-recognised Master's Degree or appropriate research training programme.

UK students will be eligible for a full award and other European Union applicants will be eligible for an award paying academic fees only, except in cases where residency in the UK has been established for more than 3 years prior to the start of the programme of study.

# **Assessing lessons from Community-Based Natural Resource Management for the implementation of carbon sequestration schemes in Dryland Africa**

## **Supervisors:**

Dr Lindsay Stringer, University of Leeds, School of Earth and Environment

Prof Andy Dougill, University of Leeds, School of Earth and Environment, and

Dr Deborah Sporton, University of Sheffield, Department of Geography

## **Project Overview**

Policy-driven efforts such as Reducing Emissions from Degradation and Deforestation (REDD) and REDD+ play a key role in framing global efforts to both mitigate climate change and harness sustainable livelihood benefits for local communities engaged in carbon sequestration activities. However, many carbon sequestration projects are initiated by developed countries, companies and consumers seeking to offset their emissions and are implemented through intermediaries in developing countries. An appropriate institutional infrastructure to support community-driven carbon storage initiatives is often lacking.

Community Based Natural Resource Management (CBNRM) approaches have been popular across the African continent in recent decades, particularly in relation to wildlife conservation. Experiences from CBNRM projects can provide important lessons for the implementation of carbon sequestration projects and the refinement of project systems such as Plan Vivo and the Climate, Community and Biodiversity Alliance (CCBA) standards. These standards are increasingly sympathetic to the need for community cooperation and involvement if multiple benefits across livelihood and carbon dimensions are to be harnessed for long-term sustainability and partnership between different stakeholders. If developing countries in Africa are to take advantage of the increasing climate finance opportunities facilitated by international policy frameworks, it is paramount these lessons are identified, evaluated and transferred more widely from CBNRM to carbon sequestration contexts.

## **Objectives**

The aim of this project is to identify the key lessons from CBNRM initiatives at national and regional scales with a view to assessing their potential to help develop appropriate institutional, governance and partnership structures for the sustainable implementation of carbon sequestration initiatives at local community scales, in the framework of international policy, standards and guidelines.

The project will bridge multiple scales, analysing policy frameworks at international level, CBNRM initiatives at regional and national scales in southern Africa, and in-depth case studies at community scales in one case study country (Zimbabwe). Zimbabwe provides an interesting case study context as it has newly emerging governance structures, yet also boasts a strong history of CBNRM projects, most notably, the CAMPFIRE programme (Communal Areas Management Programme for Indigenous Resources). CAMPFIRE was designed in the 1980s to work with rural people who live in communal areas in order to support their sustainable use of

wildlife and resources, initially in a limited number of villages but spread to cover more than 25 districts.

Objectives are to:

1. Analyse current international policy frameworks, guidelines and standards to identify the ways in which community-based approaches are conceptualised therein;
2. Review and analyse a selection of CBNRM projects across southern Africa as a meta-analysis, focusing in particular on the ways in which local institutions and participatory processes have been enacted to address challenges relating to benefit-sharing, power relations and livelihoods;
3. Using the results from objective 2), identify the socio-economic and environmental characteristics of selected “model communities” in Zimbabwe (including those that were involved in CAMPFIRE and those that were not involved in CAMPFIRE), in which institutional and governance structures appear well-suited to manage future emerging climate finance opportunities for carbon sequestration;
4. Identify suitable partnership structures and stakeholders and sectors for involvement in future carbon sequestration initiatives to help foster the sustainability of climate finance investments in these areas.

Methods to be used include policy and discourse analysis (objective 1 and 2), literature review and interviews with CBNRM project representatives (objectives 1 and 2); livelihood surveys and institutional analysis in selected sites in Zimbabwe (objective 3), and interviews with private-sector partners, government officials and NGOs in Zimbabwe and other relevant countries emerging from the meta-analysis (all objectives).

