

# **STRATEGIES AND ANALYSES FOR GROWTH AND ACCESS (SAGA)**

## **PROGRESS REPORT**

Cornell University

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### **I. RESEARCH**

#### **1. Ghana**

The last six months have focused on defining a framework for the work program with ISSER. A workshop was held in Accra in October with a range of stakeholders and, in consultation with the USAID mission, it was agreed to pursue four lines of enquiry: (i) a volume of papers, primarily written by locally based Ghanaians, on “Understanding Poverty in Ghana”; (ii) launching a project on collecting and analyzing panel data sets for Ghana at the community level; (iii) building bridges between quantitative and qualitative analyses of poverty; and (iv) analysis of land tenure issues in Ghana.

Since October, (i) the table of contents for the understanding poverty volume has been finalized, and the sub-contract from Cornell is in the process of being issued; (ii) a meeting, which was culmination of an email dialogue, was held at Yale with ISSER and with some of the leading panel analysts on Africa, to sharpen the proposal for submission to SISERA; and (iii) a workshop was planned to take place in Accra to bring together leading quantitative and qualitative analysts of poverty in Ghana, based primarily inside but also from outside Ghana.

In the next six months, (i) the first drafts of the Understanding Poverty papers will be received and commented upon; (ii) the panel proposal will be finalized and submitted to SISERA; (iii) the Qual-Quant workshop will be held in Accra on May 21-22, and the next stage of the work program will be designed; and (iv) discussions will be held with USAID-Accra on the land tenure issues and the needs of the mission.

#### **2. Kenya**

The Kenya research program targeted toward informing debate on high profile policy questions highlighted in the new Kenya Rural Development Strategy (KRDS) and Poverty Reduction Strategy Paper (PRSP) processes in the aftermath of impending national elections. The PRSP has identified agricultural and rural development as Kenya’s number one priority towards poverty alleviation and economic growth. The KRDS has emphasized problems of risk and vulnerability, market access, and smallholder empowerment as central to agricultural and rural development. USAID-Kenya is actively addressing these issues through its own program of work (under mission SOs 6 and 7). Toward those ends, the SAGA-Kenya research program is organized as a set of subsidiary research projects conducted by a consortium of research institutions around two core, interrelated themes: “Reducing risk and vulnerability in rural Kenya” and “Empowering the rural poor.” The SAGA-Kenya team will begin

releasing policy briefs and will convene major policy conferences around these two themes in summer 2004, subsequently summarizing key findings in two published volumes.

Under the theme “Reducing risk and vulnerability in rural Kenya”, the team will pursue interrelated sub-projects on the following sub-themes:

- The role of producer organizations in reducing smallholder vulnerability: Led by Tegemeo, this sub-project will analyze the impact of producer organizations on smallholder market access and vulnerability to income shocks, price and yield volatility, identifying what organizational functions prove most effective and how these are most efficiently and reliably provided, especially to poorer smallholders.
- Agricultural marketing systems, price volatility and vulnerability of smallholder producers and poor consumers: Led by KIPPRA, this sub-project will study changing marketing systems and household strategies for coping with market risk, seeking in particular to explain and identify effective strategies to reverse the apparent widespread retreat toward subsistence production by many smallholders.
- Improving factor market access to reduce rural vulnerability: Led by the University of Nairobi’s Department of Agricultural Economics, will focus in particular on rural land and finance markets, and how increasing land pressure and conflict and the changing shape of liberalizing financial sectors affect smallholders’ security of access to land.
- Safety nets in marginal areas: Led by Cornell and Clark Atlanta (both on non-SAGA funding), this subproject will focus on the interrelationship between public safety nets such as food aid and livestock destocking/restocking programs, and private assistance schemes based on social insurance mechanisms, informal lending and altruistic transfers, particularly in arid and semi-arid areas especially prone to climate, conflict and market shocks.

