# STRATEGIES AND ANALYSES FOR GROWTH AND ACCESS (SAGA)

#### PROGRESS REPORT

Cornell University and Clark Atlanta University
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#### I. INTRODUCTION

We are completing the end of the second year of SAGA. In this semi-annual report, which also serves as the basis for discussions at our annual Advisory Board meeting, we focus on the work during the previous six months, and the plans for the months ahead. There are three major sections of the report, corresponding to the research, technical assistance, and competitive grants portions of SAGA.

#### II. RESEARCH

Most of this section is organized by the activities being planned and implemented in SAGA countries. During the previous six months, we concentrated our attention both on further defining the research agenda and on moving forward the process in terms of implementation of the research themes in the various SAGA countries.

Overall, the SAGA research team is pleased with the progress made to date. We have put a premium on a deliberate approach that is consistent with our commitment to institutional strengthening, quality in the research, and policy relevance.

In reviewing the details of activities and plans below, in terms of process, progress, and research emphasis, it is clear that there is considerable variation across countries. This comes as no surprise. It reflects not only the influence of local political events on the pace and focus of work (e.g., the political turmoil that previously gripped Madagascar and still adversely affects Côte d'Ivoire), but also the nature of the institutional context, particularly in terms of the strength and capacity of the Secretariat for Institutional Support for Economic Research in Africa (SISERA) and other local institutions with whom we are partnering. Similarly, the choice and selection of thematic areas and the nature of the research process itself, which are specific to each country and capture the results of the demand driven process, influence the pace and direction of progress. For example, in a number of cases, particularly where the institutional framework is weaker for conducting applied and policy relevant research, it requires greater time and effort to both organize and develop the research agenda. It is in these same countries/regions where the availability of data is also most limited. Consequently, collection of further survey is required in some instances to enable the research teams to address the salient policy questions identified in consultation with various stakeholders and policy-makers, both in and out of government. To the extent that additional data are

required, we have also been actively engaged in augmenting financial resources to cover those costs, given the expense of such efforts.

#### A. GHANA

The objective of SAGA-Ghana is to help the Institute of Statistical, Social and Economic Research (ISSER), Ghana's SISERA Institution, to build its capacities to conduct research in the broad areas identified in the SAGA proposal, refined and specified further in collaboration with ISSER itself.

# 1. Activities over the past 12 months:

Over the past 12 months we have developed a broad strategy comprising a number of building blocks:

• Commissioning a broad set of papers on Understanding Poverty in Ghana, written primarily by Ghanaian scholars based in Ghana.

This is a foundational exercise for the SAGA project, both in terms of providing a broad overview of the topic for Ghana, but also in terms of engaging with Ghanaian scholars and forming teams of ISSER and non-ISSER analysts. A preliminary list of papers is as follows:

- 1) Land and Rural Institutions Transformation Ernest Aryeetey and Dzodzi Tsikata
- 2) Decentralization

Felix Asante and Joseph Ayee

3) Qual-Quant

Ellen Bortei-Doku Aryeetey and Ravi Kanbur

4) Public Expenditure Monitoring

Charles Jebuni and Anthony Tsekpo

5) Health Insurance

Kwadwo Asenso Okyere and K. Osei-Akoto

6) Education for HIV/AIDS

John Anarfi and Ernest Appiah

7) Household Asset Choice

**Ernest Aryeetey** 

8) Skills Acquisition by the Poor

William Ahadzie and George Botchie

9) Inflation and the Poor

Nii Kwaku Sowa

10) Poverty Dynamics- Risk and Vulnerabilty
Abena Oduro and Kojo Appiah-Kubi
11) Non-traditional Exports and Poverty Reduction
Victor Nyanteng and Wayo Seini
12) Trade and Poverty
Charles Jebuni

The first drafts of papers will be presented at a workshop in Accra in January, 2004, and final drafts presented at the major conference on the Economy of Ghana in July 2004 (see below).

# • Support for the new Network on the Economy of Ghana (NEG).

The dissemination of the papers discussed above is developing into a major new process that is very exciting. We had originally thought of having a final conference on the Understanding Poverty volume in July, 2004. However, Ernest Aryeetey, the Director of ISSER, has now devised a major new plan to make this July 2004 meeting the first conference of a new "Network on the Economy of Ghana." Within Ghana, this would fulfill the need previously met by the now moribund Economic Society of Ghana and, equally important, would serve as a network for the diaspora of Ghanaian economists, and indeed for all economists working on Ghana. The idea of the Network has received strong support from within Ghana. It will be based at ISSER and will use new technology and webbased links to the fullest. It will produce a journal, published and managed electronically. ISSER has successfully applied to the African Capacity Building Foundation (ACBF) for institutional support for the Network. The July 2004 conference is now targeted as the launch conference for the Network, and planning of its structure, invitees, etc., is already under way. Thus, the ISSER-Cornell and SAGA-Ghana processes have now led to a Ghana-wide process, based at ISSER, which has the possibility of transforming economic analysis networks on Ghana.

#### • Panel data sets for Ghana.

There is a glaring gap in data on poverty in Ghana—the lack of panel data sets that allow us to do serious analysis of poverty dynamics. Ghana simply does not have the household panel data sets that are essential before a whole host of dynamic questions — on risk, on poverty, on health and nutrition, on informal insurance, etc — can be answered. We therefore set for ourselves the task of developing a comprehensive research proposal that will develop, for the first time, such a data set and such analyses, for Ghana. In Ghana, the work will be led by Abena Oduro of the Center for Policy Analysis (CEPA) and Kojo Appia-Kubi of ISSER (who will be doing a joint paper on this topic for the volume discussed above). SAGA initiated a meeting at Yale, which included ISSER and several global leaders in the area of poverty dynamics — Chris Udry, of Yale, Stefan

Dercon of Oxford and John Hoddinott of IFPRI. With their help, IFPRI fashioned and submitted a proposal to SISERA for funding. This proposal is out for review, and we are waiting to hear the outcome.

# • Qual-Quant for Ghana.

The disconnect between qualitative and quantitative approaches to poverty analysis in Ghana is quite marked. We began to address this problem, in May, 2003, with ISSER who hosted a workshop in Accra designed to advance collaboration between the two types of analysts. The workshop was attended by approximately 30 participants, including economists, sociologists, anthropologists, geographers, and statisticians. Participants came from academia, think tanks, government, NGO's, and donor groups. The UK's Department for International Development (DFID) took a particular interest in the proceedings. The core presentations were by Ellen Bortei-Doku, reporting on her work on participatory poverty analysis in Ghana; by Andy McKay, reporting on his work based on the Ghana Living Standards Surveys (GLSS); and by Paul Shaffer on his global experiences with mixed methods. These presentations set the stage for an exploration of the issues, tensions and complementarities, and how we might move forward. The basic modality of moving forward agreed upon by the participants was to form interdisciplinary teams to tackle specific issues. A wide range of possible topics were suggested and discussed, bearing in mind the specifics of the policy process in Ghana and the timetable on which specific inputs would be most useful to policy-makers, especially in the context of monitoring and evaluation of the Ghana Poverty Reduction Strategy (GPRS). Over the longer term, ISSER will take the lead in forming interdisciplinary teams to address many issues that were highlighted as being best addressed by qualquant analysis—and in seeking funding for these studies in the qual-quant tradition.

#### Land issues.

With regard to land issues, which were identified as a key component in the USAID-Ghana strategy, ISSER has drafted a research proposal based on discussions with the missions and with Sigma 1. This proposal is now being discussed with USAID-Ghana.

#### 2. Planned Activities

In the next six to twelve months, there will be many activities. The Understanding Poverty workshop will take place in Accra in January, 2004, and the major launch conference of the NEG, "Ghana's Economy and Society at the Half Century" is planned for July, 2004. Work on the panel data sets project will start pending a successful outcome of the proposal to SISERA. The next conference in the Qual-Quant sequence

will take place in the next few months, and the land issues proposal will be finalized based upon the current discussion with USAID-Ghana.

#### **B. KENYA**

By African standards, Kenya enjoys relative abundance of good quality primary data for economic analysis and of skilled researchers doing rigorous, policy-relevant research. SAGA seeks to exploit this comparative advantage through a decentralized design that elicits work from several able economic research institutions in Kenya. The program is also 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 national elections that resulted in the country's first change in the party in power since independence. The PRSP has identified agricultural and rural development as Kenya's number one priority for 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, as discussed further below.

