Poverty Mapping Case Memo

Project Title: Demonstrating how poverty maps can be used more effectively to design and target pro-poor interventions across different sectors in Eastern Africa.

This research attempts to link knowledge about poverty to action through improved, better targeted and more transparent pro-poor policies implemented across East Africa. It aims to improve linkages between key decision makers in agriculture, livestock and health sectors in the region, and enhance their knowledge regarding rural poverty (where and who the rural poor are, how poor are they, reasons for observed differences in poverty incidence) in order to mainstream critical sectoral issues into national poverty strategies.

Problem definition

The problem to be solved by this research is non-existent or ineffective policies at national and sub-national levels for reaching the poor and improving their welfare. The research approach involved both scientists (the research team) and policymakers (the advisory team) from the outset in order to ensure that the information and knowledge generated by the scientists was useful and used. The scientists initially formulated the problem as a technical one (i.e. refining techniques to get the best possible poverty maps, i.e. poverty estimates with small errors associated with them), whereas the decision makers were more interested in the most recent and relevant poverty information for their particular (fairly narrow) constituencies.

Research management

This research was developed in a project mode, with a strong overall project manager as well as clear use-driven goals, targets and incentives for the policy and research teams in each country, who were held accountable for achieving those goals.

Program organization

This research involved both research and decision-maker boundary partners from the outset, with ILRI essentially playing the role of a ‘boundary spanning organization’, ensuring that the researchers, in particular, were accountable to both users and producers for achieving its goals.

The decision-support system

The analysis led to poverty incidence, depth and distribution estimates for small geographic areas (e.g. one or two small rural villages). Connecting this to decision-relevant impacts and policy options is challenging because these will occur at different levels of government and across many different sectors (e.g. agriculture, health,
education). Our approach has been to develop the poverty analyses units (made up of part of the research team) and encourage linkages with the other sectors and decision-makers at different levels through capacity-building exercises and development of timely decision-relevant research outputs (e.g. poultry and poverty distribution maps in Uganda for the Ministry of Agriculture who is preparing for a possible avian flu outbreak).

A key challenge has been prioritization of research outputs with policymakers; they tend to come up with ‘shopping lists’ of issues where they want more information. One approach we have used is to develop ‘example’ outputs to demonstrate some of the possibilities and hold small meetings with key individual decision-makers in the different sectors to stimulate their imagination and help us prioritize research activities.

**Learning orientation**

In terms of learning orientation, this research has evolved as the partnerships have expanded. Analytical results have been presented at various workshops, some policy-oriented, where communication of results to a broad audience was stressed and feedback sought at relatively early stages. Much effort has been put into developing and sharing communication products and holding high profile media events (e.g. a poverty map powerpoint presentation developed with the permanent secretary and ‘use of poverty information’ presentation developed with local government minister in Kenya). There has been a continual experimentation with approaches to more effectively engage decision-makers and disseminate results.

**Continuity and flexibility**

Project continuity and flexibility have been achieved largely through the support of one key partner, Rockefeller, who has been keen to build on the research accomplishments and make sure that the link to ‘action’ is indeed achieved. However, other collaborators (World Bank, DFID, and local governments (largely through World Bank and other donor funds, e.g. to their statistical units) have also been key. For example, by raising the profile of the statistical units through high profile, high quality research/communication products (e.g. the poverty books), we created demand for the institutionalization of such knowledge generation within these government units, and enhanced their visibility and status.

Human resource constraints have been addressed through the capacity building components, although we have been lucky not to lose a few key people that we have trained and relied on for outputs during the process. Our strategy for incorporating government support has been to create a demand for ongoing high quality poverty analyses and products (e.g. for the poverty books by the MPs). We have not yet tried to incorporate private funding, but need to think about this.
Other insights
See: What Learning Can Be Drawn from this Initiative? In the outcome mapping summary copied below.

Other issues

There are major transactions costs involved in building and nurturing partnerships with individuals located in institutions that are poorly managed. Yet these are often the ones we most need to work with, and influence (particularly when bad policies limit impact of our research on the poor). Most of our partners face poor incentives and rewards for interdisciplinary, multi-institute approaches (and we continue to struggle to improve these within our own institute as well!). Are there ‘tried and true’ approaches that help limit these transactions costs so researchers spend more of their time on actual research?