Under the theme “Empowering the rural poor”, the team will pursue interrelated sub-projects on the following sub-themes:

- The role of producer organizations in enhancing smallholder market participation: Led by Tegemeo, this sub-project will identify appropriate institutional frameworks for producer organizations so as to enhance small farmers’ participation and efficiency in input and output markets.
- Decentralization and participation: Led by IPAR, this sub-project will focus on social funds in the education and health sectors, examining the level, scope, nature and quality of popular participation in decentralized allocation

mechanisms, fiscal accountability under these arrangements, and the factors that determine the capacity and effectiveness of the poor participating in and benefiting from these programs.

- Community groups and networks: Led by Cornell (on non-SAGA funding), this sub-project will study social networks and community groups and their effects on risk-taking, technology adoption and livelihood strategy choice in rural communities.

We have now reached agreements with IPAR, KIPPRA and Tegemeo on their work plans, and they have begun their work on the two core themes of the SAGA-Kenya program: “Reducing Risk and Vulnerability in Rural Kenya” and “Empowering the Rural Poor.” IPAR’s work program is entitled “Enhancing Access, Accountability and Empowerment for the Poor through Decentralization and Participation”, Tegemeo’s is “A Study of Producer Organisations in the Liberalised Kenyan Economy”, and KIPPRA’s is looking at “Effects of Market Price Volatility on Production Patterns and Apparent Retreat Into Subsistence Farming By Kenyan Smallholders.” The University of Nairobi’s Department of Agricultural Economics is still expected to be involved, but we continue to discuss and revise their work plan with them. This process has taken considerable input in research design and coaching of proposal development.

As Kenya’s lone SISERA member institute, IPAR will be “first among equals” and coordinate the SAGA-Kenya program, serving as host or co-host for prospective SAGA small grant awardees, primary contact point for communications between the Cornell and Kenya teams, and the logistical coordinator for SAGA events in Kenya. IPAR will receive a small subcontract for these functions. IPAR, KIPPRA, Tegemeo, and the University of Nairobi will each receive a separate subcontract from Cornell for research under SAGA-Kenya, according to which institution leads a given sub-project, many of which will be jointly staffed.

Finally, at the urging and with the assistance of the SAGA team, the Tegemeo Institute of Agricultural Policy and Development, which is affiliated with Egerton University, has begun the process of affiliating with SISERA.

### **3. Madagascar**

An initial SAGA participatory workshop was organized in March by Cornell University and our SAGA partner, the Centre d’Etudes Economique (CEE). Attending from Cornell was Christopher Barrett, David Stifel and Bart Minten.

The deliberations commenced with the Cornell University team outlining the general structure of SAGA’s three broad activities and the research themes and core countries within the research activity. We encouraged CEE and the Mission to think about capacity building needs for CEE and to propose appropriate training efforts to SISERA and SAGA for TA funding.

CEE, Madagascar's SISERA institution, is within the Department of Economics at the Université d'Antananarivo. CEE is therefore closely linked to the university. It has a publication series. It previously worked under EAGER with Harvard on a variety of macroeconomic and financial sector topics. The scale of CEE is effectively the 10-14 permanent faculty (9-11 really available, given other commitments) and DEA (20-30) and doctoral (4) students. They are proposing to SISERA research on: (i) privatization in the financial sector and its effects; (ii) mining sector policy and growth; (iii) urban poverty and development, and a few other topics under development. CDMS is another closely linked center within the department that is part of a Paris II-led international network. There was some discussion about the distinctions between CDMS and CEE.

USAID's new five-year strategic plan for Madagascar starts October 1, 2003. Four strategic objectives (SOs) have been identified: (i) democracy and governance; (ii) environment, natural resources, agricultural production and rural development and farming systems approach with an emphasis on biodiversity conservation; (iii) agriculture marketing and trade policy ; and (iv) health with an emphasis on MCH, HIV/AIDS.

The Mission expressed support for SAGA work in the thematic area of poverty dynamics and rural vulnerability, and particularly how that would link with PRSP team. Among the issues they would like to see tackled are what are the high value agricultural products that could help stimulate sustainable agricultural intensification here, and how rural household portfolios can be adapted to stabilize and increase well-being. The PRSP and Ministry of Agriculture are key audiences here. The Bank is talking about starting up a large agricultural statistics collection effort, which could conceivably link well to work in this area. Work in this area could build on Cornell's existing efforts under Ilo and BASIS.