# 1. Specific themes and activities:

The SAGA-Kenya program has two key themes – "Reducing risk and vulnerability in rural Kenya" and "Empowering the rural poor" – with interrelated subprojects by affiliated institutions and individual researchers. Each of the two key themes will lead to a policy workshop to present key research findings to Kenyan research, policymaker and donor communities. Each sub-project within each theme will deliver at least one policy brief and at least one publishable conference paper. Tentatively, we plan to publish a revised, edited proceedings volume from each of the two policy workshops. In addition, the Institute of Policy Analysis and Research (IPAR) and Cornell plan to coorganize a workshop on "Mixing Qualitative and Quantitative Method of Poverty Analysis in Kenya," tentatively scheduled for March 2004, with significant support from the World Bank Country Office.

Under the theme "Reducing risk and vulnerability in rural Kenya," the team is pursuing interrelated sub-projects on the following sub-themes, and expects to hold a policy workshop in the first half of 2005:

• The role of producer organizations in reducing smallholder vulnerability: Led by Tegemeo, this sub-project analyzes 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.

The Tegemeo project is augmented by dissertation research by a Kenyan economics Ph.D. candidate at Cornell, Andrew Mude, doing closely related research with partial funding from a SAGA competitive small grant and from the Rockefeller Foundation. Mr. Mude began field data collection in September 2003 and will complete his field work early in 2004.

- Agricultural marketing systems, price volatility and vulnerability of smallholder producers and poor consumers: Led by the Kenya Institute for Public Policy Research and Analysis (KIPPRA), this sub-project studies 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, this research focuses 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, with
  collaboration from Syracuse University (all on non-SAGA funding), this
  subproject focuses 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. This work has already generated three working
  papers.

Under the SAGA-Kenya's second theme "Empowering the rural poor," the team is pursuing interrelated sub-projects on the following sub-themes, and expects to hold a policy workshop in July-August, 2004:

- The role of producer organizations in enhancing smallholder market participation: Led by Tegemeo, this sub-project is identifying 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 focuses the decentralization of and participation in agricultural extension services in rural Kenya, 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 studies social networks and community groups with respect to their effects on risk-taking, technology adoption, and livelihood strategy choice in rural communities. One component of this has been funded by the Rockefeller Foundation for a dissertation project by Cornell education Ph.D. candidate David Amudavi, a lecturer at Kenya's Egerton University. Another component has been funded by Cornell University, the National Science Foundation, and the Social Science Research Council, for dissertation field research by Cornell agricultural economics Ph.D. candidate Heidi Hogset. Both Mr. Amudavi and Ms. Hogset began field work in August, 2003, and will remain in Kenya for approximately one year.

The March 2004 workshop on "Mixing Qualitative and Quantitative Method of Poverty Analysis in Kenya," co-organized by IPAR and Cornell and co-sponsored by the World Bank, aims to develop and promote the use of mixed methods of poverty analysis within the Kenyan research community. There is considerable interest in this approach within the policy research community, not just the SAGA institutions (IPAR, KIPPRA, Tegemeo, University of Nairobi), but also within the Ministries (e.g., Agriculture, Livestock Development), the Kenya Agricultural Research Institute, and various universities and NGOs active in the country. At present there is, however, little understanding of or experience with the method. The objective of the workshop is to familiarize the policy research community (both producers and end-users in donor and operational agencies and government) with these techniques. Tentatively, the program will consist of three parts. The first part will offer three talks: one, an overview of the theory and potential of mixed methods, with the second and third presentations by people using quantitative and qualitative methods, discussing the limits of what they can do/learn by their approach. Prof. Germano Mwabu of the University of Nairobi (and a key player in the Africa Economic Research Consortium) has informally agreed to make the quantitative presentation based on his work with Kenya's Welfare Monitoring Survey data, explicitly discussing where qualitative work could be a useful complement. We are presently approaching an equivalently distinguished scholar doing analogous qualitative (e.g., sustainable livelihoods) work. The second part of the workshop will feature three presentations by researchers attempting to use such mixed methods in Kenya. The idea is to demonstrate the concept through some specific cases. The third part will feature a panel discussion with representatives from government ministries, donor agencies, NGOs, universities, and non-university research institutions, tasked to reflect on how best to employ these methods (if at all), how best to train people to use them, etc. We plan to publish the papers from the first two parts as a small book that can be used for training purposes in country/region.

#### 2. Institutional linkages/collaborators:

Institute of Policy Analysis and Research (IPAR); Kenya Institute for Public Policy Research and Analysis (KIPPRA); Tegemeo Institute of Agricultural Policy and

Development; the University of Nairobi Department of Agricultural Economics (Kabete campus); Clark Atlanta University; Syracuse University.

As Kenya's lone SISERA member institute, IPAR is "first among equals" and coordinates 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, KIPPRA, Tegemeo, and the University of Nairobi each have a separate subcontract from Cornell for research under SAGA-Kenya, as leaders of specific sub-projects, several of which are jointly staffed, encouraging new collaborations. Finally, at the encouragement of Clark Atlanta and Cornell Universities, Tegemeo has begun exploring the possibility of membership in SISERA.

The research program SAGA is pursuing in Kenya was developed collaboratively through repeated consultations, both in Kenya and via email and by telephone, between Cornell, Clark Atlanta, IPAR, KIPPRA, Tegemeo, the University of Nairobi, USAID-Kenya, USAID-REDSO and USAID-Washington. Meetings were held in Nairobi in January and August, 2003, between SAGA-Kenya team leader Chris Barrett and Kenyan partners, and we held a team meeting in Durban, South Africa, where we were all attending the 25th triennial meetings of the International Association of Agricultural Economists.

It took time to get terms of reference and subcontracts finalized between Cornell and each of the participating institutions, which caused a delayed start to the field research. But the last of the subcontracts was put in place and the last of the budgetary advances was made in September, 2003. Each institution has now begun its SAGA research.

Based on previously collected data, several working papers have already been released to which SAGA directly contributed. These include the following:

• "Decomposing Producer Price Risk: A Policy Analysis Tool With An Application to Northern Kenyan Livestock Markets," October 2002, Christopher B. Barrett and Winnie K. Luseno. This paper introduces a simple method of price risk decomposition that determines the extent to which producer price risk is attributable to volatile inter-market margins, intra-day variation, intra-week (day of week) variation, or terminal market price variability. We apply the method to livestock markets in northern Kenya, a setting of dramatic price volatility where price stabilization is a live policy issue. In this particular application, we find that large, variable inter-market basis is the most important factor in explaining producer price risk in animals typically traded between markets. Local market conditions explain most price risk in other markets, in which traded animals rarely exit the region. Variability in terminal market prices accounts for relatively little price risk faced by pastoralists in the dry lands of northern Kenya although this is the focus of most present policy prescriptions under discussion.

- "Social Identity and Manipulative Interhousehold Transfers Among East African Pastoralists," October 2002, Marieke Huysentruyt, Christopher B. Barrett, and John G. McPeak. We model interhousehold transfers between nomadic livestock herders as the state-dependent consequence of individuals' strategic interdependence resulting from the existence of multiple, opposing externalities. A public good security externality among individuals sharing a social (e.g., ethnic) identity in a potentially hostile environment creates incentives to band together. Self-interested interhousehold wealth transfers from wealthier herders to poorer ones may emerge endogenously within a limited wealth space as a means to motivate accompanying migration by the recipient. The distributional reach and size of the transfer are limited, however, by a resource appropriation externality related to the use of common property grazing lands. When this effect dominates, it can induce distributionally regressive transfers from ex ante poor households who want to relieve grazing pressures caused by larger herds. As compared to the extant literature on transfers, our model appears more consistent with the limited available empirical evidence on heterogeneous and changing transfers patterns among east African pastoralists.
- "Bayesian Herders: Asymmetric Updating of Rainfall Beliefs In Response To External Forecasts," February 2003, Travis J. Lybbert, Christopher B. Barrett, John G. McPeak, and Winnie K. Luseno. This paper fits within the SAGA theme of reducing risk and vulnerability in rural Kenya. It explores how east African pastoralists in northern Kenya and southern Ethiopia assimilate and adapt their rainfall expectations for the upcoming season to model-based climate forecasts released by the Drought Monitoring Centre in Nairobi. We find that those who receive and believe model-based seasonal climate forecasts indeed update their priors in the direction of the forecast received, assimilating optimistic forecasts more readily than pessimistic forecasts.
- "Smallholder Identities and Social Networks: The Challenge of Improving Productivity and Welfare," July 2003, Christopher B. Barrett. This paper proposes a general framework for resolving the puzzle of how to reconcile the mass of recent evidence on the salutary effects of social capital at the individual level with the casual, larger-scale observation that social embeddedness appears negatively correlated with productivity and material measures of welfare. It advances an analytical framework that not only explains individual productivity or technology adoption behavior as a function of the characteristics or behaviors of others, but that also explains the aggregate properties of social systems characterized by persistently low productivity. Examples from Kenya and Madagascar are used to illustrate the phenomena discussed.
- "Rural Poverty Dynamics: Development Policy Implications," September 2003, Christopher B. Barrett. This paper, prepared as a plenary address to the 25<sup>th</sup> triennial meetings of the International Association of Agricultural Economists,

held in Durban, South Africa, summarizes a few key findings from a rich and growing body of research on the nature of rural poverty and, especially, the development policy implications of relatively recent findings and ongoing work. Perhaps the most fundamental lesson of recent research on rural poverty is the need to distinguish transitory from chronic poverty. The existence of widespread chronic poverty also raises the possibility of poverty traps. Barrett discusses some of the empirical and theoretical challenges of identifying and explaining poverty traps. In policy terms, the distinction between transitory and chronic poverty implies a need to distinguish between "cargo net" and "safety net" interventions and a central role for effective targeting of interventions. The paper uses data from Kenya and Madagascar to illustrate the core points.