### **Resources and facilities available**

The successful student will be provided with a desk and computer in the Leeds School of Earth and Environment Building. Two phases of empirical field data collection will be needed; the first in which interviews will be carried out and in-depth case studies will be selected (6 weeks); the second in which the bulk of data collection will take place (4 months). In-country field support will be provided by collaborative partners at the University of Zimbabwe’s Centre for Applied Social Sciences (CASS) and through NGO partners and the private sector company Eco-Livelihoods. PhD Associate status will be provided to the ESRC Centre for Climate Change Economics and Policy.

### **Nature of Award & Person Specification**

As a +3 award applicants must be able to start study on October 2011 and have completed an ESRC-recognised Master’s Degree or appropriate research training programme.

UK students will be eligible for a full award and other European Union applicants will be eligible for an award paying academic fees only, except in cases where residency in the UK has been established for more than 3 years prior to the start of the programme of study.

### **METHOD OF APPLICATION**

- Applicants MUST first submit the relevant study application form(s) and be in receipt of a University BANNER ID Number to be eligible for an ESRC Studentship.
  - Applicants applying on a +3 basis should apply for an academic place for PhD research study commencing 1 October 2011 - please visit: [http://www.leeds.ac.uk/students/apply\\_research.htm](http://www.leeds.ac.uk/students/apply_research.htm). Please provide supporting documents: CV, covering letter, transcripts and degree certificates of all degrees to date.
- Applicants must complete all sections of the [White Rose Doctoral Centre ESRC Studentship Application Form](#), using the space provided on the form and with strict observation of any word limits. **Attachments are not permitted and all will be disregarded.**

Shortlisted candidates will be invited for interviews scheduled for April 27th 2011.

For more information on the project, please contact Dr Lindsay Stringer ([l.stringer@leeds.ac.uk](mailto:l.stringer@leeds.ac.uk)), or any of the supervisors involved in the project.

For further information on the application process, Michelle Lesnianski ([M.Lesnianski@leeds.ac.uk](mailto:M.Lesnianski@leeds.ac.uk)).

# **Characterising sustainable pro-poor PES mechanisms - lessons for REDD and REDD+ implementation in Tanzania**

## **Supervisors**

Dr Rob Marchant (Environment Department, University of York)

Dr Susannah Sallu (University of Leeds, School of Earth and Environment)

Prof David Raffaelli (Environment Department, University of York)

## **Project overview**

Payment for Ecosystem Services (PES) mechanisms translate external and non-market values of ecosystems into financial incentives for local ecosystem service providers. Low income countries are particularly attracted to PES as it provides a new potential funding stream from higher income countries. This is particularly the case for the Reducing Emissions from Deforestation and Forest Degradation mechanism (REDD). REDD and the recently developed REDD-plus (REDD+) provide incentives to reduce the emissions of greenhouse gases from deforestation and forest degradation, and, in the case of REDD+, the enhancement and sustainable management of forest carbon stocks. Whilst REDD and REDD+ are primarily carbon sequestration strategies, there is huge potential to harness co-benefits, including biodiversity conservation and poverty alleviation, if the forests are managed sustainably.

Aside from carbon sequestration, forests provide extensive ecosystem service benefits such as watershed protection and nutrient cycling, as well as fuel, food, water, shelter and medicines. Forest resources directly support the survival and livelihoods of millions of people while also indirectly contributing to agricultural services and food supply. Much current debate therefore focuses on the potential impacts of PES mechanisms on those dependent on forests for their livelihoods. In particular, understanding is lacking regarding the forest management and governance structures of initiatives like REDD+ which intend to facilitate sustainable and equitable (and/or pro-poor distribution of benefits).

Tanzania is a REDD pilot country with heavy community dependence on the natural forest resource base for livelihood sustenance and economic development, a powerful conservation lobby, and one of the most advanced community forestry jurisdictions in Africa. The country has recently compiled its Draft National REDD+ Strategy which expresses its vision for “the benefits, goods and services to be equitably shared by all stakeholders for adaptation, mitigation and adoption of a low carbon development pathway”. The Draft Strategy recognises that for this to be possible, changes and reforms in forestry management and governance systems are required. Research is nevertheless required to support the development of pro-poor models that consider whether and how multiple benefits might be achieved across carbon and livelihood dimensions.