Decentralization of public services delivery in health and education is a huge, important topic. A student working with Cornell's Bart Minten is presently engaged in working on decentralization of schools, and the World Bank is doing expenditure tracking surveys to understand the resource movements across levels of government hierarchy. Two other examples of a possible emphasis for future work would be to participate in the design and analysis of health facilities and user survey, and a similar survey of schools and cognitive achievement of children. The Ministry of Decentralization (attached to Office of Presidency) is the key government audience, as well as the Ministries of Health and Primary and Secondary Education. We also will coordinate closely with the World Bank, and other bilaterals who have started some work on this also.

There is shared concern about ensuring integration of research design and results reporting into policy discussions. We mooted the possibility, therefore, of SAGA starting a policy research forum with INSTAT, FOFIFA, CEE, Ministry of Primary and Secondary Education, Ministry of Health, USAID, LDI, etc., akin to what we have started in other SAGA countries, in order to: (i) hold pre-study workshops to get stakeholder input and buy-in into research before it begins, (ii) hold regular quarterly meetings to coordinate link between current and upcoming policy questions and current

and upcoming research. It would seem sensible to fund CEE to coordinate this activity, which should be relatively inexpensive (telephone and meeting costs only), would increase their visibility and integrate them more into research networks, especially those with strong extramural collaboration (e.g., INSTAT-FOFIFA-Cornell).

CEE has an interest in urban poverty dynamics and urban labor markets, as well as the decentralization theme. Perhaps they can be linked to the last stages of the relevant Cornell work under Ilo, although the Mission had a clear preference to concentrate the poverty dynamics and vulnerability work in rural areas, not urban ones. We will also explore the possibility that CEE could get SISERA funding for complementary work on the urban issues, as well as the possible use of 2001-2003 EPM to explore household-level poverty dynamics at a national level with INSTAT. This could specifically involve examining the link between asset holdings, livelihood strategies, and welfare dynamics to explore poverty traps and vulnerability. Then we can use and build on BASIS-FOFIFA data to explore the linkage between agricultural production and marketing and natural resource management patterns at the household level (e.g., soil and welfare dynamics), why some people do not make the jump out of poverty and what can be done to help them climb out of poverty.

#### **4. Senegal/WARP**

Most of our efforts have gone into the education and related thematic research in Senegal where we are investigating the household, community, and school-level determinants of the following education outcomes in Senegal: primary and secondary enrollment, transitions from primary to secondary school, grade repetition and dropout, and learning—both academic (math and French test scores) and non-academic (“life-skills”). We will do this by supplementing an existing five-year cohort survey of school children with additional comprehensive data collection on households, communities, and school alternatives in areas where the original data were collected. Combining the data sources, a range of econometric approaches will be used to explain variation in these education and cognitive outcomes. In addition, the research will examine related factors such as entry into the workforce after school, children’s time allocation, and schooling differences among siblings and between boys and girls, migration and health and their relationships to education, the impact of shocks on health and education outcomes, and the role of indigenous and formal institutions in affecting household welfare.

The actual survey commenced in the end of March. This followed many months of working with our partners on developing the questionnaires, sampling procedures, data entry programs, and other procedures. In addition, we spent two months training enumerators and supervisors. Furthermore, we needed to arrange complementary financing, which came from the USAID Mission, UNICEF, the World Bank, the French Ministry of Development Cooperation and the Ministry of Education. We anticipate that we will complete the survey at the end of June. A first workshop on the plans for analysis of the data, sponsored by CREA and Ministry of Education, will take place at the end of April. A series of workshops will then take place over the next year, as the data

analysis begins to yield results. These workshops are designed to ensure maximum integration of the results into the policy-making process.

We also continue our efforts focusing on HIV/AIDS. As noted in the previous progress report, we had devised extensive plans for evaluating HIV prevention interventions, particularly Voluntary HIV Counseling and Testing, in the high-prevalence context of Côte d'Ivoire. As also noted in that report, the political crisis and violence in Côte d'Ivoire, which at that time has only recently begun, put these plans into doubt. At this point, it is clear that Côte d'Ivoire will be unsuitable for the research for the foreseeable future as the conflict is far from being completely resolved.