- "Fractal Poverty Traps," September 2003, Christopher B. Barrett and Brent M. Swallow. This paper offers an informal theory of fractal poverty traps that lead to chronic poverty at multiple scales of socio-spatial aggregation. Poverty traps result from nonlinear processes at individual, household, community, national, and international scales that cause the coexistence of high and low equilibrium levels of productivity and income and high and low rates of economic growth. Multiple equilibria result from key threshold effects that exist at all scales due to market failures and nonmarket coordination problems. Key implications of fractal poverty traps include (i) the importance of recognizing meso-level phenomena in addition to conventional micro- and macro-level issues, (ii) interconnections across social-spatial scales that foster or ameliorate chronic poverty, (iii) the importance of identifying and overcoming thresholds at which accumulation and productivity dynamics bifurcate, and (iv) the significant potential role of transitory donor and government interventions and safety nets to ignite sustainable growth among the poor.
- "Poverty Traps and Safety Nets," September 2003, Christopher B. Barrett and John G. McPeak. This paper uses data from northern Kenya to argue that the concept of poverty traps needs to be taken seriously, and that if poverty traps indeed exist, then safety nets become all the more important. However, as presently practiced, safety nets based on food aid appear to be failing in northern Kenya.

#### 3. Planned Activities:

In-country research partners will continue their specific field research and data analysis activities. We will hold the workshop on Mixing Qualitative and Quantitative Methods in March, 2004. Chris Barrett will travel again to Kenya in March, 2004, to consult with the Kenya-based team and to participate in that workshop. Students undertaking field dissertation research in collaboration with the SAGA program (David Amudavi, Heidi Hogset and Andrew Mude) will continue their field research. The project will continue to release original working papers.

#### C. Madagascar

# 1. Activities over the past 12 months

Our work on designing and planning the research agenda in Madagascar began this past year with discussions of the broader SAGA program with the Centre d'Etudes Economique (CEE)'s and USAID Mission. Those meetings initially focused on CEE's capacity, and the Mission's new strategy set to take effect October 1, 2003.

In terms of the major research themes to be pursued in Madagascar, health is one of the major foci of our expanding program. In that area, we have two areas of interest that are mutually reinforcing and intertwined. The first is our work on HIV/AIDS. Consistent with the Mission's interest in this area, we have been undertaking an analysis of existing data with Malgashe counterparts to examine HIV-AIDS knowledge and behaviors in the context of a country that currently has low HIV prevalence but is considered vulnerable to a rapid increase in incidence and prevalence.

The study, using data from the last (1997) Demographic and Health Survey conducted in Madagascar, estimates the individual, household, and community-level determinants of AIDS prevention knowledge, condom use, and related outcomes for women of childbearing age. The DHS is extremely valuable in that it includes a module on AIDS knowledge and thus allows us to address these questions. It is, however, less comprehensive than standard household surveys. To partially address this shortcoming, we have been able to supplement the DHS with the nationwide commune census conducted in 2001, which collected information on a number of aspects of local health, schooling, and other infrastructure that are likely to influence AIDS knowledge and behavior. In the months ahead, we anticipate working with the 2003 DHS to augment this study in order to assess how the levels of knowledge and behaviors have evolved over the past six years, and to explain the determinants of these changes.

The second major area of the health work relates to the SAGA themes of empowerment and institutions. Specifically, we have been working with the *Institut National de la Statistique* (INSTAT) and the Ministry of Health, with funding from and in collaboration with the World Bank, to conduct surveys of health facilities and their users. There are several main objectives to this project. First, informal accounts during the political and economic crisis of 2002 indicated that the crisis was having severe effects on the health sector and on the health of many segments of the population. We seek to investigate more systematically the effects of the political crisis, as well as the impacts of the end of the crisis and the new government's decision to temporarily suspend cost recovery on the utilization of public as well as private health services. Has demand for health services begun to recover, and in particular has it done so for the poorest groups? Second, the research seeks to understand the impacts of the crisis and subsequent elimination of cost recovery on the supply side as well—in particular, on the quality of services provided in public health centers. Third, the study has a more general but equally important aim: to provide a clear and comprehensive picture of the

functioning of the Malagashe public health sector some seven years into the policy of health sector decentralization, making use of detailed facility data.

The surveys were designed to be complementary to the 2002 household survey conducted by INSTAT. Households in 80 communities surveyed in the earlier effort were re-interviewed to obtain more detailed information on health care choices as well as assessments of recent changes in service quality, in particular since the removal of PFU (the cost recovery policy or *la participation financiere des usagers*). Since the numbers in household surveys using a given facility in standard reference periods tend to be small, a similar questionnaire was administered to users of health facilities in these communities. Finally, a detailed health facility questionnaire, designed with the help of Malagashe medical professionals, was administered in the same localities. The uniquely detailed facility survey provides information on personnel, availability of supplies and medicines, referral and treatment practices, organization and management, and changes that have occurred since the crisis and the elimination of PFU. It also collected financial information that can be used to study budget tracking and will gather data on oversight (e.g., visits from inspectors) and relations with local authorities.

The surveys were fielded together in the spring and summer of 2003, and the data have recently been entered by INSTAT. Joint analysis by INSTAT, Cornell, and the World Bank is scheduled to start in November, 2003.

In the context of the education theme, we are engaged in finalizing a research program with INSTAT and the Ministry of Education to provide a clearer picture for policy-makers of the determinants of primary and lower secondary schooling outcomes. This work is also designed to be comparable in research methods to a similar study being undertaken in Senegal.

The education system in Madagascar is characterized by resource inefficiencies and misallocations in the composition of public spending across educational levels. The quality of schooling from elementary to higher education is low, as are gross enrollment rates both at the primary and secondary levels, even when compared with the averages for Sub-Saharan Africa. In addition to low initial enrollment, grade repetition and dropping out of primary school before completion are serious problems in Madagascar. Consequently, few children proceed to lower secondary school. This problem also reflects the small number of lower secondary schools in the country and the significant distances many children would have to travel to attend them. Further, the lack of access to secondary schools may be inhibiting primary, not just secondary, enrollments. Parents often see the value of primary education in terms of gaining entrance to higher levels of schooling and the concomitant earnings and occupational benefits that result. If they expect to be rationed out of secondary school either through restrictions on places or through distance, they may choose not to enroll or keep their children in primary school.

For those who do make it to secondary school, repetition continues to be a problem. Finally, girls are at a particular disadvantage. Across all grades, repetition and

dropout rates are systematically higher for girls than for boys. Clearly, the ability of the country to increase its human capital, which is essential for development, has been seriously weakened. Our research is therefore focused on understanding the factors at different levels—household, school, and community—that affect education outcomes in Madagascar, particularly for primary and lower secondary schools. More specifically, the research has multiple objectives, reflecting (as well as determining) the broad nature of the data that will be available for the analysis. The objectives pertain to three main subject areas: (1) determinants of school enrollment and grade attainment, (2) determinants of learning, both academic (as measured by student test scores) and non-academic (acquisition of life skills), and (3) development of empirical methodologies that are applicable and appropriate to the Malgashe context. 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, and migration and health and their relationships to education.

