

# **BASIS CRSP Fourth Annual Report**

ACTIVITIES  
1999-2000

and

WORKPLAN  
2000-2001



**B A S I S**



**Broadening Access and Strengthening Input Market Systems**

**October 2000**

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ACTIVITIES  
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### **BASIS CRSP Purpose**

Promoting ways to improve access to and efficiency of land, water, labor, and financial markets, BASIS CRSP helps increase income, purchasing power, and food availability while promoting sustainable resource management. BASIS CRSP seeks to:

- Remove constraints to economic growth in order to raise the standard of living for the poor,
- Increase food security by broadening the poor's access to key factors of production,
- Reduce environmental destruction with policies and programs fostering sustainable land use, and,
- Support US universities and researchers in collaboration with scientists and institutions abroad.



# **BASIS CRSP**

# **Fourth Annual Report**

Broadening Access and Strengthening Input Market Systems  
Collaborative Research Support Program

## **ACTIVITIES**

*October 1, 1999 - September 30, 2000*

and

## **WORK PLAN**

*October 1, 2000 - September 30, 2001*

Provided by:  
BASIS Management Entity  
Land Tenure Center  
University of Wisconsin–Madison  
1357 University Avenue  
Madison, WI 53715 USA

**October 2000**

## **Acknowledgment**

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All views, interpretations, commendations, and conclusions expressed in this paper are those of the author(s) and not necessarily those of the supporting or cooperating institutions.

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# Overview

## From the Program Director

In its first and second years of operation, BASIS focused on establishing collaborative partnerships, and shaping research to fit the policy needs of governments, the strategic objectives of USAID, and the interests of BASIS researchers. In its third year, BASIS focused on implementing research programs and began the process of translating research findings into policy impacts. This annual report covering the fourth year of BASIS, spanning October 1999 to September 2000, documents the findings of now fully established research programs, a deepening of results, and the impressive breadth of thematic and regional coverage achieved.

The BASIS focus on land, water, employment and financial capital is finding broad application to problems of stagnant economic growth and poverty around the globe. In El Salvador, research is demonstrating how poorly functioning credit markets and weak human capital are constraining access by the poor to employment opportunities. In Honduras and Nicaragua, BASIS research is demonstrating how insecure property rights and poorly functioning titling systems risk undermining land market reforms and the hard won equity in land distribution.

BASIS programs are also contributing knowledge to issues of political and economic transition. Privatization was marked by a first wave of political reforms aimed at transferring land, property and decision making from the state to the private sector. This phase has been followed by a second wave of policy issues focused on enabling markets to work and institutional and administrative reforms that broaden the poor's participation. BASIS has been responsive to these transitional issues and to regional priorities established by USAID. BASIS in its fourth year supported two high profile policy workshops evaluating constraints to privatization in Russia,

a deepening of research on constraints to farm profitability in Kyrgyzstan and Uzbekistan, and work on establishing a database of privatization indicators involving seven East European economies.

Strong parallels to the Eastern European situation of privatization and transition can also be found in Southern Africa. BASIS research in Namibia, South Africa and Zimbabwe is comparing state led reforms with private markets to determine effectiveness in redistributing land to the poor and socially disadvantaged. Southern African economies are also in the process of decentralizing water management and undertaking water reforms. BASIS research in Malawi, Mozambique and Zimbabwe seeks to monitor these reforms and study institutional and organizational innovations that improve water use efficiency and equity. In the fourth year, BASIS management also helped established a program to assist with Zimbabwe's Land Reform and Resettlement Program II, despite tense relations between the government and donors.

Research on dynamics of poverty has been the most advanced and perhaps global of any BASIS theme. In the past year, research was completed on the dynamics of persistent poverty and sustainable livelihoods in South Africa. In El Salvador, BASIS resources funded the third National Rural Household Survey and companion studies on Dynamics of Poverty and Rural Income Strategies to evaluate economic reform programs in the 1990s. And in the Horn of Africa, research on food security in the Amhara province of Ethiopia is seeking to better understand constraints to poor agricultural performance and how improved land and labor markets might minimize asset deaccumulation accompanying drought and climate shock.

*(Continued, next page)*

Policy workshops became an important mechanism for disseminating research findings, building capacity and institutionalizing policy results. A seminar on *Agricultural Policy, Resource Access and Human Nutrition* in November 1999 brought together more than 50 participants from eastern and southern Africa, and helped BASIS respond to REDSO and Global Bureau priorities for better integrating agriculture, health and nutrition. A workshop on *Land Privatization Experiences in Eastern Europe and Russia* brought together representatives from 7 transitional countries. Still other policy workshops were hosted on *Community Participation in Irrigation Management* in Tanzania, and another on *Sustainable Livelihoods* in Mali.

A number of BASIS programs continue to be affected by unforeseen events that have an impact on program implementation. The 7.7 magnitude earthquake that hit El Salvador in January 2001 will undoubtedly affect workplan schedules there. Lack of fuel, disrupted communications, political

instability and the economic crisis in Zimbabwe are making it very difficult to design and implement work. A prolonged famine in Amhara province is taxing the ability of BASIS researchers to focus on long-term development when the focus of people is on day to day survival. These challenges, while enormous, make the achievements of BASIS all the more rewarding when useful research findings are finally produced and results obtained.

In closing, I look forward to 2001 as a year when researchers for the first time will be able to consolidate and synthesize research findings across regions. It will also be a year of bringing Phase I projects to closure, while at the same time new projects will be finalized for the proposed second five years of BASIS. To the many people who have and are contributing to these efforts, the Management Entity extends to you its thanks and our deepest appreciation.

Michael Roth  
BASIS CRSP Program Director  
January 2001



# **BASIS CRSP**

# **Fourth Annual Report**

Broadening Access and Strengthening Input Market Systems  
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# Introduction

## USAID

The U.S. Agency for International Development (USAID) is the U.S. federal government agency that implements America's foreign economic and humanitarian assistance programs. USAID supports the people of developing and transitional countries in their efforts to achieve enduring economic and social progress and to participate more fully in resolving the problems of their countries and the world. USAID's history goes back to the Marshall Plan's reconstruction of Europe after World War II and the Truman Administration's Point Four Program. In 1961, President John F. Kennedy signed the Foreign Assistance Act into law and created USAID by executive order.

USAID pursues its mission through partnerships with people and governments around the world. In collaboration with these groups, priorities are set and strategic goals are identified as targets for assistance programs. One of USAID's major goals is to encourage broad-based economic growth and agricultural development.

Agriculture plays a prominent role in many developing countries as large sectors of the population subsist through agricultural output and live in rural areas. USAID's Center for Economic Growth and Agricultural Development is committed to addressing concerns of food security, environmental protection, and poverty alleviation in developing countries. USAID supports these areas through research, technical assistance, technology transfer, training and capacity building.

## CRSPs

During the past 100 years the American land grant university system of research, teaching and outreach, along with federal and private initiatives, has evolved powerful and proven capability for boosting farm productivity and improving rural incomes. The Collaborative Research Support Program (CRSP) has been put into place with the assistance of USAID to link the capabilities of the U.S. land grant universities and research centers to the needs of developing nations worldwide. This step was made possible by the United States Congress through passage of the International Development and Food Assistance Act of 1975. The Act in Title XII authorized the President ". . . to provide program support for long-term collaborative university research in the developing countries themselves to the maximum extent practicable on

food production and distribution, storage, marketing, and consumption." (CRSP Guidelines, 1998, p. iv.)

Successful solutions to world food shortages, malnutrition and poverty in developing countries require a unified and collaborative effort in research and technical assistance among U.S. institutions, our counterpart institutions abroad, other bilateral donors, and international organizations. The CRSPs help to seek practical solutions to these problems through knowledge generation, design of new solutions, partnership, and capacity building to enable sustainability.

The BASIS CRSP is currently one of nine CRSPs:

- Beans and Cowpeas
- Broadening Access and Strengthening Input Market Systems (BASIS)
- Integrated Pest Management (IPM)
- Peanuts
- Pond Dynamics and Aquaculture
- Global Livestock
- Soil Management
- Sorghum and Millet (INTSORMIL)
- Sustainable Agriculture and Natural Resources Management (SANREM)

## BASIS CRSP

In September 1996, USAID awarded the Broadening Access and Strengthening Input Market Systems (BASIS) Collaborative Research Support Program (CRSP) to the University of Wisconsin–Madison Land Tenure Center, lead organization for a consortium of 16 institutions.

The focus of BASIS is on land, water, labor and financial markets and their interactions as they relate to economic growth, food security, and sustainable resource management.

Through its regional study of market access and through the application of global lessons, BASIS research aims to stimulate economic and agrarian growth in developing countries leading to more effective access and use of resources, particularly for the poor.

Promoting ways to improve access to and efficiency of land, water, labor, and financial markets, BASIS CRSP helps increase income, purchasing power, and food availability, while promoting sustainable resource management.

BASIS CRSP seeks to:

- Remove constraints to economic growth in order to raise the standard of living for the poor,
- Increase food security by broadening the poor's access to key factors of production,
- Reduce environmental destruction with policies and programs fostering sustainable land use, and
- Support U.S. universities and researchers in collaboration with scientists and institutions abroad.

Priorities for research are achieved through collaboration with professionals in the regions where BASIS research and training take place. BASIS emphasizes collaborative research, training and capacity building.

Work under BASIS, then, is designed to:

1. Analyze the performance of, and interactions between land, water, labor, and financial markets (including access) and translate the research results into policy recommendations, with emphasis on women, the poor, and socially disenfranchised groups;
2. Translate the lessons learned from research in developing and transitional economies to other countries in similar stages of development;
3. Find solutions to wasteful resource use and suggest policies that sustainably and efficiently utilize and price resources;
4. Determine how formal and informal institutions affect resource use and allocation, and propose institutional innovations that improve resource efficiency and equity;
5. Through capacity building and training, improve host country capacity to address land, labor, and financial market constraints;

6. Communicate research results in a timely and usable manner through workshops and communications campaigns; and,
7. Identify and monitor indicators of economic and social welfare that measure improvements in factor market performance and equity.

BASIS focuses on applied, policy-relevant research. It implements its programs through collaborative and jointly-designed programs of research between U.S. and host country counterparts, including researchers, policy makers, NGOs, and community-based organizations.

## The Factor Market Nexus

At the core of the BASIS project is the recognition that whether and how economic growth occurs (its microdynamics) is intertwined with how various underlying factor and product markets interact and work—what may be called the "factor market nexus." Broadly based and sustainable growth will require relaxation of the constraints to resource use and asset accumulation decisions presented by the interacting, sometimes countervailing, constraints posed by land, labor, and financial markets.

While there is much that is regionally and historically specific to any particular policy problem (and solution), BASIS also explores those elements of the factor market nexus that cut across regions and generally constrain the performance of agrarian economies. Regions to study were selected based on the synergies among them, their relevance to the basic research themes, and their importance to the USAID mission and global strategies. Research themes such as broadening market access to increase economic growth, agricultural productivity, food security, and sustainable resources are policy concerns in all regions.

Work in the first year focused on the planning process by U.S. and host-country professionals, which progressed in the second year to research implementation and relationship building. In the third and fourth years, research findings are being produced and communicated.

# Central America



## BASIS CRSP Research Projects

- ◆◆ **El Salvador Research Program**
  - 1.A. Rural Household Panel Surveys**
    - 1.A.1. Performance of Financial, Labor and Land Markets in El Salvador
    - 1.A.2. Evolution and Dynamics of Rural Poverty: Measurement and Analysis
    - 1.A.3. Exogenous Shocks and Rural Household Income Strategies
    - 1.A.4. Household Integration to Markets: Agricultural and Non-agricultural Occupations
    - 1.A.5. Household Types and Resource Conservation Behavior
    - 1.A.6. Land Redistribution and Land Use Patterns
  - 1.B. Segmented Market Niches in Rural Financial Markets**
    - 1.B.1. Determinants of Access to Financial Services
    - 1.B.2. Rural Financial Technologies
    - 1.B.3. Rural Financial Organizations
- ◆◆ **Rural Households' Land and Labor Market Participation Strategies in El Salvador – 1999-2000 Competitive Grant Award**
- ◆◆ **Land Market Liberalization and the Land Access of the Rural Poor: Lessons from Recent Reforms in Central America**

## Acronyms used in this section

BASIS	Broadening Access and Strengthening Input Market Systems
BFA	<i>Banco de Fomento Agropecuario</i>
BMI	<i>Banco Multisectorial de Inversiones</i>
CAM/FINCA	<i>Centro de Apoyo a la Microempresa / Fundación Integral Campesina</i>
CRECER	USAID-sponsored project on Equitable Economic Growth
DECRG	Development Economic Research Group (World Bank)
EHPM	<i>Encuesta de Hogares de Propósitos Múltiples</i> (Multiple Purposes Household Survey)
FEDECREDITO	<i>Federación de Cajas de Crédito y Bancos de los Trabajadores</i>
FIDEG	<i>Fundación Internacional para el Desafío Económico Global</i>
FLACSO	<i>Facultad Latinoamericana de Ciencias Sociales</i>
FOMIR-DAI	<i>Proyecto de Fomento a las Microfinanzas Rurales –</i> (Development Alternatives, Inc.)
FUNDAUNGO	<i>Fundación Dr. Guillermo Manuel Ungo</i>
FUNDE	<i>Fundación para el Desarrollo Económico</i>
FUSADES	<i>Fundación Salvadoreña para el Desarrollo Económico y Social</i>
GTZ	<i>Deutsche Gesellschaft Für Technische Zusammenarbeit</i> (German technical assistance agency)
IDB	InterAmerican Development Bank
IFPRI	International Food Policy Research Institute
LAC	USAID/Latin America and the Caribbean Bureau
LACEA	Latin American and the Caribbean Economics Association
LCSES	Latin America and the Caribbean Region (World Bank)
LMDSA	Law for Modernization and Development of the Agricultural Sector
NGO	Non-Governmental Organization
OSU	Rural Finance Program at The Ohio State University
OTR	<i>Oficina de Titulación Rural</i> (Office of Rural Titling, Nicaraguan Finance Ministry)
STATA	A statistical analysis software program
UCA	<i>Universidad Centroamericana José Simeón Cañas</i>
UNDP	United Nations Development Program
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

## BASIS CRSP Research in Central America

BASIS CRSP research in Central America focuses on the interactions among land, labor, and financial markets and on the impact that household access to these resources has on rural poverty and resource conservation. Current research activities are underway in El Salvador, Honduras, Nicaragua, and Mexico.

The El Salvador program was established in 1996. Researchers analyze how the performance of financial, labor, and land markets influences household welfare and the evolution of rural poverty in this country. Policy recommendations based on research results are expected to increase access by the poor to these factor markets and contribute to sustainable livelihoods. The research agenda also seeks to explain the evolution and dynamics of poverty, the determinants and implications of differential degrees of

household participation in markets, and the types of behavior that cause resource degradation on hillsides. Research on innovations in rural lending strategies and on the organizational design of rural financial institutions seeks to broaden access to sustainable financial services by the rural poor.

In 1999, a competitive grant was awarded to focus on the interaction between land and labor market participation in El Salvador. Using data from the El Salvador program's household surveys, researchers seek to understand changing patterns of participation in land tenancy.

Another project initiated in 1999 aims to understand factor markets, in particular land markets, and how they might work better for the poor in Honduras and Nicaragua.



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### El Salvador Research Program

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#### Collaborating Institutions and Researchers

##### **Rural Finance Program at The Ohio State University (OSU)**

Claudio Gonzalez-Vega, Professor and Principal Investigator, BASIS/El Salvador

Adrián González-González, Graduate Research Associate

Sergio Navajas, Post-doctoral Researcher (currently, Economist, USAID/Bolivia)

Rafael Pleitez-Chávez, Graduate Research Associate (former Head, Economics Department, UCA)

Jorge Rodríguez-Meza, Post-doctoral Researcher

Douglas H. Southgate, Professor

##### **Affiliate researchers**

Jonathan Conning, Assistant Professor, Williams College

Xavier Giné, Ph. D. Researcher, University of Chicago

Rolando Hernández, Ph. D. Researcher, Marburg University (Germany)

Jeffrey Hopkins, USDA (former post-doctoral researcher, OSU)

Rodolfo Quirós, Academia de Centroamérica, Costa Rica

##### **Facultad Latinoamericana de Ciencias Sociales (FLACSO)**

Katharine Andrade-Eekhoff, Researcher

Carlos Briones (currently Principal Advisor to Minister of Education)

##### **Fundación Salvadoreña para el Desarrollo Económico y Social (FUSADES)**

Roberto Rivera-Campos, Director, Department of Social and Economic Studies and BASIS/El Salvador Co-Principal Investigator

Aída Argüello de Morera, Researcher, Social Studies Unit

Margarita Beneke de Sanfeliú, Director, Research and Information Center

Lisette Calderón, Social Studies Unit

Anabella Lardé de Palomo, Director, Social Studies Unit

Edwin López, Research and Information Center

Rudy Paniagua, Research and Information Center

Jorge Mauricio Salazar, Research and Information Center

Mauricio Shi, Research and Information Center

Ana Regina Vides de Andrade, Researcher, Social Studies Unit

FUSADES is the principal BASIS research collaborator in El Salvador. It coordinates the activities of other Salvadoran Research Organizations (FUNDAUNGO, FLACSO, FUNDE, and UCA) as well as the program's interactions with Salvadoran impact organizations (Ministry of Agriculture, Central Bank of El Salvador, and BMI) and the financial organizations being investigated (*Financiera Calpiá*, CAM/FINCA, and BFA).

(Continued, next page)

## **El Salvador Research Program**

### **Collaborating Institutions and Researchers**

*(Continued from Page 7)*

#### **Fundación Dr. Guillermo Manuel Ungo (FUNDAUNGO)**

Ricardo Córdoba, Executive Director  
Julia Evelyn Martínez, Researcher

#### **Fundación para el Desarrollo Económico (FUNDE)**

Enrique Merlos, Researcher

#### **Universidad Centroamericana José Simeón Cañas (UCA)**

Alvaro Trigueros, Chair, Department of Economics

*Project dates: November 1996 - September 2001*

*Support: Core funding, add-on (USAID/El Salvador), and Government of El Salvador*

## **Background**

In the 1990s, El Salvador's government implemented major economic and political reforms to respond to accumulated failures of policies, markets, and institutions and to achieve broadly-based and environmentally-sustainable economic growth.

Several initial conditions and some recent events have shaped land, labor, and financial market performance and influenced rural poverty and resource conservation in El Salvador.

- High population density and inefficient distribution of land holdings, resulting in extreme human pressures on land
- Shallow stock of human capital, a result of the historical underinvestment in health, education, and other types of human capital formation, and of high rates of migration abroad
- War-damaged infrastructure and strong bias toward urban public investments, leading to high transactions costs in all markets
- Shallow and segmented financial markets, high and concentrated risks in financial transactions, and significant flows of remittances from abroad
- Weak institutions, outdated legal systems, imperfect information flows, shortcomings of the organizational framework of the state, and a shattered social capital endowment, leading to weak property rights and high contract enforcement costs
- Low productivity of labor in agriculture, reflecting factor market constraints and the resulting widespread rural poverty
- A rapidly degrading natural resource base combined with major adverse climatic shocks.

El Salvador's recent economic and political evolution has resulted from two important transitions:

1. From the economic decline and social conflicts of the 1980s, mostly associated with a prolonged civil war, to the economic reconstruction, social reconciliation, and democratic processes that emerged from the Peace Accords in the early 1990s.
2. From the interventionist, fiscally-unsustainable regime associated with import-substitution industrialization, within the framework of the Central American Common Market, to a program of macroeconomic stabilization, structural adjustment, and increasing trade flows and international capital movements.

In the late 1990s, rates of Gross Domestic Product growth were lower than in the first part of the decade. A new generation of policy reforms turned out to be more difficult to implement, and the country experienced major climatic shocks (*El Niño*, Hurricane Mitch). It became more difficult to alleviate rural poverty right at a time when the authorities faced growing political demands for more broadly based participation in the fruits of economic structural transformation.

BASIS CRSP in El Salvador attempts to understand and influence how well new policies and institutions will be capable of sustaining rapid economic growth, social development, and environmental improvements. As the country evolves toward stable macroeconomic conditions and increasing integration into the world economy, the central question is, therefore, how does differential access to factor markets by specific segments of the population enable or constrain sustained and equitable economic growth? Operationally relevant answers to this question require a detailed examination of the markets' structural features and performance.

Thus, BASIS CRSP research efforts in El Salvador have focused on the generation and stabilization of rural household incomes and the role that is played by the following:

- Differential degrees and modes of rural household participation in labor markets, either directly, through salaried employment, or indirectly, through self-employment activities channeled toward agricultural and non-agricultural markets rather than self-consumption,
- Wealth-constrained degrees of access to formal financial services, information and contract enforcement obstacles to more broadly-based participation in rural financial transactions, and the innovations in lending technologies that are helping to lessen these constraints, and
- Limited degrees of access to land and attenuated ownership of land as well as differential household asset accumulation and risk-management strategies.

## 1.A. RURAL HOUSEHOLD PANEL SURVEYS

Research team: Gonzalez-Vega, Navajas, Rodríguez-Meza, González-González, Pleitez-Chávez, Lardé de Palomo, Bencke de Sanfeliú, Shi, Salazar, Paniagua, López, Andrade-Eekhoff, Conning, and Trigueros

In early 1996, FUSADES had implemented a *First National Rural Household Survey*, a key input into the *Rural Development Study* developed in collaboration with The World Bank.

The *Second National Rural Household Survey*, in the spring of 1998, administered an improved questionnaire to the same households of the original sample and created a panel data set with observations for 1995 and 1997. Also in 1997-98, researchers administered the *First Survey of Calpiá's Rural Borrowers* (discussed below).

The program acquired a cyclical rhythm: a year of intense data gathering and preparation of data sets followed by a year of data analysis and the presentation and dissemination of results. Repetitions of such two-year cycles have made it possible to capture the influence of policy changes and exogenous shocks on household behavior, given the highly dynamic environment of El Salvador.

Early analyses of the panel data led to a shift in research focus—from the incidence and determinants of rural poverty to the volatility of incomes and the limitations of the risk-coping mechanisms available to rural households. Weather shocks associated with *El Niño* and Hurricane Mitch created an opportunity to closely examine the role that differential degrees and modes of access to factor markets play in the risk-management strategies of rural households. See *BASIS CRSP Third Annual Report* (October 1999) for a summary of preliminary findings of the *First* and *Second National Rural Household Surveys*.

## 1999-2000 Activities

During the 1999-2000 fiscal year, Rural Household Panel Survey work focused on further deepening and extending data collection and analysis. (See table for complete list of BASIS CRSP household surveys in El Salvador).

- *Third National Rural Household Survey*, that makes possible construction of a panel data set with three observations (1995, 1997 and 1999) for each household
- *Second Survey of Calpiá's Rural Borrowers* for a panel of two observations (1997 and 1999)
- *First Survey of Calpiá's Urban and Peri-urban Borrowers*, to allow comparisons between the rural and urban households reached with *Calpiá's* innovative lending technology
- *First Survey of BFA's Rural and Peri-urban Borrowers*, to allow comparisons between households reached with the more traditional lending technology employed by BFA and those reached by *Financiera Calpiá*
- *First Survey of CAM/FINCA's Rural, Peri-urban and Urban Borrowers*, to allow comparisons between the households reached with this village banking technology and clients of financial intermediaries that use different lending technologies

Special care has been taken to minimize the rate of attrition of the panels and, when substitutions have been necessary, to make sure that equivalent households in similarly remote, difficult-to-access places have been selected.

Observations from the *Third National Rural Household Survey* have made possible a panel data set of 470 households where three observations have been conducted. In other cases, only two observations have been possible.

BASIS CRSP Household Surveys in El Salvador		
Survey	Data for Year	Number of Observations
1. First National Rural Household Survey	1995	730
2. Second National Rural Household Survey	1997	623
3. Third National Rural Household Survey	1999	702
4. First Survey of <i>Calpiá</i> Rural Borrowers	1997	239
5. Second Survey of <i>Calpiá</i> Rural Borrowers	1999	242
6. Survey of <i>Calpiá</i> Urban Borrowers	1999	243
7. Survey of <i>Calpiá</i> Peri-urban Borrowers	1999	364
8. Survey of BFA Rural and Peri-urban Borrowers	1999	481
9. Survey of CAM/FINCA Rural, Urban and Peri-urban Borrowers	1999	360

*Note: All surveys following the First National Household Survey were funded by USAID/El Salvador within the BASIS framework except the surveys of Calpiá urban and peri-urban borrowers, which were funded by GTZ.*

All survey questionnaires along with complete, revised 1995 and 1997 data sets are posted on the web-site of the OSU Rural Finance Program [<http://aedecon.ag.ohio-state.edu/ruralfinance>]. When 1999 data sets become operational, they will also be posted there. Interested researchers are encouraged to contact the FUSADES/OSU team for further explanation about the proper and efficient use of these data. See Activity 2 (Conning) for an example of how the El Salvador survey data were further analyzed.

## 2000-2001 Work Plan

The 2000-2001 Rural Household Panel Surveys work plan will focus on analyzing and synthesizing data collected in the three-observation panel of the rural household surveys. Researchers will analyze the richer information set emerging from recent surveys and from the longer, three-observation panel data set that is being constructed. Results will be consolidated into a synthesis of empirical regularities and policy lessons before the end of BASIS Phase I. Data gathering and construction of operational data sets will be completed during October and November 2000. No new data collection efforts will be undertaken during this fiscal year.

### 1.A.1. Performance of Financial, Labor, and Land Markets in El Salvador

Research team: Gonzalez-Vega, Southgate, Navajas, Rodriguez-Meza, Rivera-Campos, Lardé de Palomo, Beneke de Sanfeliú, Andrade-Eekhoff, Conning, and Trigueros

## 1999-2000 Activities

The BASIS team met frequently to discuss research design and results. A number of workshops were devoted to improving the design of surveys to be undertaken in early 2000. A workshop at FUSADES on November 3-5, 1999 allowed the BASIS team to meet with representatives of GTZ, the German technical assistance agency. Workshop participants discussed methods to compare the incidence of poverty among the rural and urban clienteles of *Financiera Calpiá*, especially regarding how to attribute observed differences in poverty to elements of the organization's urban and rural lending technologies. For example, differences between rural and urban lending technologies mostly reflect the material conditions of agriculture, differences in labor market performance in rural versus urban areas, the attenuation of property rights on rural land, and other obstacles to financial transactions that are more prevalent in rural than in urban areas. The lending technology's actual ability to overcome these obstacles in different environments determines who is included and who is excluded from the loan portfolio of organizations such as *Financiera Calpiá*.

BASIS researcher workshops were held December 7-10, 1999 and January 12-19, 2000 at FUSADES to select sampling frames and to redesign questionnaires so they would facilitate the integrated analysis of labor, land and financial market issues. Draft questionnaires were tested in the field, prior to preparation of the final questionnaire.

Presentations based on research results are listed in the box on Informing Policy Dialogue. Other workshops, listed below, allowed BASIS researchers to share their experiences with the interested community.

- BASIS researchers became regular contributors to key assessments and policy debates, both locally and on the international scene. On November 25, 1999 Anabella Lardé de Palomo and Margarita Beneke de Sanfeliú participated in the Seminar on Poverty and Social Equity, organized by UNDP and attended by 90 people. This forum was one of the most influential on these topics in the Central American region. The researchers contrasted results from BASIS CRSP with those in the Report on the State of the Region: Sustainable Human Development.
- Roberto Rivera-Campos, Carlos Briones, and Claudio Gonzalez-Vega were key discussants at a July 13, 2000 seminar sponsored by the InterAmerican Development Bank in El Salvador, on "The Demographic Opportunity and How to Take Advantage of It: Economic and Social Policies for a Young Country." More than 450 people attended the seminar. The BASIS researchers drew on results from the household panels to highlight the key roles that education and transactions costs play in defining degrees of access to labor markets and, thereby, in allowing rural households to benefit from the opportunities being created by the new economy.
- A seminar at FUSADES on March 23, drew 175 participants to hear Dr. Hector Dada Irezi, Director of FLACSO, Dr. Evelyn Jacyr de Lovo, Minister of Education of El Salvador, and Dr. Eduardo Zablah, President of FUSADES, discuss the importance of BASIS research in the context of poverty alleviation strategies in El Salvador. The first three issues of the *Documentos de Investigación BASIS* series were presented to the public at this seminar.

BASIS CRSP research has forcefully brought rural poverty to the forefront of public attention, and it has raised the quality of the debate by introducing rigorous analytical frameworks and, particularly, new and revealing empirical information.

## 2000-2001 Work Plan

To conclude BASIS CRSP Phase I, the research team will consolidate the broad range of research activities that have been undertaken in El Salvador. Comparisons of

results and completion of analyses in progress will allow a synthesis of the key empirical regularities and lessons learned. As already practiced during the earlier years of the BASIS CRSP presence in El Salvador, policy dialogue will be accompanied by an ambitious dissemination program and public discussion of research results (see box on Informing Policy Dialogue, p. 12).

A number of distinct analytical efforts will build on existing research plans, to derive results from the third wave of observations and the resulting longer panel data. The outcome of this phase will be a number of research papers to be presented at the *BASIS Spring Research Workshop* in San Salvador (tentatively scheduled for May 2001). Then selected teams of researchers will collaborate in weaving the results presented at the spring workshop into a synthesis of lessons and observations. The resulting synthesis and accompanying policy recommendations will be presented at the *Second National BASIS Seminar*, postponed from 2000 to August 2001. Publication of the seminar proceedings in September will conclude this stage.

## 1.A.2. Evolution and Dynamics of Rural Poverty: Measurement and Analysis

Research team: Gonzalez-Vega, Navajas, Hopkins, González-González, Beneke de Sanfeliú, Shi

### 1999-2000 Activities

The first and the second *National Rural Household Surveys* made it possible to estimate levels of poverty at the household level, on a *per capita* basis, and according to sources of income. Households where farming had been the main source of income were among both the poorest and the richest. Where the main source of income was salaried work in agriculture, households consistently ranked among the poorest. Except for the richest farmers, households with non-agricultural occupations were able to earn higher incomes compared with households relying on agricultural occupations

The incidence of poverty has traditionally been measured by the *headcount*, namely the proportion of households or individuals with incomes below a given poverty line. Most policy debates about poverty in El Salvador have  
*(Continued, Page 13)*



**Education plays a key role in allowing rural households to benefit from the opportunities being created by the new economy in El Salvador. A class of 2<sup>nd</sup> and 3<sup>rd</sup> graders attend school within a few kilometers of home. Family income is sufficient to allow these young people to study rather than work in the fields.**  
Photo by Danielle Hartmann.

## Informing Policy Dialogue in Central America with BASIS Research

During 1999-2000, BASIS CRSP researchers and host-country collaborators provided data, research findings, and analysis to aid policymakers in El Salvador and other countries in Central America in addressing rural poverty and factor market issues.

- Accompanied by several FUSADES researchers (Rivera-Campos, Lardé de Palomo, Beneke de Sanfeliú), Claudio Gonzalez-Vega spent the morning of January 19, 2000 at the Presidency of El Salvador. Findings from the rural household surveys were presented to the Salvadoran Cabinet. A discussion of relevant policy issues followed, moderated by the President's Chief of Staff. The discussion highlighted the effectiveness of rural income policies and included an assessment of the role of education and the expansion of rural roads, and an evaluation of the impact of the new financial regulations on rural access to credit. Specific requests for data by various departments of the Government of El Salvador were answered by FUSADES in the following weeks and the policy dialogue continued.
- Gonzalez-Vega met with Guillermo Funes, President of BFA (December 1999, January, March, and July 2000), to discuss the weaknesses and strengths, challenges and opportunities for this state-owned agricultural development bank. Key topics were mechanisms to measure and control loan delinquency, the ownership and funding structure of the organization, and the opportunities to transform BFA into a microfinance institution, as part of the process of restructuring initiated by the Government of El Salvador. Additional conversations on the future of BFA were held during 1999-2000 with Miguel Lacayo, Minister of the Economy, and Niccola Angeluci, General Manager of BMI.
- The President of El Salvador on August 6, 2000 unveiled a new project to broaden access of the rural poor to microfinance, i.e. reorganizing BFA to provide credit to rural farmers, and to support new credit lending technologies developed by BMI, *Calpiá* and FEDECREDITO.
- During a visit to El Salvador on January 20, 2000 by USAID Administrator Brady Anderson, BASIS researchers Rivera-Campos, Lardé de Palomo and Beneke de Sanfeliú and researchers from FLACSO joined Dr. Mary Ott and other Mission officials in presenting research results. These results have served as key guidelines in the Agency's strategic decisions in El Salvador, particularly after Hurricane Mitch. Materials

from BASIS research were included in a July 2000 presentation on poverty alleviation to the US Congress by Carl Leonard, USAID Assistant Administrator for Latin America.