## **Objectives**

The aim of this project is to characterise broader sustainable pro-poor PES initiatives with a view to informing the development of appropriate forestry management and governance

structures for the sustainable and equitable distribution of benefits from REDD and REDD+ initiatives at the local level in Tanzania.

The project will address the following objectives:

- 1) Systematically review and analyse the characteristics of pro-poor PES schemes at global, regional, national and local levels.
- 2) Investigate the livelihood and carbon sequestration benefits and flows within ongoing PES schemes in Tanzania.
- 3) Undertake a policy analysis integrating the findings of objectives 1) and 2) to identify key gaps and lessons from PES schemes that have not been included in Tanzania's draft REDD+ strategy.
- 4) Investigate the implications of 1), 2) and 3) for the design of REDD+ activities in Tanzania.

Methods to be used include: literature review and interviews with PES project representatives (objective 1); livelihood and carbon surveys in selected sites in Tanzania (objective 2); policy and discourse analysis (objective 3); focus groups with government officials, NGOs, private-sector partners, and local community representatives in Tanzania (objective 4).

### **Resource and facilities available**

The successful student will be provided with a desk and computer in the York Environment Building and will part of a vibrant wider research group within the Environment Department. Two phases of work in Tanzania are envisaged. The first when policy document collation and empirical field data collection will take place (4 months). The second when follow-up focus groups and/or interviews with stakeholders will be conducted (1 month). In-country field collaboration will be developed with partners at WWF-Tanzania and Sokoine University of Agriculture. Ongoing carbon mapping project work led by York will provide carbon sequestration data to this project and important supervisory collaborations with the University of Dar es Salaam, Ministry of Natural Resources and Tourism and the Tanzania Forest Conservation Group. This project aligns neatly with the work of four PhD students at Leeds and York.

The student will be encouraged to participate in other related activities at both universities including seminars, reading groups and workshops (e.g. Stockholm Environment Institute, Sustainability Research Institute and Centre for Climate Change Economics and Policy). PhD Associate status will be provided to the ESRC Centre for Climate Change Economics and Policy.

### **Nature of Award & Person Specification**

As a +3 award applicants must be able to start study on October 2011 and have completed an ESRC-recognised Master's Degree or appropriate research training programme.

UK students will be eligible for a full award and other European Union applicants will be eligible for an award paying academic fees only, except in cases where residency in the UK has been established for more than 3 years prior to the start of the programme of study.

### **Application Procedure:**

Formal applications should be made online. For more information on the application procedure follow instructions at <http://www.york.ac.uk/graduatestudy/applying/>. Applications should be submitted online by March 31st, 2011. Please include with your application: (i) a full CV and (ii) a brief covering letter specifically explaining why you are interested in the project. Shortlisted candidates will be invited for interviews scheduled for April 21<sup>st</sup> 2011.

For more information on the project, please contact Dr Rob Marchant ([robert.marchant@york.ac.uk](mailto:robert.marchant@york.ac.uk)), or any of the supervisors involved in the project.

For further information on the application process, contact:

The Graduate Schools Office, University of York, Heslington, York YO10 5DD, UK

Tel: +44 (1904) 432142

Fax: +44 (1904) 434039

E-mail: [onlinegraduate@york.ac.uk](mailto:onlinegraduate@york.ac.uk) (general online application enquiries)

# **Competing demands for carbon sequestration and water resources: modelling and valuing of ecosystem services in the context of climate change**

## **Supervisors**

Dr Chasca Twyman, University of Sheffield, Department of Geography,

Professor John Wainwright, University of Sheffield, Department of Geography, and

Dr Steve Cinderby, University of York, Stockholm Environment Institute.