In addition to the work on health and education themes described above, CEE has an interest in urban poverty dynamics and urban labor markets. We therefore continue to explore with them the use of the 2001-2003 EPM (Enquête Permanente auprès des Ménages) survey to explore household-level poverty dynamics at a national level with INSTAT and the link between asset holdings, livelihood strategies, and welfare dynamics to explore poverty traps and vulnerability. In addition, we have encouraged them to use and build on BASIS FOFIFA (Center for National Agricultural Research) data to explore linkage between agricultural production and marketing and natural resource management patterns at household level (e.g., soil and welfare dynamics), to determine why some people do not make the jump out of poverty and what can be done to help them climb out of poverty?

Similarly, based on the confluence of Mission interest and the thematic areas of SAGA, we would are beginning to both link the poverty dynamics work with the PRSP team, as well as blend those areas of analysis with our poverty traps and rural vulnerability work. Among the issues that the Mission would like to see tackled are what are the high value agricultural products that could help stimulate sustainable agricultural intensification here? Similarly, there is an interest in looking at how rural household portfolios can be adapted to stabilize and increase well-being. The PRSP and Ministry of Agriculture are key audiences here.

### 2. Institutional linkages/collaborators:

In terms of institutional arrangements, CEE, Madagascar's SISERA institution is within the Department of Economics at the Université d'Antananarivo, and thus closely linked to the university. It previously worked under EAGER with Harvard on a variety of macroeconomic and financial sector topics. The scale of CEE is quite limited. In addition, much of CEE's major research interests are somewhat outside the core research themes of SAGA. Specifically, CEE is 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. Nonetheless, there is shared concern about ensuring integration of research design and results reporting into policy discussions. We have therefore pursued, in consultation with CEE, a strategy where our major direct partners in the research activities themselves will be INSTAT, Ministry of Education, FOFIFA and the Ministry of Health. CEE will play a coordinating role and also and organizational role in starting a policy research forum with these various institutions, designed to promote greater integration of research findings into the policy-making process. In addition, given that the key researchers from INSTAT, FOFIFA, and the Ministries have formal academic appointments in the Department of Economics at the Université d'Antananarivo, CEE's home, this approach will hopefully serve to strengthen CEE's institutional competency as well. Further, by funding CEE to coordinate research dissemination and policy dialogue, we will hopefully increase their visibility and integrate them more into research networks, especially those with strong extramural collaboration (e.g., INSTAT-FOFIFA-Cornell).

#### 3. Planned Activities

The next six months of activity will focus on the completion of the initial paper on HIV/AIDS, the analysis of the second Demographic Health Survey data with a focus on changes in HIV/AIDS knowledge and risk behaviors, the analysis of the health facilities and user survey data and related report preparation, the design and conduct of the education survey, and the further definition of the work that will focus on risk, vulnerability, and poverty dynamics. In addition, we will begin planning a workshop on the health research in the spring of 2004. A second workshop that will focus on the results of the education work is planned for the fall of 2004. We are also discussing the timing of a third, larger conference that will integrate results from all aspects of the SAGA agenda, possibly in beginning of 2005.

#### D. UGANDA

### 1. Activities over the past twelve months

As discussed in our previous report, a key focus of the SAGA research effort in Uganda is to make better use of existing data, of which there is an abundance, but which gets relatively little use. To date, researchers at the Economic Policy Research Centre (EPRC) and Cornell have started nine research papers, all of which make use of existing data, primarily national surveys of household income and expenditure (IHS and NHS) and the Demographic and Health Surveys (DHS). Those projects, their principal investigator(s) and status, follow.

• Determinants of Poverty Dynamics (Ashie Mukunge and Ibrahim Kasirye). This paper uses the 1992-1999 panel of households in the Integrated Household Survey (IHS) and National Household Survey (NHS) to model change in poverty status

over time. A draft is circulating internally for comments, and the authors expect to release a working paper version before the end of the year.

- Multidimensional Intertemporal Poverty Comparisons (Stephen Younger). This paper uses the 1992 IHS and 1999 NHS cross-sections to compare poverty over time in Uganda, where poverty is measured is multiple dimensions. In particular, the author considers household expenditures per capita, children's nutritional status (height), and mother's literacy. Results are less optimistic than univariate comparisons of expenditures (e.g., Appleton, 2001), with some regions and areas not showing multivariate improvement. A draft is circulating internally for comments, and the authors expect to release a working paper version before the end of the year.
- Multidimensional Spatial Poverty Comparisons (Stephen Younger, David Sahn, Jean-Yves Duclos). This paper builds on Duclos, Sahn, and Younger (2003a, 2003b) to make spatial poverty comparisons when poverty is measured in the dimensions of household expenditures per capita and children's nutritional status (height) in Uganda and other African countries. Most regional comparisons are consistent with prior expectations based on univariate poverty comparisons based on expenditures alone. However, comparisons of rural areas in one region with urban areas in others are more nuanced, with rural areas in some regions actually appearing less poor than urban areas in others. The Uganda results are published in Duclos, Sahn, and Younger (2003b), and the authors are now adding results from other countries for this paper.
- Modeling Infant Mortality over Time (Sarah Ssewanyana and Stephen Younger). This paper, like the previous two, will address the concern in Uganda that not all dimensions of well-being are improving as rapidly as incomes. It will use birth history recall data from the DHS to construct time series for infant mortality from the mid-1970s to 2000. It will then model infant mortality rates, attempting to understand how both macro and micro variables have influenced mortality rates over time. To date, the authors have a preliminary set of results. They expect to have a draft ready before the end of the year.
- *Modeling Behavior and HIV/AIDS* (David Sahn and Peter Glick). This research will model a variety of behaviors that both determine and are affected by HIV/AIDS transmission in Uganda. Using DHS data, the authors will examine the impact of knowledge about HIV/AIDS and other public interventions on the probability of choosing to be tested for HIV, condom use, and sexual activity. The authors have preliminary results and expect to complete a draft in early 2004.
- *Tax Incidence* (John Matovu and Margaret Banga). This study will examine the incidence of taxes in Uganda in 1999, updating a previous study by Chen, Matovu, and Reinikka (2001) for 1992 data. A particular concern is to look at the graduated tax, which is a main source of revenue for districts and thus key to

Uganda's decentralization plans. Both participatory assessments in Uganda have found this tax to be extremely unpopular. The authors have begun their analysis and expect to complete a draft early in 2004.

- Demand for Health Care Consultations (Sarah Ssewanyana and Stephen Younger). The 2002 round of the National Household Survey has an unusually rich set of information on respondents' access to health care and the quality of those services. This paper will use this information to estimate the demand for public and private health care. Given that user fees were recently abolished, understanding these demands is particularly relevant for policy makers in Uganda. The authors expect to begin work early in 2004.
- Public Water Supply and Women's Time Use (Peter Glick and Stephen Younger). This paper uses an econometric analysis to ask whether public investments in water supply will reduce the work burden on females relative to males. It considers the implications for time allocated to the following activities: water collection itself, all domestic activities, market oriented work, and leisure. The preliminary results suggest that, in Uganda and Madagascar, such investments can have at best only limited impacts on time use and the gender distribution of work and leisure. The authors have an extensive set of results, and they plan to prepare a draft before the end of the year.
- Agricultural Commercialization and Children's Nutritional Status (Godfrey Bahiigwa and Stephen Younger). This paper responds to a direct request and concern of the Ministry of Agriculture in Uganda. The Plan for the Modernization of Agriculture (PMA) is a central feature of Uganda's poverty reduction strategy. The PMA, in turn, aims to promote the transformation from subsistence to commercial farming. This strategy has raised the concern, however, that commercialization may have negative consequences for children's nutrition. While available evidence casts doubt on this concern (e.g., von Braun and Kennedy, 1994), examining the issue for Uganda-specific data will be more persuasive for Uganda's policy-makers. Authors plan to begin work in early 2004.

#### 2. Planned Activities

To further the research projects outlined above and to explore others that we may undertake in the future, Stephen Younger visited Uganda three times during the project year, in November 2002, June 2003, and August 2003.

With the expectation that most, if not all, of these projects will be completed by March, 2004, Cornell and EPRC are planning a conference for early in 2004, to be held in Kampala, at which authors will present their papers. This will be accompanied by a briefing of shorter duration for policy-makers to discuss the recommendations and relevance of the research.

#### E. SOUTH AFRICA

# 1. Activities over the past 12 months:

The objective of SAGA in South Africa is to help the Development Policy Research Unit (DPRU), South Africa's SISERA Institution, to build its capacities to conduct research in the broad areas identified in the SAGA proposal, refined and specified further in collaboration with DPRU itself. Over the past 12 months we have developed a broad strategy comprising a number of building blocks:

• Labor markets in South Africa.