- BASIS researchers Rivera-Campos, Lardé de Palomo and Beneke de Sanfeliú received, on January 26, 2000 at FUSADES' headquarters, the World Bank's Planning Mission to El Salvador. The group discussed rural poverty and specific ways in which BASIS CRSP results could be used in programming World Bank activities in this country. On February 15, 2000 the group received a visit from representatives of the International Monetary Fund Mission from Washington, D.C. Discussion focused on the impact of macroeconomic policies on rural poverty.
- Beneke de Sanfeliú made a presentation on March 13, 2000 about the dynamics of rural poverty to the Board of Directors of the Central Bank of El Salvador, cosponsor of BASIS CRSP research activities.
- Several BASIS CRSP researchers participated in a Seminar on "Understanding your Rural Clientele: Poverty and Other Determinants of Rural Financial Market Growth," organized by FOMIR/DAI on July 11, 2000, with participation of 35 executives of banks and microfinance organizations. FOMIR/DAI, a USAID-sponsored program, promotes rural financial development for the poor in El Salvador.
- Gonzalez-Vega, and Lardé de Palomo Beneke de Sanfeliú met with Miguel Székeli, of the Office of the Economist, InterAmerican Development Bank, on July 13, at FUSADES' headquarters. Topics included opportunities for collaboration between BASIS and the IDB research program and potential impacts of BASIS CRSP research on policymaking in El Salvador and other Latin American countries.
- BASIS CRSP researchers have assisted the German technical assistance agency (GTZ) to develop tools to evaluate donor-assisted microfinance programs. A client-status monitoring system at *Financiera Calpiá*, using data from BASIS CRSP surveys, is being tested as a pilot experiment. Preliminary results were presented on July 14, 2000.
- BASIS CRSP researchers have actively participated in debates about a *Non-Bank Financial Institutions Law* in El Salvador. This legislation is expected to provide a specialized prudential regulation and supervision framework for financial cooperatives, credit unions and microfinance organization.

### 1.A.2. Evolution and Dynamics of Rural Poverty: Measurement and Analysis *(continued)*

been based on observations of changes in the headcount. However, this measure does not provide information about the severity of poverty. BASIS research measures the *poverty gap ratio*—the normalized distance between actual income below the poverty line and the poverty line.

During 1999-2000, BASIS CRSP researchers computed headcount figures and poverty gaps for the rural population of El Salvador and for several sub-populations, using information from the household surveys to estimate incomes. Beneke de Sanfeliú and Gonzalez-Vega (2000) reported that instability of household incomes between 1995 and 1997 resulted in a high degree of *mobility* across deciles of the income distribution. In 1997, only 16 percent of these households were found in the same decile where they had been in 1995.

Typically, empirical investigations focus on the incidence of poverty as dictated by the availability of cross-section data at particular moments in time from one or more unrelated surveys. Such investigations have ignored the *identity* of the poor, i.e. whether the observed trends pertain to the same or to different poor people. For policymaking the key question is, however, if poverty has increased because *new* poor have joined the existing poor or if the increase is the *net outcome* of some people escaping poverty and others becoming poor.

#### 2000-2001 Work Plan

Since BASIS CRSP research in El Salvador follows the same households over time, researchers can test for the significant mobility of rural households within the income distribution, comparing their 1995, 1997 and 1999 relative incomes. The third (1999) observation of the panel, obtained in early 2000, will make it possible to establish if the fall into poverty or the flight out of poverty already observed between 1995 and 1997 was permanent (possible path dependency) or transitory (just a temporary shock).

A more accurate classification of households will strengthen the analysis initiated by Beneke de Sanfeliú (2000) on the different features of the chronically (structurally) poor versus the temporarily poor. This distinction is critical, as the first type may need policies to enhance their factor endowments and access to markets, while the second class may need mechanisms to complement their resources and bridge consumption over adverse periods.

### 1.A.3. Exogenous Shocks and Rural Household Income Strategies

Research team: Gonzalez-Vega, Navajas, González-González, Rivera-Campos, Lardé de Palomo, Beneke de Sanfeliú, Shi, Hernández, Andrade-Eekhoff, Conning, and Trigueros

#### 1999-2000 Activities

Salvadoran rural households must regularly cope with uncertainties associated with volatile weather. Other exogenous shocks include civil war, crime violence, major property rights reforms, large-scale population displacements, and structural adjustment triggered by far-reaching economic reforms. BASIS CRSP research has attempted to understand the factor market participation strategies of rural households in the wake of dramatic social, political, and economic change.

A 1999-2000 competitive grant (see Activity 2) analyzed El Salvador research program data to gain understanding of how rural factor markets operate and how households respond to one factor market's imperfections by adapting economic behavior in other areas. Aggregating and sharing data with FUSADES has helped establish common agreements on the definition of variables that each of several BASIS researchers are using in their studies, and has created an important public good in the form of a much better documented database and a set of useful collection of STATA computer programs to recreate derived variables from the raw data. This should facilitate future uses of the database and the 1999 survey data.

#### 2000-2001 Work Plan

Researchers will further examine alternative household strategies to address adverse income shocks and the nature of constraints that may prevent specific household types from adopting those strategies. Earlier findings will be updated in light of the new (2000) observation of the household panel.

The BASIS CRSP team will host, at FUSADES, doctoral candidate Rolando Hernández, from the Phillips de Marburg University in Germany. His proposed dissertation addresses the impact of the property rights created by land redistribution schemes in El Salvador on access to credit, uses of land, and labor market participation.

#### 1.A.4. Household Integration to Markets: Agricultural and Non-agricultural Occupations

Research team: Gonzalez-Vega, González-González, Rivera-Campos, Lardé de Palomo, Andrade, Calderón

##### 1999-2000 Activities

A central question of BASIS CRSP research in El Salvador has been the extent to which different degrees of household integration to product and factor markets influence opportunities for income generation and the choice of livelihood strategies. Using data from the first two household surveys, earlier BASIS research had addressed this topic in several ways, including contributions by Lardé de Palomo and Argüello de Morera and by Briones and Andrade-Eekhoff to the First National BASIS Seminar (August 1999). During 1999-2000, revised versions of these two studies were presented among the first three *Documentos de Investigación BASIS* series (March 2000).

All three publications have concluded that greater participation in labor markets, either directly or indirectly, is strongly associated with higher household incomes and a greater ability to cope with adverse shocks. In El Salvador, however, failures in both markets and in policies have compounded obstacles to household participation in markets. Moreover, problems in some markets (particularly land markets) have spilled over and influenced the performance of other markets.

These three studies also agreed that state intervention could go a long way toward alleviating these shortcomings, particularly for human capital formation (education) and mechanisms that reduce transactions costs (physical and institutional infrastructure). The earlier interventionist approaches have precisely neglected the provision of these public goods.

Two of these papers were made available in English and submitted to the LACEA Meetings in Rio de Janeiro. "Dynamics of Rural Household Incomes in El Salvador: 1995-1997 Panel Results" (Beneke de Sanfeliú and Gonzalez-Vega, 2000) reported on the development of household microenterprises, oriented toward larger markets in peri-urban areas, as a successful mechanism to cope with the fluctuations in income observed during the weather shock. "Household Integration to the Market as a Determinant of Rural Incomes in El Salvador" (Lardé de Palomo, Gonzalez-Vega, and Argüello de Morera, 2000) explored the consequences on household incomes of different degrees of integration to the market.

##### 2000-2001 Work Plan

Research during the next year will concentrate on three areas: labor market choices between agricultural and non-agricultural activities, market participation and productivity, and employment opportunities for women.

#### International Migration as a Coping Mechanism

In many developing countries, a typical income-increasing and risk-coping mechanism among rural households has been migration to urban areas. In El Salvador, the rate of *international* migration is a major feature of this country's factor markets. During the 1980s, civil war, rural-urban and rural-international migration grew in importance. At the end of the war, social networks that had developed during decades of international migration remained intact. This may explain the slow return of Salvadorans and the continued flows of migration. How much of the country's international migration has originated in rural rather than urban areas is not well known.

Numerous hypotheses about the impact of migration and remittances on Salvadoran factor markets remain unanswered. What are the impacts of remittances on household labor supply, investment decisions, holdings of financial assets, and consumption smoothing? By recognizing the integrity of the household's portfolio of economic activities and the consequences of the fungibility of funds, Andrade-Eekhoff will attempt to answer some of these questions.

The central hypothesis is that migration is not a random decision; rather, social networks that transcend national borders and reduce transactions costs for new migrants act to facilitate international migration. Moreover, migration is a selective process that does not necessarily involve heads of households. Instead, it is the younger generation that can successfully find attractive jobs abroad given their greater human capital.

Regarding shifts between agricultural and non-agricultural employment, researchers will investigate whether the higher incomes of households with non-agricultural occupations are entirely due to differences in education or access to urban markets or if factor-market-related determinants are important. For example, poor farmers may be the most credit-constrained, but they may also lack the education, proximity or other attributes that allow a new entrant to succeed in non-agricultural occupations.

Regarding market participation and productivity, researchers will undertake a micro-level empirical study on the interaction among transactions costs, market participation, and productivity. The central premise is that a household facing lower transactions costs sells more of its output on the market and its productivity is also higher. In a related research effort, under the leadership of Vides de Andrade, FUSADES will implement a project sponsored by the IDB, on "Women's Employment in Rural Areas and their Social Exclusion," using data from the household panel.

### **1.A.5. Household Types and Resource Conservation Behavior**

Research team: Southgate, Hopkins, Gonzalez-Vega, González-González

#### **1999-2000 Activities**

Rather than relating conservation practices to erosion risks, as was done in a large number of previous studies, BASIS researchers recognized that the erosion-control decisions of rural households cannot be understood in isolation from their livelihood strategies.

In the initial attempt to apply an integrative approach, by using data collected in the 1995 rural household survey, livelihood strategies had been modeled in a fairly rudimentary way. Econometric results indicated that households with significant off-farm earnings might be especially responsive to technical assistance aimed at promoting soil conservation. More generally, a linkage between resource management and livelihood strategies was demonstrated.

The data set has been expanded to incorporate new variables and avenues of investigation. It is now possible to gain novel insights into the resource management decisions made by poor households in places like El Salvador.

#### **2000-2001 Work Plan**

With three survey observations, decisions that households make to enhance living standards and to insulate themselves from income shocks can now be analyzed with a panel data set. As reported in Section 3 of this report, Conning, Olinto, and Trigueros (2000) used these data to investigate the responses of rural Salvadorans to the adverse shocks experienced in 1997. Among other things, they found that households with land were in a better position to withstand earnings losses associated with diminished employment than were landless households, although the option of intensified farming did not completely compensate for the latter losses. Such findings raise the possibility that rural households would try to maintain living standards in the face of an adverse shock by depleting natural resources. For example, more erosive crops could be planted or conservation practices could be allowed to lapse.

The analysis of coping strategies will be extended to focus particularly on land use and soil management decisions, made possible by the availability of panel data. The existing literature on the economics of soil conservation contains no studies of this sort.

### **1.A.6. Land Redistribution and Land Use Patterns**

Research team: to be determined

Earlier Work Plans had proposed an investigation of the influence of the governance structure of agrarian reform cooperatives on land-use decisions. For a number of reasons, this investigation has been postponed. The 2000-2001 Work Plan considers a number of research activities to explore consequences of land redistribution programs.

### **1.B. SEGMENTED MARKET NICHES IN RURAL FINANCIAL MARKETS**

Research team: Gonzalez-Vega, Navajas, Pleitez-Chávez, González-González, Giné, Lardé de Palomo, Beneke de Sanfeliú, Shi, Trigueros, Quirós

In El Salvador, rural financial markets are particularly shallow, and rural households have reported limited access to formal financial services. This activity seeks to explain the causes and consequences of rural financial market segmentation and to suggest interventions to increase access by the rural poor to financial services (loans, deposit facilities, and payment instruments).

This component includes three interrelated research inputs, described below: (1.B.1.) surveys of borrower households of particular lending organizations, to study the determinants and consequences of constrained access to formal and semiformal financial services; (1.B.2.) detailed analysis of the lending technologies and innovation employed by different credit organizations to reach various segments of the rural population; and (1.B.3.) evaluations of rural financial organizations.

#### **1999-2000 Activities**

##### **1.B.1. Differential Access to Financial Services: Measurement and Analysis**

FUSADES' *First National Rural Household Survey* revealed extremely limited access to financial services by rural households in El Salvador. Based on this survey, World Bank researchers concluded that in 1995 fewer than 12 percent of all rural households received loans from any source and that only 20 percent had any loan balances outstanding. The *Second National Rural Household Survey* corroborated low levels of access to credit, particularly to formal loans, in 1997 (see table, Page 16).

In the second survey, BASIS CRSP researchers defined households with *access to credit* in 1997 as those having received any loans or having purchased any goods on

credit and/or having had any outstanding balances for loans received in the prior three years. According to this definition, the following table reports that only 42 percent of the households in the sample had some access to any source of credit in 1997.

<b>Rural Household Access to Credit in El Salvador</b>		
<b>Most Demanding Source Used</b>	<b>Number of Households</b>	<b>Proportion of Households (%)</b>
<b>Formal Lenders</b>	<b>49</b>	<b>8</b>
Banks	9	1
Non-bank institutions	40	6
<b>Semiformal Lenders</b>	<b>76</b>	<b>12</b>
Traders and suppliers	40	6
Cooperatives and credit unions	14	2
NGOs	22	4
	<b>139</b>	<b>22</b>
<b>Informal Lenders</b>	<b>99</b>	<b>16</b>
Moneylenders	40	6
Friends and relatives		
<b>Households WITH Access to Credit</b> <i>(sum of all sources listed above)</i>	<b>264</b>	<b>42</b>
<b>Households without Access to Credit</b>	<b>359</b>	<b>58</b>
<b>Total Rural Households</b>	<b>623</b>	<b>100</b>
Source: Computed with data from <i>Second National Rural Household Survey</i> . Percentages have been rounded off. Totals may not add due to rounding.		

BASIS CRSP researchers also found median household incomes ranging from US \$4,300 (\$850 per capita) for the rural clients of private commercial banks, to US \$1,300 (\$225 per capita) for those borrowing from friends and relatives.

However, these results require careful interpretation. If the median incomes of the clients of *Financiera Calpiá* (\$2,900 per household) are compared with those of the rural population at large (\$1,700 per household), for example, one may conclude that *Calpiá* lends to significantly wealthier clients. This is partly corroborated when one looks at the whole distribution of incomes of the rural households versus the households of *Calpiá* clients. The comparison shows, however, that *Calpiá* not

only lends to clients in all deciles of the distribution of rural households, but that in its portfolio is a higher proportion of the poorest than within the population at large. BASIS researchers have argued that lending to some of the richest rural households is what has allowed *Calpiá* also to lend to the poorest, an outcome that might not be possible otherwise. For further analysis of this issue, see the box on Lending Technologies and Poverty, Page 18.

### **1.B.2. Poverty and Innovative Technologies to Deliver Rural Financial Services**

The traditional source of rural loans has been the BFA, the state-owned agricultural development bank. Recently, however, *Financiera Calpiá* has dominated the market. Poorer clients are reached by a number of non-government organizations. Among these, the village banking network of CAM/FINCA is one of the largest. It is not clear if these organizations reach similar or different clientele (market segmentation). BASIS CRSP research seeks to identify the market niches in which these organizations operate and contrast profiles of their clientele.

BASIS CRSP researchers examined *Financiera Calpiá*, an organization that has been successful in reaching large numbers of rural households in a sustainable manner (Navajas and Gonzalez-Vega, 2000). Reasons for *Calpiá's* successful expansion into rural areas and agriculture include: (1) extending its well-tested urban lending technology; (2) cautiously adapting this technology to rural areas; and (3) building into its strategy a strong human capital formation component with rigorous recruitment and training of loan officers. Moreover, by providing individual rather than group loans, it has enhanced the value of the organization-client relationship. A combined urban-rural component is also critical for diluting fixed costs and diversifying lending operations. See box on Page 18.

During the summer of 2000, Pleitez-Chávez mapped the lending technology used by the state-owned BFA, using the same questioning guide that had been employed in interviews with officers of *Financiera Calpiá*. Important differences between the two lending technologies were identified and it is expected that they will explain the profiles of borrowers reached by the two organizations.

### **1.B.3. Performance of Rural Financial Organizations**

BASIS CRSP researchers have attempted to identify policy interventions conducive to rural financial deepening and to the development of inclusive lending technologies. Promising innovations have been introduced by organizations that suffer from attenuated property rights, insufficient internal control, and weak or conflictive governance structures. Even at *Financiera*

*Calpiá*, conflicts between the board and the managers have eroded sustainability. BFA is plagued by all the governance weaknesses of state-owned organizations, while CAM/FINCA suffers from the typical shortcomings of voluntary non-profit organizations. Several initiatives to address these problems with revisions of the regulatory framework have not been successful. BASIS CRSP researchers have investigated organizational design issues that contribute to the success of rural financial organizations.

## 2000-2001 Work Plans

### 1.B.1. Differential Access to Financial Services: Measurement and Analysis

Research will focus on results from the 1999 survey data to test hypotheses about degrees and determinants of access to different sources of credit by different segments of the rural population. Borrower characteristics, with emphasis on income changes and risk management strategies, will be compared across the clients of several rural financial organizations. Changes in borrower status between 1997 and 1999 can now be evaluated, given the availability of panel data.

### 1.B.2. Poverty and Innovative Technologies to Deliver Rural Financial Services

The lending technology of CAM/FINCA's village banking program will be described and compared with the lending technologies of *Financiera Calpiá* and BFA. Borrower profiles for the three organizations will be contrasted and differences attributed to features of the lending technologies used. Researchers will then establish the potential size of each market segment and make recommendations about adjustments in lending technologies to expand outreach and incorporate client types so far excluded from access to services.

### 1.B.3. Performance of Rural Financial Organizations

Research and policy dialogue will continue. The research program will focus on the coexistence of formal regulated financial institutions and a new wave of unregulated microfinance organizations. It will also explore why some households simultaneously lend and borrow from formal, semiformal, and informal sources of financial services.

## Relationships to Other Projects

BASIS CRSP research activities in El Salvador are consistent with and emerge from the *Research Planning Framework* developed by U.S. and Salvadoran researchers in interaction with Salvadoran impact organizations. The Government of El Salvador and USAID have been particularly interested in developing strategies for rural

poverty alleviation and access to rural financial services (see box on Informing the Policy Dialogue).

BASIS CRSP activities have close links to other on-going programs, including the following analyses:

- Household water supply quality, including on-site and off-site water tests (bacteriological and physical contamination), implemented during the *Third National Rural Household Survey* in 2000, in collaboration with the USAID Mission in El Salvador
- Constraints to farm income enhancement and stabilization, by the Ministry of Agriculture of El Salvador
- Role of farmer organizations in rural development, by the USAID-sponsored CRECER project
- Determinants of the social exclusion of women and its effects on household labor supply and incomes, implemented by FUSADES in collaboration with the IDB
- Interventions for the regulation and promotion of rural financial markets, by the USAID-sponsored project on Rural Financial Organizations
- Rural finance best practices in Latin America and the Caribbean, by the Project on Promising Practices in Rural Finance of the InterAmerican Development Bank and *Academia de Centroamerica in Costa Rica*
- Development of innovative client monitoring tools in Central America, by OSU in collaboration with *Financiera Calpiá* and GTZ



**Rural roads in El Salvador are typically unpaved.** A resident of canton el Rodeo, in the northeastern zone, transports sorghum to his home via donkey. BASIS researchers interviewed residents of this area for the *National Rural Household Surveys*. Photo by Mauricio Shi.

## Lending Technologies and Poverty

### **BASIS Research Explains Why Some of the Poor Get Loans and Others Do Not**

Not all rural households in El Salvador get or even seek loans. Some may have sufficient funds of their own or may fear the loss of assets pledged as collateral. Others cannot generate sufficient repayment capacity that would enable them to borrow. Many households that are able and willing to repay, however, cannot get the loans that would allow them to increase their incomes or better manage the risks they face. Why? Potential lenders must overcome severe information, incentives, and contract enforcement problems in order to manage their portfolios successfully. In countries like El Salvador, these problems are substantial.

Lenders employ particular *lending technologies* to overcome these problems. The technologies rely on different pools of information and various steps to screen applicants, monitor borrower behavior, and enforce contracts. Information acquired about particular classes of borrowers and the requirements lenders demand result in some applicants being accepted and others being rejected, independent of their true creditworthiness.

*Financiera Calpiá* in El Salvador has introduced lending technology innovations that have allowed formal loans to clientele heretofore ignored by institutional lenders. BASIS CRSP research has investigated how *Financiera Calpiá* has been able to accomplish this and the clients who are being reached. Research has included a detailed investigation of the lending technology and comparisons of *Calpiá* clients with the rural population at large.

*Financiera Calpiá* disburses individual loans after a careful analysis of each household-enterprise considered as an indivisible unit. To reduce risks and focus on cash flows that would facilitate payments, the lending technology incorporates mechanisms of delegated diversification: *Calpiá* prefers households with a diversified portfolio of economic activities. To encourage willingness to repay, *Calpiá* accepts pledges of household assets with a high value in use, independent of their market value (e.g., television sets, refrigerators, sewing machines). To make the threat of swift repossession credible, *Calpiá* officers must be able to reach the household by road.

Thus, *Financiera Calpiá's* lending technology allows it to reach where other formal lenders cannot, but it also excludes some potential borrowers. BASIS CRSP researchers predicted that *Calpiá* borrowers have a more

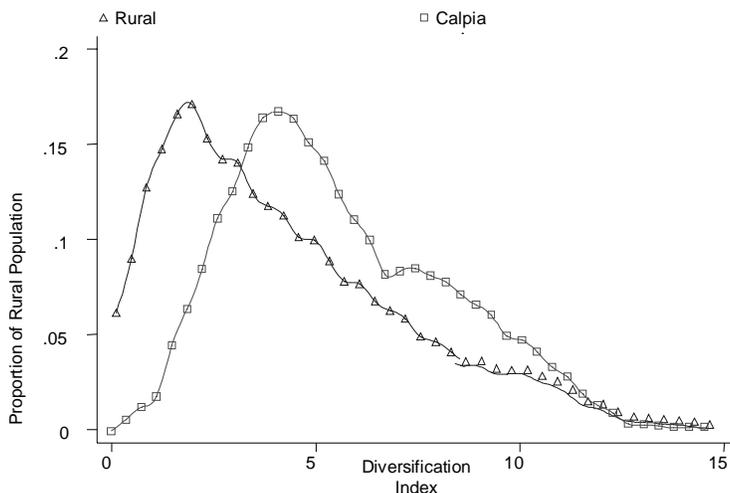
diversified set of household activities, are more accessible by road, hold larger stocks of household assets to pledge as non-traditional collateral, and are more productive, in reflection of greater proximity to markets and higher levels of education, compared with the rural population at large. Using data from the household surveys, BASIS researchers verified these hypotheses.

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**BASIS researchers found that *Calpiá* borrowers have more diversified portfolios of household activities than the population at large.**

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For example, BASIS researchers found that *Calpiá* borrowers have more diversified portfolios of household activities than the population at large. To test for these, they constructed an index of *household diversification*, that considered the number of household members working outside the family enterprise, the number of different crops cultivated, the number of different kinds of livestock held, the number of household microenterprises, the number of other sources of income, and the availability of remittances. The distribution of this index for *Calpiá* clients and for the rural population is shown in the graph below. The distribution is clearly to the right in the case of *Calpiá* borrowers. Indeed, on average, *Calpiá* borrowers had 5.8 different activities, compared with an average of 4.3 for the rural population at large.



*The diversification index indicates the number of different sources of income for the household.*

## Training

On-site training of U.S. and Salvadoran research assistants, survey enumerators, and junior Salvadoran researchers has taken place throughout implementation of the BASIS program.

The BASIS CRSP researcher from UCA, Rafael Pleitez-Chávez, during 1999-2000 successfully completed his first year of doctoral studies at The Ohio State University and will focus his dissertation research on topics related to BASIS. The same has been true of Adrián González-González, also a doctoral student, affiliated with the collaborating organization *Academia de Centroamérica* in Costa Rica.



**Media interest in BASIS research** offers opportunities to inform public discussion. *Rafael Pleitez-Chávez, on leave from the Universidad Centroamericana José Simeón Cañas to pursue a Ph.D. at The Ohio State University, speaks with a reporter after a BASIS presentation at FUSADES.* Photo by Danielle Hartmann.

**Rural Households' Land and Labor Market Participation Strategies in El Salvador in the 1990s**

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**Collaborating Institutions and Researchers****Williams College, Massachusetts**

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*Project Dates: October 1999 – September 2001*

*Support: BASIS/USAID Competitive Research Grant, Williams College (Conning salary), and The World Bank (research assistance)*

**Overview**

In a land-scarce country such as El Salvador, expanding rural households' access to well functioning land tenancy markets may be an important avenue for expanding household employment opportunities, managing household cash flow, improving equity, and for using the country's land in a more rational and sustainable manner.

The study aims to understand Salvadoran rural households' changing pattern of participation in land tenancy and other factor markets in the 1990's through an analysis of data from an ongoing panel study, interviews, and field visits. The study will collect evidence that should lead to a much better comprehension of the operation of rural factor markets, and in particular how households respond to imperfections on one factor market by adapting economic behavior in other areas.

**1999-2000 Activities**

A research paper entitled "Land Ownership and Household Adjustment Strategies during an Economic Downturn in Rural El Salvador," analyzes household land and labor participation strategies using the 1995-1997 panel of rural

Salvadoran households. The households differ in their ability to protect productive investments and consumption in the face of unexpected income shocks, especially in changing economic environments. Researchers used the two-year 1995-1997 FUSADES panel of rural households in El Salvador to trace the impact of a weather-related downturn in 1997 rural economic activity on household incomes and welfare. They also examined how the pattern of adjustment strategies was affected by households' initial holding of land and other assets.

The loss of wage-labor hours was particularly important in explaining the observed fall in incomes and welfare among the poor, and landless agricultural laborers were especially hard hit. Households with more education were also able to protect income more effectively. Other coping strategies examined include household access to credit and remittances, asset sales, and/or disinvestment including children's schooling. The decision to keep children enrolled in school during an economic downturn is positively affected by land holdings.

Dissemination activities in El Salvador have not yet taken place but Alvaro Trigueros will present the project findings at the Latin American and Caribbean Economist's meetings in Rio de Janeiro in October 2000.

Researchers Conning and Trigueros helped write and test a new module on land transactions that was added to the rural household survey. Data will be collected on the land lease and sale market, households' perceived costs of maintaining property rights security, land transaction histories and land held by respondents' parents. In addition, the household survey was widened to cover all the rural land using households interviewed in 1996. Thus researchers have available matching data for three observations (1995, 1997, 1999) for approximately 500 households and a two-year matching panel for an additional 150 agricultural households.

The "Land Ownership and Household Adjustment Strategies" paper served as a background paper for a World Bank publication *Securing our Future in a Global Economy*; the paper is discussed at length in Chapter 5, "The Response of LAC Households to Economic Shocks." The book was published to coincide with the Sixth Annual World Bank Conference on Development in Latin America and the Caribbean (ABCD-LAC 2000) held June 20 and 21, 2000 at the World Bank in Washington, D.C.

**2000-2001 Work Plan**

The project will be extended into 2001. Using the data and knowledge collected so far researchers plan to write another, less technical and more accessible paper to document recent changes in agrarian organization in El Salvador and household land and labor market participation strategies.

Research funds will also help advance Alvaro Trigueros' theoretical work-in-progress on a model of household

investment in education where asset ownership is an important determinant. Trigueros plans to explore the empirical connections between asset ownership and human capital formation. This will involve analysis of the FUSADES panel data set, extended to include data from the most recent round. This work will contribute to Trigueros completing his Ph.D. dissertation.

Anticipated outputs include two theoretical papers on property rights and the operation of land and labor

markets; a chapter in Trigueros' dissertation; and a paper on the operation of land markets in El Salvador. Trigueros has been able to use the data sets as a key input into the preparation of UCA's bi-annual report on the Salvadoran economy. Trigueros has also been able to make use of both the panel and EHPM (*Encuesta de Hogares de Propósitos Múltiples*, Multiple Purposes Household Survey) data set for work on his Ph.D. dissertation on household asset ownership and educational investments.

### Key Findings and Results

## **Coping with Unexpected Income Shocks in El Salvador**

Preliminary findings include the following points adapted from the paper, "Land Ownership and Household Adjustment Strategies during an Economic Downturn in Rural El Salvador."

- The significant fall in incomes among the poorer families in the sample that occurred in the space of a short two-year period was shown to have been driven in large part by a rather abrupt decline in both agricultural and non-agricultural wage employment.
- Consumption smoothing is incomplete and can involve substantial costs. Households had little access to formal credit or savings or to public safety nets. Hence their main avenue of response to temporary income shocks was to increase labor supply and to fall back on farm and non-farm self-employment activities, and/or to cut back on planned investments. Each is a costly, second-best response to a temporary income shock.
- Land ownership was important in household strategies to protect human capital investments and to preserve the marginal return to labor during downturns, even though this land ownership was not sufficient to raise households out of poverty.

Several policy conclusions may be suggested from the analysis.

- Improving household access to financial savings and credit services is important for providing risk coping instruments that are less costly than the strategies households otherwise employ.
- Households with more educated heads were much better able to preserve income levels and less likely to remove children from school after the unexpected economic shock. Thus, policies to improve access to education may help mitigate the impact of future economic downturns. For instance, governments may boost school enrollment rates simply by reducing the distance (or travel time) to schools via provision of free public school transportation.
- It has become fashionable in recent policy discussions to emphasize the important role of non-farm self-employment activities in rural household income generation. This study amply confirms the importance of this income source, but also suggests the very fluid ways in which households juggle their time. Both farm and non-farm self-employment serve as fall-back activities for many rural households when more lucrative wage employment fails. The fact that land ownership may protect the marginal return to labor when households fall back on farm self-employment activities during economic downturns suggests the value of widespread access to land, but may also suggest that land and credit markets are not properly working.
- Given the significant impact of the loss of wage employment on rural poverty and welfare, and the historical neglect of investments in rural areas, infrastructure investment programs might serve a useful public purpose and at the same time work as a safety net for vulnerable families.

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## Land Market Liberalization and the Land Access of the Rural Poor: Lessons from Recent Reforms in Central America

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### Collaborating Institutions and Researchers

#### University of Wisconsin-Madison

*Department of Agricultural and Applied Economics*

Brad Barham, Professor

Michael Carter, Professor

#### World Bank, Washington, DC

*Development Economic Research Group (DECGR)*

Klaus Deininger

*Latin America and the Caribbean Region (LCSES)*

Isabel Lavendenz, Senior Land Resources Specialist

Environmentally and Socially Sustainable

Development

#### Fundación Internacional para el Desafío Económico Global (FIDEG), Nicaragua

Sonia Agurto, Research Director, Gender Studies Program

#### International Food Policy Research Institute (IFPRI) Washington, DC

Pedro Olinto, Research Fellow

#### Nicaraguan Office of Rural Land Titling

Francisco Chavez

*Project dates: November 1999 – September 2001*

*Support: Core funding: USAID/LAC and other funding: World Bank Research Committee, European Community Food Security Program (Honduras), and Government of Nicaragua, Agricultural Technology Project*

During the past decade, Latin American countries have implemented sweeping policy reforms that have led to the emergence of economic systems based on market orientation, openness, and competitiveness. This new economic setting contrasts sharply with the economic isolation and autarkic spirit adopted by most countries in the region from the 1930s through the 1980s. Heavy government intervention, protectionism, and broad regulations have given way to a framework in which markets are the key mechanisms for efficient resource allocation and growth. A remarkable feature of these historically significant events is that they have taken place under democratic rule in virtually every country in the region. However, given the region's lack of tradition in sustaining solid democratic institutions during long spells of economic stagnation, preserving democracy will

require that most countries in Latin America grow at higher rates, and, more importantly, that growth is broadly based and promotes poverty alleviation. Thus, policies must ensure that markets do work in improving the lives of the region's poor, a majority of whom continue to live in rural areas.