Our main response in the last several months has been to turn our efforts, for the time being, to the analysis of secondary data. Owing to the availability (primarily) of Demographic and Health Survey data from many countries, there is a great deal of analysis that can be done. For many countries, these surveys have been fielded more than once in the past decade, with detailed modules on HIV/AIDS knowledge, testing, and sexual behavior. The existence of multiple rounds makes it possible to examine how behaviors and knowledge have been changing over time as the epidemic, and general awareness of it, has expanded. Understanding how these changes are related to socioeconomic variables as well as location (e.g., rural, urban) will help better pinpoint gaps in knowledge and behavior that prevention and education programs can target. This type of cross-country, over-time analysis has yet to be done. Data from multiple years are—or soon will be—available from the following countries: Benin, Malawi, Tanzania, Zimbabwe, Uganda, Ghana, Kenya, Madagascar, Mali, Nigeria, and Zambia.

Preliminary analysis on the data for Tanzania (1996 and 1999 DHS) suggests that even over a relatively short period of 3 years the population became more knowledgeable about HIV/AIDS and the methods to prevent the risk of infection, in both urban and rural areas, and among both men and women. However, geographical and gender gaps in the knowledge of the HIV prevention methods remain. There is also evidence of positive behavioral change: for example, condom use increased across all age groups and educational levels. Further, behavioral changes (in particular, the probability of condom use) have been the largest in youngest cohorts, most educated, and urban residents.

It is important to replicate the analysis for other African countries. This includes not just high-prevalence countries like Kenya and Malawi but low prevalence countries like Madagascar and Benin: identifying where or among which groups the gaps in knowledge or safe behaviors are largest in these countries, and where they are failing to change or are changing too slowly, will be key to preventing the epidemic from taking hold.

Madagascar will be a particular focus of the research, consistent with the interest of the USAID Mission and their new strategic objectives (discussed above). This work will make use of DHS surveys from 1997 and 2003 (the latter is soon to be put in the field). What makes the Madagascar analysis of special interest is that we will be able to integrate the DHS data with other sources, such as the recent commune census and the

population census. This will provide a better understanding of how factors outside the household, such as the availability of community health or fertility centers as well as roads and other infrastructure (or more generally 'remoteness'), affect the speed of diffusion of HIV knowledge, testing, and sexual behavior. In contrast, the DHS surveys themselves are limited to information about individuals and their households.

## **5. Uganda**

The following is a report on the status of SAGA research proposals and projects in Uganda

### 1) Poverty dynamics

This project will use the 1992-1999 panel data to explore variables correlated with a household's probability of falling into or escaping from poverty. Ideally, we would like to relate this to public policy, although we recognize that this is difficult. We are also interested in the coping strategies of households that fall into poverty.

Ashie Mukungu and Ibrahim Kasirye have begun work on this project. They have successfully isolated the panel households and begun exploratory regressions. They are also studying the most efficient way to estimate poverty dynamics. (See the Technical Assistance section below.)

### 2) Multidimensional measures of poverty changes over time

This project is based on the observation that, while income poverty has been declining steadily for more than a decade, certain alternative welfare measures, e.g., infant mortality and children's heights, are stagnant. We want to first explore whether this description is accurate (for example, the DHS data are collected during different seasons, which might affect the results), and then try to understand the reasons behind this contradiction.

Sarah Ssewayana and Stephen Younger have begun work on this project. They have completed a time series of infant mortality rates from the mid-1970s to the present based on the DHS birth history data. As expected, this series shows, at best, modest improvement in IMRs, despite the healthy economic growth observed during the 1990s. They will now relate this time series to possible determinants of IMR at a national level, including GDP, HIV infection rates, vaccination rates, and the timing of decentralization of health services.

Future extensions will examine other non-monetary welfare indicators such as children's nutritional status and adult literacy rates, comparing progress on these indicators with Uganda's impressive growth in incomes.