DPRU produced its highly successful "Fighting Poverty" report with AERC support three years ago. SAGA helped DPRU prepare a reapplication for a second stage of support focusing on labor markets. This application has been successful. Although not financed by SAGA, this work complements the work being financed by SAGA on poverty and labor markets in South Africa.

• The evolution of poverty in South Africa in the-post Apartheid era.

In our initial discussions, we developed a proposal for using the Income/Expenditure Household Survey (IES) 1995 and IES 2000 to give a picture of how poverty evolved in South Africa in the first five years after the fall of Apartheid. However, there have been growing doubts about the quality of IES 2000. A meeting attended by DPRU at the Centre for Social Science Research (CSSR) confirmed that the IES 2000 data is unreliable and unusable in its current form, due to various problems. We therefore have no reliable income or expenditure data and, as a result, parts of the original proposal as it stands are not workable.

The proposed way forward for this project is to use other datasets for the comparison. As the baseline, we can still use the October Household Survey (OHS) 1995 and the Census 1996 10% sample, and for comparison, the various Labor Force Surveys (LFS) of 2000, 2001, and 2002, as well as the Census 2001 10% sample once it becomes available. The LFSs have a certain section, of which the questions change from survey to survey. These questions match with parts of the OHS 1995, allowing for comparison. Spatial analyses may be carried out on the two 10% Census samples. No direct income/expenditure comparisons will be carried out.

For the period 1995-2002, therefore, these are some of the issues that can be analyzed:

- Labor market trends (relatively unaffected by problems):
  - o Employment, unemployment, underemployment, labor absorption, sectoral and occupational distributions, formal/informal sector
  - o Sensitivity to gender, age, race, education, location.
- Labor Markets and Vulnerability:
  - o Concentrations of unemployed across deciles
  - o Access to income by income type of the unemployed
  - o Characteristics of unemployed (including education/literacy)
- Poverty correlates:
  - o Concentrations of elderly/children across deciles (including dependency ratios)
  - o Access to income by income type across deciles
  - o Access to state welfare structures (take-up, grant types) across deciles
  - o Access to health services, modern water and electricity networks
  - o Average years of education
  - o Housing: type of dwelling, construction materials, sanitation, size

#### • *Education and poverty*

Although the two projects discussed above touch on education, given its importance in South Africa, DPRU proposed a study focusing specifically on education, exploiting specific data sets that have not been extensively used before. SAGA helped DPRU develop a proposal, "Human Capital Outcomes in South Africa: The Role of Primary and Secondary School Institutions." This proposal has been submitted to SISERA, and we are awaiting the outcome of that submission.

#### • *Papers on poverty and policy*

We are planning to commission a number of papers in various aspects of poverty and policy in South Africa. After discussions with USAID-South Africa, the following preliminary list has been identified:

- 1) An assessment of IES 2000
- 2) Evolution of poverty and inequality, 1995-2000
- 3) Evolution of poverty and inequality and labor markets using the 1995 and 2002 LFS/OHS
- 4) Education and poverty
- 5) Inflation and the Poor
- 6) Is Public Expenditure Pro-poor?
- 7) Openness, Trade and Poverty.
- 8) Exchange Rate Volatility and poverty

- 9) The earner/non-earner composition of poor and non-poor households, with implications for the impact of minimum wages on unemployment and poverty.
- 10) HIV/Aids and Poverty using the 1998 DHS.
- 11) Crime and poverty
- 12) Poverty Maps for South Africa.

We are in the process of identifying authors, and planning in conjunction with an upcoming DPRU conference (see below).

• Support for DPRU conference on poverty and policy in South Africa, October 2004.

We have begun planning for a major conference on poverty and policy in South Africa, to be organized by DPRU in October, 2004. Some of the papers prepared for the project noted above will be presented at the conference, but the conference will have a wider catchment of scholars from inside and outside South Africa. It will raise DPRU's profile as South Africa's premier institution for poverty analysis.

# • Outreach support.

Ravi Kanbur has been involved in a number of outreach activities at the request of USAID-South Africa and DPRU. He has addressed Parliamentarians on the issue of globalization and poverty, made presentations to South Africa Treasury staff on a range of issues, and has become a peer reviewer for the Fiscal and Finance Commission for their next report to Parliament. The research collaboration with DPRU has complemented well the training course on poverty analysis that Cornell and DPRU held in Cape Town for staff from Historically Disadvantaged Universities

#### 2. Planned Activities

The next six to twelve months will see advancement on the projects listed above. We expect first drafts of results from the labor markets, education, and poverty projects, as well as first drafts of the commissioned papers. The major DPRU conference will take place in October, 2004.

#### F. West Africa

# 1. Senegal – Education and Vulnerability

# **Activities over the past 12 months**

As noted in the previous annual report, our consultations in the West Africa region quickly focused our attention on issues of the low educational attainment in the region, lagging cognitive skill development, and the large gender bias in schooling. By the early 1990s, the education system in much of West Africa had fallen into a state of crisis. Reflecting resource inefficiencies and misallocations in the composition of public spending across educational levels, and substantial degradation in the quality of schooling from elementary to higher education, gross enrollment rates both at the primary and secondary levels fell to levels that were low even when compared with the averages for Sub-Saharan Africa. Teacher shortages are climbing along with the pupil-teacher ratio at the primary level. In addition to low initial enrollment, grade repetition and dropping out of primary school before completion are serious problems. Various stakeholders were also concerned with the lack of access to secondary schools that may be inhibiting primary, not just secondary, enrollments. Most important, perhaps, is the particular disadvantage of girls in all grades, as manifest by higher rates of repetition and dropout.

Thus, one of our major research foci is to investigate the household, community, and school-level determinants of the following education outcomes in Senegal and Côte d'Ivoire: primary and secondary enrollment, school level transitions and progress through school, grade repetition and dropout rates, and learning—both academic (math and French test scores) and non-academic ("life-skills") to address the following types of questions.

- What are the main determinants—at the household, school, and community levels—of primary and lower secondary enrollment? How do these factors affect the choice of school when there are different alternatives available to the households (e.g., public, private, community school)?
- Why do so many children drop out of primary school before completion, or interrupt their primary schooling for significant periods? Do children drop out because they perform poorly in school, i.e., obtain low grades or test scores? Or do children stop going to school (permanently or temporarily) as a result of asset, income, or health shocks to the household, for example the illness of a parent that requires the child to work on the farm or in the home? Are the same factors also associated with grade repetition?
- For those who complete primary school, what determines transition to lower secondary school and the progression through secondary school? That is, what is the importance of the distance to school or rationing of places? Of academic performance in primary school? Of household economic status (income, wealth)?

How do girls' probabilities of transition to, and continuation in, secondary school differ from boys, and why? Do children who do not continue in school enter the labor market or work in productive activities in the home, and if so, in what specific activities?

For student achievement, we seek to address the following questions:

- What are the determinants of student learning as measured by test performance? For example, at the household/individual level, what are the roles of maternal and paternal schooling and household income? Is poor health and nutrition of the child a significant deterrent to learning?
- What are the effects on learning of school and teacher factors such as teacher qualifications and gender, and how do these vary by grade level? Do girls who have a female teacher score better on tests? How do school and classroom management factors—staff management and monitoring practices, pedagogical practices, the use of double shifting and multi-grade systems, etc.—affect learning?
- Beyond standard academic skills, is schooling effective at imparting knowledge of important 'life skills' such as good health practices that non-schooled children are not able to learn, or learn as well? What kinds of schools or school characteristics are associated with better acquisition of these skills?
- Do children who stop their schooling after several years of primary education, or after completing primary school, retain the skills and knowledge they have learned, or is this knowledge lost?

The project is a collaborative research effort that will involve, in addition to Cornell, institutions in Senegal such as Confemen Education System Analysis Program (PASEC), Centre de Recherche en Economie Appliquée (CREA), the Ministry of Education, the national statistics agency (Direction de la Prevision et de la Statistique), and Institut National de l'Enseignement Appliqué et de la Didactique (INEAD); and in Côte d'Ivoire, Ivoirian researchers at Ecole Nationale supérieure de Statistique et d'Economie Appliqué (ENSEA) and Centre Ivoirien de Recherche Économique et Sociale (CIRES), as well as French researchers from Institut National de la Recherche Agronomique (INRA). Given the expense of data collection associated with this activity, we are also actively working with the French Ministry of Development Cooperation and the World Bank to secure funding for local survey costs.