Honduras and Nicaragua have undergone major reforms that have markedly reshaped the system of property rights regulating use, ownership, and transferability of rural land. The research project is investigating how recent market-friendly reforms in these countries have affected the lives of the rural poor. The research seeks to determine if liberalized rural property rights and factor markets work for the poor in the sense that they enhance the income, land access, and accumulation potential of the poor, while promoting more efficient resource allocation. It will also see if there are any potential benefits of rural reforms, in terms of resource productivity, muted by intra-household property rights assignments that fail to uphold or enhance women's bargaining power and economic position. (Data from Mexico, collected prior to this project, is also being incorporated into the analysis.)

Research that analyzes the complex relationship between institutional change, economic performances, and poverty should be of immediate relevance to all three countries to be studied. In Honduras, as part of the overall adjustment program adopted in 1990, the government has enacted the Law for Modernization and Development of the Agricultural Sector of 1992 (LMDSA), which modified the Land Reform Law of 1962 to guarantee full individual land ownership and transfer rights to farmers, and to legalize land rental and sharecropping arrangements. In Nicaragua, since 1991, the government has managed to assign individual property rights through a comprehensive land-titling program implemented by the Sandinista government during the 1980s. In Mexico, the government in 1991 enacted a bold new program of agrarian reform that has radically overhauled the *ejido* system (the cornerstone of the political framework emerging from the peasant-led revolution of 1910) by rewriting Article 27 of the 1917 Constitution, and allowing for eventual privatization of land under individual ownership.

This study on land market liberalization and land access of the rural poor supports USAID's mission of achieving expanded and equitable access to productive resources and markets in Honduras and reducing poverty in Nicaragua. BASIS research should also be of interest and importance in other Latin American countries. Reform measures similar to those undertaken in the study countries have been taken in other Latin American countries that had established large-scale collective or cooperative enterprises as part of earlier land redistribution efforts. From the operational perspective of the World Bank, the research will directly inform the design of post-reform policies intended to make markets work better for the rural poor.

## 1999-2000 Activities

Work on this project was fully underway during 1999-2000. Major efforts were put into launching the survey, including design and pre-testing of questionnaires and training of enumerators. In addition, there were two important developments on the collaboration front.

In Nicaragua, researchers began to work with FIDEG (*Fundación Internacional para el Desafío Económico Global*) as the primary local collaborating institution. Headed by Dr. Alejandro Martínez Cuenca (a former Nicaraguan Finance Minister), FIDEG has an excellent reputation as an honest broker of information. The partnership with FIDEG bodes well for longer term efforts to extend research results into the local policy debate. Primary FIDEG collaborator Sonia Agurto has done some of the best known work on the role of women in the Nicaraguan economy. In earlier stages of this project researchers planned to specifically analyze the impact of assigning property rights to women, but anticipated funding fell through. While financial shortfalls remain, Sonia brings essential skills in this area as we move toward data analysis.

In addition to the FIDEG relationship, researchers were invited to extend the survey to incorporate beneficiaries of land titling programs under the charge of Oficina de Titulación Rural (OTR, the Office of Rural Titling part of the Nicaraguan Finance Ministry). Using additional grant funds provided by OTR, the sample size was extended from about 1,800 to approximately 2,400 households. OTR funds helped secure participation in the project by Juan Chamorro, a graduate student at the University of Wisconsin-Madison and a former advisor to the Nicaraguan Minister of Agriculture. Several preliminary papers for OTR preceded a final study on the impacts of land titling, submitted in August 2000. Chamorro also presented this work on behalf of the project at a mid-July land titling conference in Managua. The World Bank provided Chamorro internship funding that enabled him to work with the Bank's research division during July and August.

Analysis of panel data (collected prior to this project) from Mexico resulted in a first paper by Olinto, Deininger and Davis that has been submitted for journal publication.

## Review of Problems and Issues

While the project received verbal approval in October, 1999 for the funds needed to carry out the Honduran survey, the next year proved to be an exercise in administrative frustration. These additional funds (provided by the Honduran Food Security Program of the European Community) have finally been contracted to the World Bank in the form of a Trust Fund. Researchers are now in the process of actually getting the funds where they can be spent and anticipate no further administrative impediments.

## 2000-2001 Work Plan

In Nicaragua, descriptive and econometric analysis will continue. In Honduras, after several reschedulings (due to funding delays), field work is scheduled to begin in mid-January, 2001. Project team members have traveled several times to Honduras and have made substantial progress in updating and improving the questionnaire devised for the Nicaragua survey. Enumerator training will begin on December 5, 2000.

### Key Findings and Results

## Alleviating Rural Poverty through Land Reform

Key findings using the Nicaraguan data to date are limited to the analysis of land titling undertaken for OTR (Oficina de Titulación Rural, the Office of Rural Titling, part of the Nicaraguan Finance Ministry), using data on 2,400 rural households. Other work that will speak directly to the issues outlined in the project description is currently underway in Nicaragua and, as described above, waiting data availability in Honduras.

- The titling process remains flawed in Nicaragua and there is substantial unmet demand for titling services.
- Full titling and registration of the land did have an impact on fixed land investment, even though it did not have an impact on access to capital (credit).
- Consistent with the finding above, land values are enhanced by land titles. Indeed, the capitalized value of the additional income that the investment increment is estimated to create is very close to the estimate of the additional value that full title gives to agricultural land (about \$50/hectare).
- Notwithstanding these results, preliminary analysis detects some significant signs of land reconcentration. Nicaragua's recent and often painful history has, in fact, bequeathed it a relatively egalitarian agrarian structure. The government needs to make it a priority to better understand agrarian dynamics (and the role that titling can play in it) so as not to lose this potentially beneficial egalitarian structure.

Analysis of the Mexican *ejido* data found that it provides one of the few documented examples where market-friendly reforms appear to have benefited the poor. Controlling for access to credit, the data suggest that land market liberalization reforms have indeed promoted improved land access by land scarce households via a more active land rental market. Even though the analysis demonstrates that the impact of land market reforms was affected by simultaneous reductions in credit access, this merely serves to demonstrate the importance of proper planning and sequencing of such reforms, rather than—as was feared by critics of these reforms—invalidating the case for measures to improve functioning of rural land markets.

## 1999-2000 Outputs

Note: Outputs marked with an asterisk (\*) below are available on The Ohio State University, Agricultural Economics Department, Rural Finance Program web site at <http://aedecon.ag.ohio-state.edu/ruralfinance>



### El Salvador Research Program

#### 1.A. National Rural Household Survey

##### Publications

Beneke de Sanfeliú, Margarita (2000), *Dinámica del Ingreso de las Familias Rurales en El Salvador. Estudio de Panel 1995-1997*, Documento de Investigación BASIS No. 1, San Salvador: FUSADES (ISBN 99923-816-0-4), 32 pp. \*

Beneke de Sanfeliú, Margarita (2000), "Dinámica de Ingreso de las Familias Rurales en El Salvador. Estudio de Panel 1995-1997," *Boletín Económico y Social*, No. 170, January, San Salvador: FUSADES (ISSN 1021-6375), 12 pp.

Beneke de Sanfeliú, Margarita and Claudio Gonzalez-Vega (2000), "Dynamics of Rural Household Incomes in El Salvador: 1995-1997. Panel Results," submitted to the 2000 Annual LACEA Meetings, Rio de Janeiro, Brazil, 36 pp.\*

Briones, Carlos and Katharine Andrade-Eekhoff (2000), *Participación en los Mercados Laborales de los Residentes en las Areas Rurales. Limitaciones y Desafíos*, Documento de Investigación BASIS No. 2, San Salvador: FUSADES (ISBN 99923-816-1-2), 48 pp.\*

Hopkins, Jeffrey, Douglas Southgate, and Claudio González-Vega (1999), "Rural Poverty and Land Degradation in El Salvador," abstract, *American Journal of Agricultural Economics*, December.

Lardé de Palomo, Anabella and Aída Argüello de Morera (2000), *Integración a los Mercados de los Hogares Rurales y Generación de Ingresos*, Documento de Investigación BASIS No. 3, San Salvador: FUSADES (ISBN 99923-816-2-0), 24 pp.\*

Lardé de Palomo, Anabella, Claudio Gonzalez-Vega and Aída Argüello de Morera (2000), "Degrees of Market Integration as Determinants of Rural Incomes in El Salvador," submitted to the 2000 Annual LACEA Meetings, Rio de Janeiro, Brazil, 26 pp.\*

Vides de Andrade, Ana Regina (2000), "Women's Employment in Rural Areas and their Social Exclusion," proposal for the IDB, San Salvador: FUSADES, 32 pp.

#### 1. B. Segmented Market Niches in Rural Financial Markets

Lardé de Palomo, Anabella (1999). "Entorno de los Mercados Financieros Rurales en El Salvador," *Boletín Económico y Social*, No. 169, December, San Salvador: FUSADES (ISSN 1021-6375), 13 pp.

Lardé de Palomo, Anabella (1999). "Entorno de los Mercados Financieros Rurales en El Salvador," to be published in the *Documentos de Investigación BASIS* series, 53 pp.

Navajas, Sergio (1999). "Financiera Calpiá (Salvador). L'adaptation au milieu rural d'une technologie urbaine de crédit," *Echos du COTA* (ISSN 0773-5510), No. 85, December, pp. 9-10.\*

Navajas, Sergio and Claudio Gonzalez-Vega (2000), "An Innovative Approach to Rural Lending: *Financiera Calpiá* in El Salvador, Working Paper, May, 54 pp. To be published as a chapter in Mark Wenner (ed.), *Promising Practices in Rural Finance in Latin America and the Caribbean*, forthcoming 2001, Washington, D.C.: InterAmerican Development Bank. \*

Navajas, Sergio and Claudio Gonzalez-Vega (2000), "Enfoques Innovativos en las Finanzas Rurales: *Financiera Calpiá* de El Salvador," Working Paper, August. Translated by Rafael Pleitez-Chávez, to be published in the *Documentos de Investigación BASIS* series.\*

Pleitez-Chávez, Rafael (2000), "Microfinanzas y Pobreza. Un Análisis de la Tecnología de Crédito de la *Financiera Calpiá*," *Estudios Centroamericanos* (ECA), LV, No. 624, October, pp. 983-1000.

##### Video

Mejía, Diana de (2000), "La Pobreza Rural y el Programa BASIS en El Salvador." Sixteen-minute VHS video [available from FUSADES].

##### Questionnaires

A special section on *BASIS Research* was created at the web site of the Rural Finance Program of The Ohio State University [<http://aedecon.age.ohio-state.edu/ruralfinance>]. The site includes the following items prepared during 1999-2000:

- First National Rural Household Survey 1996
  - Households with land
  - Households without land
- Second National Rural Household Survey 1998
  - Households with land
  - Households without land
- First Survey of Rural Clients of *Financiera Calpiá*

- Third National Rural Household Survey 2000  
Second Survey of Clients of Financiera Calpiá  
Survey of Peri-urban and Urban Clients of  
Financiera Calpiá  
Survey of Rural, Peri-urban and Urban Clients of  
CAM/FINCA  
Survey of Rural and Peri-urban Clients of BFA

*Data Bases* (available at same web site)

- First Rural Household Survey 1996
- Second Rural Household Survey 1998
- First Rural Calpiá Survey
- 2000 Surveys (forthcoming)

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◆2◆

*1999-2000 Competitive Grant Award*

**Rural Households' Land and Labor  
Market Participation Strategies  
in El Salvador in the 1990s**

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*Publications*

Conning, Jonathan, Pedro Olinto and Alvaro Trigueros.  
"Land Ownership and Household Adjustment Strategies  
during an Economic Downturn in Rural El Salvador," May  
2000. 50 pp.

Jonathan Conning has written draft papers: "Monopsoly:  
Landlord Market Power in Land and Labor Markets in a  
Simple General Equilibrium Model," and "Land Reform  
and the Political Organization of Agriculture" (with James  
Robinson, University of California, Berkeley).

*Data*

A public website was created where others can access all  
the STATA programs and the (password-protected) raw  
data sets for the rural household panel survey. Also posted  
are questionnaire codebooks and other documentation, as  
well as links to related materials such as World Bank  
studies based on the 1996 data set. Eventually the  
information will be moved to the OSU website; the  
temporary location is <http://jconning.tripod.com/sv/>

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◆3◆

**Land Market Liberalization and the  
Land Access of the Rural Poor:  
Lessons from Recent Reforms in  
Central America**

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Carter, Michael and Juan Chamorro, "Estudio De Las  
Dinamicas De La Economia Rural: Impacto De Proyectos  
De Legalización De La Propiedad En Nicaragua."  
Preliminary version presented at the Land Titling  
Workshop, Managua, July 2000.

Deininger, Klaus and Juan S. Chamorro. "Equity and  
efficiency impacts of land rights regularization: The case  
of Nicaragua." Paper presented to the meetings of the  
International Agricultural Economics Association, August  
2000.

Olinto, Pedro, Klaus Deininger and Benjamin Davis.  
"Land Market Liberalization and the Access to Land by  
the Rural Poor: Panel Data Evidence of the Impact of the  
Mexican Ejido Reform." Working Paper, World Bank,  
May, 2000. 49 pp.



# Eastern Europe and Eurasia



## BASIS CRSP Research Projects

- ◆1◆ **Central Asia Research Program**
- ◆2◆ **Market Oriented Reform in the Russian Agricultural Sector**
- ◆3◆ **Farm Size, Farm Type and Competitiveness in the Kyrgyz Republic – 1999-2000 Competitive Grant Award**
- ◆4◆ **Design of a Database to Monitor Land Privatization in Eastern Europe and the Former Soviet Union**

## Acronyms used in this section

AAI	Andijon Agricultural Institute, Uzbekistan
AFE	Agrifood Economy, IET, Moscow
AREC	Agriculture and Resource Economics
BASIS	Broadening Access and Strengthening Input Market Systems
CIS	Commonwealth of Independent States
DFID	Department for International Development, United Kingdom
E&E	Eastern Europe and Eurasia
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
IET	Institute for the Economy in Transition, Moscow
IRIS	Institutional Reform and the Informal Sector
LPI	Land Privatization Index
LTC	Land Tenure Center, University of Wisconsin-Madison, USA
MTP	Machine Tractor Parks
OECD	Organisation for Economic Co-operation and Development
REPI	Real Estate Privatization/marketability Indicators
TIIAME	Tashkent Institute of Irrigation and Agricultural Mechanization Engineers, Uzbekistan
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

# BASIS CRSP Research in Eastern Europe and Eurasia



## Central Asia Research Program

### Collaborating Institutions and Researchers

#### University of Wisconsin-Madison

##### Land Tenure Center (LTC)

Peter Bloch, BASIS Research Program Leader,

Senior Scientist

Andrey Kutuzov, Research Associate

#### Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME), Uzbekistan

Alim Pulatov, Uzbekistan Project Leader

Farrukh Aknazarov

Fridun Baraev

Bakhodir Mirzaev

Kysymjon Rakhmonov

Anarbay Sultanov

Uktam Umurzakov

#### Uzbekistan Government

Marat Uusupov, Financial Research Institute,

Ministry of Finance

#### Andijon Agricultural Institute (AAI)

Tolibjon Khudoiberdyev

*Project dates: March 1997 - March 2000 (completed)*

*Support: Core funding. Additional support provided by the Republic of Uzbekistan Ministry of Agriculture and Water Resources.*

### Background

Uzbekistan, with 22 million people, is the most populous of the Central Asian countries in the Commonwealth of Independent States (CIS), the world's fourth largest producer of cotton and the second largest exporter after the United States. It also exports gold and natural gas and has the ability to be self-sufficient in crude oil. Its industrial sector is substantial but primarily focused on the processing of raw materials. Uzbekistan has chosen a slower path to reform than many other CIS countries, and the State controls the process, which is locally termed "step-by-step" reform.

Since independence, Uzbekistan has followed a food self-sufficiency strategy, reducing its cotton acreage substantially from its Soviet-era monoculture and increasing the area sown in wheat, corn, and forage crops. While this strategy has reduced the potential for export earnings, the high world market price of cotton buffered losses considerably, as has growth in exports of natural gas to neighboring countries. Beginning in 1994, the

government altered its macroeconomic policy, reducing inflation, consumer subsidies, and the budget deficit to levels comparable to those of the more successful CIS countries. Privatization, however, has lagged, except for housing and small commercial establishments; land remains property of the state and there are no plans to change this. A modest but growing number of *dekhkan* (private) farms are being established, but their independence from the state or collective farm from which they are separated is far from complete.

### 1999-2000 Activities: *Project Completed*

Translation and editing continued on papers scheduled to be published in *Rural Factor Market Issues in the Context of Agrarian Reform*. Based on a compendium of secondary data, researchers and officials wrote papers about the factor market issues that have arisen in the course of agrarian reforms in Uzbekistan since 1990. Papers were drafted in the second half of 1998; discussed at a series of BASIS seminars at TIAME from January through May 1999; and final drafts, in Russian, were prepared in August 1999. Translation and editing by Bloch and Kutuzov are ongoing; the papers are submitted now in rough form. The authors intend to continue work on them in the coming months. Topics for the papers are:

- Choice of factor proportions in the context of farm restructuring
- Interaction between land access and water access; impact on productivity of different types of farms and on incentives for farm restructuring
- Household resource strategies under risk and uncertainty; the prospects for success in private farming
- Transactions costs of government policies relevant to factor markets, especially financial markets
- Crosscutting theme: sequencing of reforms and rural factor markets

The crosscutting theme was to analyze costs and benefits of the rapid and chaotic reforms in Kyrgyzstan and compare them with the slow, controlled reforms in Uzbekistan. Since the Kyrgyzstan researchers chose not to contribute papers, and funding for fieldwork was not available, the Uzbekistan group decided to delay work on the crosscutting theme. The BASIS CRSP Third Annual Report included brief summaries of some of the Uzbekistan papers; additional summaries are included in this year's report (see Pages 30-31).

In addition, TIAME completed three reports, in Russian, briefly summarized below:

During the transition toward a market-oriented economy, agriculture in Uzbekistan faces severe difficulties. Main crop yields are much lower than their potential, given the productivity of irrigated land. The main obstacles to increased production efficiency involve legal issues, finance, land and water distribution, and material supply.

To improve water management it is necessary to implement a system of payments for use of water and to establish water use associations and groups. At the same time there is need for improvements in relevant legislation and implementation mechanisms and for new economic-mathematical calculations of the efficient use of water.

The laws establishing *shirkat*, farmer enterprises, and *dekhkan* farms (all adopted April 30, 1998) along with the Land Code and corresponding resolutions of the Cabinet of Ministers established a firm legal basis for agricultural reforms under market conditions. But serious problems (e.g. lands not in use, problems with land improvement, and no increase in yields) are connected with difficulties implementing the land use legislation. The authors suggest necessary changes in the relevant laws.

The insufficient level of mechanization and aged machinery constitute the main problems in development of agricultural enterprises. As one contribution, TIAME, in cooperation with the Cummins Engine Company and the joint venture "UzCaseService" established a training center for users of imported machinery. In addition, more than 25 educational centers for specialists, operators, engineers and technicians from *shirkats*, farmer and *dekhkan* enterprises have been created in Uzbekistan. In general, small farmer and *dekhkan* enterprises have old, worn-out equipment. It is highly probable that small farmers will form cooperatives to address this problem.

Prices for agricultural products, especially cotton, pose another important problem. The authors describe approaches that may result in determining a realistic price for cotton, to protect the interest of cotton growing farmer enterprises and strengthen their financial potential. They also point out the need to establish a futures contract system in the cotton sector.

A workshop was held August 7-10, 2000 at AAI, attended by heads of farmer enterprise district associations and farmers of Andijon oblast. Based on workshop recommendations, local experts designed a 92-question instrument covering private farmer enterprise activities: use of land resources, economics of farmer enterprises, use of water, labor, financial situation, environmental problems, and mechanization. Based on the questionnaire, on September 8-11, three groups of experts from TIAME and AAI surveyed 106 farmer enterprises in seven districts of Andijon oblast. The questionnaires were discussed during a 3-day workshop at AAI; consolidated tables reflecting main trends in the development of farmer enterprise in Andijon oblast were produced.

### Excerpts from

## **Rural Factor Market Issues in the Context of Agrarian Reform**

*Edited by Peter Bloch and Andrey Kutuzov*

### ***Efficiency of the Use of Machinery***

*by Pulatov and Radjapov*

"[farm m]achinery is the necessary element of production ... Machinery is a mediating link in interaction between society and nature, the carrier of this interaction. That is why mechanization of production of agriculture is of special importance." This philosophy reveals one of the principal obsessions of Uzbekistan's agricultural policy: mechanization is seen as the only means of improving productivity and therefore means must be discovered to restore or exceed the previous level of machinery use.

Each category of agricultural enterprise faces difficulty in gaining access to machine services. The Machine Tractor Parks (MTP) established in the past few years were an attempt to consolidate the remaining operable machinery in each administrative district rather than allowing each farm to have its own. This was to encourage efficient and equitable equipment use. In practice, however, this appears to work much better for large farms than for small ones, and the smallest ones essentially are unable to get MTP services either because of their cost or because the large farms have privileged access. The paper recommends that government policy be directed at finding means to reduce the costs of and increase access to agricultural machinery.

### ***Problems of Occupational Level Increase in Rural Areas***, by Gaziantz and Khusanov

... analyze important changes in factor proportions in Uzbek agriculture since Independence and the prospects for future employment and production increases. Since 1990, labor intensity of cotton production has increased dramatically, by about 40 percent, as machinery became less efficient and less available. But cotton has declined as a share of agricultural production, such that overall labor requirements have fallen. Surplus labor in rural areas is therefore a growing problem, which has barely been mitigated by migration. Women have borne a disproportionate share of the decrease in employment, perhaps two-thirds of the total, and not only in agriculture but in all sectors.

The paper argues for a phased transfer of labor from agriculture, which is found to continue to employ too many workers to achieve efficiency and profitability. Given the land constraint, the excess labor must find employment in nonagricultural activities. The solutions proposed are an encouragement of small and medium enterprises in services, food processing and other light industry.

***Sustainable Ecological Development of Agriculture in Uzbekistan*** by Pulatov and Zavgorodskaya

. . . documents the degradation of land and water that has resulted from the drive for output maximization in irrigated agriculture and the consequent neglect of sustainability. Lands have become salinized and otherwise polluted, and the Aral Sea greatly reduced. Half the irrigated land is considered salinized, and more than 20% of it is virtually unproductive due to excess mineral buildup.

There is a growing consciousness in Uzbekistan about the need to develop new approaches to environmental management. This paper, with its careful examination of the causes and impacts of poor land and water quality, should contribute to the information base required to formulate a set of agricultural policies that promote sustainability.

***Establishment and Development of Farmer Enterprises in Uzbekistan***, by Chertovitskii

. . . discusses the conditions for the establishment of small farms (farmer enterprises), and their relationship with the state and with the large farms whose land they occupy. By 1994 there were nearly 20,000 such farms, averaging about 14 ha. of arable land. The numbers have stagnated since then, however, with an annual fluctuation of 1,000-2,000 as some abandon their business and others start up. It is clear that, in spite of the government's rhetoric, the economic environment is not favorable to farmer enterprises. The main reasons for the difficulties they face are:

- the lack of necessary farm management skills;
- the lack of necessary infrastructure in the countryside;
- continued dependence on the large farms from which they obtained their land in the timely acquisition of machinery services and irrigation water;
- continued requirement to fulfill state orders for cotton and wheat;
- a price system that makes profitable production difficult;
- the lack of small agricultural machinery appropriate for the needs of farmer enterprises as well as insufficient transportation facilities;
- difficulties in accessing foreign markets;
- insufficient accuracy of cadastral land valuation and consequent imprecision in the determination of lease payments.

***Problems of Regulation of Land Relations in the Republic of Uzbekistan at the Current Stage of Development***, by Rakhmonov and Khakimov

. . . describes the necessary functions of agricultural land management agencies. In countries such as Uzbekistan where land markets do not exist, it is necessary to develop methods of land valuation as part of the cadastre. In addition to their standard duties such as registration of rights to land and land use planning, cadastres could also document and find solutions for land degradation.

The paper details the appraisal methodology that is currently being tested by the state land management agency. Appraisal involves assessment of physical soil quality to estimate a hypothetical ("normative") net income that the land is capable of producing. Net income is then adjusted by coefficients dealing with location (distance to markets) and the level of available technology; finally, adjusted net income is capitalized by an (unspecified) interest rate to yield a "normative" land price.

The principal actions required to reduce or reverse the pace of land degradation is to develop appropriate crop rotations, facilitated by recent trends toward diversification and away from the dominant cotton monoculture of the past.

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## Market Oriented Reform in the Russian Agricultural Sector

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### Collaborating Institutions and Researchers

#### Russia

##### *Moscow State University*

Sergei Kiselev, Head, Department of Agricultural Economics and Deputy Minister of Agriculture  
Olga Yastrebova, Associate Professor and Consultant, Netherlands Economic Institute

##### *Institute for Economies in Transition*

Eugenia Serova, Chair and Head in Higher School of Economics, Moscow

##### *The Foundation for the Support of Agrarian Reform and Rural Development*

Natalya Shagaida, Consultant Economist

##### *Institute of World Economy and International Relations Russian Academy of Science*

Dimitri Rytko, Head of Center

#### USA

Richard N. Blue, Principal Investigator, Bluemont, VA

##### *University of Maryland College Park*

*Agriculture and Resource Economics (AREC)*  
*Institutional Reform and the Informal Sector (IRIS)*  
Bruce Gardner, Professor of Agricultural Economics  
Howard Leathers, Associate Professor, Agricultural Economics

Anthony Lanyi, Director, Economic Policy, IRIS  
Leonid Polishchuk, Senior Economist, IRIS

##### *Georgia Southern University*

Gregory Brock, Assistant Professor

##### *Iowa State University*

Bob Jolly, Department of Agricultural Economics

##### *Rural Development Institute*

*University of Washington*  
Leonard Rolfes, Attorney, Head of Russian Projects

##### *U.S. Department of Agriculture*

*Economic Research Service*  
Bill Liefert, Senior Economist  
Sefan Osborne, Economist  
Michael Trueblood, Economist

*Project dates: October 1998 – September 2001*

*Support: Core funding only. During 2000-2001, cost-sharing with University of Maryland and other participating research centers.*

*Additional Support: Program oversight and administrative support will be provided by USAID/Moscow, the Ministry of Agriculture, Russian Federation, and the Institute for Economies in Transition, Moscow. The Foreign Agriculture Service, USDA, is actively supporting this project by including it as an official part of the work of the Russian-US Joint Commission. The Economic Research Service, USDA, will be cost sharing with salary and other research computational facilities support as the project develops.*

### Background

That the experience with agricultural policy and institutional reform in Russia has been less than satisfactory is a conclusion accepted by most observers. The primary factor in this lack of progress is fundamental disagreement among Russian factions as to the proper direction and pace of reform. At least part of the problem is the lack of sound factual information and analysis that can be used by policy makers and other interests for assessing the present state of the sector. Although the World Bank, the OECD, the EU, and USAID invested considerably in studying policy options for agricultural reform since 1991, these studies failed to build a sufficiently strong consensus within Russia about what needed to be done.

Proceedings of the October 1-2, 1999 Golitsyno meetings, "Issues in Privatization and Restructuring of Russian Agriculture: Agricultural Policy" (described in the BASIS CRSP Third Annual Report), have been published in Russian and in English by the Institute for the Economy in Transition (IET) Analytical Centre, Agrifood Economy (AFE), Moscow. The papers and remarks presented by BASIS-sponsored participants were translated and published in both the Russian and the English Proceedings. This volume has received remarkably widespread circulation and interest among Russian policy makers and researchers. International scholars and officials have shown interest as well. Although the English version is no longer in print, the Proceedings are available on the BASIS web site.

In December 1999, President Yeltsin resigned and was replaced by Mr. Vladimir Putin. The Golitsyno Proceedings were published in January 2000. Soon after, an all-Russia conference on agriculture was held in Krasnodar at which Mr. Putin spoke about the need for reform. In March Mr. Putin was elected President. By July a new government had been formed. Although the previous Minister of Agriculture remained in place, changes in the overall economic team and direction have been significant. At the same time, new leadership at the USAID Mission has been put in place.

On the economic side, the financial crash and Ruble devaluation of 1998 began in 1999 to have a positive effect on Russian industrial production and, to a lesser extent, on agricultural production. Perhaps more importantly in the long run, there is evidence to indicate that some types of input markets for land, labor and capital may be emerging.

Thus, an opportunity has emerged for a renewed policy research and reform engagement between Russian and American leaders and researchers.

### 1999-2000 Activities

Following several meetings in Moscow with Deputy Minister of Agriculture Kiselev and with Dr. Eugenia Serova of IET/AFE, Blue approached the new USAID Mission Director in February 2000 with a request to support a BASIS strategy of exploring future research collaboration with Russian scholars and policy makers. The USAID response was positive.

In April, the Center for Institutional Reform and the Informal Sector (IRIS) at the University of Maryland became Blue's institutional home. Dr. Bruce Gardner, a senior faculty member in the University of Maryland's Department of Agricultural and Resource Economics and who had attended the Golitsyno conference the previous year, agreed to collaborate with Blue.

The initial plan for a small US delegation to visit Moscow in late spring 2000 fell through due to budget constraints and scheduling conflicts. Instead, a Conference on Market-Oriented Reform in the Russian Agricultural Sector was held in July 2000 at IRIS. Russian participants were Sergei Kiselev, Deputy Minister of Agriculture, and four Russian researchers. In addition to IRIS personnel, seven US university researchers and one USDA economist attended.

A preliminary meeting on July 10, 2000 at USDA was attended by interested parties from USDA, USAID, the US Department of Commerce, the US Trade Representative's Office, and the World Bank. This gathering gave the Russians an opportunity to discuss with American experts the direction of policy reform under the Putin administration, as well as their specific interest in needed research on issues related to future agriculture policy making by the Russian administration.

The conference took place July 11-12, 2000 at IRIS. Presentations and subsequent discussions were lively, informal, informed, and at times, somewhat fractious. Russian participants freely spoke their minds, whether the Deputy Minister agreed or not. Both Russian and American participants were not hesitant to be critical, or to change their positions after listening to their colleagues. By the second day, after considerable

## Improved Policy Making for Agriculture in Russia

The BASIS Russia agenda setting conference held at IRIS in July 2000 identified five main research themes that could lead to improved policy making for the agriculture sector in Russia. The research themes are:

1. Labor markets in a labor surplus economy—demographic, regulatory constraints, and changing incentive in Russian agriculture sector labor markets. implications for efficiency, employment and income generation.
2. Changing institutional and management dynamics at the farm level—experimentation and competition between various forms of on-farm decision management and ownership.
3. Emerging forms of land markets—implications for land use, investment strategies, and alternative strategies for resource sustainability.
4. Extracting operating and long-term credit from a poorly articulated and inadequate farm credit system, the interplay between private domestic and foreign investment, non-market oriented public flows, and the organization of input markets. Farm level and investor coping strategies under constrained and disorganized conditions.
5. Market integration and coordination—local barriers to entering and transacting in input markets, output market relationship to input markets (including vertical integration), interregional barriers to movement of commodities and inputs, transmission mechanisms of price signals from international to domestic markets and from region to region for energy, fertilizer, and other purchased inputs as well as raw commodities.

discussion, a thematic agenda emerged and a consensus was reached.