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Representative publications / products

The following two books present the results of the poverty analyses in Kenya and Uganda in both map and table formats, and are written in a non-technical style. They explain how the analysis was done, how to interpret the results and suggest possible uses of the information for targeting pro-poor policies and interventions. The data, maps (and GIS layers behind the maps) and reports can all be downloaded from the web.
The following (attached below) is a case study excerpt, undertaken as an ‘ex post’ outcome mapping exercise for the poverty mapping project.


The following are publications relating to the analytical component of the project, and use of poverty maps globally. When the project began in 2000, high resolution poverty maps existed for only a few developing countries and only one in Africa; researchers trained through this collaborative effort have now resulted in this poverty-related knowledge being generated for 6 SSA countries.


Case 3: Poverty Mapping Initiative

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Purpose:
To develop, in Kenya, Uganda and Tanzania, mapping and statistical modelling tools and national capacities to generate geographically referenced information on poverty indicators that government and development agencies could use to guide their allocation of development resources and the delivery of services.

Vision:
The initiative intended to contribute to an ideal future in which government statistical units in Kenya, Uganda and Tanzania regularly and reliably use spatially defined economic, social, demographic and environmental data from a variety of sources to generate high quality maps showing the geographical distributions of various poverty indicators. NGOs, Governments and international development organizations would use this information to guide their efforts and transparently allocate resources towards the poorest populations and the most pressing problems in East Africa. University researchers collaborating with analysts belonging to permanent, national, statistical units would be working effectively with government and key development partners in using the maps to allocate resources and plan poverty alleviation interventions. The result would be more effective and efficient use of resources. National planners would put in place mechanisms to up-date such maps, to monitor poverty conditions and to assess the acceptance and effectiveness of implemented interventions, revising them as necessary based on supporting evidence.

Strategy:
The project mobilized ILRI staff and international researchers to work directly with two groups of partners: producers and users. The ‘producers’ were government statisticians involved in census, welfare and monitoring surveys and GIS specialists who would create and maintain the maps; and the ‘users’ were government policy analysts and decision-makers who would be the primary users of the resources created. The partners received hands-on training and technical support as they participated in refining the methodology to produce the maps, and in producing the maps themselves. The project sought to build ownership of and commitment to the tools by demonstrating their use and by building the awareness, relationships and technical skills that would sustain the continued maintenance, dissemination and use of the maps in the future. Project-based research was designed to enhance partner skills and confidence in the pursuit of their respective statistical (producer) and policy (user) jobs. During the project, relationships were fostered, through workshops and seminars, to link researchers between countries and within countries and to create policy support teams consisting of poverty analysts and high level policymakers. Use of the maps for transparent targeting of poverty funds was demonstrated to those involved in formulating national poverty reduction strategies. The project supported the publication of high profile map books launched at National events led by high-level policy makers to increase visibility and credibility. Local and regional press, senior policymakers, donors and development partners were in
attendance. On conclusion of the project, the ILRI research team continues to assist national partners as they apply for direct funding for new projects in this field.

Outcomes:

1. Research outputs that did not exist prior to the initiative were produced.
   1.1. A refined methodology for generating high resolution poverty/welfare indicators (poverty incidence, density and distribution) in Kenya, Uganda and Tanzania was developed and disseminated.
   1.2. High resolution poverty information, analyses and maps for Kenya, Tanzania and Uganda are available for the first time and are being used for targeting interventions and resources towards the poor.