Most of the previous 12 months was dedicated to working with our partners to design and implement the household survey described above. We have completed the survey, and the data entry is now in its final stages. In addition, we have begun to clean the data and prepare analysis files. We expect all the analysis files to be prepared by the end of the calendar year. Overall, the efforts involved in conducting this large and

uniquely comprehensive survey were a major accomplishment. It involved over eight trips for the SAGA research team to Dakar in the past year, and approximately one person year of our team being on site during this period. In addition, numerous Senegalese institutions were engaged, as were some 50 enumerators and supervisors.

# Activities anticipated over the next six months

Over the next three months, we will work with our collaborators to conduct the analysis. CREA, Cornell University-USAID, INRA, the World Bank, UNICEF and the Ministry of Education are planning two large conferences with a broad range of stakeholders, researchers, and policy-makers in the next year to disseminate the research results. The first is planned for March, 2004.

# 2. Community Schools and Distance Learning

The ongoing political conflicts in Côte d'Ivoire impeded progress on the research program for the community schools and distance learning. The research on community schools is to be conducted in Côte d'Ivoire and Senegal and the distance learning in Côte d'Ivoire and South Africa as discussed below.

#### A. Distance Education

During a recent visit to Abidjan, N'Dri Assie-Lumumba held a series of meetings with the team researching distance education and the development of human resources for education to support enrollment and internal efficiencies. This visit involved joint meetings, first with the Director of the Centre Ivoirien de Recherche Economiques et Sociales (CIRES), Professor Mama Ouattara, and the Director of the Centre d'Education à Distance-Côte d'Ivoire (CED-CI), Dr. Kouassi Yao, and then with Professor Ouattara, Dr. Yao, sixteen CIRES faculty and researchers, and the CIRES librarian. A concluding meeting was attended by Professor Ouattara, two senior CIRES faculty members, and Dr. Yao to summarize the main points raised and discussed so far and to design plans for moving forward.

The main purpose of these sessions was to identify topics for basic and applied research that will improve enrollment and internal efficiency through distance learning programs for teachers. An initial research topic that came up was to analyze the determinants of technological adoption before studying specifically distance learning and teacher training in order to improve educational output. It is also important that the research and proposals are tailored to the different capabilities as CIRES has a greater capacity for basic and empirical research while CED-CI is more involved in technical work. It was agreed that a joint proposal would be prepared in the coming weeks. As research on distance education will also be conducted in South Africa, members of the Ivorian team are looking forward to establishing working relationships with their South African counterparts.

The prospect for institutional collaboration at both the national level and with South African institutions was very well received. Although the political situation is a major hindrance to most of our activities, unlike in the case of the community schools research, it is possible to start the research on distance learning right away. There was a shared sentiment that given the devastating impact of the conflict on the educational system -- including the refusal of displaced teachers to return to their previous posts coupled with the impact of HIV/AIDS on morbidity and mortality among the teachers -- it is critical that they make preparations to provide qualified teachers in the near future. Thus our research agenda, given its applied component, is considered by the Ivorian team to be right on the mark.

#### B. Community Schools

The ongoing political context in Côte d'Ivoire and the fact that the schools and localities to be included in the study are in the areas still controlled by the "rebels" has adversely affected progress in this area as well. However, contacts have been maintained with the Ministry of Education in Abidjan, especially the unit in charge of the community school (écoles non-formelles). Continued work on mapping the needs has been shared. For instance statistical representation of the different regions based on socio-economic capacity and hitherto enrollment rates. Additional work will be needed to fully assess the actual needs following the destructive impact of the armed conflicts.

More preparatory work was done in the case of Senegal under the direction of Dr. Assie-Lumumba by a Senegalese researcher, Marième Lo. She visited a variety of sites with the purpose of locating the community school within its social environment and to draw a situation analysis, assessing challenges and potentialities of current programs, as well as areas of innovations. A wide spectrum of actors, stakeholders and intended beneficiaries were interviewed primarily to revisit assumptions about community schools and obtain a first-hand account of the prevailing situation regarding the development of community schools and update about the current and emerging issues.

The actors who are key players at various degrees in the conceptualization, implementation, monitoring and follow-up of the community schools activities and who were interviewed include:

- The Association des Parents d'Elèves, members of the management committee;
- Teachers of the community schools often referred to as volunteers given their status in the education system and their precarious situation;
- The donors that provide most of the funding as well as orientation of the community school;
- The local authorities that enable the establishment of the community school, oversee its relationship with the community and exercise decision making prerogatives;
- The operators which serve as a liaison between the community school and the donor community and the IDEN (*Inspection Départementale de l'Education*);

- The IDEN that oversees the set-up, operation and maintenance of the community school in compliance with the national regulatory guideline and protocol. It also provides training of teachers, and ensures quality of the teaching. It serves as a liaison between the community school and the central education system and Ministry;
- Youth graduates of the community schools;
- Enrolled students; and
- Community school administration.

Several options of the community school concept are being tested.

In the diagnosis of the community schools, key thematic issues and enduring concerns not bounded by time or location are the following:

#### Entrance and exit conditions and criteria:

Official documents codify the structure, form, content and mechanisms of operation of the community schools and the community schools devise internal strategies and adopt regulatory frameworks as prescribed by the Ministry of Education. It is common to observe rules and regulations, mobilization strategies and alternative mechanisms devised by communities to meet the unaccounted demands of the local community, respond to social situation that even jeopardize the very existence of the community school.

The structure of the community school and the role of the "comité de Gestion," management task force in decision making regarding the school location, enrollment fees, teacher hiring and salary, as well monitoring enrollment and maintaining children in school, sanctions. It seems that the community members, the comité de gestion and the APE exercise power in specific domains, such as deciding the amount of the enrollment fees, disciplinary measures, teachers salary of which the communities are partially or entirely responsible of, but they not have so much influence in the areas of curriculum and school calendar.

Comité de gestion is elected and consists of 5 to 6 members, among which one or two women in most cases. Thus a number of questions can be raised as to whom the community represents, who has voice in decision making, and where do women stand on the decision ladder.

#### The school social environment:

The interrelation between the school physical environment, learning environment, population, facilities and their incidence on the learning /teaching transactions and the overall performance of the community schools. The existence of an enabling and constricting socio-economic environment contribute to the success or failure of the community school, which relies on accessible and flexible delivery mode of education,

cost effective and beneficial to the whole community. The typology of the community, its degree of homogeneity or diversity level of motivation and mobilization capacities are identified as elements that have an incidence on the school functioning, financing, parents association leadership, enrollment and maintenance level.

Community resources mobilization strategies to support basic education, the community schools in particular, existing cases of community self-reliance in the financial management, and short term sustainability of the school. The motivation and sacrifice of the community to successfully establish a community school and provide the labor and material resources for its maintenance through collective endeavors (collective gardens, income generating activities) is a case in point, the exception but not the rule in communities where human and material resources are scarce.

This exemplifies, to some extent, the connection between women's associations, income generation activities and the community school and it also suggests alternative strategies especially the community-based resource mobilization strategies toward education finance. It raises, however, the question of the preconditions and potentials of alternative community-based resource (human, material and social) mobilization strategies for education and also an ethical question of equity, mainly the extra burden on communities at grips with competing demands for survival to devote scare resource to education at the expense of other life threatening needs.

Community differential resource base and assets seem to have differential impacts on community school functioning, staffing, administration and sustainability, quality of instruction and results.

### The role of income generation activities in the community school:

Most people interviewed are in favor of embedded income generating activities to the community schools for pedagogical purposes, to provide hands—on learning experiences to the learners/students and bring a stronger linkage between the community school and the community.

This aspect is highly debated among the donor community. Some support the development of income generation activities as an additional source of funding while others support the income generation activities for a pedagogical support of classroom instruction. This debate is anchored also in the overall vision of the community school finality as *passerelle* or insertion. The donors who support the *passerelle* option seem less inclined to supporting the development of income generation activities.

The *passerelle* option also reflects specific donors' reaction to the use and maintenance of local languages, and encourage official languages, French in the case, as a medium of instruction.

The options are mostly based on policy and decisions of the government in cases where the community school is funded bilaterally. It is left to the discretion of international NGO to promote either *passerelle* or insertion. Some donors prefer the *passerelle* option and impose such vision through funding mechanisms.

In contrast, others suggest a new form of community schools, a format in which promotes the professional insertion in the labor market and the acquisition of practical skills for workforce development (new USAID pilot programs in Saint Louis).

**"Innovation".** The new concept of community schools is referred to as "*Ecole Communautaure de Base Articulée*" a school better adapted to the community's needs, the learning needs and the opportunities for a "*formation diplomante*", qualification for the job market.