The overarching framework for the proposed research agenda is the possibility of documenting, analyzing and extracting policy-relevant recommendations from the response of Russian primary and intermediate input factor markets to the financial crisis and devaluation of late 1998 in the Russian economy. The conference agreed on five major themes presented above in no particular order.

Budget constraints imposed considerable discipline on the kinds of methodological choices the conferees discussed. A general approach was agreed to, subject to refinement and cost analysis.

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**Proceedings from the Golitsyno Workshop have received widespread circulation.** *The Table of Contents is reproduced above. Both Russian and English versions were produced by the Institute for Economy in Transition Analytical Centre, Agrifood Economy, Moscow. The English version is posted, with permission, on the BASIS CRSP web site at: <http://www.wisc.edu/ltc/baspubeur.html>*

## 1999-2000-Activities

*(Continued from Page 33)*

The major elements are:

- Concentrate research in six oblasts
- Use existing data sets before embarking on new data collection procedures
- Carry out a core survey research activity, collecting only those data most critical to statistical analysis by each of the teams
- Conduct time series participant observation studies
- Supplement all with key informant interviews

## 2000-2001 Work Plan

A working conference on Market Oriented Reform in the Russian Agricultural Sector is planned, to be held in Russia at Golitsyno Conference Center near Moscow. It is scheduled for early July 2001. The main organizers are the Institute for Economies in Transition, the Ministry of Agriculture, and IRIS. The audience will be Russian, American and international policy makers, influentials, and researchers.

The conference title is “Land, Labor, and Purchased Input Market Constraints on Economic Growth in Russian Agriculture,” and the conference’s main purposes are as follows:

- To present findings from commissioned studies that review Russian and relevant international literature on policy research themes developed at the July 2000 conference at IRIS
- To further refine the conceptual framework for a policy relevant research agenda on the general issue of emerging markets in a post-crisis Russia

Papers will focus on the following areas:

1. Framework for analysis of issues and applicable theory for problems of factor markets in Russian agriculture
2. Labor and human capital
3. Land
4. Purchased inputs
5. Institutional and Contractual Innovations
6. Credit/Finance

Golitsyno I, was primarily a Russian affair with relatively limited American involvement. Golitsyno II will clearly establish the Russia-US BASIS collaboration as a positive force for research relevant to policy dialogue. It will lay the foundation for well-targeted research efforts based squarely on an assessment of the existing knowledge base in Russia and internationally. It will put forward answers to these questions: what do we know, what has changed,

what don’t we know, and what are the relevant policy issues which are or must be examined? Answers to these questions are a necessary first step in the development of a long-term research program.

There is a body of important research on many of these subjects both in Russian and in English. Part of the task of Golitsyno II will be to engage American, Russian and international researchers in a review and analysis of the literature in the light of hypothesized changes in the actual performance of the sector since the financial collapse of 1998.

Two events will be held subsequent to Golitsyno II: (1) a PI planning workshop in Moscow, and (2) a research methods training workshop for junior researchers and research assistants who will be associated with the data collection phase of the project.

Other benefits will flow from the completion of the proposed work plan:

- Russian and American researchers will develop working relationships in advance of long-term collaboration.
- Russian policy makers and others attending the conference will have an opportunity to influence further research agenda setting.
- Potential financing partners will be encouraged to “buy in” to an ongoing, high impact activity, with most of the startup costs already absorbed.

## Anticipated Outputs

Individual papers will be produced and presented at the conference, exploring the six identified areas. Each paper will be either co-authored by Russian and US researchers, or will be individually authored but closely coordinated by the PIs from both sides.

Each paper will cover five areas: (a) description and state of literature on the issue, (b) assessment of data available and needed for full analysis, (c) leading explanatory hypotheses, (d) state of policy with respect to the issue and bearing of hypotheses on policy choice, and (e) development of a detailed program for obtaining appropriate data and testing hypotheses in such ways as needed to assist in policy development.

Proceedings will be prepared both in Russian and in English under joint sponsorship of the Russian and US collaborating institutes. The publication will be produced jointly by the Institute for Economies in Transition, and IRIS, under the BASIS banner. This publication will include the papers presented and discussed at the conference, summaries of the discussions, and a summary and “next steps” paper prepared by the Russian and US co-editors.

## Farm Size, Farm Type and Competitiveness in the Kyrgyz Republic

### Collaborating Institutions and Researchers

#### University of Wisconsin-Madison

##### Land Tenure Center (LTC)

Malcolm Childress, Research Program Manager

#### United Kingdom Department for International Development/Scottish Agricultural College

##### Land and Agrarian Reform Project

Maksatbek Tashbelotov, Team Leader

#### Ministry of Agriculture and Water Resources

##### Kyrgyz Republic Center for Land and Agrarian Reform

Kachkinbay Dandabaevich Kadyrkulov, Director

Akyljan Kalpakova, Privatization Specialist

#### Center for Economic and Social Research in Kyrgyzstan

Roman Mogilevsky, Director

*Project dates: October 1999 - September 2000 (completed)*

*Support: Core funding; with matching from United Kingdom Department for International Development/Scottish Agricultural College Land and Agrarian Reform Project and the Kyrgyz Republic Ministry of Agriculture and Water Resources*

### Background

Agriculture is the largest economic sector in the Kyrgyz Republic, accounting for 38 percent of GDP in 1999, and 52 percent of employment. The process of agricultural transition in the Kyrgyz Republic is unfolding rapidly. It is arguably the swiftest and most far-reaching structural change among the agricultural sectors of the CIS countries. As of January 2000, 47 percent of the arable land in the country had come under the control of 69,000 small and medium sized farms formed since independence. The other 53 percent is managed by 600 corporate-collective farm enterprises that maintain much of the structure of their predecessor state and collective farms, under a variety of new legal forms. State-owned agricultural production enterprises have diminished to about 50 enterprises engaged primarily in seed production and breeding-stock development. Pastures and forests remain state-owned.

National agricultural production figures depict relatively rapid growth since 1996, (between 5% and 9% per year) after a period of sharp contraction during 1991-1995. In spite of this positive overall trend, however, rural poverty remains acute (65% in 1997) and doubts have been

expressed about the ability of the country to sustain growth rates given infrastructural deterioration, weak private investment, and limited domestic and foreign market development. Therefore, for both poverty alleviation and achievement of macroeconomic goals, the continued growth of agricultural income is of crucial importance.

BASIS research attempted to explain, quantify and compare the determinants of net farm returns by farm type during land reform from a sample of 1999 crop year farm data. The results suggest areas that could be targeted to most rapidly improve farm incomes, contribute to poverty alleviation, and assist in national growth.

### 1999-2000 Activities

A total of 468 farms belonging to various farm types were surveyed. They represented 40 out of 41 *rayons* (counties) of the Kyrgyz Republic. Within a stratification according to farm type, farms were randomly selected through a systematic sampling technique using *Rayon* Statistical Committee farm registrations as a sample frame. The farm survey's principal objective was to compare the performance of different farm types during an agricultural year in order to provide a baseline to monitor the government's agrarian reform program. Farms were stratified into four types and selected in proportion to their numbers in each region. The types are: (1) individual farms, with single-family ownership below 50 hectares; (2) peasant farms with multiple-family ownership, generally beneath 150 hectares; (3) collective farms with corporate ownership and management, 150 hectares and up; and (4) state-owned farms with corporate management, 150 hectares and up.

Two reports were prepared by Mogilevsky and Childress. The first compares farm types on a broad set of indicators. The second is concerned with determining farm returns, particularly as a function of different type of landholding.

### Key Findings and Results

Two workshops presenting research results were held during the summer of 2000, involving policy makers, extension agents and farmers. Reports of the main survey findings are being published in Russian and English. These findings are being used in the Kyrgyz Republic by the Republican Center for Land and Agrarian Reform in public education, training and policy activities, and by the Rural Advisory Development Service as a reference and farm management tool. The research effort has assumed the role of the main monitoring and evaluation tool for the Ministry of Agriculture and Water Resources for farm level data. Discussions are underway with the Rural Advisory Development Service at their request to involve the service's advisors in data collection. This involvement could lead to an institutionalization of the research tied to feedback of information to farmers.

Thus far in the transitional period, net returns for all types of production agriculture are low in terms of their ability to generate household income much beyond subsistence at average sizes of land endowment. Sample averages of 3,500 som/hectare per year (\$US78) and 6,000 som/worker (\$US133) bear out the prevalence of poverty in the agricultural sector.

Differences in net returns per hectare among the four formally defined farm types are not statistically apparent. Neither are simple scale effects between operational size and net returns per hectare. The hypothesis that a differentiation in returns to land is found at different operational sizes was rejected. Nevertheless, there are weak but statistically significant negative correlations between costs per hectare and farm size.

Only irrigated land is statistically associated with positive net returns. This result suggests that increasing the amount of irrigated land available for cultivation, especially through rehabilitation is potentially a key sector strategy.

There is a significant regional differentiation in returns with the areas in the densely populated southern region (Osh and Jalal-Abad) showing the highest returns per worker and the relatively land-abundant oblasts of Talas



**In the Kyrgyz Republic**, farmers, local government officials, and Rural Advisory Development Service (extension) staff learn about characteristics of profitable farms. Researcher Roman Mogilevsky (at front of room) describes research results at a workshop in Kant Rayon, Chui oblast, in north central Kyrgyz Republic. Photo by Maksatbek Tashbelotov.

and Chui displaying the largest returns per hectare. The interior, mountainous region of Naryn showed negative returns for both indicators. Ultimately this suggests that the land market could reallocate land and labor among regions in a beneficial way, although social issues such as housing and ethnic acceptance complicate this picture.

Of major crops, tobacco, potatoes and cotton, corn, winter wheat and perennial crops generate the highest net returns per hectare of land. Dairy and cattle activity showed positive net returns, while traditional activities of sheep and horse husbandry displayed negative net returns. Crop production costs are dominated by seed purchase and equipment rental and total farm costs are dominated by crop costs. These results suggest that from the cost side, reductions in the cost of machinery and seed may be the best way to increase returns.

The project experienced some problems with field checking of surveys, as well as ranges or spreads of values for specific indicators that were greater than researchers had hoped. A key question about off-farm income too frequently was left unanswered. Greater pre-testing of questionnaires and greater training and supervision of field staff is called for in the future if the survey is repeated. Future studies may also prefer to take a household approach to better capture the complex interplay between collective farm and individual plot activities of households that are also members of collective-corporate farms.

Results of the project help to determine the strengths, weaknesses and appropriateness of types of land reform and farm restructuring. Research results also provide primary data to measure the impacts of land reform on household income and productivity. In addition, the results provide an important caution to policymakers because they show that determination of the strengths, weaknesses and appropriateness of different approaches to land reform—represented by farm type differentiation in this research—may be difficult to observe in a cross-sectional data set. Quantitative survey methods may need to be complemented by other methods to make these determinations.

A journal article is being prepared to submit for publication.

### **Collaboration with Other Projects**

The project collaborated closely with the DFID Land and Agrarian Reform Project and with the Rural Advisory Development Service, which is a World Bank funded activity. Researchers shared information with the USAID/Chemonics Land Reform Project and the USAID/ARD, Inc./Checchi Commercial Law Project in Bishkek.



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## **Design of a Database to Monitor Land Privatization in Eastern Europe and the Former Soviet Union**

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### **Collaborating Institutions and Researchers**

#### **Russian Federation**

Alexey Overchuk, Director of the Information Analysis Directorate Federal Land Cadastre Service, Russia

#### **Azerbaijan**

Amin Ismailov, Head, Center for Land Cadastre and Geoinformation Systems, State Land Committee

#### **Belarus**

Georgii Kuznetsov, Chairman, State Committee for Land, Geodesy and Cartography

Sergey Shavrov, General Director, National Cadastral Agency, State Committee of Belarus Republic for Land Resources, Geodesy and Cartography

Alexander Pomelov, Associate Professor, Belarussian Research Center on Land Management, Belarussian State University

Elizabeth Bulatetskaya, Correspondent, Analytic Weekly Newspaper "Belarussian Market"

#### **Georgia**

David Arsenashvili, Chief Legal Advisor, USAID Land Markets Project

#### **Moldova**

Ala Climova, Legal Department Head, First Cadastral Project Implementation Office

#### **Lithuania**

Bronislovas Mikuta, State Land Cadastre and Register

#### **Albania**

Petrit Harasani, Project Management Unit for the Land Market Action Plan, Land Market Policy Department

#### **FAO**

Fritz Rembold, Land Tenure and Rural Development Officer, FAO/ Budapest

#### **Danish Cadaster**

Jens Wolters, Head of South Jutland Cadastre, National Survey and Cadastre, Denmark

#### **USAID**

Lena Heron, BASIS Project Officer, Global Bureau

#### **University of Wisconsin-Madison**

Daniel W. Bromley, Professor, Agricultural and Applied Economics

Andrey Kutuzov, Researcher, Land Tenure Center

David Stanfield, Senior Researcher and Coordinator of LPI Project, Land Tenure Center

The 16 individuals listed here participated in the Land Privatization Index Workshop held in Minsk, Belarus, August 21-23, 2000.

*Project dates: October 1999 - March 2001*

*Support: Core funding and add-on funding from E&E Bureau/USAID. Additional support provided by the organizations that paid travel expenses and allowed work time for their representatives to prepare papers and attend the Minsk workshop.*

### **Overview**

The project's objective is to test the feasibility of gathering and publishing statistics on the extent and/or rate of real estate privatization. The plan as originally envisioned was to: (1) assess and evaluate available data for countries in the Eastern Europe and the Commonwealth of Independent States; (2) assess the interest of other donors such as FAO, World Bank, OECD and others in setting up and maintaining a database on privatization, and (3) develop a workable indicator to use.

The initial plan was for a workshop to reflect on the land privatization experiences of just three countries, one CIS country and two Eastern European countries. Participation by representatives from seven transition countries (six former Soviet Union and one Southeastern European) greatly exceeded expectations and enabled a fruitful exchange.

### **1999-2000 Activities**

The Land Privatization Index Workshop was held August 21-23, 2000 in Minsk, Belarus (see agenda, Page 39). Representatives (see above for names and affiliations) from Georgia, Azerbaijan, Moldova, Albania, Lithuania, the Russian Federation and Belarus prepared country papers and presentations. Observers from the University of Wisconsin, USAID/Washington, FAO and the Danish Cadaster also participated. The purpose of the workshop was to present and discuss papers from each country dealing with the concepts of land privatization in each country. Papers also addressed the statistical description of the extent to which various sorts of land has been converted into private holdings with the right to transfer private ownership or leasehold interests to third parties.

### **Collaboration with Existing Projects**

USAID-supported land privatization programs in Georgia and Moldova collaborated with this project. As listed above, various national organizations contributed to the implementation of the workshop in Minsk.

## **Workshop on “A Land Privatization Index”**

**Minsk, Belarus / 21-23 August, 2000**

### **A G E N D A**

#### **Sponsors**

National Land Agency of the State Committee for Land Resources  
Geodesy and Cartography of the Republic of Belarus  
Land Tenure Center, University of Wisconsin, with funding from the U.S. Agency for International Development and from the University of Wisconsin.

#### **Purpose of the workshop**

Discuss the feasibility of gathering and publishing statistics on the extent and/or rate of land and real estate privatization in countries and/or regions of countries. The participants will present and country studies of (1) the concepts used in the “privatization” of land (immovable property), and (2) available statistics on the extent of “privatization” carried out since 1990, and the comparability of these concepts and statistics across regions and countries.

- 21 August      Presentations of the country studies:
1. The legal concepts of land privatization
  2. Statistical data on the extent of different types of privatization, national and regional, if available.
- 22 August      Morning: Continue country studies  
Afternoon: Analyze the viability of land privatization index data collection over time and across regions to monitor the results of privatization programs and their implications for sustainable development.
- 23 August      Morning: Develop project proposal for needed research on the privatization processes which country teams would conduct  
Afternoon: Depart or further explore common interests

#### ***Papers presented***

- *Land Privatization in Albania*, Katherine Kelm, Petrit Harasani and David Stanfield with Fioreta Luli, Llukan Puka, Malcolm Childress and Dwight Haase
- *Legal Aspects of Land Reform in Azerbaijan*, Amin Ismailov
- *Legal Forms of Privatization for Various Types of Land and Real Estate in the Republic of Belarus*, Sergey Shavrov and A. A. Zharnovskaya
- *Land Privatization in Georgia*, David Arsenashvili
- *Privatization of Property in the Republic of Moldova*, Ala Climova
- *Development of Private Landownership in Russia*, Alexey Overchuk
- *Land Privatization and Land Markets in Lithuania*, Bronislovas Mikuta

**At the Minsk workshop participants crafted recommendations** about the viability and usefulness of a land privatization index or indices. The papers included statistical descriptions of the extent to which various sorts of land has been converted into private holdings. Some of the papers are posted (with permission) on the BASIS website. Note that the workshop is considered a BASIS Output but the papers are not.

## Results

At the Minsk workshop, participants crafted recommendations about the viability and usefulness of a land privatization index or indices, and how to make such indicators useful for the development of land market policies.

Privatization, in the Minsk workshop context, includes two specific elements, namely the State's transfer of at least the following rights to physical or legal persons: (1) the right to hold, use, and enjoy real estate; and (2) the right to transfer ownership or leasehold interest to another physical or legal person.

The workshop used the term "marketable title" to refer to privatized real estate where owners can transfer ownership to someone else. The term emphasizes the importance of the right of transfer within the bundle of rights held by the new owners of the real estate. Some regional concepts of the structure of real estate privatization, however, are somewhat at variance with this notion.

In most countries represented at the workshop, real estate is considered as having a "marketable title" if a specific parcel is described in a document explaining the transfer of ownership from the state to a specific physical or legal person who holds the marketable right of ownership over that real estate. In some countries (e.g. the Russian Federation, Ukraine, and other CIS countries), however, there have been more complicated concepts employed, as follows:

- Sharing out of land ownership—distribution of land shares followed by certificates pertaining to the land of a former collective or state farm, giving land ownership to the certificate holders. The enterprises themselves are re-constituted into various forms, such as joint stock companies, production cooperatives, limited liability and mixed partnerships, which lease in, use, and in some cases acquire the ownership of land through contracts with the holders of the land shares.
- Group farm land privatization—land passes directly into the ownership of enterprises, formed from the residents/workers of the enterprises.
- Ambiguous privatization—another tenure form for agricultural land holding is the "lifetime inheritable estate" carved out of the former collective and state farms. No sale or other transfer of the rights to such properties is legal, except by inheritance. In some statistical series this land is classified as "privately owned," which does not correspond to the definition used in the workshop.

Finally, real estate may be titled in marketable ownership to physical or legal persons, but still not be legally marketed. Registration is required in a functioning and legally defined system for recording and displaying ownership and other rights to real estate. Any transfer of right is not considered complete or under the protection of the law unless that transfer is registered, including a "patent," in legally prescribed ways.

We can say that a specific piece of real estate is moving along the continuum toward greater "marketization" if it has a marketable title attached to it, and if that title is registered in an official and legally sanctioned registration system.

There seemed to be consensus at the workshop that it is highly desirable for countries creating real estate markets to generate national and regional statistics both for the degree to which marketable titles have been distributed to private owners, and the degree to which these titles are legally registered, i.e. "marketized."

## Workshop Conclusions

- During the transition period when privatization programs are being carried out (usually approximately 10 years), information on the extent of privatized/marketized real estate is important to generate and monitor to develop appropriate land market development policies. With special studies to generate the needed data, it would be possible to produce an overall "REPI," a simple average of the four main real estate privatization/marketability indicators for each country. Country policy makers might seek REPI for each region of a country.
- In this effort attention should be paid to the following:

*The definition of "agricultural land" should use FAO's definition, including agricultural land which according to existing legislation is not "privatizable." For these latter lands a note should indicate the extent of this category. Care should be taken to present statistics separately for lands in natural pastures, since countries differ in how they treat these lands.*

*The definition of "private ownership," to include the "shared out" type of privatization, but to exclude tenure forms which do not specifically include the right to transfer ownership to another physical or legal person.*

- Information gathered permanently for a set of real estate marketization indicators is not needed after the privatization programs are mostly completed.

*(Continued, next page)*

## Workshop Conclusions

(Continued)

- Workshop participants strongly recommend that indicators be developed (concepts defined and statistics gathered) for inter-regional and international comparisons of *real estate market development* on a permanent basis. After all, privatization programs are done to prepare for the functioning of real estate markets, and are not ends in themselves. Moreover, real estate markets are sensitive to a variety of real estate policies and are themselves indicators of broader social and economic phenomena. Finally, real estate market indicators can be useful for other real estate administration purposes.

## 2000-2001 Work Plan

Between October 2000 and the project's conclusion in March 2001, researchers will prepare the final report on the feasibility of real estate privatization indicators and data base development, including the country studies prepared for the Minsk workshop.

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## 1999-2000 Outputs

◆1◆

### Central Asia Research Program

Bloch, Peter and Andrey Kutuzov, eds. *Rural Factor Market Issues in the Context of Agrarian Reform*. Final manuscript received, 2000.

TIIAME reports. *Research Problems Relating to the Restructuring of Farmer Enterprises; Report on August 7-10, 2000 Tashkent Workshop*; and *Analysis of Development of Private Farmer Enterprises in Uzbekistan: the Example of Andijon Oblast*. Reports submitted in Russian; brief summaries in English translated by Andrey Kutuzov, 2000.

◆2◆

### Market Oriented Reform in the Russian Agricultural Sector

"Farm Profitability, Sustainability, and Restructuring in Russia : Proceedings of the Workshop Held in Golitsyno, Moscow Region, 1-2 October 1999." Moscow : Institute for Economy in Transition Analytical Centre, Agrifood Economy, 1999. 156 p. (ISBN 5932550155). Also available on the BASIS web site.

◆3◆

*1999-2000 Competitive Grant Award*

### Farm Size, Farm Type and Competitiveness in the Kyrgyz Republic

*Report on Farm Survey*. Distributed 500 copies in Russian language in Kyrgyz Republic. After editing, this report will become a BASIS output. 105 pp.

*Analytical Report on Farm Returns and Land Value*. Circulated among key policy makers in Kyrgyz Republic. Report is the basis for a journal article to be submitted for publication. 29 pp.

Seminar of findings presented to farmers, local government officials and Rural Advisory Development Service staff. *Kant Rayon* (north central) Kyrgyz Republic, October 12, 2000.

◆4◆

### Design of a Database to Monitor Land Privatization in Eastern Europe and the Former Soviet Union

Land Privatization Index Workshop, August 21-23, 2000 in Minsk, Belarus.



# Greater Horn of Africa



## BASIS CRSP Research Projects

- ◆1◆ **From Household to Region: Factor Market Constraints to Income and Food Security in a Highly Diverse Environment – South Wollo, Ethiopia**
  - 1.A. Regional Market Centers, Linkages and Functions Study
  - 1.B. Community Assessment Studies
  - 1.C. Rural Household Study
  - 1.D. Case Studies of Factor Market Relationships
- ◆2◆ **Cross-Border Trade and Food Security in the Horn of Africa**
- ◆3◆ **Linking Agriculture to Human Nutrition: A Gender-Based Analysis of Institutional Initiatives and Experiences**
- ◆4◆ **Horn of Africa Symposium: Agricultural Policy, Resource Access and Human Nutrition**
- ◆5◆ **Changing Tenure Patterns, Institutional and Policy Responses to Water Management in East Africa and Privatization of Water Tenure in Kenya: Technology as a Determinant to Access to Water**
- ◆6◆ **Irrigation, Participation, and Factor Markets in Tanzania: A Participatory Research Program – 1999-2000 Competitive Grant Award**
- ◆7◆ **Alleviating Poverty and Food Insecurity: The Case of Mwea Irrigation Scheme in Kenya**

## Acronyms used in this section

ACTS	African Center for Technology Studies
CARE	Cooperative Assistance and Relief Everywhere
CRSP	Collaborative Research Support Program
DFID	Department for International Development, United Kingdom
FANta	Food and Nutrition Technical Assistance
FAO	Food and Agriculture Organization of the United Nations
FEWS	Famine Early Warning System
GIS	Geographic Information System
GTZ	Deutsche Gesellschaft Fur Technische Zusammenarbeit
IDA	Institute for Development Anthropology
IDR	Institute of Development Research, Addis Ababa University
ICRW	International Center for Research on Women
IGAD	Intergovernmental Agency for Development
LINKAGES	A worldwide project to support breastfeeding, related complementary feeding and maternal nutrition
LTC	Land Tenure Center, University of Wisconsin-Madison
MIS	Mwea Irrigation Scheme, Kenya
NGO	Non-governmental organization
NIB	Parastatal National Irrigation Board, Kenya
OSSREA	Organization for Social Science Research in Eastern and Southern Africa
OAU	Organisation for African Unity
PI	Principal Investigator
PPEP	Peasant Productivity and Economy Project
REDSO	Regional Economic Development Services Office
SIDA	Swedish International Development Cooperation Agency
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development

## BASIS CRSP Research in the Greater Horn of Africa

For programmatic and policy purposes, USAID defines the Greater Horn of Africa to include Ethiopia, Kenya, Eritrea, Uganda, Tanzania, Somalia and Rwanda. Early on, BASIS identified Ethiopia as a primary research country, with Kenya and Eritrea serving as secondary sites. Because of regional conflict and the difficulties of initiating research in Eritrea, this country was dropped as a secondary country early in the BASIS program. During the report year a new study on water management and tenure was initiated in Tanzania.

The Greater Horn of Africa—Ethiopia in particular—is one of the most food-deprived regions of the world. The BASIS Horn of Africa program seeks to identify ways to improve food availability and nutrition and alleviate poverty in the region and to broaden access by the poor and socially disadvantaged to factor markets and sustainable resources.

In most countries in the region there have been massive changes in political and economic institutions brought about through war, shifts toward multi-party politics, and policies of structural adjustment and economic reform. Climatic disasters, especially drought, have also affected many areas throughout the region, and this has been especially the case during the reporting year.

The current drought turned into a regional famine in northeastern Ethiopia and economic instability, human suffering, and massive asset losses have occurred. At the heart of efforts to reconstruct destabilized or disrupted political economic systems are issues of access and rights to key factors of land, water, labor and finance. This is where the BASIS program finds its place—in identifying, analyzing, and directing policy research, training, and action.

The term *community* in this study is synonymous with the *kebele* (formerly known as the peasant association), the lowest administrative unit in Ethiopia.

*Kebeles* are grouped together to form a wider administrative entity called a *woreda*, which in turn are combined to form a zone.



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### From Household to Region: Factor Market Constraints to Income and Food Security in a Highly Diverse Environment—South Wollo, Ethiopia

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#### Collaborating Institutions and Researchers

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Scott McDonald, Research Assistant and graduate student

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##### Other

Charlotte Johnson-Welch, Gender Specialist, International Center for Research on Women (ICRW)

Michael Roth, Senior Scientist, Land Tenure Center

*Project dates: November 1996 - September 2001*

*Support: Core funding and add-on (USAID/REDSO and USAID/Ethiopia)*

## Program Overview

The research site is located in the heart of what was the Ethiopian "famine zone" of the 1980s. Regional grain and factor markets demonstrate strong imperfections in the South Wollo area because of government restrictions on grain and labor movements, poorly developed rural finance and input markets, limited non-farm employment, and low levels of agricultural technology. Market linkages between the principal regional market town of Dessie and Addis Ababa were weak at the time of the 1980s famine. In the region itself, rural markets have weak integration with Dessie. These weak market linkages greatly contributed to famine in the region from 1983-1985, as did prolonged conflict in certain parts of the country.

Research activities during 1999-2000 are part of an integrated study of the social and economic causes of food insecurity at intrahousehold, household, community, and regional levels in South Wollo, Ethiopia. The activities address critical questions of rural output and factor markets, on the one hand, and the dynamics of household access to farm and non-farm incomes ("entitlement"), on the other.

Land, labor, and financial market constraints to resource access and income ("entitlement") opportunities of resource-poor households are a central focus in explaining individual and household differences and will contribute to BASIS's overall research objectives.

The study moves from the macro and regional levels down to household and intra-household data collection. Critical research hypotheses about the relationship between location, market access, and food security require data collection on regional market centers and relationships with households and communities. Household and intrahousehold effects analyzed in isolation of larger market and environmental forces render data difficult to interpret.

The first phase of research on the larger regional context, conducted in 1998 and 1999, recognized the role of market centers and regional infrastructure in defining community and household level opportunities. It also provided a series of community assessments in the region to identify community-level mechanisms for addressing food security, income constraints, and resource access issues.

The second phase moves the study to the level of the household and the economic agent/individual. USAID/Ethiopia funding enabled a series of case studies on different aspects of factor markets and food security.

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Source of maps in accompanying box: United Nations World Food Program, Addis Ababa, Ethiopia, 1999 (As taken from: Shin, Michael. 1999. *Using a Geographical Information System within the BASIS Research Program in Ethiopia.*)

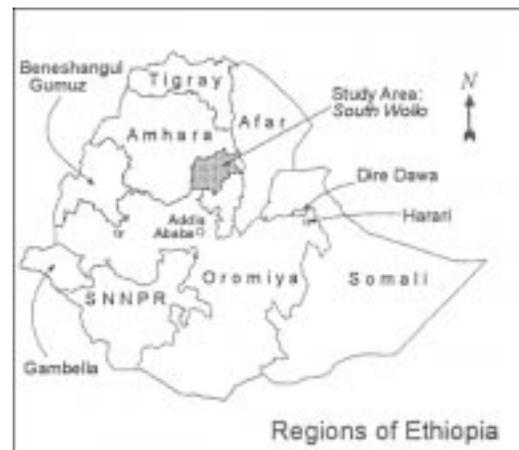
## South Wollo: An Ideal Research Site

The South Wollo zone is located in the eastern Amhara region of Ethiopia. Within a short distance, land changes rapidly along the highland-to-lowland transect, allowing for study of three distinct agro-ecological settings.

The site is close enough to important markets and to the main market road to Addis Ababa, which is about 400 kilometers away. Yet the area is rural enough to allow for the study of how agricultural policy and markets affect resource use, food productivity, and adoption of commercial inputs associated with new farm technology.

In addition, the choice of the Amhara region allows BASIS to observe and contribute to the region's progress toward decentralized economic planning.

The study area—about 100 kilometers, north to south, by 65 kilometers, east-to-west—includes the important trading towns of Dessie and Kolmbacha, as well as the lowland locations of Oromiya Zone around Kemise and Bati market towns. Overall, the study area includes two urban and seven rural *woredas* in South Wollo Zone and two rural *woredas* in Oromiya Zone.



## 1999-2000 Activities

### 1.A Regional Market Centers, Linkages and Functions Study

Research team: Gaile, Gebre-Egziabher, and Little

The fieldwork, data entry, and data analysis for the study took place in 1998 and 1999. It included a study of market center functions; a survey of traders/transporters; a study of buyers and sellers at periodic markets; and a study of the effects of market “isolation” on land use and food production. In July-August 1999 Gary Gaile and Tegegne Gebre-Egziabher completed the inventory of market towns in the South Wollo region, adding another five to the original sample of 19. They also carried out an “isolation” study of the effects of market access on agricultural land use in the *Wereilu Woreda* (district) of South Wollo zone.

The final report of the regional market work was published in November 1999; and the findings of the “isolation” study were written up and presented to the BASIS Policy Workshop held in Dessie, Ethiopia, on October 29, 1999. Participants were researchers, policymakers and local stakeholders in the South Wollo area. With the first phase of research completed, this was an opportunity to share the results of the market and community assessment studies, invite responses from policymakers, and gather advice on how to make the project relevant to current development plans for the South Wollo zone and Amhara region. Representatives from the South Wollo and Oromiya zones gave overviews on the food security programs in the zones and seminar participants discussed ideas for future BASIS CRSP work in the region.

Some of the research findings presented at the workshop are as follows:

- Accessibility to larger market centers is a serious problem for food security links for at least three of the market centers that are 100 or more kilometers from Dessie over rough roads.
- Sellers and buyers come from a limited area around market centers and prices vary widely between different market centers, indicating relatively poor market integration.
- Infrastructure is varied in the market centers surveyed, with notable deficiencies.
- Government services are mixed. Of concern for food security, four of the market centers surveyed have no access to local services of the Ministry of Agriculture.
- Financial services are available in the majority of market centers, but their access to poor farmers is

extremely limited. Microenterprise lending is available in only two of the centers.