## **Project overview**

Globalization of carbon offsetting relating to the needs of developed countries provides a major potential for the economies of the Global South, especially across Sub-Saharan Africa. However, this potential produces a set of tensions, not least in competing land uses for maintaining sustainable communities in contrast to the provision of broader ecosystem services (ES). These tensions are likely to be further exacerbated by climate change, which in many areas of Sub-Saharan Africa will increase variability and uncertainty of rainfall inputs. This variability is leading to increased pressure on already sparse water resources with the risks and trade-off's between carbon, water and poverty alleviation goals of community-based natural resource management and carbon finance projects as yet being poorly understood. This project will carry out a comparative study of carbon-finance initiatives and community-based natural resource management in both the Tanzania and Zimbabwe study regions in order to complement the work carried out in the other two projects in the network. The timeliness of this research is demonstrated by the interdisciplinary approach taken to investigate community-based carbon-trading initiatives and water footprints, and our collaboration with a Niall Marriott Associates (who are experts in pro-poor sustainable business), CGIAR in Zimbabwe (former research partner and an international sustainable development partnership) and the Tanzania Forest Conservation Group (a new collaboration) to develop "bottom-up", sustainable business insights developed from identification of local needs and supported by state-of-the-art developments in the application of agent-based modelling approaches.

## **Objectives**

The aim of this project is to evaluate the competing demands for carbon sequestration and water resources and the valuing of ES in the context of climate change. The project will address the following research questions:

- What is the relationship between carbon sequestration and water resources and how can areas of competition and tension (e.g. in water supply and quality for agriculture and drinking) and synergy (e.g. in flood and erosion mitigation) be identified?
- How do communities understand the relationship between carbon and water?
- How are competing ES valued at community, regional, national and international levels?
- What potential is there to engage community-based organizations in carbon-finance initiatives that are realistic and sustainable?

- Which ES, communities and livelihood strategies will benefit from these initiatives and which will not?
- What is the potential to link with business to create realistic and sustainable initiatives?

This research is interdisciplinary and adopts approaches and techniques from both the social and natural sciences. These include: discourse analysis of regional, national and international policy documentation; semi-structured interviews with key policy and practitioners at the regional and local level; and, participatory appraisal within case-study communities to contribute to hydrological assessments of study catchments and their likely water resource management futures. Participatory GIS and participatory, agent-based model-building approaches will develop tools that have the potential to be used by community-based organisation and policy makers to create realistic and sustainable carbon-finance initiatives that account for associated impacts on both livelihood systems and water resources.

### **Resource and facilities available**

The student will be provided with dedicated desk space and computing equipment within the Department of Geography (Sheffield). They will have access to the necessary software for GIS and model building exercises from both Sheffield and York. Two fieldwork seasons will be required. The first will involve substantial data collection requiring setting up of interviews, participant observation and group work in two locations. It is realistic to assume that this work can be carried out in five months. A shorter period (2 months) of fieldwork is required for model evaluation and community feedback. The student will have in country support from collaborators in both Zimbabwe and Tanzania and will work closely with the other two network students and the field partners supporting their work to ensure real synergies to add extra insights from the use of these new agent-based modelling approaches.

### **Nature of Award & Person Specification**

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UK students will be eligible for a full award and other European Union applicants will be eligible for an award paying academic fees only, except in cases where residency in the UK has been established for more than 3 years prior to the start of the programme of study.

### **Application Procedure:**

Formal applications should be made online. For more information on the application procedure follow instructions at: <http://www.shef.ac.uk/postgraduate/research/apply>

Applications should be submitted online by March 31st, 2011. Please include with your application: (i) a full CV and (ii) a brief covering letter specifically explaining why you are interested in the project. Shortlisted candidates will be invited for interviews scheduled for May 5<sup>th</sup> 2011.

For more information on the project, please contact Dr Chasca Twyman ([C.Twyman@sheffield.ac.uk](mailto:C.Twyman@sheffield.ac.uk)) or any of the supervisors involved in the project.