The "Ecole Articulée" is presented as an innovation based on lessons learned from the previous mid–term evaluation of the PAPA program.

Typically, the school is set up within *Centre Régional d'Enseignement Technique Féminin*. So far, 20 centers exist in Senegal at an experimental phase. The question that was asked was whether the center will replace the ECB in the long term; there was no definitive answer. It seems that both the ECB and the "*Ecole Articulée*" will exist concomitantly until a decision is made about which one to promote, or which one will prevail and survive as a desirable alternative.

Most people interviewed from the Ministry are in favor of the "*Ecole Articulée*". However, by its very location, mostly in urban centers, and attached to an exiting institution, the community's influence becomes marginal. There is no agreement among the donor community to support the "Ecole Articulee" as the prototype.

### **Typology of the community school:**

What are the determinants of an effective community school? What criteria to measure success? It seems that the only criteria to assess students' performance, quality of instruction, and teachers' performance are the entrance exams. They mark a turning point and are an essential benchmark in the life of the community school and the future prospects of its students.

It is also a yardstick that the management committee comprised of students' parents, to assess the performance of the staff, teachers in particular. The school environment, provision of learning material, the material conditions of instruction, internal and external factors are not broached in the evaluation of performance.

No evaluations aimed at locating and tracing the graduates have been systematically conducted. Little attention or follow up seems to be devoted to the cohort once it graduates. The question of options and opportunities offered or not to the

graduates from the community schools and assessment of the impacts and relevance of the community schools attract little attention from the decision makers.

# **Determinants of quality:**

Social environment of the schools, quality of instruction, teachers' education level, training and development/motivation.

Life history of the community schools along with a longitudinal study of the community school over a four year period, a generation, will certainly provide a sound basis for analysis of a) the survival mechanisms of community schools; b) the chances of survival of community schools after the withdrawal of PAPA and the operators; c) follow up graduate students, their insertion in formal public schools or insertion in the labor market, and d) Community readiness and strategies for l school maintenance and sustainability.

Fundamental questions of inequality and equity are not solved by the mere existence of the community schools in underserved areas. Overriding concerns pertain to the lack of sense of ownership of the community members, lack of capacities to manage efficiently the community schools and long-term vision for sustainability. Instructional support is limited.

# Community level of information and involvement in the community school:

In most cases, the community school is externally driven from its inception. The community is not fully aware to support the school, bear the long-term cost of the school. Hence the opportunity cost incurred to farming families, and the enduring debate over the relevance of school. The issues identified relate to the lack of sense of ownership of the community members, subsequent lack of capacities to manage efficiently the community schools and long-term vision for sustainability.

The presence of the school in a community may bridge the physical distance but the psychological distance still prevail. There are cases of creative solutions that emanate from communities: community collective cereal banking systems; collective gardens; homestay village feeding programs to create the enabling conditions for students' maintenance in school and completion and to reduce dropout rates and promote access to education for all.

### **Curriculum in the community school:**

In Senegal, curriculum is supervised by the IDEN (Inspection Départementale de l'Education). Yet flexibility is encouraged. However, access to teaching material, textbooks are problematic. Also the emphasis on the community needs, the relevance of the teaching to the milieu and community priorities are formidable challenges to reconcile quality and relevance.

Aide et Action is conceptualizing a manual. Another question concerns the articulation of the curriculum to provide life skills to the youth, and to prepare them to entrepreneurship. The linkage between micro-project, youth entrepreneurship and curriculum is attracting increasing attention especially in the new concept of the community school, the "Ecole Communautaire de Base Articulée", in light of the poor insertion potentials of the first generation of community schools student in Senegal.

### **Evaluation of impacts: what are the impacts of the community school?**

Several success stories were told and important information has been collected from them. But the criteria to measure success are subjective to interpretation. In Senegal the enrollment level is still very low to really have an impact in the overall national enrollment rate. Gender equity in enrollment seems to be a concern and completion rate are still lower among girls.

Relationship and degree of mobilization of local communities seem to be a measure of success. The level of internal resources mobilized is mentioned as a predictor of success. Quality of education, performance, admission rate to formal school system and secondary school are mentioned as critical factor of success. But community level impacts do not prevail in the impact analysis.

# **Seizing opportunities for Actions:**

The engagement and collaboration with the key stakeholders were invaluable to enhance the relevance of the research, to contribute to the on–going initiatives and reflect on new alternatives and practices.

Since elements of participatory learning approaches were integrated in the research methodology, it was possible to engage in problem solving activities, mainly with the parents' associations of community schools students, the APE, the management committee, and school directors, to address constructively some of the issues they were grappling with. The expressed mutual interest provides a unique opportunity to integrate action, participatory learning exercises, brainstorming, strategic planning and problem solving exercises.

There seems to be great potential for multi-stakeholder partnership for education, to reach out to all segments of the population, the private sectors as well as individual good will and volunteer to bring a building block in the enduring challenge to provide quality education to underserved students in marginalized areas.

### **Planned Activities**

The research proposals for the distance education will be finalized in the next few weeks. As soon as the situation in Côte d'Ivoire permits we will proceed with the study

in both countries (Côte d'Ivoire and Senegal). Likewise, the work on Community Schools is set to continue and expand over the next year.

### III. TECHNICAL ASSISTANCE (TA)

Technical assistance under SAGA has included three types of activities: formal training workshops, support to SISERA's research competition, and support to individual SISERA institutes in proposal preparation, planning research projects, and executing those projects.

# Workshops

Ravi Kanbur, Paul Cichello, and Stephen Younger worked with the Development Policy Research Unit (DPRU) of the University of Capetown (UCT) to offer a two-week training course in poverty and inequality analysis for faculty and staff from the historically disadvantages institutions (HDI's) in South Africa. The workshop was held at UCT from June 23 to July 4, 2003. The course covered both theoretical and empirical aspects of poverty and inequality analysis, with daily hands-on training with Stata software in UCT's computer lab.

The immediate results of this workshop have been good on two fronts. First, participants' feedback was quite positive, with great demand for follow-on courses. (See attached summary of the course evaluation.) Second, word of the workshop's success spread quickly in South Africa, leading to demand from two other institutions for similar workshops. The Department for Social Development (DSD), the government department that handles all the country's income transfer schemes, has asked DPRU and Cornell to run a poverty and inequality workshop for its staff, with emphasis on empirical analysis. We have tentatively scheduled this workshop for March 23-April 2, 2004, in Pretoria. The Southern Africa office of the United Nations Development Programme (UNDP) has expressed interest in such workshops for researchers in government and universities at other sites in southern Africa. Talks are continuing on the feasibility of such workshops.

In addition, participants gained an appreciation for the importance and the utility of household survey data. Since release of existing data has become a political issue in South Africa, adding a new group of university researchers to those lobbying for open access is a positive development. This is particularly important in the South African context since all but two of the workshop's participants were black African or of mixed race, while most existing poverty researchers in South Africa are white.

In August, Christopher Barrett and Stephen Younger both made presentations at a workshop on "Analytical Tools for Poverty Research" at the International Association of Agricultural Economists meetings in Durban, South Africa, with support from SAGA. The workshop was very well-attended and, because the meetings were held in Africa this year, the majority of participants were African scholars.

#### **SISERA Proposal Review**

As per the mode of operation described in last year's report, Stephen Younger continues to pre-screen proposals submitted to SISERA's research competition. This includes recommendations to improve proposals, where appropriate, and suggestions for international experts to "coach" proposals through the preparation and review process. To date, we have reviewed 44 proposals, three of which SISERA has funded, with two of the three being multi-year projects.

## Support to Research at SISERA Institutes and other African Institutions

In Ghana, Ravi Kanbur helped to organize a meeting at ISSER to discuss the dramatic disconnect between quantitative and qualitative appraisals of poverty in Ghana. Participants from Ghanaian academia, civil society, and government highlighted resolution of this disconnect as a priority for research. But it was also recognized that we are some way away from being able to conduct joint analysis using the two methodologies in a complementary framework. A first step would be for the two sides to come together for a dialogue to establish common ground and methodological basis for designing a joint project. It is for this reason that ISSER organized a second meeting in Accra on May 21-22, 2003. The participants included leading analysts in the two traditions from inside and outside Ghana, from academia, civil society, and government. Participants discussed studies on Ghana conducted in the two traditions to better appreciate each other's perspectives. Beyond this, participants made proposals towards designing specific studies to assess poverty in ways that attempt to combine qualitative and quantitative methods in complementary fashion. This workshop will serve as a model for similar meetings in other African countries. (See Planned Activities, below.)