- Social services are well represented in the market centers. All but one center has health services, and the majority of towns have skills training centers and other educational services.
- Commercial services related to food security are available in the market centers surveyed on a very limited basis.
- All but one market center reported experiencing “food shortages or problems.”
- Food aid was largely provided by the government, but was often considered ineffective.
- The spatial structure of crop prices indicates a few parts of the region are now growing surplus staples.
- The “isolation” study shows that spatial access to markets has a significant impact on patterns of non-farm employment but little effect on land use and agricultural productivity because size of landholdings, resource endowments, and access to inputs are so limited.

### 2000-2001 Work Plan

Further write-up and analysis of the “isolation” and market town studies, in the form of a journal article, will synthesize the research findings during the final years of the program. No further field research or data collection will be undertaken.



**Informal discussion enhances communication** among researchers, policymakers and local stakeholders at the October 1999 BASIS workshop in Dessie, Ethiopia. The workshop provided an opportunity to share study results, invite responses from policymakers, and gather advice from local leaders. Photo by Kurt Brown.

## 1.B. Community Assessment Studies

Research team: Castro, Amare, Adal, Tolossa, Little and Negatu

### 1999-2000 Activities

The research team carried out a series of community assessments during April-May and July-August 1999 in South Wollo zone (nine *woredas*) and in adjacent Oromiya Zone (two *woredas*). These took place during a time of widespread and increasing hunger due to the failure of the belg rains in early 1999. The conditions were noted to be even worse in some areas than during the 1984 famine:

For purposes of the study, the team selected two *kebeles* from each of the nine *woredas* in the South Wollo zone: Ambassel, Dese Zuriya, Kalu, Kuta Ber, Legambo, Tanta, Tehuledere, Werebabo, and Wereilu. Due to difficult road conditions in Legambo, researchers visited only one *kebele* there. Researchers also picked four *kebeles* from Bati and Dawa Cheffa—two *woredas* in the adjacent Oromiya Zone with close marketing ties to South Wollo. Thus, the team carried out fieldwork in 21 *kebeles*.

Two focus group interviews—separate men’s and women’s groups—were carried out. The focus group questionnaire contained some inventory-oriented questions, but it also sought to elicit local views, perceptions, and aspirations on a range of subjects—agriculture, land, agrarian change, access to inputs and markets, savings patterns, community relations, food security, and coping strategies during times of food shortages. (For detailed key findings, see sidebar on Community Assessment Study, Page 49.)



**Field testing a questionnaire in rural Sirba Center, a community of about 20 households within two hours of Addis Ababa, Ethiopia.** BASIS researcher Degafa Tolossa (wearing hat) interviews a farmer. Eventually the questionnaire will be administered at the Dessie study site, about 10 hours away. Michael Roth photo.

Policy outreach efforts included working closely with policymakers and officials during research implementation. Key individuals identified from the community studies attended the second policy-based seminar that was held in Dessie on October 29, 1999. One key regional policymaker who participated in the community assessments attended the BASIS Horn Regional Symposium on Agricultural Policy, Resource Access and Human Nutrition, Addis Ababa, Ethiopia, November 3-5, 1999. In addition, Peter Little and Michael Roth held meetings with USAID in January 2000 and July 2000 to discuss the policy aspects of the South Wollo research and to coordinate plans for a series of case studies and policy seminars to be funded by USAID during 2000-2001.

During the year the research and policy findings of the community assessment studies were presented at workshops in Dessie, South Wollo and Addis Ababa; a panel on food security and development at the Annual Meetings of the Society for Applied Anthropology, USA; and seminars at the University of Colorado. At Dessie, seminar researchers discussed their findings and policy implications of both the community assessments and regional market studies to an audience of policy makers; the seminar allowed the team to discuss how to ensure that research is policy relevant to current development plans that are being formulated for the zone and region.

### 2000-2001 Work Plan

The main emphasis during the next year will be to write-up lessons learned from the Community Assessments for a BASIS Policy Brief and a journal article.



**Father and son spend Saturday planting small grain in Sirba Center, Ethiopia.** This farmer owns a team of oxen and gains access to land by renting the field. A local representative of the Ethiopian Ministry of Agriculture (right), equivalent to a US Agricultural Extension agent, looks on. Michael Roth photo.

## Key Findings

### Community Assessment Studies

By analyzing the responses of different groups of households to prolonged drought and famine, researchers developed a conceptual framework and insights (see Castro et al., 1999; Roth 2000).

1. Purchases and sales of livestock along with adjustments in grain stocks are key strategies in weathering the initial phases of drought and famine.
2. As famine worsens, private livestock and grain markets become increasingly risky, particularly as purchasing power dissipates and markets become disconnected.
3. Households follow complex strategies intermingling commodity and factor markets in coping with food insecurity.
4. As households enter the massive deaccumulation phase, it is the household's ability to lease out land, sell labor, and borrow capital that will mean the difference between survival or not.
5. Once economic opportunity emerges in the reaccumulation phase, it is again the ability of households to mobilize productive resources that will determine the rate in which they return to productive livelihood and wealth accumulation.

The research report by Amare *et al.* (2000) points to the importance of land access as a key indicator of food security and welfare. The main mechanisms of access to cropland that were frequently mentioned in the community assessments were land redistribution by local officials, sharecropping, rental arrangements and inheritance (the following text is based on Amare *et al.* 2000:12-13).

As the study showed (see table, below) ongoing land redistribution has been the major means of peasant access to land (mentioned by 95% of both male and female groups).

Means of Access to Crop Land, Percentages of Male and Female Groups Giving Responses				
Means of Access to Crop Land Multiple responses possible.	Male Groups		Female Groups	
	N	%	N	%
Land redistribution	20	95	20	95
Sharecropping	20	95	21	100
Inheritance	16	70	14	67
Rental	6	29	2	10
Communal lands	1	5	2	10
Borrowing from family	1	5	0	0

Source: Amare *et al.*, Table 5 (2000:41)

Although land redistributions did succeed in allocating land to landless and land-short households, many community members had fairly negative comments about land redistributions, describing it as “a bad and cursed activity,” or saying that it “brought drought with it” or that it was followed by crop failure. One of the most commonly mentioned adverse effects of land redistributions was that it increased land scarcity by reducing overall plot sizes. Other respondents mentioned that land was transferred from households that had the resources, such as oxen and labor, to cultivate their land properly to resource-poor and less productive households. Land redistributions also unfairly favored local officials and disrupted some land transactions such as rental arrangements.

Sharecropping is another common means of gaining access to farmland in the region (reported by 95% and 100% of male and female groups, respectively). Sharecropping was carried out mostly between people who lacked the necessary resources like oxen, seed or labor to adequately cultivate their land (particularly women and elderly people) and sharecroppers who had such resources but who needed more land. The parties to the sharecropping arrangement each received half of the harvest.

Land rental was the other, less prevalent, means of access to land on the market for peasants who had the cash in hand (mentioned by 29% of male and 10% of female groups). It is notable that it was mostly *kebeles* close to large towns such as Dessie, Kombolcha and Bati that reported the presence of land rental, possibly indicating the greater degree of monetization of transactions in such locations.

Respondents also discussed changes in the land market with respect to trends in the terms and occurrence of transactions. In the case of sharecropping arrangements, they noted the growing incidence of requests by landowners for cash advances in the form of loans. Similarly, landowners were more likely to demand 50 percent of the crop residues from the harvest, which previously belonged to the sharecropper. The variability in trends may be due to various factors such as the restrictive effect of the drought on the land market in some communities, or enhanced availability of land on the market in other communities due to the redistribution of land to poor or female-headed households. Such households often lacked the resources to adequately cultivate the land and thus had to give out their land to other households.

It is worth noting that a number of communities claimed that there were no changes in the terms and incidence of land transactions. As noted above, women in male-headed households may be less able to note changes in patterns of transactions because men often took charge of arranging household involvement in such transactions.

## 1.C. Rural Household Study

Research team: Gebre-Egziabher, Negatu, Little, Roth, Castro, Adal, Tolossa and Shin

### 1999-2000 Activities

The Rural Household Study focuses on an “anatomy and chronology of famine” and emphasizes four phases that households encounter in South Wollo: (1) gradual asset deaccumulation; (2) accelerated deaccumulation; (3) massive deaccumulation; and (4) reaccumulation.

Final design work and field testing for the household study was carried out during October 1999-March 2000. The first round of data collection (baseline) focused on household demographics asset inventories, and other “stock data” was completed during May-June 2000 (based on a sample of 448 households).

The household study is being implemented in eight peasant associations from *woredas* (112 households in each *woreda*) located in South Wollo and Oromiya Zones of the Amahara region. These include two mainly highland (*dega*) *woredas* (Dessie Zuria and Legambo), one midland (*woina dega*) *woreda* (Jema), and one lowland (*kolla*) *woreda* (Bati). Three of the *woredas* are in South Wollo zone and one is Oromiya zone (Bati); and three are food-deficit and one is a food-surplus location (Jema) in most years. These *woredas* overlap with the same field sites where the “community assessment” study and the regional market town study were conducted.

A “repeat questionnaire” for the head and principal economic agents in the household will be completed three times during the next year, beginning in November 2000. The repeat questionnaire is focused on a subset of variables from the first round (baseline) survey and will address production, income, asset changes, and expenditures. At the individual agent level the following variables will be emphasized: land holdings and cropping patterns; income and asset changes; access to capital, labor, and other factors (e.g., plough oxen); and changes in settlement and employment strategies (see Roth *et al.* 1999 and 2000 for initial research design papers for the household study).

Because of the severity of the recent drought and famine in South Wollo, the study is in a position to monitor the effects of the recent disaster and to examine the ways in which households attempt to rebuild assets. Focus groups in the BASIS community assessments indicated that unlike the most recent severe drought of 1984, the current drought in South Wollo has been in the making for the past 3-4 years (Castro *et al.* 1999; Yared Amare 2000).

It is hypothesized that during the early phases of drought (*gradual phase of asset deaccumulation*), grain and livestock markets are pretty well integrated. As grain

### Preliminary Research Findings

## Rural Household Study

Initial descriptive statistics (frequencies, means, standard deviations, etc.) were produced during the summer of 2000. Initial assessments point to several important research and policy findings. Many confirm previous observations from the community assessments.

- Households still believe that further government land redistribution is likely and thus may be unwilling to invest in farm assets.
- Despite very small landholdings (average of less than 1.0 ha), access to non-farm employment sources are limited, except for food-for-work.
- There appears to be little labor mobility in the region and between regions, with more than 85 percent of household heads having been born in the Amhara region.
- Female-headed households accounts for approximately 20 percent of total households in the study region.
- Membership in informal associations, including savings groups, are widespread but account for extremely small amounts of food and cash transfers.
- In some locations the majority of households received land through government redistribution programs.

production falls, households begin to hoard cash, sell livestock, and begin to search for off-farm or self employment (hiring out labor, selling firewood; see Roth 1999). As drought worsens, households enter a phase of *accelerated deaccumulation* marked by accelerated depletion of most asset categories. Livestock herds are depleted by distress sales and weight loss, driving livestock prices downward. The grain/livestock price ratio increases sharply, unless dampened by food aid deliveries. One can see the anomaly of protein consumption actually increasing for the poor during this phase as livestock consumption increases, but the consumption is risky and unsustainable. Households turn to foraging for wild roots and leaves while supplies last. Wage rates fall due to excess labor supply as most households seek to employ labor off the farm. What initially begins as seasonal migration turns to permanent out-migration to both reduce the number of consumers within the household and to enable remittances for food purchases. As the drought deepens, households turn to selling oxen and farm implements.

In the last stage of a prolonged drought and famine it is predicted that households enter a phase of *massive asset deaccumulation*. As land loses productive value and livestock herds become depleted, households converge

(Continued, Page 51)

Anatomy and Chronology of Famine, South Wollo				
	Gradual Asset Deaccumulation	Accelerated Deaccumulation	Massive Deaccumulation	Reaccumulation
Accumulation (+)				
Deaccumulation (-)				
Livelihood Strategies	<ul style="list-style-type: none"> <li>• Sell livestock</li> <li>• Grain stocks decline</li> <li>• Food expenditures increase</li> <li>• Search for off-farm employment</li> <li>• Conserve cash</li> <li>• Sell wood</li> <li>• Borrow from merchants and family</li> <li>• Grain loans</li> </ul>	<ul style="list-style-type: none"> <li>• Livestock distress sales and weight loss</li> <li>• Livestock consumed by household</li> <li>• Consume wild roots/leaves</li> <li>• ↑ search for off-farm employment</li> <li>• Out-migration</li> <li>• Go to live with relatives</li> <li>• Sell household items+implements</li> <li>• Increased sharecropping</li> </ul>	<ul style="list-style-type: none"> <li>• Consume seed</li> <li>• Extreme livestock mortality</li> <li>• Grain stocks dry up</li> <li>• Homes deconstructed to sell wood and corrugated iron</li> <li>• Outmigration if health allows</li> </ul>	Unknown
Market Characteristics	<ul style="list-style-type: none"> <li>• Land rental rates increase</li> <li>• Borrowing costs increase</li> <li>• Wage rate declines slightly</li> <li>• Grain prices rise slightly</li> <li>• Livestock prices begin to decline</li> <li>• Diets and labor productivity maintained</li> </ul>	<ul style="list-style-type: none"> <li>• Wage rates fall; land rental rates rise</li> <li>• Labor demand declines</li> <li>• Grain prices spike in thin markets</li> <li>• Livestock prices plummet</li> <li>• ↑ giving from the well-off to poor w/in community</li> <li>• Purchasing power erodes</li> <li>• Protein/calorie ratio rises</li> </ul>	<ul style="list-style-type: none"> <li>• Borrowing costs spike</li> <li>• Land rental rates fall</li> <li>• Wood/livestock prices collapse</li> <li>• Cereal prices uncertain due to food aid</li> <li>• Community network collapses</li> <li>• Malnutrition and disease</li> <li>• Physical exhaustion</li> <li>• Human suicide and death</li> </ul>	Unknown

Source: Michael Roth. Adapted from community assessments (Castro *et. al*, 1999).

toward states of poverty. Surpluses disappear. Households consume seed as grain stocks are depleted. Households at the extreme margin turn to deconstructing homes to sell wood and corrugated iron

sheets for money. Outmigration occurs if health allows. The human condition greatly deteriorates, marked by suicides, extreme forms of wasting, malnutrition, personal exhaustion and disease.

(Continued, Page 52)

## 1.C. Rural Household Study

(Continued from Page 51)

### 2000-2001 Work Plan

The household study is designed to capture seasonality and income/asset cycles through repeat visits; intra-household process through principal agent interviews; and the effects of agro-ecological zones and distance to markets on household income and food security through stratified sampling. During the coming year, emphasis will be on completing three more rounds of data collection on the household and economic agent “repeat questionnaires,” and on analyzing and writing up the results of this research by September 2001. Researchers will present at least two conference papers and submit a manuscript to a journal.

An Ethiopian graduate student in anthropology began thesis research in the South Wollo study region in September 2000. This research is meant to complement the mainly quantitative household survey research and will emphasize in-depth data collection among a few communities and limited number of households and will utilize participant observation and informal interview techniques, as well as structured interviews. The Ethiopian graduate student will gather ethnographic information on local drought mitigating strategies, informal land and labor exchanges, and other qualitative data that might be missed through the formal household and community-based assessments. A second Ethiopian graduate student will be funded through a small grant to carry out livelihoods research in the study region.

Michael Shin continued his work on applying GIS to the South Wollo research program. He spent about one month working on data sets collected in Ethiopia, and giving presentations on the application of GIS to food security analysis. GIS provides a way to integrate the different levels of data collection (regional, community, and household) and to test the hypothesis regarding the effects of spatial access to market infrastructure and centers on factor market development and food security. It also provides an excellent tool for monitoring the effects of policy impacts across a wide geographic unit.

The GIS work assisted in producing a series of useful maps and in integrating a spatial component into the research program. During 2000-2001 he will focus on two topics: (1) ways in which policy initiatives in the area can be monitored, and (2) ways in which GIS can assist in understanding of regional developments.

## 1.D. Case Studies of Factor Market Relationships

Research team: Gebre-Egziabher, Demeke, Admassie, Aredo, Eshetu, Pankhurst, Little, and Castro

*Project dates: August 2000 - September 2001*

*Support: Add-on only (USAID/Ethiopia)*

### 1999-2000 Activities

During 1999 Peter Little wrote a proposal to USAID/Ethiopia, titled “Case Studies on Factor Market Constraints in the Context of Regional Food Security and Income Growth in the Amhara Region (3) of Ethiopia,” and the South Wollo research program was provided add-on support for three case study activities in South Wollo. These will focus on non-farm employment (labor markets) and migration; resource management and tenure; and finance. Only \$100,000 of the \$300,000 has been committed to date by the USAID Mission. Progress on the full set of activities will depend on the timing of full funding disbursement. With the existing funds, the project has initiated preliminary design work on a questionnaire for the labor market study (August-September 2000); design of a non-farm employment module for the rural household study (to be implemented three times during 2000-2001); and design of household modules for finance access and resource and land tenure.

### 2000-2001 Work Plan

If full USAID Mission funding materializes, then the project will complete three case studies—on migration and rural labor markets, informal/formal finance, and resource tenure and use of common property resources (especially forests and pastures). If funding remains at \$100,000, then support for the household study modules described above will continue and a case study on resource tenure and management will be undertaken.

A policy seminar to present the findings of the cases study research will be held in the Amhara regional capital, Bahr Dar.

### Collaboration with Existing Projects

The project is collaborating with the long-standing Norwegian-funded Peasant Productivity and Economy Project (PPEP) which began in 1998 to work in three communities in our study region: Kutaber (highland), Hayk (midland), and Harbu (lowland). While Kutaber and Hayk are in South Wollo Zone, Harbu is in the Oromiya. The PPEP is working on household and market data collection in these three locations.

IDR continues as the main local institution implementing this project and discussions already have been held on ways in which the BASIS activity can collaborate with

the PPEP. The arrangement between BASIS and the PPEP project will ensure research complementarity and data sharing. Some of the plans include sharing household and market data; sharing research enumerators; and spreading data collection among different communities. The PPEP already is gathering some market center data on livestock and other commodities that will help the BASIS effort.

Through a Swedish International Development Cooperation Agency (SIDA)/IDR project on "baseline studies for regional development," data is being collected in the area on basic socioeconomic and demographic variables. It is anticipated that data collection will be carried out in about seven *woredas* in the South Wollo zone, and that the BASIS/IDR project will collaborate and share data. The SIDA-funded activity is being carried out for the Amhara regional government.

NGOs working in the South Wollo area include World Vision and Save the Children/UK (United Kingdom). BASIS researchers anticipate sharing data from the project with them and inviting them to project meetings and seminars. BASIS also will seek their assistance in helping to design the household study.

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## Cross-Border Trade and Food Security in the Horn of Africa

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### Collaborating Institutions and Researchers

**Organization for Social Science Research in Eastern and Southern Africa (OSSREA),**  
Abdel Ghaffar M. Ahmed, Executive Secretary  
Tegegne Tekla, Regional Programme Coordinator, Co-PI  
Alemayehu Azeze, Researcher  
Ayele Gebremariam, Consultant

**Institute for Development Anthropology (IDA)**  
Michael Horowitz, Senior Researcher and Director  
Peter Little, Professor of Anthropology,  
University of Kentucky, Co-PI  
Scott McDonald, Research Assistant

#### Other

Barbara Cellarius, Post Doctoral Researcher (currently at Max Planck Institute of Social Anthropology, Halle, Germany)

**Project dates:** November 1996 - September 2001  
**Support:** Add-on funding only (USAID/REDSO)

## Program Overview

This BASIS research program, in collaboration with OSSREA, is a 2.5-year study of regional cross-border trade (livestock and grain) and food security. It is the first systematic study of the topic in the region.

An understanding of the informal financial/credit arrangements and capital generation associated with cross-border trade—and of the links between cross-border trade and food security in three border sites (all of which are grain deficit zones)—shape the research questions for the study. The three sites that were chosen for data collection are: (a) the southern Ethiopia/northern Kenya border; (b) the northeastern Kenya/southern Somalia border; and (c) the northeastern Ethiopia/Djibouti/Somaliland border. By September 2000 data collection was completed at all sites.

The commodity focus of the study is primarily on livestock and secondarily on selected grains (maize and sorghum). As a commodity, livestock has features that make it amenable to cross-border trade, even in situations of widespread insecurity. It is a mobile and high-value commodity that can be transported over land rather than on roads, and can easily be moved across borders. Because traders assume such a critical role in the cross-border trade of these key commodities, research design emphasizes both structured and unstructured interviews with samples of traders.

The research topic raises particularly thorny methodological issues since most of the key cross-border markets are located in dry regions, far from major urban centers, dominated by mobile pastoral production systems, and, in most cases, poorly served by transport and other infrastructure. These conditions add to the costs of standard survey approaches and have required considerable methodological innovations, such as key actor interviews, ethnography, and rapid appraisal techniques. Ongoing conflicts and random border closures in the region also increase risks and uncertainties for merchants, producers, and researchers alike and have required methodological adjustments.

### 1999-2000 Activities

During 1999-2000, field research in Ethiopia was initiated and completed along the Djibouti and Somaliland borders. Secondary data sets on cross-border markets were also obtained from Save the Children/UK and USAID/FEWS and the data analyzed.

Field research for the cross-border study was initiated in the summer of 1997 but the bulk of it was not started until 1998-1999. Because of initial delays in transferring funds to the BASIS regional partner, OSSREA, and delays in fieldwork because of border conflicts, the study has been

delayed about nine months. During the reporting year, field research in northeastern Ethiopia had to be aborted due to the Ethiopia/Eritrea conflict.

The final report for research Site A-Ethiopia/Kenya was completed and published in the OSSREA Development Research Report Series (see excerpts, Pages 56-57). The Site B-Kenya/Somalia field report was completed in May 2000. The Site C-Ethiopia/Djibouti field research and report will be completed by December 2000. The final seminar and report will be completed by April 2001.

## Key Research Findings

- Food security in the border regions of Horn countries is positively impacted by increased cross-border trade.
- Most cross-border trade still operates in a policy vacuum but as a result of this study and other initiatives, IGAD (Intergovernmental Agency for Development) and member countries like Kenya and Ethiopia are considering changes in border and trade policies that would facilitate regional cross-border trade.
- Because of infrastructure and other constraints, regional border markets, with the possible exception of the eastern Ethiopia/Somaliland border, are not well integrated.
- Volumes of cross-border livestock trade have greatly increased in the past five years at the three border sites, but they are susceptible to border closures and trade bans. These bans can have dramatic impacts on local food prices, employment, and food security.
- Informal finance mechanisms account for the majority of credit utilized in cross-border trade.

## Policy Impacts

BASIS research aims to inform policy makers about the importance of cross-border trade for regional economic development and food security, and to reduce constraints on cross-border trade in one key commodity—livestock—in the region.

A current proposal is being discussed for a “duty-free” zone for commerce in the southern Ethiopia/northern Kenya study area. The area would cover prime livestock producing zones of southern Ethiopia and northern Kenya and is a policy initiative that is strongly supported by the research findings of the cross-border study (see Page 55). During the fieldwork in southern Ethiopia discussions were held with more than 20 key government officials involved with pastoralism and livestock trade in the region and research findings of the study have been disseminated to them.

## Collaboration with Other Projects and Organizations

- The Utah-State led Global Livestock-CRSP Project on Pastoral Risk Management on the East African Rangelands
- Terra Nuovo (Italian NGO) and its animal science and paraveterinary program in northeastern Kenya and Southern Somalia
- The International Animal Research Bureau of the OAU (Organization for African Unity) and its Pan-African Rinderpest Campaign
- The USAID-Funded Famine Early Warning Systems Project (now called FEWS-Net)
- Save-the-Children-UK, Somali Region Ethiopia and GTZ, Negelle, Ethiopia
- IGAD

## 2000-2001 Work Plan

The final year of the research program will emphasize synthesis/write up and dissemination. It will include:

- A joint OSSREA/BASIS Panel on the Cross-Border Research at the African Studies Association Annual Meetings, Nashville, Tennessee, November 17-18, 2000
- Meetings and joint writing by OSSREA (Tegegne Teka and Alemayehu Azeze) at University of Kentucky, November 20-25, 2000
- Presentation (seminar) of Research and Policy Findings to USAID Africa Regional Trade and Greater Horn of Africa Offices, November 28-29, 2000
- Final report writing and completion
- Final Project Seminar, OSSREA, Addis Ababa.

## Review of Problems and Issues

Conflicts along the different borders in the Horn have delayed the study and early on forced the project to drop some research sites. In 1998 it was decided that the Ethiopia/Kenya site would be done first before initiating the Djibouti/Ethiopia border study. It was hoped that the Eritrean/Ethiopian war would have subsided in 1999 and a more normal border situation would have emerged in the north, and that the project would have learned from the Ethiopia/Kenya study. Regarding the latter, it was felt that the research team would be better prepared to address the more complicated Djibouti/Ethiopia border site because the war continued throughout 1999. The war was stopped in 2000 and this has greatly improved the research and development environment in the region.

***In the news***

## **Livestock to Move Freely across Borders**

By *GAKUU MATHENGE*

A common certification system for animal health will soon be in place to allow free movement of livestock across Ethiopia, Kenya, and Somalia borders.

The system will require regional governments to sign a protocol for the free movement of livestock and livestock products across the borders. The UN will offer logistical support.

Last week UN Food and Agriculture Organisation (FAO), and the Organisation for African Unity (OAU), pledged to directly intervene and lobby regional governments to accept pastoralism as an integral part of their economic systems, and accordingly allocate resources for its development.

This was resolved at a high level meeting of United Nations bodies, international development agencies, pastoralists and governments from Ethiopia, Kenya and Somalia held in Isiolo last week.

FAO, UNDP, OAU, European Union, USAID, were among organisations represented in the meeting. They lobbied governments through the Inter-Governmental Authority on Development (IGAD) to put cross border movement of livestock on its agenda.

The certification system is important in enabling the livestock keepers of the region not only to trade amongst themselves but also export their products. For instance, Kenya, which has an established veterinary department with a national network, has not been comfortable with free movement of livestock from Somali and Ethiopia where disease control is either non-existent or unreliable.

The FAO certification will enable Somalia, for example, to resume livestock exports to Saudi Arabia and the Middle East, which was banned following collapse of government institutions responsible for inspection and certification.

Exchange of research information on pastoralism is also among programmes to be put in place and the agencies undertook to explore the potential for developing an "information hub" in the region.

Among problems identified as hindrances to pastoral development included poor or total absence of enabling government policy frameworks, lack of information, poor infrastructure, and lack of coordination among development actors and planners.

Failure to involve pastoralists in inception and implementations of projects was a major factor contributing to the high rate of failure of projects designed for them . . . The new initiative put in motion will seek to persuade governments to provide the necessary policy, financial and technical support to exploit pastoralism for the benefit of their people.

**Source:** *Daily Nation*, Nairobi, Kenya (Thursday, November 9, 2000). Text at <http://www.nationaudio.com/News/DailyNation/09112000/Features/Features4.html>

## General Implications of Cross-Border Trading

Although cross-border trade in the south and southeastern part of the Ethiopian border is unofficial and contraband, this study has shown that livestock trade is one of the major activities for the pastoralists and agro-pastoralists. It helps for the sustenance of life for the poor households and in the generation and accumulation of capital for the rich. Following are issues that favour and challenge cross-border trading in the southern and southern rangelands of Ethiopia.

### Implications favouring cross-border trading

1. At the point of origin of livestock markets (e.g. Dubluk and Negelle in Ethiopia), pastoralists earn higher prices with cross-border trading since larger and competitive markets tend to benefit producers. Thus, food security is enhanced through income from higher livestock prices.
2. At the point of destination markets (e.g. Nairobi, Kenya and Mogadishu, Somalia), consumers of livestock also benefit from cross-border trading, as larger competitive markets tend to depress marketing margins.
3. Cross-border trading also creates opportunities for diversification by pastoralists. For instance, pastoralists may engage in some small-scale activities such as vegetables and grain trading.
4. Regional integration is strengthened that could help in the creation of a common market for a wider range of goods and services.
5. Recent developments in Ethiopia in legalizing cross-border trade between Ethiopia and Djibouti as well as between Ethiopia and Northern Somalia could provide relevant experience to the cross-border trade that can be legally undertaken between Kenya and Ethiopia.
6. The same Oromo groups and Somali clans inhabit both sides of the border. Therefore, because of the trust that originates from ethnic relationships, missing markets (e.g. credit access) can partly be substituted to facilitate trade.
7. Attempts to prevent or control cross-border trade have proved to be ineffective. According to the customs records at Moyale-Ethiopia, animals captured by the Customs Authority border patrols while crossing the border are very few when compared to the total volume traded.
8. In cross-border trading there is no requirement for official paper work, letter of credit to be established and export/import clearances to be obtained.
9. Less or no patrol control by Kenya for livestock and grain and other commodities originating from Ethiopia.
10. In situations where official livestock export trade does not exist, cross-border trade would provide an outlet.

### Implications challenging cross-border trading

1. The border is near northern Somalia through which duty free goods can be smuggled to Ethiopia. This would frustrate domestic trade and industrial policies in Ethiopia.
2. The border is frequently closed due to insecurity in the area.
3. There are no quarantine, bank services and market information that are required to facilitate the cross-border trade.
4. The lack of and or limitations of standardization in the goods traded in the borderlands, under invoicing or over invoicing by the trades is likely to be higher depending on the magnitude of taxes and duties.

Ethiopia is likely to lose in the border trade since some of its goods can be re-exported to generate foreign exchange through other ports.

5. The cross-border trading is a two-way exchange for specific products. For instance, agricultural products (crop and livestock) originate from Ethiopia whereas manufactured goods originate from Kenya. This situation puts Ethiopia at a disadvantage because of the terms of trade between these two groups of products.

### Conclusions

Although the Ethiopia-Kenya cross-border trade is considered as contraband and there are restrictions and controls by governments, it is facilitated through social ties among the ethnic groups living in the borderlands of both countries. This relationship partly substituted missing markets. Thus, livestock traders benefited from ethnic and trust relationships to get market information and credit.

The structure of the cross-border trade suggests some important policy implications. One aspect is that the situation favours the Ethiopian government to develop infrastructure to redirect the unofficial channel to official ones and to promote the availability of manufactured substitutes in the area. Lack of intervention by the Ethiopian Government would continue to encourage uncontrolled flows of goods across the border and it

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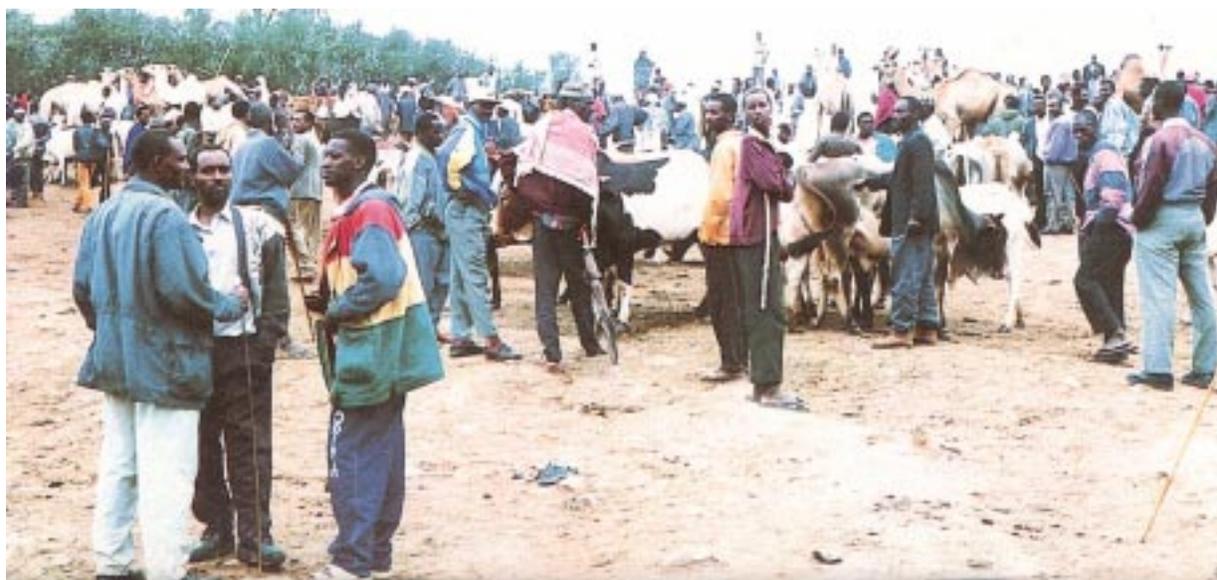
would also affect the effectiveness of domestic trade and industrial policies.