### 3) Time saving benefits of clean water supply

The idea for this project comes from other research at Cornell which looks at gender differences in benefits from public expenditures across the income distribution. It is surprising to find that there are few cases in which the “gender gap” for services is correlated with income, i.e., where it is worse for poor people than for the rich. One case where we do find this, though, is in time saved from easy access to safe water. Women mostly have to collect water. If they are better off, they probably live closer to a water source and so don’t have to spend so much time at collecting water.

An implication is that if the government or a donor provides easier access to water, then women will benefit disproportionately, and poor women even more disproportionately. Unless... they don’t have control over their time, so that other duties get pushed onto them.

We would like to explore this issue, ideally, with an experiment. We began discussions with Richard Cong at the Directorate for Water Development during Stephen Younger’s trip to Kampala in January. DWD is enthusiastic about the idea of a study, and expressed willingness to randomize new rural water supply interventions (within certain limits).

This project will require our own survey work, and thus will require funding beyond what SAGA can provide.

Our main concern at this point is that the intervention (tube wells or bore holes, typically) may not have much impact on time use, even if it does improve water quality. Exploratory analysis of the time use data in the 1992 Integrated Household Survey shows little difference in time spent collecting water in rural areas, regardless of source. We are discussing this issue further with DWD and will decide whether to pursue the project soon, probably at Younger’s next visit to Uganda in May.

#### 4) Tax Incidence

John Matovu and Margaret Banga will build on Matovu’s previous study of tax incidence in Uganda to study changes in incidence since 1992 using the 1999 and, hopefully, 2002 National Household Survey(s). He will focus especially on local taxes like the graduated tax and market fees. As the only sources of local tax revenue, these items are important in the context of Uganda’s decentralization plans, but they are also extremely unpopular.

#### 5) Multidimensional Poverty Comparisons

In conjunction with a WIDER project on spatial aspects of inequality and poverty, Stephen Younger is preparing a comparison of poverty in different regions of Uganda as measured in incomes and nutritional status. The initial paper will be ready by the end of May. Future extensions will examine changes in multidimensional poverty across regions in Uganda.

## **6. South Africa**

In the last six months we have worked with DPRU to help them develop their framework for research under the SAGA program, viewing this as an integrated part of their overall research strategy. Three main activities have been advanced: (i) a research proposal to SISERA on education, labor markets, and poverty in post-Apartheid South Africa; (ii) a research proposal to SAGA-Cornell on comparing poverty and standards of living in 1995 and 2000, the first five years of the post-Apartheid period; and (iii) a volume of papers on poverty in South Africa ten years after Apartheid.

In the next six months we will (i) finalize and submit the proposal to SISERA; (ii) finalize the proposal on the 1995-2000 comparison and begin work with a view to submitting a draft paper for the DPRU annual conference in September and (iii) finalize table of contents of the volume and commission papers, under the SAGA-Cornell umbrella.

The research program, especially the 1995-2000 comparison, is interacting closely with technical assistance on poverty analysis, for which DPRU, in collaboration with NIEP (another SISERA institution), is developing a course targeted at the historically disadvantaged universities. The course will be held in June/July, 2003.

## **II. TECHNICAL ASSISTANCE**

### **1. Uganda**

Stephen Younger has worked closely with Ashie Mukungu and Ibrahim Kasirye to develop a formal proof that, using OLS estimates with expenditures as a dependent variable and then predicting poverty status based on those estimates, is more efficient than estimating a probit for poverty status. This point has long been conjectured in the literature, but never proven, and many researchers ignore it when estimating multivariate poverty profiles.

### **2. South Africa**

Paul Cichello, Ravi Kanbur, and Stephen Younger are working with DPRU and NIEP to prepare a two-week poverty and inequality workshop for faculty at South Africa's historically disadvantaged universities. The workshop is scheduled for June 23-July 4 and will involve about 25 participants, along with staff from Cornell, DPRU, and NIEP.

### **3. Senegal**

Leopold Sarr has been working at CREA for the past 4 months. He will remain there through the end of the August, 2003. He has assumed primary responsibility for

managing and implementing the household survey that is being conducted by the Ministry of Education and CREA.