In Senegal, Leopold Sarr spent 6 months at Centre de Recherche en Economie Appliquée (CREA) assisting in the design and implementation of the household, community, and school surveys. He provided overall supervision of the effort and worked closely with a range of technical staff from CREA on all aspects of the work, ranging from logistic planning and questionnaire design, to financial management.

In Madagascar, David Sahn, Peter Glick, and Bart Minten worked with CEE and the Ministry of Health to design, conduct, and analyze the health facilities survey and user survey discussed above. Also in Madagascar, Cornell staff worked with INSTAT and the Ministry of Education to prepare a proposal to study the impact of community, school, and household factors in determining demand for education. This proposal has subsequently been submitted for funding to the World Bank.

In Uganda, Stephen Younger continues to provide support to young professionals at EPRC who are carrying out SAGA-related research. Projects include an analysis of poverty changes in Uganda (Ashie Mukunge and Ibrahim Kasirye), demand for health care services (Sarah Ssewanyana), tax incidence (Margaret Banga), and agricultural commercialization and poverty (Godfrey Bahiigwa).

#### **Planned Activities**

# Further Workshops in South Africa

As noted above, the Cornell/DPRU workshop in South Africa generated much demand for similar workshops at other institutions, and further training of the HDI staff that participated in the first workshop. Given the limited funds available for TA activities under SAGA, and a presumed desire to be equitable in the allocation of those funds, further funding from SAGA for TA activities in South Africa seems unlikely. Nevertheless, other funding may be possible, in collaboration with SAGA. Funding for a workshop at DSD has been committed, and funding from UNDP for similar workshops elsewhere in southern Africa looks promising. In both cases, SAGA's financial contribution would be minimal. Funding for further training of the first workshop's participants, however, is uncertain.

# Qualitative and Quantitative Methods Workshops

Initial consultations with SISERA directors revealed great interest in the simultaneous use of qualitative and quantitative methods for poverty analysis. Fortunately, Cornell is at the forefront of this emerging field. (See, e.g., Kanbur, ed., 2003, Q-Squared: Qualitative and Quantitative Methods of Poverty Appraisal. Delhi: Permanent Black.) After consultations with SISERA, we recently sent invitations to SISERA institute directors to participate in a series of workshops on this topic. The first workshops will be in-country, bringing together qualitative and quantitative researchers to compare and contrast (amicably!) their methods and findings on poverty. Cornell will provide at least one expert to facilitate these discussions. The ISSER workshop mentioned above is a model for this meeting. The goal is to complete these workshops by mid-2004. Then, following the international conference on Qual/Quant to be held in Toronto in June, 2004, SAGA will organize a continent-wide methodology workshop, bringing together one or two qualitative and quantitative researchers from each incountry workshop and a group of international practitioners. The goal of this meeting will be to foster research proposals that use qualitative and quantitative together in poverty analysis.

### IV. COMPETITIVE RESEARCH GRANTS PROGRAM (CRGP)

Since the inception of the grant program, the SAGA Research office has awarded 20 individuals with research grants—thirteen (13) students of which four were females, and seven faculty members of which two were females). All but four awardees have started their fieldwork research. The SISERA institutions participating in hosting these awardees include: six (6) Partner Institutions and five (5) Emerging centers. The total amount awarded for both rounds is \$ 264,875.00.

**Year 2:** During the second round of competition ending March 3, 2003, we received 15 excellent (complete) proposals. We awarded 11 individuals, 7 students (3 females) and 4 faculty (1 female).

Twelve (12) of these proposals were recommended for funding by the blind reviewers (based on technical merit). The total amount requested by awardees for this round was \$193,215.00. The total amount awarded was \$159,875.00. Of this, \$7,900.00 was provided to the host institution to assist in administrative costs. We followed the same review process as in Year 1. We applied the nine (9) criteria, five (5) objectives and four (4) subjective, as detailed in the companion report on the grants program. From these criteria, the blind reviewers scored and ranked the applicants. From the blind reviewers' rankings and scores, a short-list was created. While most of the applicants came from the Land Grant Schools, we have two recipients from small four-year schools (one minority) during this round (See Final Awards Table for details).

All but four recipients have begun their fieldwork. The host SISERA institutes for the 11 awardees are:

- 1) Institute of Policy Analysis and Research (IPAR), Kenya (2 awardees);
- 2) Centre d'Orientation et de Recherche en Compétitivité, en Economie et en Décision Organisationnelle (CORCEDO), Benin;
- 3) African Institute for Applied Economis (AIAE), Nigeria;
- 4) Economic and Social Research Foundation (ESRF), Tanzania (2 awardees);
- 5) Centre de Recherche en Economie Appliquée (CREA), Senegal;
- 6) Botswana Institute for Development Policy Analysis (BIDPA), Botswana;
- 7) Institute of Statistical, Social and Economic Research (ISSER), Ghana;
- 8) Economic Policy Research Center (EPRC), Uganda (2 awardees).

<sup>\*</sup>This amount includes one awardee from the first round that was unable to participate in Year 1.

During the first round we awarded (9) individuals. The total amount awarded was \$105,000.00 (\$5,000 provided to the hosting institution to assist in the administrative costs of hosting the awardees).

The host institutions for Year 1 awardees were:

- 1) Economic Policy Research Center (EPRC), Uganda (2 awardees);
- 2) Institute of Statistical, Social and Economic Research (ISSER), Ghana (2 awardees);
- 3) Economic and Social Research Foundation (ESRF), Tanzania;
- 4) Groupe de recherché en economie appliquée et théorique (GREAT), Mali;
- 5) Centre d'Etudes et de Recherches en Economie et Gestion, Cameroon;
- 6) Institute of Economic and Social Research (INESOR), Zambia;
- 7) National Institute of Economic Policy, (NIEP), South Africa

As of the date of this report, all awardees from Year 1 have completed their fieldwork and have submitted a number of the short-term deliverables (i.e., presentations at the host institutions, trip reports, etc.). More details are provided in Part II of this report.

In order to begin assessing the effectiveness of the CRGP, we have also developed a survey instrument and solicited feedback from all the Year 1 recipients and host institutions. We have also gathered information about the effectiveness of the outlet we used for grant announcement.

# Competitive Research Grants: Final Awards – Year 2 Strategies and Analysis for Growth and Access (SAGA)

| NAME                    | UNIVERSITY                | PROPOSAL TITLE   | SISERA<br>INSTITUTE | Total \$<br>Awarded* |
|-------------------------|---------------------------|--|---------------------|----------------------|
| Armah, Paul             | Arkansas State University | Ensuring Food Security in Ghana – The Role of Maize Storage Systems  | ISSER               | 15,000.00            |
| Gandonou,<br>Jean Marc  | University of Kentucky    | An Economic Evaluation of the Profitability and<br>Adaptability of Precision Agriculture for Cotton<br>Production in Benin             | CORCEDO             | 10,000.00            |
| Kabahenda,<br>Margaret  | University of Georgia     | Evaluating the Nutritional Status of Ugandan Children  | EPRC                | 15,000.00            |
| Kaliba, Aloyce          | University of Arkansas    | Potential Impact of AGOA on Poverty Alleviation:<br>The case of Tanzania   | ESRF                | 15,000.00            |
| Lucas, Linda            | Eckerd College            | The Work of Women in Uganda: Contributions of the Macroeconomy   | EPRC                | 13,125.00            |
| Mude, Andrew            | Cornell University        | A Cross Sectoral Comparative Study of Institutional<br>Arrangement: The Case of the Small holder Tea and<br>Coffee Sub-sector in Kenya | IPAR                | 13,125.00            |
| Mulaa, John             | University of Maryland    | Social Capital and Education: The Case of Busia,<br>Western Kenya  | IPAR                | 12,500.00            |
| Mutambatsere,<br>Emelly | Cornell University        | Regional Integration of Cereals Markets in Southern Africa: A Case of Wheat, Rice and Maize Trade                                      | NIEP                | 13,125.00            |
| Nwokolo,<br>Benedict    | Grambling University      | The Role of Investment Strategies and E-Commerce in<br>Poorly Accessible Regions of Nigeria as Tools for<br>Economic Uplift            | AIAE                | 12,500.00            |
| Sarr, Leopold           | Cornell University        | The Determinants of Schooling Transitions in Senegal   | CREA                | 15,000.00            |
| Werema,<br>Gilbert      | University of Georgia     | Regional Differences and Food Consumption Behavior   | ESRF                | 10,500.00            |

Note: \* Includes 5%, SISERA's