Most pastoralists in the rangelands finance food purchases through the sale of livestock and, thus, any change in cross-border commerce and prices will have a negative effect on pastoral food security.

Cross-border trade from southern and southeastern rangelands of Ethiopia to Kenya is constrained by several interrelated factors. First and foremost, it is currently regarded as illegal for most of the goods traded particularly live animals. In addition, formal capital markets are missing; and informal substitutes are imperfect; market search is complex; access to large markets in Kenya by Ethiopian traders is limited; and livestock stock routes are not developed. Thus, improving pastoral welfare through increased incomes and the environment through increased offtake in southern and southeastern rangelands require several policy and development interventions.

Much of the demand for livestock comes from the outside. Export markets are the most important marketing options for livestock traders and pastoralists living in the southern and southeastern rangelands despite inadequate price transmissions. Domestic markets for these products are limited. Only few traders responded that they moved their animals to domestic markets. Thus, government controls and bans of the cross-border trade will not be without adverse implications on food security in the area due to suppressed prices owing to a forced downward demand shift. Markets in the area were found non-integrated based on simple correlation results. Given the importance of livestock to the livelihoods of pastoralists and agro-pastoralists in the area, the performance of livestock markets would substantially affect welfare.

Source: "Cross-Border Livestock Trade and Food Security in the Southern and Southeastern Ethiopia Borderlands," Tegegne Teka, Alemayehu Azeze and Ayele Gebremariam. Addis Ababa, Ethiopia: Organization for Social Science Research in Eastern and Southern Africa. October 1999. pp. 55-58.



**Livestock markets on the southern Ethiopia border with Kenya have a positive impact on food security in border regions. Most operate in a policy vacuum, but some countries are considering changes in border and trade policies that would facilitate regional cross-border trade.** Photo by Tegegne Teka.

## Linking Agriculture to Human Nutrition: A Gender-Based Analysis of Institutional Initiatives and Experiences

### Collaborating Institutions and Researchers

#### International Center for Research on Women (ICRW), Washington, DC

Charlotte Johnson-Welch, Principal Investigator (PI)  
Cheryl Morden  
Antonia Wolff

#### Other

Bogalech Alemu, Ministry of Agriculture, Ethiopia  
Hilda Kigutha, Egerton University, Kenya  
Theresia Peter Msaki, Ministry of Agriculture, Tanzania  
May Sengendo, Makerere University, Uganda

*Project dates: September 1998 - December 1999  
(completed)*

*Support: Add-on only (USAID/REDSO)*

### Program Overview

Food security, where all have access to sufficient food for healthy and productive lives, is a multi-dimensional development issue requiring integrated approaches (World Bank 1986). Although institutions see value in addressing the multi-dimensional nature of problems in an integrated fashion and do so by partnering with others who have complementary resources, there is little evidence in development literature of sound theoretical concepts to guide operationalization of these partnerships. Instead, collaboration and partnerships are often the result of intuitive "best guesses" and "trial and error." For coalitions, partnerships or collaborations to be effective, they must move beyond rhetoric and be driven by theoretically sound principles rather than an immediate pressure to act.

ICRW undertook case study research to shed light on *how* institutions use integrated approaches to improve household food security. Researchers studied 13 projects in Ethiopia, Kenya, Tanzania and Uganda to determine factors that made the approaches work and why.

#### 1999-2000 Activities: Project Completed

Researchers completed data collection for the case study research. In November 1999, one African team member presented preliminary findings at the BASIS symposium on Agricultural Policy, Resource Access and Human Nutrition in Addis Ababa, Ethiopia. At the same workshop ICRW staff member Cheryl Morden made a presentation on linking research to action through advocacy and communications. The research report was finalized and submitted to BASIS in December 1999.

With support from USAID and ICRW, Johnson-Welch presented the case study research at the International Food and Nutrition Conference 2000, at Tuskegee University, October 8-10, 2000.

### Lessons Learned

Two levels of lessons learned emerge from this study: capacity building and findings.

**Capacity Building.** Implementing the research was an arduous process that yielded benefits—both for the development field but also for team members. As sector specialists (agricultural economics, nutrition and food security, except for one gender specialist), none of the team members had specific training or research experience in management or institutional development. Instead, they drew on their individual experiences and knowledge as development practitioners. They drew on the synergy of sharing their thoughts, experiences, and knowledge, and the literature to design and implement the case studies and analyze the data. Their abilities were validated when the factors derived from this research mirrored those of a formalized and tested model of “coalition building.” The process contributed to building team members’ capacity to look at how institutions function and how that affects technical content and impact of development interventions. The process also added to team members’ professional satisfaction and confidence.

**Study Findings.** Development agencies increasingly recognize that strong institutional frameworks create the structure for sustainable development. This four-country case study identified factors that create and sustain institutional partnerships. At the same time, researchers increased their capabilities to study institutional roles, operations and structures that promote the use of cross-sectoral, integrated approaches to development. The factors identified could guide decision-making of agencies and institutions that want to invest in and promote institutional strengthening as a means to achieve sustainable development outcomes. Findings of the case study research are as follows:

**Partnering is done more often than we might think**, when institutions recognize the need for integrated approaches to food security and as a result partner with institutions that have complementary skills. An agricultural institution may partner with a nutrition institution, recognizing that agricultural production is necessary but not sufficient to ensure household food security.

**Strategic and practical factors promote and constrain partnerships.** Strategic factors create a supportive environment and include international policy statements, donor interests, national governments’ decisions, and response to community input. Practical factors drive the decision to collaborate—having someone see the need and assess the practical gains, and make the partnership work.

**Choice of outcome indicators is critical to demonstrating “success.”** Nutrition-related outcome indicators are often used to measure effects, even if few of the activities directly addressed constraints to nutrient consumption and utilization. However, nutrition is not necessarily a direct outcome of agricultural-focused interventions. Increased production does not necessarily translate into food consumption. In fact, the intervention research study in Kenya demonstrated that nutritional improvements were greatest when nutrition-related factors (feeding practices, health and nutrition knowledge) were addressed within the integrated intervention. Thus, using nutrition-specific indicators to measure effects may set up some projects for failure.

**Gender approaches are used less often than might be expected.** While most institutional partners recognize that intra-household food distribution is not necessarily equitable, they have varying levels of comfort using a gender approach to identifying the constraints and taking action. Indeed, some field staff expressed discomfort dealing with intrahousehold decision-making, seeing it as a private domain beyond their technical competence. Moreover, “gender” is often seen as meaning “women only.” This misconception can undermine the tools to put a human face on food security—who does and doesn’t produce, consume and otherwise benefit.

**Participatory approaches and methods are used extensively.** Institutions feel quite comfortable using participatory processes to inform their programs. This contrasts with the unevenness in using gender as a framework to guide program design and implementation.

**“Participation” is not necessarily gender sensitive.** Thus, the results of institutional collaborations to reduce household food insecurity do not always have the same payoffs for all household members. Those with less access to resources and decision-making power (in most cases, women) have to make hard choices—either they participate in a development activity or they attend to their traditional chores and responsibilities.

**Inability to show changes or attribute change to interventions and inputs.** Most projects suffered from weak monitoring and evaluation. Often they lacked expertise and tools to collect reliable and valid, gender sensitive data that can be used to identify points of entry, track changes over time, measure effects and attribute some degree of causality.

**Recommendations issuing from this research include:**

- Apply and replicate the lessons learned in these (and other) successful collaborations.
- Strengthen monitoring and evaluation systems.
- Create the conditions for improving gender mainstreaming.
- Engage a wide variety of stakeholders throughout the process.
- Conduct comparative research on integrated versus single-sector interventions and participatory versus top-down approaches.

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## **Horn of Africa Symposium: Agricultural Policy, Resource Access and Human Nutrition**

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### **Collaborating Institutions and Researchers**

Michael Roth, Senior Scientist, Land Tenure Center,  
University of Wisconsin-Madison  
Abdel Ghaffar M. Ahmed, Executive Secretary,  
OSSREA, Addis Ababa, Ethiopia  
Kristy Cook, Technical Adviser, Africa Bureau, USAID

*Project dates: October 1998 –September 2000  
(completed)*

*Support: Major funding through add-on  
(USAID/REDSO). Additional funding provided by Global  
Livestock Collaborative Research Support Program,  
Food and Nutrition Technical Assistance (FANTA),  
LINKAGES, USAID Global Bureau, USAID Africa  
Bureau and US universities.*

In eastern and southern Africa, the topic of appropriate interventions to enhance nutrient utilization reveals wide divisions between nutritionists and social scientists, and between researchers and policy makers. Many nutrition and health scientists are not entirely familiar with linkages among policy, resource access, technology, food security, markets and income. Agricultural and social scientists tend to view these connections through different disciplinary lenses and often lack adequate understanding of health constraints, micronutritional requirements, and nutritional intake to design an integrated nutrition policy.

An international symposium held in Addis Ababa, Ethiopia, November 3-5, 1999 brought together more than 50 participants from teaching and research institutions, regional networks, government, and donor agencies to develop strategies for narrowing these divisions.

Organized by LTC and hosted by OSSREA, the symposium sought to enhance understanding of policy, health, and nutrition linkages across disciplines of study; promote dialogue among agricultural policy and nutrition scientists and practitioners, articulate successful policy and program interventions and their impacts; and identify areas of collaboration among researchers and policy practitioners.

### **Key Findings**

1. **Challenges.** The Greater Horn of Africa suffers from widespread and deep poverty, which means widespread and deep malnutrition. Because malnutrition is multifaceted, so must be the solutions.
2. **The Division.** Adequate nutrition requires secure and adequate food availability, food intake, health care, housing, clothing, water, and sanitation. However, the discussion on agricultural policy often emphasized the

importance of increasing food availability with little or no regard for whether adequate nutrition was being served. Health and nutrition presentations rarely mentioned the contravening role of income and poverty in sustaining their interventions.

3. **Feasibility.** While more integration would be ideal, how, according to one minister, is government supposed to choose from the myriad complex of policies and interventions in pursuing a nutrition-friendly path given the tight resources and limited capacity available.

4. **Is nutrition a luxury?** For nutrition interventions to be sustainable, food production needs to be increased and diversified to improve nutrition intake, poverty constraints must be overcome to enable health care expenditures and food purchases, and economic growth must be increased to enable investments in social infrastructure. Those handcuffed to poverty and desperate to find sufficient food have little opportunity or means to seek or obtain higher nutrition. Health care and food supplements offer valuable short-term remediation, yet without long-term and sustained increases in agricultural productivity and economic growth, nutrition will remain a luxury for the majority of the world's poor.

5. **Technology.** Remarkably few papers or discussions gave adequate consideration to the role of new technology in increasing food availability, improving nutrient content, or reducing food loss. Too often, participants tended to focus on distribution constraints. In Africa, economic returns are diminishing to efforts aimed at liberalizing markets or broadening control and access over resources. Technology is not the panacea, but neither can nutrition become sustainable without the emergence of agricultural technology that increases land and labor productivity, new employment opportunities that increase income, and food-based approaches that improve the nutritional content of foods.

According to Karl Schwartz, program officer of the USAID Ethiopia Mission, the symposium played an important role in helping the mission develop its country mission strategy using an integrated nutrition framework. According to selected participants:

- *[The symposium] fulfilled its purpose of bringing together policymakers and researchers/scientists. A lot has...been learned on how research results can effectively be integrated with policy.*
- *The workshop facilitated exchange of information, knowledge and experience.*
- *Reinforced our conviction that advocacy sensitization, and multi-sectoral collaboration in nutrition planning and programming is indispensable. We shall continue to explore how we can use these strategies to better deliver nutrition services and help communities address their nutrition problems in Tanzania.*
- *[The] information was very useful and I have shared it with my colleagues at the Department of Food Science and Technology*

## **Horn of Africa Regional Workshop**

### **Agricultural Policy, Resource Access and Human Nutrition**

3-5 November 1999  
Addis Ababa, Ethiopia

#### **PROGRAMME / AGENDA**

##### **Keynote Address**

*Malnutrition in the Greater Horn of Africa:  
Scope, Issues and Challenges*

- **Ali Abdel Gadir Ali**, Economic Commission for Africa, Ethiopia.

##### **PANEL I. Linkages between Policy and Nutrition: Conceptual Framework**

*Agricultural Policy, Employment and Resource  
Access: Micro Foundations for Sustainable  
Nutritional Improvements*

- **Jean-Paul Chavas**, Michael Roth and Alex Uriarte, University of Wisconsin-Madison, USA
- Determinants of Malnutrition: Food Security, Care, and Health*
- **Festo Kavishe** and Olivia Yambi, UNICEF/Eastern Africa

##### **PANEL II. Linkages between Economic Growth, Income, Food Availability, and Nutrition**

*Post Liberalization Household Income and Food  
Security in Kenya.*

- **Wilson Nguyo** and James K. Nyoro, Tegemeo Institute of Agricultural Policy, Kenya.

*Increasing Nutritional Impacts of Agricultural  
Interventions.*

- **Patricia Bonnard**, FANta Project, Academy for Educational Development, USA.

*Food Security and Resource Access: Preliminary  
Findings from the Community Assessments in South  
Wollo and Oromiya Zones of Amhara Region,  
Ethiopia.*

- **Yared Amare**, Yegremew Adal, and Degafa Tolossa, IDR, Addis Ababa University, Ethiopia; Peter Castro, Syracuse University, USA; and Peter Little, University of Kentucky and IDA, USA.

*Microdynamics of Resource Access and Poverty:  
Policy Implications for Food Security in South Wollo  
and East Gojam, Ethiopia.*

- **Tegegne Gebre Egziabher** and Mulat Demeke, IDR; Michael Roth, University of Wisconsin, USA.

*Note: In the case of co-authors, all names are indicated; presenter's name is bold.*

*(Continued, next page)*

*Workshop agenda, continued*

**PANEL III. Policy and Program Interventions to Improve Nutrition— Alternative Approaches**

*Livelihoods in the Drylands of East Africa.*

- **Abdel Ghaffar M. Ahmed** and Tegegne Teka, OSSREA, Ethiopia.

*Animal Products and School Performance in Kenya.*

- **Nimrod Bwibo**, University of Nairobi, Kenya, and **Charlotte Neumann**, Univ. of Calif.-Los Angeles, Sch. of Public Health/Global Livestock CRSP, USA.

*Improving Household Food Security: Documenting Institutions' Efforts to Apply Gender-Sensitive, Participatory Processes in Developing Integrated Solutions.*

- **Theresia Peter Msaki**, Ministry of Agriculture, Tanzania; Bogalech Alemu, Ministry of Agriculture, Ethiopia; Charlotte Johnson-Welch and Antonia Wolff, ICRW, USA; Hilda Kigutha, Egerton University, Kenya; May Sengendo, Makerere University, Uganda.

*Integrating Agriculture and Nutrition Programs: NGO Approaches and Lessons Learned.*

- **Muhoro Ndung'u** and Dan Maxwell, CARE, Kenya.

**PANEL IV. Improving Nutrition through Food, Care and Health Policies and Programs: A Nutrition Perspective**

*Affecting Nutrition through Health and Care Interventions.*

- **Robert Mwadime**, LINKAGES/Regional Centre for Quality of Health Care, Uganda

*The Importance of Gender in Agricultural Policy, Resource Access and Nutrition.*

- **Charity Kabutha**, African Women Leaders in Agriculture and Environment, Kenya.

*Internet Tools to Assist in Documenting Complex Relationships and Accessing Information on Policy and Nutrition.*

- **Joshua Dein**, U.S. Geological Survey/UW, USA, and Suzanne Boardman, DFID, UK.

**PANEL V. Integrating Agricultural/Resource Policy and Nutrition: Identifying key messages and how to communicate them**

*Malnutrition and National Development: The Human and Economic Costs of Malnutrition.*

- **John Owour**, Ministry of Finance and Planning/LINKAGES, Kenya.

*Linking Research to Policy Action.*

- **Cheryl Morden**, ICRW, USA.

*Regional Health and Nutrition Networks in East Africa.*

- **Boitshupo Giyose**, Commonwealth Regional Health Community Secretariat, Tanzania.

*Economic Policy Networks in Eastern and Southern Africa.*

- **Lucian Msambichaka**, University of Dar es Salaam, Tanzania.

*Food and Nutrition Policy: How to Move Research to Policy and Program Action.*

- **Joyce Chanetsa**, Ministry of Health, Nutrition Unit, Zimbabwe.

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**Changing Tenure Patterns, Institutional and Policy Responses to Water Management in East Africa:**

*A Comparative Study of Kenya and Tanzania*

**Collaborating Institutions and Researchers**

**African Centre for Technology Studies (ACTS)**

Christopher Huggins, Research Fellow

*Project Dates: December 1997– April 2001*

*Support: Add-on only (USAID/REDSO). Funded through a BASIS grant administered by OSSREA.*

**Program Overview**

The African Center for Technology Studies (ACTS) in Nairobi, Kenya, is completing a project funded by a BASIS grant administered via the Organization for Social Science Research in Eastern and Southern Africa (OSSREA). The project examines the recent changes in water policy in Tanzania, and the changing roles of stakeholders: local communities, NGO's, and the various state water departments. The project has involved fieldwork in the Arusha region of Tanzania and consultative sessions that involved the interviewees and other stakeholders in discussions about the research results.

The past few decades have seen major shifts in national water management regimes across the globe. In most developing countries, post-independence governments invested heavily in the water sector, but now cannot afford the costs of continued water development and existing systems. They are thus decentralizing these responsibilities to water users themselves. However, many community-managed water supply schemes have shown poor performance or have failed altogether, due to maintenance problems. Development agencies and water ministries have thus come to recognise the importance of "community ownership" of water schemes, which require community control over the schemes from the pre-development stage. There is also an increasing effort to encourage participation of a representative cross-section of the community, with particular emphasis on gender-sensitivity.

The past decade has seen issues of participation in water supply becoming significant in terms of decision-making over *water allocation* at the local and basin-level. Chapter 18 of Agenda 21 of the 1992 Rio Declaration, which most countries of the world have signed, asserts that "Water resources should be managed at the lowest appropriate level."

State agencies in the developing world often lack the financial support and political backing to put all of these

principles into practice. Frequently, the ministries in charge of water affairs are highly centralized, with weak links to community groups and other stakeholders. In some cases, decentralization of decision-making may actually increase the potential for conflicts over water, particularly when increased responsibilities at the local level are not supported by enhanced rights.

The fieldwork and literature study conducted for this project have informed other work being conducted by ACTS and will be presented at a major workshop on freshwater management to be held at the United Nations Environment Programme (UNEP) later in 2000.

Although personnel changes within ACTS delayed the commencement of fieldwork and delayed the project, the work has been completed.

### **1999-2000 Activities**

Fieldwork was conducted in 10 villages in the Arusha and Monduli Districts of Tanzania. Numerous interviews were conducted with government staff in Arusha town, Tanzania, and Nairobi, Kenya. A 3-day consultative session was convened in September 1999 to discuss the research findings. Participants included members of village water committees as well as Kenyan and Tanzanian government staff, including the Regional Water Engineer for Arusha Region.

Research in Tanzania highlighted a number of latent and manifest conflicts over water. The availability of water during the dry season is diminishing, as a result of erosive land use-patterns, poor management, population increase, and the rising number of commercial and small-holder irrigation systems. Conflicts range from potential legal disputes to acts of vandalism and violence. In both Tanzania and Kenya (as in many other countries) water is

categorized as a national resource, to be allocated by the state on behalf of the people. However, because water use generally requires investment in infrastructure and management systems, tenure involves not just access rights, but also the capacity to install water-related technologies, and relationships with other users of shared water sources. Arguably, stakeholders outside government should be included in the decision-making processes that affect water use. The project report offers policy options that reflect the need for increased stakeholder participation in local and regional policy formulation, as well as clarification in the area of water tenure.

### **2000-2001 Work Plan**

Core funding will support a study entitled "Privatization of Water Tenure in Kenya: Technology as a Determinant to Access to Water." Project dates are January – April 2001.

This project will explore the role of technology in this situation, looking particularly at the case of Kenya, where the government seeks to encourage "more active involvement of the private sector in the development and management of the water resources."

Access to and control of water will be the most important and sensitive public policy issues in Eastern and Southern Africa in the next century. As human populations continue to grow rapidly and with declining arable land in the region necessitating intensification of agriculture, competition for increasingly scarce water will become acute. In some countries, water supply and management are increasingly moving into the private domain. With privatization of land and, in a number of cases, privatization of the management of water, competition for water is likely to generate localized conflicts, whether of the "latent" or "manifest" kind.

### **Key Findings and Results**

## **Informing the Debate on Water Policy in Kenya and Tanzania**

*BASIS researchers have outlined policy options that reflect the need for increased stakeholder participation in local and regional policy formulation, as well as clarification, in the area of water tenure.*

- Changes in the land tenure system and ownership patterns “on the ground” should be monitored to assess the effects on water issues in both Kenya and Tanzania. While it is necessary to keep the water rights system separate from land ownership, Ministry of Water staff will have to consider the existing realities of customary rights to avoid disputes. More research is necessary to understand the complex and evolving nature of the many variations of customary land tenure systems, and interpretations of these systems should not be over-simplified when being incorporated into official policy.
- Clear guidelines on conflict prevention and resolution should be developed at the regional/national level. Such guidelines should include transparency at all stages of the water rights allocation procedure, and should identify a mediating institution with independent status. However, each dispute occurs within a different context and local political factors, and may require a tailor-made strategy for conflict resolution.
- The water rights allocation system should be reviewed at the same time as the existing rights themselves are renewed and/or annulled.
- Water sources should be ranked according to the threat of degradation, in terms of quantity and quality, with monitoring and enforcement activities prioritized accordingly.
- Water-management institutions should divide revenue into recipient end-users and uses. Systems should be transparently accountable and should be made clear to users.
- Any “resource and catchment conservation charge” should be carefully judged to reflect the financial capacity of the paying community, and should be transparently directed toward effective conservation measures.
- Against a background of conflicting interests and widespread inefficiencies in the use of water, the importance of “umbrella” institutions representing a number of communities is clear.
- Agencies working in the area of water supply should coordinate their activities at regular meetings hosted by the district or regional authorities.
- In many areas, the technical capacity to plan, maintain and repair water systems should be improved at the local level.
- In cases where water systems are handed over from NGOs or the Ministry of Water to local community institutions, a form of contract is necessary to ensure that the system infrastructure is clearly under the ownership of a specified institution.

As non-state stakeholders increase their abilities to manage water and to operate at a policy level, particularly umbrella organizations representing smallholders, they should be increasingly included in the government water allocation institutions.

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**1999-2000 Competitive Grant Award  
Irrigation, Participation and  
Factor Markets in Tanzania:  
A Participatory Research Program**

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## Collaborating Institutions and Researchers

### **Economic and Social Research Foundation Dar es Salaam, Tanzania**

Samuel Wangwe, Executive Director, Economist  
Jeanne Koopman, Economist

### **Tanzania Ministry of Agriculture and Cooperatives, Irrigation Section**

Rhoda Kweka, Soil Scientist and Gender Specialist,  
Dar es Salaam

Mary Mboya, Sociologist, Participatory Irrigation  
Development Programme, Dodoma

### **Other**

Kenneth Petro, Interpreter/Trainer  
Anna Deogratias, Research Intern

*Project Dates: October 1999 - December 2000*

*Support: Core funding only. Additional support from  
collaborating Tanzanian institutions: Irrigation Section,  
Ministry of Agricultural and Cooperatives, and Economic  
and Social Research Foundation*

## Program Overview

BASIS approved a 1999-2000 competitive grant proposal for the initial 12-month phase of a new research program to study the efficiency and equity impacts of irrigation projects on different groups in irrigating communities. The full research program proposes to analyze 10-12 irrigation schemes and their associated watersheds over a three- to four-year period. The work is being undertaken in cooperation with the Tanzanian Irrigation Department.

As a result of changing policy priorities by both government and donors, irrigation schemes in Tanzania exhibit considerable differences. The differences include not only technological approaches and costs associated with construction and management, but also types of farmer organizations developed, distribution of plot ownership, prevalence of tenancies and/or labor hiring, and the approaches used to deal with environmental issues. This wide variety of socio-economic, environmental, and technological differences makes Tanzania an excellent setting for conducting research on the impact of different policy choices and degrees of community participation on both overall economic outcomes and the distribution of costs and benefits.

The Irrigation Section of the Tanzania Ministry of Agriculture and Cooperatives recently initiated policies to

increase community participation in initiating, planning, executing, and managing traditional irrigation scheme rehabilitation projects. This research project provides information on how participation by different segments of the farming community affects both the processes and outcomes of scheme rehabilitation (see box, Page 65).

## 1999-2000 Activities

Initial field work took place in two villages: Kikavu Chini in Kilimanjaro Region and Mtandika in Iringa Region. The work was accomplished in two phases: January-March and June-August 2000. Activities included discussion sessions with small groups of men landowners, women landowners, men tenants, women tenants and laborers, men laborers, members of the village government, members of the water users association, and water distributors (water masters). The discussions covered people's expectations for the project, participation in planning and execution, benefits and costs, and remaining problems. During the second session people analyzed and ranked the problems. This material was subsequently discussed in a community wide meeting that attracted 50-75 people in each village. The all-village meetings lasted some two hours and stimulated considerable discussion from both men and women, including elders and youth.

Between the two field work sessions, researchers devised a survey instrument to provide quantitative evidence on costs, benefits, and other issues raised by the participants. The survey instrument was translated into Kiswahili and pre-tested with community members who volunteered as enumerators.

A third village, Msosa (located near Mtandika in Iringa Region), was included during the second phase, but due to time constraints, activities were limited to one week of informal group interviews. Msosa is one of a very few villages in Tanzania to have undertaken land redistribution as an integral part of its efforts to rehabilitate its irrigation scheme.

A two-day workshop was organized for Irrigation Section staff and officers from other ministries working with farmers (cooperatives, water and river basin offices, community development), NGOs, donors, and 15 villagers who had taken part in the research. The workshop provided a forum for villagers to present their analysis and opinions for discussion with government. The workshop also permitted joint villager-government working groups to develop policy and "practice" recommendations on how to foster participation and improve outcomes from irrigation rehabilitation projects. The workshop was conducted in Kiswahili and English (on consecutive days).

Data analysis and writing activities in process include a presentation for the November 19, 2000 meeting of the African Studies Association.

*(Continued, Page 66)*

## Key findings and results

# **BASIS Assists with Organizational and Institutional Reforms in Tanzania**

## **Institutional reforms**

- Discussions about membership rules for the Kikavu Chini irrigators' cooperative (called *Uwakichi*) revealed widespread opposition to the exclusion of tenants from membership and provided arguments for a more participatory approach to organizational management.
- Access to water in Kikavu Chini is encumbered by heavy costs in labor time, including weekly repairs at a major breach in the traditional canal. For 70 percent of the farmers, the cost is 4-5 hours each, every 21 days. Nearly all segments of the farming population (big and small owners, tenants, men and women alike) cited the cost as a priority issue. *Uwakichi* can use this information to set priorities for repair work, a factor that is likely to increase farmer cooperation with *Uwakichi* leaders, thereby increasing efficiency and effectiveness of water management. Furthermore, the research provided information (hitherto unavailable in the village) that the cost of a permanent repair to the canal would be \$7,000 if farmers contribute labor. Repair of this major "wound" in the irrigation scheme is quite possibly feasible for the village to take up on its own.

## **Gender**

The following successes help demonstrate to the Irrigation Section, and to other parts of government, the value of gender training in communities.

- In Kikavu Chini, some water distributors limited women's irrigation turns to night-time hours. The women's access to water was limited by the significant danger of assault and problems obtaining adequate child care. In small-group and village-wide meetings, women owners and tenants brought the night-time irrigation issue into greater prominence. Women and sympathetic men were able to counter the argument that limiting women's turns to daylight hours would "violate the rule of equality."
- For women in Mtandika and Msosa the most important factor market access problem is obtaining access to irrigated plots on their own account. Social mores in this area make it extremely difficult for women to control self-earned income when farming land owned by their husbands. Women's independent access to land was rendered more socially acceptable to both sexes as a result of explicit gender training offered by the NGO that helped these communities finance and organize the rehabilitation and operation of their traditional irrigation schemes.
- When a government project brought new land under irrigation, project advocacy and training resulted in a village plan to distribute small newly-irrigated plots to female household heads and to married women.
- Male youth (very small owners, tenants, and laborers) face serious constraints in gaining access to enough irrigated farm land and capital to invest in modern farming methods. Research results provide persuasive evidence that government and NGO promoted irrigation and credit projects need to bring younger men into both planning and scheme management activities.
- Married women from land owning households still experience serious constraints in gaining access to land. In cases where irrigation projects can bring water to formerly unirrigated land, appropriate training can increase women's access.

## **Other**

- Research clarified who (in terms of income class and gender) has access to credit. Seventeen percent of villagers in Mtandika had applied for loans from government or other financial intermediaries, but only 1% had received them.
- Bringing together representatives of all community segments in Kikavu Chini (where inter-group suspicion has been particularly acute) helped different groups work together toward the commonly felt need for improvement in the operation and management of their irrigation scheme.

## **Irrigation, Participation and Factor Markets in Tanzania:**

*(Continued from Page 64)*

### **Problems and Issues**

This research was premised on the willingness of the Irrigation Section of the Ministry of Agriculture and Cooperatives to provide staff to the research project for a few weeks at a time. Unfortunately, the requirements of a person's main job tended to take priority over the research. This posed a serious problem, especially for our team sociologist, Mary Mboya, who was unable to participate in the second phase as planned. The team coped with this loss by increasing the involvement of other members. Kenneth Petro, interpreter and translator, trained and supervised village enumerators, first in collaboration with Ms. Mboya and then as the primary trainer. In Mtandika a volunteer-intern, Ms. Anna Deogratias, assisted Mr. Petro with questionnaire training, administration, and supervision and also did some interpretation and translation. Researchers cancelled field work in Dodoma Region where Ms. Mboya is stationed and where landless villagers had received plots, and added a one-week period research in the village of Msosa. In the end, the research achieved most of its objectives, but nonetheless, the loss of a senior researcher was detrimental and greatly regretted by the entire team.

### **Collaboration with Other Projects**

This project collaborated with the BASIS research project at the African Center for Technology Studies (ACTS) in Nairobi, Kenya. Researchers from both projects exchanged information about methods, results, and plans.

### **2000-2001 Work Plan**

A major workshop to conclude the research is scheduled to be held prior to December 2000. Participants will include officials from the Zonal Irrigation Units, District Governments, and River Basin Offices with authority in the research sites. Since the research is going well and has sparked considerable interest in the Irrigation Department, Districts, and NGO/United Nations communities, researchers plan to discuss research findings as widely as possible. This is also important because the Irrigation Department is undergoing major structural changes turning it into a semi-independent agency. Researchers have ideas to offer that could possibly influence how the new agency will plan to foster community participation in irrigation projects in order to meet its primary goal of making the schemes self-sustaining.

To strengthen links with the River Basin Offices with authority in the research sites, Koopman plans to spend additional time in Tanzania. River basin management in Tanzania is being strengthened by a major World Bank funded project, and the Ministries of Water and Agriculture are currently discussing the level of so-called

“economic water fees” to be charged to irrigation projects. Researchers believe that BASIS research can contribute to the debates surrounding these fees. The Assistant Commissioner for Irrigation has asked researchers to pay considerable attention to this issue. Researchers will also prepare a final research report and research papers to be submitted for publication.

