

Research briefing

University of Sussex School of Global Studies



Innovations to Promote Growth among Small-scale Irrigators: An Ethnographic and Knowledge-Exchange Approach

Summary

Small-scale irrigation is seen as key to improving agricultural productivity, food security and rural incomes. However, a complex combination of challenges has frequently conspired to limit its progress. Climate change now further compounds these challenges. Adopting an ethnographic approach, this research project explores the role of power, politics and institutions in shaping the impacts and responses to environmental (climate) change among small-scale irrigators. This includes questions relating to the relationship between 'local' and 'external' rules and norms for the governance of water.

We will examine how knowledge about innovations that facilitate adaptation is produced, valued, transferred and used within and between 'communities'. This will enable us to assess how lessons about this might be drawn from one setting to another. We hope to obtain an understanding of why some induced irrigation projects and technologies have collapsed while others have operated successfully. The project will contribute towards both policy and academic thinking on how 'growth' in the agricultural sector in developing economies could be achieved within the context of multiple stressors.

Research questions

The study focuses on four research questions:

- 1 How do different groups get access to and use of water resources?
- 2 What are the moral economies of water use and how do these vary between different contexts?
- 3 What is the role of knowledge and information in small-scale irrigation?
- 4 How are the various processes and practices at play in the management and use of water in irrigation influencing wellbeing and livelihoods?

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Study Location

This study is being conducted in three countries: Malawi, Tanzania and Bangladesh.

Malawi

Malawi has undertaken various schemes to develop smallholder irrigation since colonial times, but with limited success. Initiatives have often faltered both for technical reasons and because of a lack of farmer ownership. The country illustrates well the complex intersection between local and externally initiated irrigation development. Southern Malawi in particular commonly experiences droughts and floods and land scarcity has been highlighted as particularly problematic, yet it is also argued that this region has the largest potential for expanding irrigation. In the Lower Shire, we pay particular attention to both informal and formal irrigation systems, including those that have been introduced and those of local origin. We consider how the rules governing these systems promote or undermine adaptive responses to change.

Tanzania

Tanzania has a long and well-documented history of 'traditional' irrigation especially

in the northeast region of the country, and donor agencies are currently active in promoting irrigation in other parts. Are there any lessons about the moral economy of water that we can learn from traditional irrigation? Could this be of relevance to more contemporary induced irrigation and how does learning occur across such diverse locations and cultures? Do well-established irrigation systems have higher resilience to environmental and social change? The study will be conducted in Dakawa and Morogoro, in sites which illustrate the interplay of traditional irrigation with recent changes

Bangladesh

Bangladesh offers an interesting contrast to the other two case studies. The country's experience with the Green Revolution is one case, and the vulnerability to flooding and droughts, together with, politics around land and water is another. Additionally, induced technologies for water abstraction for irrigation and the commercialisation of small-scale agriculture all provide a perspective that could inform policy thinking about how 'growth' should be understood in order to reduce the costs particularly on the poor. The proposed research site here is the Noakhali *char* areas.



Research Strategy

This research focuses on issues that are of relevance to policy-making aimed at enhancing the wellbeing of the poor as well as advancing scholarly understanding of issues around institutions, power, climate change and resource governance.

It will involve:

- Analysis of the policy issues based on review of existing literature and interviews with key informants drawn from a wide variety of organisations—from national level policy makers to farmers. The analysis of issues at this stage will identify areas where evidence to support policy formation and implementation is required.
- Questionnaires to capture issues related to the local context. Secondary data from other sources will also be consulted to identify broader and wider scale issues.
- Ethnographic research in selected villages including detailed institutional analysis and assessment of changing moral economies. Data produced during this process will be analysed and shared with the different users.
- Participatory visual research methods, using both film and photography.
- Working in collaboration with local universities and researchers to enhance local relevance for both policy and academia. In Malawi the project collaborates with Bunda College of Agriculture (Dr. Joseph Chidanti-Malunga). In Tanzania, we are working with Mzumbe University (Prof. Anna Mdee) and in Bangladesh our local partner is Jahangirnagar University (Prof. Zahir Ahmed).

Research audience

Research outputs are expected to be of value to:

- Policy makers (national and local government, international and regional bodies, multi-lateral and donor agencies)
- Academics (Universities and think tank organisations, international and national agricultural research institutions)
- Frontline implementers (government departments, NGOs, private companies)
- Local associations and farmers (water user associations, land committees, farmer field schools, farmer associations and clubs, lead farmers, farmers)

Research Outputs, Dissemination and Impact

The outputs of the study are expected to create impact at policy, academic and development practice levels and it is expected that the outputs contribute the following:

- Policy recommendations with regards to irrigation, climate change adaptation and water governance;
- New thinking on the use and practical application of concepts such as vulnerability and resilience in development planning and evaluation;
- Advanced scholarly understanding of the role of institutions and power, systems of entitlement and politics in shaping the impacts and responses to climate change;
- Guidance on integrating institutional and social dimensions in technical projects, such as irrigation, in order to enhance the impacts of such interventions and minimise associated externalities;
- Promotion of the use of film for learning and exchanging knowledge within and between farmer groups, and the different institutions with which they interact.

A comprehensive research communications and impact strategy has been developed to ensure engagement with key project audiences throughout the research project. This includes:

- Feedback meetings with farmers, local government and other institutions;
- Presentations at working group meetings, seminars and conferences locally and internationally;
- The production of a film that depicts the field experiences with different farmer groups to be shared with the different target audiences;
- Publishing policy briefs, working and technical papers;
- Publishing research articles in local and international open access journals;
- Developing and updating a project website

Key information

This two-year project is funded by DFID/ESRC under the Growth Programme. The Principal Investigator of the project is Dr Elizabeth Harrison, working with Professor Dominic Kniveton and Dr Canford Chiroro at the University of Sussex and Professor Katy Gardner at the London School of Economics. Research partners in the three field sites will be based at Mzumbe University Tanzania, Jahangirnagar University, Bangladesh and Bunda College of Agriculture, Malawi. The main phase of fieldwork is expected to finish by April 2014 and the project end date is March 2015.

Further information

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