2. New capacity to target interventions towards the poor to and analyze the factors influencing poverty was established.
   2.1. A Poverty Analysis Unit was established in the Kenyan Ministry of Planning, headed and staffed by researchers and GIS technicians trained by this initiative. Since the end of the project, this Unit has developed a poverty map based on constituency jurisdictions to be used for transparent allocation of development funds to rural regions. The Unit continues to play a significant role in advising the government about resource allocation based on poverty estimates. For example, a presentation was made by the Unit team leader to Parliament explaining the rationale for funding allocations to constituencies from the 2006 national budget. Kenyan government researchers continue to expand and use their expertise and initiate activities to build data and information useful to poverty targeting. The Central Bureau of Statistics poverty team raised funds for a follow-up publication, and requested ILRI’s involvement for technical advice.
   2.2. Staff members of Uganda’s UBOS (Uganda Bureau of Statistics) are now organizing surveys to update the initial volumes that had been compiled using 1991 survey data. Individuals trained under the project are leading these surveys, calling on ILRI for minimal assistance only. This project will use a combination of government funding (allocated in the 2006 budget) and remaining funds from the ILRI project. UBOS has demonstrated its recognition of the value of poverty estimates and mapping by allocating more staff time to it. Previously, poverty mapping was considered a side job less important than routine work.
   2.3. In Tanzania a Poverty Map Report has been developed by REPOA (Research on Poverty Alleviation), a non-profit, non-governmental organization (NGO) based in Tanzania. District-level poverty maps and measures were included in the country’s 2005 Poverty and Human Development Report published by the Research and Analysis Working Group of the Government of Tanzania’s Poverty Monitoring System. This is the first time that data from surveys of the Bureau of Statistics, the population census and the earlier household survey have been combined for poverty maps showing estimates of household income at the District level. The report states: “These estimates are mapped and analyzed to assess their association with other indicators of well-being. The geographic disparities which are highlighted in this spatial analysis require attention if there is to be equitable access to high quality public services and adequate social protection…” The government signals its intention to use the
new poverty information to allocate district funds. The same maps are being used to target NGO projects towards vulnerable groups such as orphans (UNICEF) and disabled people (WB).

2.4. A regional animal agriculture research network (AARNET) is using the new maps to identify intervention sites for a livestock early warning system aimed at assisting vulnerable nomadic pastoralists.

2.5. Several new analyses of the factors influencing poverty in different regions of these countries are underway with the involvement of researchers trained within this initiative.

**What Learning Can Be Drawn from this Initiative?**

1. Researchers can effectively build capacity by applying a range of strategies aimed at influencing partners’ awareness, working environments, skills and behaviours.

2. Strategies aimed at influencing awareness, incentives and rewards were helpful in supporting change in target partners’ actions and relationships. Taking the researchers in the Government Statistical Research Units as the primary focus, the approach was to initially enhance their knowledge and relationships as well as to make their working environments more supportive of and receptive to their research. The early involvement of government policy analysts and policy makers was effective in creating support and receptivity for the researchers’ work among the users of the researchers’ outputs. The project team and the local research teams also enhanced receptivity to poverty mapping in their working environment by giving presentations to donors and development agencies throughout the process, informing them of the poverty information and of ways in which the data and tools could be used. This, along with high profile book launches featuring senior policymakers, donors and development partners gave credibility to the local partners. Helping the high-level decision-makers with the presentations of the products (maps, books) at these events increased local knowledge and ownership.

3. Strategies that result in immediate and ‘hard-to-reverse’ outcomes may be necessary to generate high quality outputs for which the producers can immediately take credit. Contractual arrangements were established with the researcher partners and monitored by the project team. Firm milestones and agreed upon standards of quality for work increased the likelihood of timely and acceptable outputs. Assisting partners to achieve prominence in their field and to take credit for good quality outputs builds commitment and enhanced partner influence. The project supported the production of high quality, high profile books, published by the local partners, so they (local working associates) could receive the bulk of the credit and recognition for the work.

4. Technical training and assistance reinforced by hands-on work and support by colleagues over the long term yields success. Training is an essential part of the research process. In all three countries poverty analysis skills were built through training and technical assistance reinforced by poverty mapping work. Partners undertook and met their commitments as the work progressed. Experienced researchers from other parts of the world were also included in the start-up workshop, where they were able to present their personal experiences in similar undertakings, the benefits they realized, as well as the institutional and policy changes poverty maps have led to in their countries. Continued access to these colleagues was a useful supportive asset, offering continued mentor-type structures.
5. Involving the users of research outputs early in the project enhances the relevance and acceptance of the research. The research team helped establish policy support teams consisting of poverty policy analysts and high level policymakers in developing the methodology so they fully understood the outputs and were able to directly feed them into the country poverty policy processes.