### **Lessons for Participation in Irrigation in Tanzania**

Researchers tested the following hypothesis:

*Effective community participation in irrigation rehabilitation and management will improve the functioning of land and water markets, at a minimum, and may also foster more efficient and equitable capital and labor markets at the local level by increasing communication within and among community sub-groups.*

The research sought information on how participation was effected (or hindered) at different stages of an irrigation rehabilitation project from socio-economically distinct segments of two communities where different approaches to participation had been undertaken. While a sample of three villages cannot identify—much less analyze—all the issues affecting participation in irrigation, this research contributes several important lessons on how community participation can be fostered (or stymied) by government, NGOs, and donors.

- Participatory methods used in the research encouraged community contributions that could move the research in directions unanticipated by the researchers. This was an important factor in uncovering new information on how participation can work to empower community groups or to inhibit local involvement and contributions.
- Unmistakable evidence supported the conclusion that participation can improve the technical and organizational sustainability of an irrigation scheme.
- The research demonstrated that access to land and water for poor and socially disadvantaged groups is critical for rural poverty alleviation. The key to this poverty alleviation result is for irrigation rehabilitation projects to expand the scheme's command area into formerly unirrigated areas. Whether or not Tanzania has the water resources to expand irrigated areas is currently a matter of considerable debate in the Ministries of Water and Agriculture.

This research will contribute to the major policy debate on the demand for irrigated land and the constraints on access to such land by poor and socially disadvantaged groups.

## **Alleviating Poverty and Food Insecurity: The Case of Mwea Irrigation Scheme in Kenya**

### **Collaborating Institutions and Researchers**

**Clark Atlanta University, Atlanta, Georgia**  
*Department of Economics*  
Mesfin Bezuneh, Co-Principal Investigator

**Egerton University, Nairobi, Kenya**  
*Tegemeo Institute of Agricultural Policy Analysis  
and Development*  
Wilson Nguyo, Director  
Chris Onyango, Chief Research Officer

### **Overview**

Water resources and irrigation development have played a major role in food production, particularly in arid and semi-arid regions of most developing countries. The Mwea irrigation scheme (MIS) in Kenya is no different. Since its inception in the 1950s, as a settlement project for landless and unemployed ex-detainees of the pre-independence freedom struggle, it has become the major rice-producing scheme in Kenya. The MIS is the largest public irrigation scheme in Kenya, covering some 12,000 hectares of land.

Life in this area revolves around the irrigation scheme. Farmers are "tenants" of the Parastatal National Irrigation Board (NIB) which holds the irrigation water rights. The NIB also provides all the inputs for growing rice, including water, mechanized cultivation, fertilizers, herbicides and pesticides. Thus, NIB controls all the operations and monitors the progress of the crop while the farmers provide human labor only. All the harvest is delivered to NIB before it is milled and marketed.

Population within and outside the scheme has increased considerably. This has increased the demand for irrigation water dramatically, resulting in conflicts over water use between farmers within and those outside the scheme. Conflict also has emerged on price/cost and revenue sharing between the scheme farmers and the NIB. Farmers in the Mwea irrigation scheme have been agitating for control of at least the marketing of their rice. In October 1998, farmers withheld their rice from NIB, demanding an increase in the price they receive. This study aims to examine alternative institutional arrangements to resolve this conflict.

Conflict is expected to exacerbate as funding sources to finance agriculture in general, and irrigation in particular, are declining. For example, besides owning the land, each year the NIB spends over ksh 350 million (about US\$4.4 million) to provide all the inputs (seed, fertilizer,

chemicals) to farmers. This is in addition to what NIB provides for the irrigation infrastructure, such as canals, land preparation, crop storage, pest and disease control, extension service, and overall maintenance of the scheme.

The issue of ownership and/or access to and management of the irrigation system are the core of the current crisis at Mwea. This conflict threatens the very existence of Mwea Irrigation Scheme as a tenant-based settlement scheme. Such conflict also puts a damper on the future of irrigation in Kenya.

No matter how promising the prospects for improving and increasing irrigation-water supply and settling the current crisis, it is unlikely the issue of "ownership" and access to, and management of, the irrigation scheme and the revenues that are generated from it will disappear until both the costs and gains are fully internalized and the economics and social impacts on the users are assessed. Presently, little is known about the impacts of the scheme on the settlers and people in the surrounding areas.

Research questions for this project include the following:

1. Is water allocated efficiently?
2. Do the participant farmers within the scheme receive cost-price based return to their rice production?
3. Does the provider (the State/NIB) of the resources to the participant farmers recover its full cost?
4. Are participant farmers better off with the irrigation scheme than without?
5. What alternative organizational arrangements are most cost effective and sustainable for the Mwea irrigation scheme?
6. What lessons and implications will emerge for other schemes in Kenya and the Greater Horn region?

The key elements of this study are factor (water resource) and product (rice) markets, prices and costs of other related but competing products, credit, efficiency in allocation and management, and social conflicts in water rights. By providing benchmark baseline data, this study will form the basis of measuring how technical, administrative, and policy changes affect Mwea and how such changes might affect other public irrigation scheme projects in Kenya and in the region.

### **1999-2000 Activities**

Difficulties disbursing funds delayed project initiation until August 2000. During this reporting period researchers developed a work plan and survey instrument and visited the study site, the Mwea irrigation scheme.

### **2000-2001 Work Plan**

The main purpose of this study is to assess the impacts of the Mwea irrigation scheme on the welfare of participant

farmers. Researchers will assess farmers "with" and "without" the scheme (e.g. non-participant farmers from the adjacent area).

Through a household level user survey, researchers will develop a database to quantify the amount of water demanded by activity and season. Such information, complemented by secondary data, will provide a basis for analysis. It will also provide to the Mwea irrigation authorities better information about delivery system efficiency. The survey will be carried out during the production season, with particular attention to water/irrigation use by activity and time for both participant and non-participant households.

Researchers will produce a final report and non-technical policy memo(s) with emphasis on steps and approaches to implement the study findings. A seminar will be held to discuss and disseminate study results and implications. Relevant data sets will be organized/created in such a way as to be useful for irrigation authorities, policy makers, scheme farmers, and other interested researchers.

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## 1999-2000 Outputs

*Note: Outputs marked with an asterisk (\*) below are available on the BASIS CRSP web site at <http://www.wisc.edu/lrc.basis>*

### ◆1◆ **From Household to Region: Factor Market Constraints to Income and Food Security in a Highly Diverse Environment—South Wollo, Ethiopia**

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#### *Publications*

Amare, Yared, Yigremew Adal, Degafa Tolossa, Peter Castro and Peter Little. November 1999. "Food Security and Resource Access: Preliminary Findings from the Community Assessments in South Wollo and Oromiya Zones of Amhara Region, Ethiopia." Regional BASIS Horn Symposium on Agricultural Policy, Resource Access, and Nutrition, 3-5 November, Addis Ababa, Ethiopia.

Amare, Yared, Yigremew Adal, Degafa Tolossa, Peter Castro and Peter Little. January 2000. "Food Security and Resource Access: A Final Report on the Community Assessments in South Wollo and Oromiya Zones of Amhara Region, Ethiopia." Madison, WI and Addis Ababa, Ethiopia: BASIS/IDR Research Program, 59 pp. \*

Amare, Yared and Peter Little. March 2000. "Food Security and Resource Access in Northeastern Ethiopia: Preliminary Findings from an Interdisciplinary Research Program." Paper presented at the Annual Meetings of the Society for Applied Anthropology, San Francisco, 22-26 March 2000.

Castro, Alfonso Peter, Yared Amare, Yigremew Adal, and Degafa Tolossa. January 2000. BASIS/IDR Community Assessments: Kebele Profiles, Parts I, II, III, and IV. 179 pp. \*

Gaile, Gary, T. Gebre-Egziabher, and P. D. Little. November 1999. "Market Center Functions and Linkages as Related to Food Security in South Wollo, Ethiopia: Preliminary Observations." 55 pp. \*

Gebre-Egziabher, Tegegne, Mulat Demeke, and Michael Roth. November 1999. "Microdynamics of Resource Access and Poverty: Policy Implication for Food Security in South Wollo and East Gojam, Ethiopia." Regional BASIS Horn Symposium on "Agricultural Policy, Resource Access, and Nutrition," 3-5 November, Addis Ababa, Ethiopia.

Shin, Michael. November 1999. "Using a Geographical Information System within the BASIS Research Program in Ethiopia." 11 pp. \*

"BASIS CRSP Regional Seminar, October, 1999, Dessie, Ethiopia." Compiled by Kurt Brown, 6 pp. \*

#### *Data*

SPSS Data Set (448 households), June 2000, from "Round One" Household Survey.

### ◆2◆ **Cross-Border Trade and Food Security in the Horn of Africa**

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Little, Peter D. October 1999. "Confronting Change: Contract Farming and Production Relations in Peri-Urban Areas of Sub-Saharan Africa." 38 pp. \*

Little, Peter D. October 1999. "Selling to Eat: Petty Trade and Traders in Peri-Urban Areas of Sub-Saharan Africa." 46 pp. \*

Little, Peter D. April 2000. "The Global Dimensions of Cross-Border Trade in the Somalia Borderlands." Paper prepared for the OSSREA Sixth Congress on Globalization, Democracy and Development in Africa: Future Prospects, 24-28 April 2000, Dar es Salaam, Tanzania (to be published in the Congress Proceedings).

## 1999-2000 Outputs (Continued)

Little, Peter D. April 2000 (Draft). "Cross-Border Livestock Trade and Food Security in the Somalia and Northeastern Kenya Borderlands." 108 pp.

Little, Peter D. June 2000. "Pastoralism and Cross-Border Trade in a Risky Environment: The Case of the Somalia Borderlands." Lecture presented at the Max Planck Institute of Social Anthropology, Halle, Germany, 21 June.

Teka, Tegegne, Alameyehu Azeze, and Ayele Gebremariam. October 1999. *Cross-Border Livestock Trade and Food Security in the Southern and Southeastern Ethiopia Borderlands*. OSSREA Development Research Report Series No. 1. Addis Ababa, Ethiopia: Organization for Social Science Research in Eastern and Southern Africa, 71 pp.

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### ◆3◆ **Linking Agriculture to Human Nutrition: A Gender-Based Analysis of Institutional Initiatives and Experiences**

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Johnson-Welch, Charlotte; Bogalech Alemu; Theresia Peter Msaki; May Sengendo; Hilda Kigutha; and Antonia Wolff. 2000. Improving Household Food Security: Institutions, Gender and Integrated Approaches. *BASIS Progress Report*, March 2000. 62 pp. \*

Johnson-Welch, Charlotte. Gender and Household Food Security: A Lost Opportunity, presentation at International Conference on Food and Nutrition 2000, Tuskegee University, Tuskegee, AL. October 8-10, 2000.

Msaki, Theresia Peter. 1999. Case study research presentation at Agricultural Policy, Resource Access and Human Nutrition symposium, Addis Ababa, Ethiopia. November 3-5, 1999. \*

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### ◆4◆ **Horn of Africa Symposium: Agricultural Policy, Resource Access and Human Nutrition**

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Abdel Ghaffar Ahmed, Kristy Cook and Michael Roth, "Horn of Africa Regional Symposium: Agricultural Policy, Resource Access and Human Nutrition." *BASIS Brief*, No. 4, July 2000. 8 pp.

Azeze, Alemayehu and Edlam Aberra. Overview of the Horn of Africa Regional Symposium: Agricultural Policy, Resource Access and Human Nutrition, November 3-5, 1999, Addis Ababa, Ethiopia. 14 pp.

*Papers and other information from the symposium can be found at <http://www.wisc.edu/lc/baspubhrn.html>*

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### ◆5◆ **Changing Tenure Patterns, Institutional and Policy Responses to Water Management in East Africa: A Comparative Study of Kenya and Tanzania**

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The report "Changing Water Tenure Patterns, Policy and Institutional Responses to Water Management in East Africa" by Christopher Huggins is to be published in the near future by ACTS Press. A draft entitled "Rural Water Tenure in East Africa: A Comparative Study of Legal Regimes and Community Responses to Changing Tenure Patterns in Kenya and Tanzania" dated May 2000 is currently available on the BASIS web site.

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### ◆6◆ **Irrigation, Participation and Factor Markets in Tanzania: A Participatory Research Program**

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Reports from the first phase of the research have been written in Kiswahili and distributed in the villages.

#### *Database*

The research has a database resulting from a 20-page questionnaire administered to 80 randomly chosen informants in each of the two villages studied intensively.

#### *Workshop*

A two-day workshop was held in Dar es Salaam on Community Participation. Participants included 15 villagers, 15 staff members of the Irrigation Section, 15 officials from the Ministry of Water, Ministry of Community Development, Cooperative Department, local government technical officers from the areas of the research, and 15 representatives of NGOs, training institutions, and donors



# Southern Africa



## BASIS CRSP Research Projects

- ◆1◆ **Broadening Access to Land Markets in Southern Africa**
  - 1.A. South Africa
  - 1.B. Namibia
  - 1.C. Zimbabwe
  
- ◆2◆ **Broadening Access to Water Resources in Southern Africa**
  - 2.A. Zimbabwe
  - 2.B. Malawi
  - 2.C. Mozambique
  
- ◆3◆ **KwaZulu-Natal Income Dynamics Study (KIDS)**
  
- ◆4◆ **BASIS/Zimbabwe Land Reform and Resettlement Program**

### **Acronyms used in this section**

BASIS	Broadening Access and Strengthening Input Market Systems
BHR	Bureau for Humanitarian Response
CASS	Centre for Applied Social Science
CRSP	Collaborative Research Support Program
DANIDA	Danish International Development Agency
GIS	Geographic Information System
HIID	Harvard Institute for International Development
KIDS	KwaZulu-Natal Income Dynamics Study
KZN	KwaZulu-Natal
IFPRI	International Food Policy Research Institute
LRCF	Land Reform Credit Facility
LRRP II	Land Reform and Resettlement Program Phase II (Zimbabwe)
LTC	Land Tenure Center
NET	Nucleo de Estudos da Terra
OFDA	Office of U.S. Foreign Disaster Assistance
PI	Principal Investigator
RPL	Research Program Leader
USAID	United States Agency for International Development
WRMS	Water Resources Management Strategy
ZINWA	Zimbabwe National Water Authority

# BASIS CRSP Research in Southern Africa

Colonialism, racial discrimination and apartheid have created a legacy of dual economies in Southern Africa. The bimodal structure, civil war, and inappropriate government policies have resulted in weak economies and a widening gap between rich and poor. Governments within the region are facing major needs and challenges in creating broad-based economic growth and building democratic systems that broaden the majority's stake and participation in the economy. While most countries are now undertaking substantial reforms to redress these inequities, and to improve standards of living, the challenges are enormous. Most reforms are in the early stages of design and experimentation, and unstable economic and political conditions inhibit consistent progress.

Nowhere are these challenges more evident than in the related policy areas of land reform and decentralized water use management. Since establishing its Southern Africa program in 1997, BASIS has implemented four projects that have focused on broadening the poor's access to resources, and on overcoming persistent problems of poverty. BASIS research began by evaluating the

performance of government land redistribution and private land markets in redistributing land and broadening the poor's access to financial capital and productive opportunities in Namibia, South Africa and Zimbabwe. In 1998, BASIS established a research program to monitor and evaluate government initiatives to decentralize water control and management in Malawi, Mozambique, and Zimbabwe.

In 1999, BASIS funded through a competitive grant a research project to evaluate sources and dynamics of poverty in South Africa, with a focus on pathways to overcome acute and persistent poverty. Finally, in 2000, with funding from USAID/Harare, a BASIS research program was established to assist with the implementation of Zimbabwe's Land Reform and Resettlement Program, Phase II.

In the final year of the first phase of BASIS, the research teams seek to consolidate the work done so far, with emphasis placed on publications and policy workshops to discuss results and to disseminate results within the region.



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## Broadening Access to Land Markets in Southern Africa

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### Collaborating Institutions and Researchers

#### University of Namibia

*Multidisciplinary Research Centre*

Ben Fuller, Professor, Social Sciences Division

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*Project dates: November 1996 - September 2001*

*Support: Core funding and add-on (USAID/BHR/OFDA)*

### Program Overview

The project aims to monitor and evaluate the various means by which farmland in selected regions of South Africa, Namibia, and Zimbabwe is transferring to, and being used by, previously disadvantaged people. The term "disadvantaged" refers to people historically precluded from land markets by race and gender.

Study results will inform policy recommendations on:

(1) needed innovations in markets for land and finance;  
(2) appropriate land tenure and management institutions for sustainable and productive land use; and (3) improved rural livelihoods. This is to be achieved by:

- Monitoring and comparing rates at which commercial farmland transfers to different classes of disadvantaged people (males and females, individuals or groups) in selected regions of each country over time, both as a result of private market transactions and government land reform programmes. This entails conducting annual census surveys of farmland transactions over the

period 1997-2001 for the South African region (KwaZulu-Natal province), 1990-2001 for Namibia regions, and 1996-2001 for Zimbabwe. The use of annual census surveys over a lengthy period provides benchmark data for impact analysis, and helps to identify the relative extent to which different modes of land distribution broaden the access of previously disadvantaged groups to land and land markets.

- Examining relationships between land tenure, managerial arrangements, farm and household characteristics (including gender), access to credit, investment in agriculture, land use, and rural livelihoods on transferred land.

The differences across the three countries in terms of records available, quality of data, and resources result in differences in stage of the research. The KwaZulu-Natal team has completed censuses for 1997-1999 and a household survey; the Namibian team has completed censuses up to 1999 and is analyzing the household survey; the Zimbabwean team has completed censuses up to 1999 but has decided not to conduct the household survey.

## 1999-2000 Activities

### 1.A. South Africa

The research team completed the third census survey of farmland transfers in KwaZulu-Natal during 1999. Summary findings of this work, reported in four papers submitted to academic journals (two have been published), are listed in the Outputs section. Preparation is underway for an abridged report on land transactions and land use, intended for policymakers and other key role players. The report will be disseminated in January 2001, as the South African team wants to include the results of the third census survey of land transactions (for 1999) which is currently being analyzed.

In August 2000 three researchers attended the 24<sup>th</sup> International Conference of Agricultural Economists in Berlin, Germany, to present an invited paper, "Financing the market-based redistribution of land to disadvantaged farmers and farm workers in South Africa: Recent performance of the Land Reform Credit Facility."

### 1.B. Namibia

The 1999 BASIS survey of new land recipients in Namibia indicated a wide array of tenure security ranging from those who had purchased commercial farms outright to those who had no security at all even though they had been moved by the Namibian government to a designated resettlement farm. This latter group includes those who

were resettled on an emergency basis and those who had been permanently resettled. While those who were resettled for emergency reasons would obviously consider themselves sojourners, the survey found that even those who were permanently resettled were uncertain over their tenure status. The survey also revealed the presence of an unexpected category—people who were subletting from formally resettled people. This category has no legal standing.

The Agricultural Land Census for 1999 was completed and this database was added to the information from 1990 onwards. Ragan Petrie (University of Wisconsin) visited the research site during June and July 2000 to work with MDRC staff on the gender aspects of the household survey data. Namibia hosted a regional workshop in July 2000, to discuss research progress across the three countries. Representatives from the University of Namibia, University of Natal, University of Zimbabwe and The Ohio State University, research program leader Pauline Peters, and BASIS program director Michael Roth attended. Progress reports were presented and plans made to finalize the project in 2001.

### 1.C. Zimbabwe

A final revision of the Census report was completed by Dr. Rugube and presented to the workshop held in Namibia, July 2000. Researchers discussed plans for a synthesis paper in the coming fiscal year.

## Land Redistribution in Southern Africa

In Namibia, the pace of land reform is still very low. Private transactions have not achieved significant redistribution of land. The slow pace of land redistribution can partially be traced to the slow development of the proper legal framework to assist land reform.

Analyses of land transfers (a primary indicator of land market access) in KwaZulu-Natal during 1997-2000 have improved understanding of current access by different groups of disadvantaged people to farmland in the region. See Table 1.

- In 1997, 22,934 hectares (just 0.43 percent of commercial farmland available for redistribution) was transferred to disadvantaged people. Although relatively low, this rate has increased markedly compared with the 1995 figure of about 0.09 percent.
- During 1998: The overall rate of redistribution was 0.36 per cent. These trends probably reflect the private companies (estate owners) being less active in subsidizing purchases of medium-scale sugar-cane farms, and much higher nominal interest rates in South Africa during 1998.

*(Continued, Page 77)*

## Land Redistribution in Southern Africa

Table 1 reports the area of farmland acquired by, or for, disadvantaged entrants in Zimbabwe, Namibia and KwaZulu-Natal. These estimates were based on a census of the transfer deeds in each study area. However, the Namibian estimate is understated as the census was not quite complete at the time of writing.

Less than 2% of Zimbabwe's commercial farmland is transacted annually. In Namibia and KwaZulu-Natal the corresponding estimates exceed 6%. Despite these large differences in market activity, annual transfers to owners from previously disadvantaged groups average less than 0.5% of the available farmland in all three study areas. This slow rate of land redistribution highlights persistent constraints to market access, and questions the effectiveness of land reform programs in the region. As shown in Table 2, government programs accounted for less than 40% of the area (and less than 28% of the value) of commercial farms redistributed in Zimbabwe and KwaZulu-Natal (Namibia estimates are not yet available).

Relatively few whites purchased farms in Zimbabwe. One explanation is that they perceive diminishing tenure security. At the same time, very high lending rates in Zimbabwe make loan finance unattractive to potential buyers of all races, and a cap imposed by government on interest rates applied to mortgage loans makes lending unattractive to banks. As a result, mortgage-financed sales to disadvantaged people redistributed less than US \$1 million in land wealth to black Zimbabweans during 1997. In KwaZulu-Natal where (inflation and) nominal lending rates are lower, and where innovative mortgage loans have been launched to alleviate cash flow problems, the corresponding estimate is US \$6.9 million. While it is clear that appropriate policy and programs can accelerate market-based land redistribution, the pace of land reform will remain slow while legislation imposes prohibitive costs on private transactions, especially those that require the sub-division of farmland.

**Table 1. Estimated rates of land redistribution in Zimbabwe, Namibia and KwaZulu-Natal**

Region and Year of Study		Area of Farmland Originally Available for Redistribution (Ha)	Area of Land Transacted (Ha)	Net Area, Farmland Acquired by/for Disadvantaged People (Ha)	Annual Rate of Land Redistribution (%)
Zimbabwe	1996	15,100,000	215,058	31,545	0.21
	1997		350,647	31,137	0.21
	1998		295,450	56,692	0.38
Namibia	1990-1998	36,395,100	20,635,409	1,533,953	0.47
KwaZulu-Natal, South Africa	1997	5,308,559	372,995	22,934	0.43
	1998		603,522	18,885	0.36
	1999		306,437	36,109	0.68

**Table 2. Area and nominal market value of farmland acquired by disadvantaged owners in Zimbabwe and KwaZulu-Natal**

Study Area	Year	Area and Market Value of Redistributed Farmland		
		Government Assisted	Private Sales	Inheritance/Donations
Zimbabwe	1996	607 ha Z\$10,5m	27,829 ha Z\$43,6m	3,109 ha
	1997	0 ha Z\$0	30,103 ha Z\$71,3m	1,034 ha
	1998	32,391 ha Z\$62,3m	24,239 ha Z\$61,2m	62 ha
KwaZulu-Natal	1997	12,022 ha R14,4m	9,701 ha R39,1m	1,210 ha
	1998	4,382 ha R2,0m	12,345 ha R22,8m	2,158 ha
	1999	14,892 ha R7,1m	15,258 ha R37,0 m	5,959 ha

*Adapted from Fuller, Lyne and Rugube census surveys of farmland transfers by Michael Lyne*

## **BASIS Impacts**

### **BASIS Research Inspires Innovative Land Reform Product in South Africa**

by Michael Lyne

University of Natal, Pietermaritzburg, Republic of South Africa

In South Africa, the government faces a challenge of financing the redistribution of farmland from white commercial farmers to historically disadvantaged buyers, on a willing seller/willing buyer basis. Moreover, this process should be carried out so that a large number of beneficiaries are served and, at the same time, a strong commercial orientation is maintained on the new properties. As the BASIS research has shown, government-sponsored land acquisition grants have emphasized farmland redistribution at the expense of commercial orientation.

With current legislation restricting the sub-division of commercial farmland, poor beneficiaries had to pool their grants to meet the purchase price of a farm. These groups, represented by trusts or communal property associations, were often too large to negotiate sound constitutions to manage communal resources or to assign exclusive property rights to individual beneficiaries. Free-rider problems threaten to convert these farms into open access resources leading to environmental degradation and continued poverty.

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*. . . recommendations drawing from their BASIS conclusion that private transactions in farmland are constrained by liquidity problems associated with inflation and conventional mortgage loans, were directly responsible for the launch of the Land Reform Credit Facility.*

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In May 1998, South Africa's National Department of Land Affairs (DLA) appointed a group of consultants led by BASIS researchers, Professors Lyne and Graham, to explore ways of using public and donor-sponsored funds to help historically disadvantaged farmers and farmworkers access loans from the private sector to finance land and equity-sharing projects. Their recommendations, drawing from their BASIS conclusion that private transactions in farmland are constrained by liquidity problems associated with inflation and conventional mortgage loans, were directly responsible for the launch of the Land Reform Credit Facility (LRCF) in May 1999.

The LRCF's loan product was designed specifically to address cash flow problems on farms purchased by disadvantaged buyers and financed by private lenders and investors. The LRCF offers loans with deferred or graduated repayment schedules to reputable banks and venture capital investors who finance, on similar terms, equity-share projects and land purchased by aspiring farmers. (See photo, next page).

The LRCF was piloted with initial capital of R63 million (approx. \$8.2 million U.S.), of which foreign donors granted R31 million. In June 1999 the manager drafted and circulated guidelines for applications to the LRCF. By 16 August 1999, he had received loan applications for R6.5 million, notice of applications totalling R14.4 million, and had also been approached by intermediaries to discuss loans for a further R76.9 million to finance eco-tourism equity-sharing projects. As several of the applicants were not internationally accredited, the LRCF had to develop a due diligence framework to assess the creditworthiness of non-accredited intermediaries. In addition, the new Minister of Agriculture and Land Affairs imposed a temporary moratorium on land related grants while reviewing policies inherited from her predecessor. Despite these setbacks, the LRCF approved four loans totalling R14.6 million before the end of January 2000, just eight months after its launch.

Three loans were made to venture capital investors and a commercial bank to finance equity-sharing projects. The fourth loan, to Ithala Bank, will finance eight mortgage loans made to individual farmers, each acquiring approximately 100 hectares of fully developed sugarcane estate. A further two loans (together worth R11 million) are being processed for disbursement early in the LRCF's second year of operation. A recently completed evaluation of the LRCF concluded that the Facility should be capitalized at scale to cope with strong growth in demand for its land reform product.

## Land Redistribution in South Africa

(Continued from Page 74)

Analysis of the 1999 sample survey of new entrants using commercial farmland redistributed in KwaZulu-Natal in 1997 illustrates the link between modes of land redistribution, tenure security and access to agricultural credit.

- Tenure tended to be relatively more secure on farms purchased via private transactions. Most households in the government-assisted stratum had settled on farmland primarily for residential, and not farming, purposes. These households, as members of large groups that utilize redistributed land, cannot readily realize the value of their land share, and also do not have strong incentives to invest in agricultural improvements and complementary inputs (like fertilizer and equipment).
- Insecure tenure has had an adverse impact on access to agricultural credit. Tenure arrangements on farmland purchased by large groups of households with government grants are less secure than on farms acquired privately by disadvantaged people. This suggests that the government could reallocate some scarce public resources to encourage individual ownership of farmland. However, this approach may well be criticized as elitist, as relatively few, creditworthy individuals are likely to benefit.
- A compromise for policy makers is also to encourage large groups of households that pool resources and purchase farmland to elect management committees to profitably direct farming enterprises, in return for profit shares that could help to sustain household livelihoods.



**New landholders in Western Cape Province** illustrate a change in South African land reform policy. In the photo are Minister of Land Affairs Ms. Thoko Didiza (standing, far left, next to unidentified member of South Africa's parliament) and European Union Ambassador to South Africa, Mr. Michael Laidler (standing center, holding papers). The Land Affairs Department and European Union co-funded an innovative land purchase loan program administered by the Land Reform Credit Facility.

Each of five farmers (far left, to front; standing third from left; and all three on the right) is a shareholder in the landholding company but farms his own unit, growing vegetables for the Cape Town urban market about 50 miles away. A co-financier for land purchases and improvements (such as irrigation) is Spiers, a South African wine company. Spiers has financed several land purchases, usually involving shareholders who are vineyard workers.

BASIS research was instrumental in establishing and informing the Land Reform Credit Facility. For example, a special financial product gives farmers time to develop their enterprises, with loan payments deferred at the beginning or graduated over time. Photo by Paul Zille, Manager, Land Reform Credit Facility, National Department of Land Affairs, South Africa.

Education has a positive impact in determining credit use, suggesting that agricultural productivity may be sustained if a larger share of scarce public funds available for farmland redistribution is reallocated to emerging farmers that have relatively better technical and financial management skills.

Policy implications drawn from, and questions posed by, the research project results have directly helped to inform the establishment of the Land Reform Credit Facility (LRCF) in South Africa in 1999. (See box, Page 76.)

## **2000-2001 Work Plan**

### **1.A. South Africa**

In KwaZulu-Natal, South Africa, researchers will analyze the third census survey of land transfers to quantify the rate at which farmland transferred to disadvantaged people during 1999, then compare 1997, 1998 and 1999 in the rate of land transfer, the quality of redistributed farmland, the status of new entrants (males or females, individuals or groups, etc), methods used to acquire and finance land, and the share of land purchased privately relative to that acquired with government assistance. Researchers will also conduct and analyze the fourth census survey of land transfers, to measure the rate of land redistribution during 2000, and draw comparisons as described above from 1997 through 2000.

The researchers plan to assess the performance of government and private initiatives to redistribute farmland with respect to outreach, gender sensitivity, land use and benefits for new entrants. To mark the end of the project, an executive summary will be distributed to relevant national and provincial government departments, and a popular article will be mailed to the local press, NGOs, Agricultural Unions and financial institutions.

### **1.B. Namibia**

Field work in Kunene Region identified four categories of resettled land recipients: (1) those who had purchased farms; (2) those who had been formally resettled; (3) those who received temporary/emergency resettlement; and (4) those who subleased rights from a person who had been resettled.

The focus of work for the coming year will be twofold: (1) examine the development of land reform and land resettlement policy in Namibia to identify the gaps in policy formulation, legal instruments, or in program implementation that have brought about this situation and (2) extend the analysis of the census on commercial farmland transactions to both yearly and regional levels.

### **1.C. Zimbabwe**

Dr. Rugube will continue work on censusing land transfers, to deepen the analysis conducted. Carryover funds will be used to investigate the gender dimension of land allocations in Zimbabwe. The Zimbabwe census survey data indicate that women are gaining increased access to land through the private loan market, a trend that could have important policy implications. However, it is not clear if women are truly gaining access to land through these purchases or if their names are being used as "fronts" for land purchases by men without strengthening women's land tenure. Results from this activity will be used in a larger research paper exploring gender and land reform in South Africa, Namibia, and Zimbabwe.

### **Collaboration**

An important product from each of the three country teams is a unique database of land transfers. In the cases of Namibia and Zimbabwe, the teams had to collect much of the data by hand and their resulting work of establishing electronic databases is of considerable worth to relevant government departments. In all three countries, the researchers have excellent working relations with government and other groups, and have conducted workshops and more informal but regular discussions and briefings for these groups.

The South African team recently provided key input from the BASIS research to the formation of a land reform credit facility. The Namibian team has provided their ground-breaking database and methods to several key government departments (Surveyor-General, Ministry of Lands Resettlement and Rehabilitation, Ministry of Environment and Tourism) as well as to non-governmental agencies.

In South Africa, funds to assist in the analysis of the development of land reform policies have been obtained from the National Academy of Finland via University of Joensuu as well as the foreign Ministry of the Kingdom of Norway.

## Broadening Access to Water Resources in Southern Africa

### Collaborating Institutions and Researchers

#### Nucleo de Estudos da Terra (NET)

##### Eduardo Mondlane University, Mozambique

Eduardo Chilundo, Environmental Geographer  
Joel das Neves, Social Historian

#### Harvard University

##### John F. Kennedy School of Government

Pauline Peters, Lecturer on Public Policy and Anthropology,  
BASIS Research Program Leader

#### University of Malawi

Wapulumuka Mulwafu, Lecturer, Dept. of History,  
Chancellor College

Geoffrey Chavula, Lecturer, Department of Engineering,  
Polytechnic

#### Michigan State University

William Derman, Professor of Anthropology and African  
Studies

Anne Ferguson, Associate Professor of Anthropology, and  
Director, Women and International Development  
Program

*Both Derman and Ferguson were awarded Fulbright-Hays  
faculty research grants to pursue their work in Southern  
Africa during 1999-2000.*

#### University of Zimbabwe

##### Centre for Applied Social Science (CASS)

Francis Gonese, Deputy Director, CASS with the assistance  
of researchers Claudious Chikhozo, Jim Latham,  
Everisto Mapedza, and Stanley Vombo

*Project dates: November 1996 - September 2001*

*Support: Core funding and add-on (USAID/BHR/OFDA)*

### Program Overview

The three-country project is designed to inform policy on water resource management, particularly decentralized management systems, in the context of ongoing water sector reform in Zimbabwe, Malawi and Mozambique. The research falls under one of the key themes of the Southern African program, namely, Broadening Access to Water Resources through Democratized, Equitable, and Efficient Management Systems.

The research examines current patterns of water management in contexts where water is a scarce factor of production, where there is increasing competition over its use and control, and where the study countries are engaged in decentralized water policy reform and administration.

Over the past decade, a shift has taken place in water resources management from a supply- to a demand-side focus, with water increasingly being recognized as a limited and limiting resource. Motivations underlying this change in emphasis include the need to reduce the size and costs of government, to decentralize management authority, to encourage greater stakeholder participation in resource management, to recover costs by instituting user fees, and to promote greater social equity in access to water. A shift in policy focus is underway, from government provision of services to comprehensive river basin management strategies emphasizing stakeholders, markets, pricing and technology to promote water use efficiency, cost recovery and resource conservation. The new water policies and legislation in the study countries reflect these changes.

### 1999-2000 Activities

#### 2.A. Zimbabwe

The research program in Zimbabwe is evaluating: (1) the effect of decentralization of water management from the national agency to a new parastatal, ZINWA (Zimbabwe National Water Authority), and to catchment councils; and (2) constraints to stakeholder participation within the context of these institutional reforms (See box, Page 80).

Research is being conducted in three catchments/sub-catchments (Mazowe, Sanyati, Manyame), selected from the seven designated by the Government of Zimbabwe by mid-1999. Activities included:

- Regular observations of the meetings of the Catchment Councils and selected Sub-Catchment Councils;
- Surveys in the catchments of attitudes and knowledge about the policy reform process and household surveys of water use and investment and participation in water projects; data entry of almost 300 household interviews;
- Interviews with leaders at Catchment and Subcatchment Council levels and within key water agencies, and with donors;
- Analysis of documents; and
- Participation in workshops organized by the Water Resources Management Strategy (WRMS) Secretariat and the Department of Water Development.

Researchers have reported the following observations:

- At the national level, the shift from a government funded and operated water sector to a new user-funded parastatal in the current context of economic strain, donor withdrawal, and land invasions, has become increasingly problematic. The transition from

*(Continued, Page 81)*

## Decentralization and Stakeholder Participation

### **BASIS Analyzes Water Policy Reform in Zimbabwe**

*BASIS researchers attended catchment council meetings, then interviewed participants at the end of the meeting. Key observations include the following:*

- Decentralization efforts are transferring employees from the national agency for water management to a new parastatal, ZINWA, or to the new catchment councils. Costs will be shifted from the general taxpayer base to water users. While the government will save money, costs will be passed on to water users. At the catchment level there are to be created mini departments of water including the catchment manager, planning officer, pollution control officer, etc. These individuals are expected to provide the expertise for managing the catchments. However, research following catchment council meetings revealed doubts about whether this is the most efficient way to source needed expertise, and whether the requisite flexibility, responsiveness, and competence in the new structure will be forthcoming.
- The catchment council structure attracts water users through its promise to give them a greater role in water management. However, the catchment manager has to answer to ZINWA rather than to the catchment councils. The stakeholders, especially commercial farmers, are raising questions about the increased prices for water. Farmers publicly speculate that the water prices and levies have been set to meet the payroll needs of new staff that have been assigned without any inputs from stakeholders. There are tensions between who decides when stakeholder input is welcomed and utilized and when it is not.
- Catchment Councils, the new administrative entities of the water reform, do not coincide with key, pre-existing political and administrative divisions, such as provinces, rural district councils, chiefships and headmanships. This is raising questions about the effectiveness of the reforms to create a more integrated system of water management.
- The Water Act and Catchment and Subcatchment Council Regulations specify the stakeholder categories in water as: large-scale mining, small-scale mining, urban areas, communal areas, large-scale farmers, small-scale farmers and industry. Research to date shows that not all key stakeholders have been present at meetings, thus making it difficult to obtain data for development of catchment plans, and causing delays when issues that affect a specific sector are considered but the sector cannot respond because no representative is present. Whereas the former system of River Boards had only water rights-holders as members (i.e., a tiny minority), most users, including the smallest-scale farmers, can be represented on the new Councils. Research has shown, however, that the interests of commercial farmers, especially irrigation farmers, dominate over the large number of communal area users. This is due to problems of capacity and resources, especially in the context of a shift toward a market-based approach that requires payments by users.
- The team had identified in their research this past year the lack of institutional connections between existing borehole committees and Rural District Council Water and Sanitation committees, and the new institutions being created by the water reforms.
- Few women have been selected to serve on councils, and observations at meetings and review of minutes show that male sectoral representatives rarely make reference to women's water-related needs. Similarly, observations and interviews at the sub-catchment level in communal areas indicate that women's opinions are often not polled at meetings on water reforms. In both countries, the lack of coordination between the new water administrative structure and existing local or "third-tier" organizations such as borehole committees or village water committees, in which women tend to play major roles, is a further obstacle in the way of gender-positive water reform.

## 1999-2000 Activities

### 2.A. Zimbabwe

(Continued from Page 79)

the Department of Water to ZINWA is behind schedule and fraught with internal difficulties. The complex funding arrangements for ZINWA will be difficult to achieve since the major payers for water are commercial farmers who have little incentive to meet their bills under the current conditions of insecurity.

- The reform includes several elements designed to increase equity of access but these come into conflict with the greatly disparate ability of water users to pay for water. One positive gain is that, whereas the prior system gave priority to those with the earliest water rights to have their needs met, the new system requires a proportional allocation system. However, this goal may be undermined by the inability of many users of water for small-scale commercial purposes to raise the requisite payments.
- A further finding on the financial aspect of the new water administration in Zimbabwe is that there is an emerging conflict between those able to pay for the new permits and those (the majority of users) who are anxious to have funds directed to development of water resources. In some catchments, the tension is between the latter and large-scale farmers seeking to lower or minimize their costs. Moreover, the research has identified many subcatchment councils that have little or no permit/rights holders and therefore no sources of revenue to permit them to hold meetings.

Research produced the following field-level impacts:

- The research team participated in the Water Resources Management Strategy Group planning and strategy meeting in March 2000. The research team's recommendations for greater attention to the water needs of communal area residents and to the specific needs of women were incorporated into the final report; precisely how to meet such needs will be left up to the various catchment councils.
- At the request of the Mazowe Catchment Council, researchers prepared a Shona translation of BASIS research documents in order to carry out a catchment-wide educational effort on the water reform process.
- The team worked with the WRMS planning group in a pilot data gathering exercise for the Mazowe Catchment Council.

Team members were successful in winning a competitive grant with a proposal to WARFSA (Water Research Fund for Southern Africa, which is funded by the Swedish International Development Cooperation Agency, SIDA). The winning proposal discussed the problems this institutional hiatus was creating for particular categories of water users.

### 2.B. Malawi

Since 1994, most of Malawi's environmental policies and laws have been revised and the government has committed itself to an ambitious program of decentralization of authority over water management to the districts. To study the effectiveness of these reforms for target beneficiaries, BASIS is conducting research at five sites in the Zomba district, Lake Chilwa catchment. Household surveys, participant observation by resident research assistants, interviews of key informants, and surveys of key water sources have been conducted. Research was conducted to review and collect basic data on water supply and quality in the Chilwa Basin. Efforts continued to consult with a wide range of interested parties from government, NGOs, and donors to inform and discuss the BASIS research. Senior researchers continued to analyze key policy documents relevant to water management, including the water policy, which is still in draft form.

Work has not advanced as quickly as in Zimbabwe. Difficulties have been experienced in obtaining sufficiently secure access to University of Malawi, Centre for Social Research (CSR) vehicles and insufficient supervision by the work-pressured Principal Investigators. Near the end of the reporting period, the project was able to recruit a new senior researcher, Dr. Mulwafu, to replace Dr. Khaila who has resigned from CSR to take up the directorship of the National Agricultural Research College. Since then, work has caught up considerably.

Despite these delays, the research has unveiled a number of constraints to effective water use management and broad access of stakeholders to the benefits of these reforms that will serve as the focus for future research.

Many of the environmental laws and policies were passed prior to the enactment of the new Local Government Law of 1998 and will need to be revised in light of its requirements. In addition, donor organizations with competing agendas have promoted different organizational frameworks and strategies of reform, resulting in emerging policies and practices that are not well coordinated. For example, BASIS researchers analyzed the 1994-95 national water policy in Malawi and the 1999 draft policy statement. They found that many of the shortcomings of the 1994 and 1995 documents are addressed in the 1999 draft policy statement, implementation plan, and laws. However, the 1999 draft water policy makes little reference to the Local Government Act. Virtually no guidance is provided as to how this new structure will be coordinated with District level planning. Although a central goal of water reform is to encourage greater "stakeholder" participation, research to date shows a lack of stakeholder input from the range of water users into the plans for water resource management and development in the Chilwa Basin.

## ***BASIS Documents Water Scarcity and Social Conflict in Malawi***

BASIS research documents problems of increasing scarcity of water resources and increasing competition and conflict among the range of water users.

Seasonal variations are more volatile, with heavier floods in the rainy season and more dried up streams in the dry season. Lower quantity of water in taps and boreholes is evidenced by longer queues at water points during the dry season as people wait for the water to recharge. Intensified use for irrigation schemes and small-scale agriculture along streams and in seasonally flooded wetlands has resulted in pressure on water sources and in social conflict. Non-agricultural uses such as mining for sand and gravel in riverbeds are also causing social conflict. Modes of resolving such conflicts are few or absent. All these circumstances imply difficulties for institutional sustainability of water reforms. The study's documentation of this situation is intended to provide information to help redress the problems.

Research has revealed another source of concern—access and equity. Residents overwhelmingly report increasing levels of pollution in all water sources. Pollution from several institutional and industrial sources in Zomba town has been identified both by residents downstream and by the hydrological surveys. Runoff from agricultural fields and over-use for households and animals are further sources. Water testing in the research sites showed that 12 of the 13 (major) water sources had water considered "not suitable for human consumption" by WHO, MBS and Malawi's own Ministry of Water Development.

Research has also shown that methods of monitoring water quality are quite inadequate. Methods for identifying and redressing pollution sources are absent. The study has begun bringing these problems to the attention of key authorities as well as in public media (e.g. newspaper and radio).

The Malawi research is providing both hydrological and socio-economic data that can be used in the development of a master water resources plan for the basin which has been a key missing element in policy designed for the basin's resources. Several policy-oriented plans are being (or have been) developed, such as the water supply scheme for the Municipality of Zomba and for flood plain irrigation in part of the basin, but there has been no systematic attempt to relate or harmonize the disparate plans. A related shortcoming is the lack of stakeholder input from the range of water user categories into the plans. The researchers are using their lines of communication with key policy-makers in the respective agencies and with water users to help redress these shortcomings.

## **2000-2001 Work Plan**

### **2.A. Zimbabwe**

Activities during the coming year will both consolidate and expand those initiated in the 1999-2000 period.

- Consolidate activities in progress—interviews; profile research activities; participate in water meetings, workshops, conferences, seminars; analyze 1999-2000 interview data; and initiate a second round of surveys.
- Closely monitor implementation of the water reform program which, as indicated in previous reports, has been under constant revision in Zimbabwe.
- Hold a workshop for policy makers and resource users and managers to discuss their respective roles and interests in the reform process as a way of reducing conflict in water utilization and management and of improving appropriate reform.
- Establish a well-equipped room at CASS for data entering and analysis.
- A workshop with water users from the three catchments is planned for May 2001. A synthesis workshop for analysis and comparison of results from the three countries is scheduled for June 2001.

### **2.B. Malawi**

Research will consolidate the work already done on water use in four sites along the Likangala River, and will conclude with analysis of the various organizations that focus on water use or quality. A survey of disease, health, and sanitation with reference to water sources is to be conducted in the research sites. The research will provide both hydrological and socio-economic data and analyses that will contribute to the development of a master water resources plan for the Chilwa Basin, which has been a key missing element in policy designed for the basin's resources. Emphasis in the coming year will be on analyzing survey data, and on preparing written reports, briefs and papers.

### **2.C. Mozambique**

Household surveys and key interviews were conducted during 2000 in selected sites of the Umbeluzi water basin. Serious floods in the early part of 2000 as well as other problems delayed progress, although the team members were able to complete the surveys and final report. The project is being reorganized. The main tasks to be completed are: (a) an analysis of the new water policy and its implementation and (b) an analysis of the range of water uses and users in the site. The analyses will include suggestions about how to ensure more equitable access to water and to the planning process, with an economic analysis of the implications for small holder irrigation and government irrigation schemes.

## KwaZulu-Natal Income Dynamics Study (KIDS)

### Collaborating Institutions and Researchers

#### *Principal Investigators*

Michael Carter, University of Wisconsin-Madison  
Julian May, University of Natal-Durban  
Ben Roberts, University of Natal-Durban

#### **International Food Policy Research Institute (IFPRI), Washington, DC**

Lawrence Haddad  
John Maluccio  
Duncan Thomas

*Project Dates: October 1997 - September 1999  
(completed)*

*Support: Core funding and add-on funding from the United States Agency for International Development (Office of Women in Development - Grant Number FAO-0100-G-00-5050-00) Strengthening Development Policy through Gender Analysis; The Ford Foundation; The Centre for Science Development population studies grant to the University of Natal; and The Development Bank of South Africa*

### Program Overview

The objectives of the project are to: (a) describe and explain changes in household welfare between 1993 and 1998; (b) describe the incidence and nature of shocks experienced by households and to explain why some households have coped with shocks better than others; (c) test different models of the household (unitary versus several types of collective models); and (d) understand better the determinants of changes in household structure and formation.

Data for the project is based on a re-survey of approximately 1,400 households from 70 rural and urban communities in KwaZulu-Natal, the largest of South Africa's nine provinces. First surveyed in 1993, the same households were re-surveyed between March and May of 1998. Throughout the analysis and the questionnaire there was a strong focus on social capital (the strength of male and female social capital, assets, and income, etc.). The research will inform a wide number of policy debates in South Africa on the impacts of changes in the Child Maintenance Grants, the design of Old Age Pensions, the level of government investment in education, the efficacy of gender-targeting of interventions, and ways in which the government can foster social capital and self-help development initiatives.

### 1999-2000 Activities: *Project Completed*

The primary activities were completion of the outputs detailed at the end of this report segment and organization of the October 2000 Policy Conference in Pretoria. The conference drew about 50 participants from government ministries and NGOs. See boxes below and on Page 84, for key findings and results.

### Collaboration with Other Projects

The data generated by this project has and is being used by researchers at a number of institutions, including Cornell University (Gary Fields), University of Massachusetts (Malcolm Keswell and Samuel Bowles), and Princeton University (Angus Deaton).

### Key Findings and Results

## Who Are the Chronically and Transitorily Poor in South Africa?

*by Ben Roberts  
School of Development Studies  
University of Natal-Durban*

The core thrust of poverty alleviation strategies has been to increase budgetary expenditure on social and infrastructural services, along with ambitious land reform program. Current strategies are poorly targeted, reaching middle quintiles instead of the poorest quintile.

- For chronically poor households, policies aimed at increasing the household's human, physical, and social assets might make sense. For example: redistribution via land reform, or targeted investments in education, health, and rural development.
- For transitorily poor households, policies that might make sense include helping to avert costly risk-reducing behavior, and safety net policies that assist households to smooth income and consumption over time. For example: micro-credit, public works schemes, crop insurance and food price stabilization schemes.

## Key Findings and Results

### **One Kind of Freedom: Escaping Poverty in Post-apartheid South Africa**

by Michael Carter, University of Wisconsin–Madison

Poverty traps result when insecurity suppresses and distorts strategies of accumulation by the poor. What needs to be done to eliminate poverty traps?

- Recognize that dysfunctional financial markets are at the core of poverty traps
- Eliminate the constraints that lead people to pull children from school and otherwise cope with shocks by compromising the future
- At a policy level, distinguish between those who appear poor at any point and time and those who are so poor they are unable to accumulate assets (human capital, land, etc.) that might permit them to escape poverty in the future.

The KwaZulu-Natal Income Dynamics Study (KIDS) attempts to distinguish among these various sorts of poverty by collecting and analyzing longitudinal data on a sample of 1,200 households interviewed in 1993 and again in 1998. The table on Page 85 presents a mobility or transition matrix. The rows classify households by 1993 livelihood levels (livelihood is a per-capita household expenditure measure appropriately scaled for household demographic characteristics). The columns classify households by 1998 livelihood levels. The northeast cell shows households that were below a poverty line in 1993 but above it in 1998. The southwest cell shows households that went from non-poor to poor, while the remaining two cells show households that did not change status.

Of households in the KIDS longitudinal sample, 23% were observed to be poor in both time periods. Another 11% got ahead, while 18% fell behind. Some of this mobility, and immobility, reflects transitory rather than structural factors.

Transitory factors may include economic or natural shocks such as loss of employment, drought, death or illness in the family, or an earthquake. Structural factors that result in poverty are lack of education, lack of access to credit, land insecurity, poor water quality, high unemployment, or infrastructural constraints such as bad roads. There are some types of structural factors where time allows the individual or household to escape from poverty (get an

education) and other factors that are difficult to avoid or beyond the scope of an individual or household to change (land insecurity). It is positive that the latter type of structural factors lock households into poverty traps.

In an effort to distinguish between the two and identify the severity of chronic, structural poverty, each cell in the table (*next page*) offers a further breakdown of the households. Of households classified as poor in both time periods, 14% appeared to have suffered shocks in both 1993 and 1998 and hence could be classified as transitorily poor. The remainder (86% of households poor in both time periods) are likely caught in a poverty trap.

The 11% of households that were poor in 1993 and non-poor in 1998 appear to be evenly split between those who were transitorily poor in 1993 (and who had recovered to an expected living standard that was above the poverty threshold) and those who were structurally poor in 1993 but who apparently were successful in accumulating assets and able to use time and the economy to improve their material well-being.

About 44% of the new poor (the 18% of households above the poverty line in 1993 but below it in 1998), appear to have been transitorily poor, having experienced a shock in 1998. Another 47% of these households were probably transitorily non-poor in 1993 and by 1998 had regressed to their sub-poverty line expected living standard. Finally, another smaller group (perhaps 9% of the new poor) appear to have experienced entitlement losses that explain the deterioration in their economic position.

Combining these last two groups with the group of chronically poor, accumulation failures suggest that maybe 27% of households in the panel are chronically poor for structural reasons. This group amounts to over half the total households in poverty. Passage of additional time may lead to further reduction in the size of this group. However, for this group the end of apartheid has so far meant only one kind of freedom.

## BASIS/Zimbabwe Land Reform and Resettlement Program

### Collaborating Institutions and Researchers

#### University of Wisconsin-Madison

Land Tenure Center

Michael Roth, Senior Scientist

**Project dates:** October 1999-June 2002\*

**Support:** Add-on only (USAID/Zimbabwe)

The Zimbabwe Land Reform and Resettlement Project II totaling \$1.5 million was awarded to the Land Tenure Center of the University of Wisconsin-Madison by USAID/Harare in October 1999. Of this total, \$300,000 was earmarked for BASIS research and training programs.

Progress under the project has been slow. The political turbulence surrounding farm occupations and the elections brought project implementation to a halt during the first six months of 2000 and undermined coordinated donor support for the LRRP II program. Time was also required to set up contracting mechanisms and establish the Project Management Committee (PMC) responsible for overseeing the project's implementation.

BASIS supported a workshop in Mazvikadei, Zimbabwe, in July 1999, attended by potential stakeholders to help develop strategies and research priorities. As a result of

this workshop, the Center for Applied Social Sciences at the University of Zimbabwe was selected to serve as the local contracting institution responsible for project implementation. BASIS program management also decided to solicit a research proposal from David Hughes of the Department of Human Ecology at Rutgers University and Pius Nyambara of the Department of Economic History of the University of Zimbabwe. That proposal was submitted to the BASIS TC in September 2000 which advised a major revision. A revised proposal entitled "*New Agrarian Contracts: Sharecropping, Out-Grower Schemes, and Community-Based Tourism in the Context of Zimbabwe's Land Reform*" was resubmitted in October 2000 with a \$175,000 budget request for the PMC to review. The decision to fund the proposal was made in January 2001, and a subagreement is being put into place with Rutgers through September 2002.

Of the \$300,000 earmarked for BASIS CRSP activities, \$65,000 still remains to be programmed. (Note that \$60,000 or 20% of the \$300,000 earmarked for BASIS was reserved for ME costs.) Negotiations have been initiated with the Center for Applied Social Sciences for either a second proposal involving work on the application of GIS to the study of land use changes within the context of resettlement, and/or supporting a mentor's program for student research within the University of Zimbabwe. CASS is currently deciding on which approach it wishes to take.

\* Note: The project will exceed the anticipated September 2001 BASIS CRSP end date; funds are channeled through the LTC project rather than BASIS CRSP.

Decomposing poverty transitions in South Africa (% surveyed households)			
1998			
		Poor	Non-Poor
1993	Poor	<b>23% chronically poor, of which:</b> 14% transitorily poor 1993 and 1998 86% in poverty trap	<b>11% got ahead, of which:</b> 46% transitorily poor in 1993 54% structurally poor in 1993
	Non-Poor	<b>18% fell behind, of which:</b> 47% structurally poor, but fortunate in 1993 44% transitorily poor in 1998 9% new structurally poor	<b>46% never poor, of which:</b> 19% non-poor, but vulnerable 81% structurally non-poor

The table above presents a mobility or transition matrix (See box, Page 84). The rows classify households by 1993 livelihood levels (livelihood is a per-capita household expenditure measure appropriately scaled for household demographic characteristics). The columns classify households by 1998 livelihood levels. Source: Carter, Michael and Christopher Barrett, "Can't Get Ahead for Falling Behind: New Directions for Development Policy to Escape Poverty and Relief Traps," *BASIS Policy Brief 2* (January 2000).

## 1999-2000 Outputs

### ◆1◆

#### Broadening Access to Land Markets in Southern Africa

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##### *Papers*

Graham, Andrew W. and Michael C. Lyne (1999). "Land redistribution in KwaZulu-Natal: An analysis and comparison of farmland transactions in 1997 and 1998." *Agrekon* 38 (4) 1999:516-525, AEASA, South Africa.

Lyne, Michael C. and Douglas H. Graham. (1999). "The impact of land redistribution on tenure security and agricultural performance in KwaZulu-Natal." Article under review for journal publication.

Graham, Andrew W. and MAG Darroch. (2000). "Relationships between the mode of land redistribution, tenure security and agricultural credit use in KwaZulu-Natal." Article under review for journal publication.

Graham, Andrew W. (2000). "Land Redistribution in KwaZulu-Natal: An analysis of farmland transactions recorded in 1997 and 1998." M.S.-Agriculture thesis, University of Natal, Pietermaritzburg. April 2000.

Lyne, Michael C., P. Zille and Douglas H. Graham (2000). "Financing the market-based redistribution of land to disadvantaged farmers and farm workers in South Africa: Recent performance of the Land Reform Credit Facility." Accepted for publication in the journal *Sociological Research Online*.

Petrie, Ragan. (2000). "Lost in the Shuffle? Women and Land Reform in KwaZulu-Natal, South Africa." (Draft, July, 2000).

##### *Reports*

Fuller, Ben, and Kamwi, Oscar. (1999) An Analysis of the First Census Survey of Commercial Land Transactions in Namibia, 1990-8.

Rugube, Lovemore (2000). Report on Census Survey, Zimbabwe, 1996-8. Harare, Zimbabwe.

##### *Non-print Outputs*

The following unique databases have been created:

- All commercial farmland transfers in KwaZulu-Natal for 1997-1999.
- Information at the household-level and land parcel-level for respondents in the 1999 sample survey of new entrants on commercial farmland redistributed in KwaZulu-Natal in 1997.
- All land transfers in Namibia for 1990-8.

- Namibian land transfers integrated with a GIS program. This is being shared with key government offices and other bodies, including the Namibian Nature Foundation. The methodology is also being taught to the government officers.
- All commercial farmland transfers in Zimbabwe for 1996-1999

### ◆2◆

#### Broadening Access to Water Resources in Southern Africa

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Chavula, Geoffrey M. S. "The Evaluation of the Present and Potential Water Resources Management for the Lake Chilwa Basin." Polytechnic, University of Malawi. 1999.

Chavula, Geoffrey M. S. "Water Use and Quality along the Likangala River in Zomba District." (Draft) August, 1999.

Chikozho, Claudious. "Integrated Community Management of Water Resources: an assessment of the Zimbabwean water sector reform vision." Presented at the BASIS Workshop, Malawi, July 2000.

das Neves, Joel and Eduardo Chilundo. "Report of the BASIS Water Resource Management Study." July, 2000.

Derman, B. and A. Ferguson. "Against the Flow: Activism and Advocacy in the Reform of Zimbabwe's Water Sector." *Culture and Agriculture*, 21 (3): pp. 3-9. 1999.

Derman, Bill. "Democratizing Environmental Use? Land and Water in Southern Africa at the End of the Century." Michigan State University and Centre for Applied Social Sciences, University of Zimbabwe. To appear as a Working Paper, Programme in Land and Agrarian Studies, University of the Western Cape, December 1999.

Derman, Bill, Anne Ferguson, and Francis Gonese with the assistance of C. Chikozho, E. Mapedza, and S. Vombo. "Decentralization, Devolution and Development: Reflections on the Water Policy Process in Zimbabwe." Presented at the BASIS Workshop, Malawi, July 2000 and revised September, 2000.

Ferguson, A. and B. Derman. "Water and Environment in the Water Reform Process in Zimbabwe: Contested practices and Understandings." In *Water Policy: Security Issues*, eds. Scott Witter and Scott Whiteford. *International Review of Comparative Public Policy*, 1999. Vol. 11, pp. 207-228.

Ferguson, Anne. "Water Contestations in a Changing Institutional and Policy Context: Perspectives from Zomba District, Malawi." Presented at the BASIS Workshop, Malawi, July 2000.

Ferguson, Anne and Bill Derman. "Water rights vs. rights to water: reflections on Zimbabwe's water reforms from a human rights perspective." Paper presented at the Annual Meetings of the American Anthropological Association, Chicago, Illinois, November 17-22, 1999.

Latham, Jim. "Struggles and Successes in the Management of a River in the Commercial Farming Sector in Zimbabwe: a case study." Presented at the BASIS Workshop, Malawi, July 2000.

Mulwafu, W. and S. Khaila. "Conflicts over Water Use along the Likangala River in the Zomba District of Southern Malawi: Some Preliminary Observations" Paper presented to Conference on Water Resources and Policy Reform, Malawi, August, 2000.

Sithole, Bevlyne. "Devolution and Stakeholder Participation in the Water Reform Process in Zimbabwe." Paper presented at the IASCP meetings, Indiana, June 2000.



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### **KwaZulu-Natal Income Dynamics Study (KIDS)**

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#### *Print Outputs*

Carter, Michael and Christopher Barrett, "Can't Get Ahead for Falling Behind: New Directions for Development Policy to Escape Poverty and Relief Traps," *BASIS Policy Brief 2* (January 2000), 8 pp.

Carter, Michael and Julian May, "One Kind of Freedom: Poverty Dynamics in Post-Apartheid South Africa," *U.W. Agricultural Economics Staff Paper 321*, 41 pp.

May, Julian, Michael Carter, Lawrence Haddad and John Maluccio. "KwaZulu-Natal Income Dynamics Study (KIDS) 1993-1998: A Longitudinal Data Set for South African Policy Analysis," *Development Southern Africa* (September 2000).

Maluccio, John "Attrition in the Kwazulu Natal Income Dynamics Study, 1993-1998," IFPRI FCND Discussion Paper 95, October 2000, 50 pp.

Maluccio, John, Lawrence Haddad and Julian May, "Social Capital and Household Welfare in South Africa, 1993-98," *Journal of Development Studies*, 2000.

Quisumbing, Agnes R. and John A. Maluccio "Intrahousehold Allocation and Gender Relations: New Empirical Evidence from Four Developing Countries," IFPRI FCND Discussion Paper 84, April 2000.

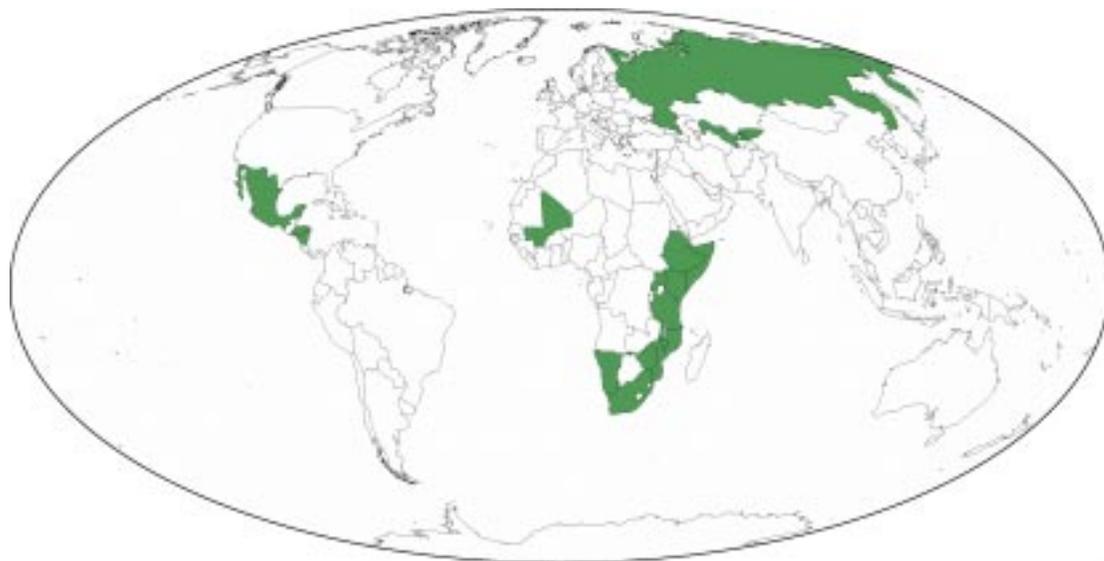
#### *Non-Print Outputs*

Database is now available on the Internet from the School of Development Studies, University of Natal-Durban <[www.nu.ac.za](http://www.nu.ac.za)> or by request to IFPRI <[www.ifpri.org](http://www.ifpri.org)>.

Project Conference: Strengthening Development Policy By Looking Within the Household: Linking Household Resources to the Dynamics of Poverty in South Africa: A Case Study of KwaZulu-Natal Friday, 13 October, 2000, at the Farm Inn, Pretoria.



# Global Program and Synthesis



**BASIS CRSP has projects in nearly 20 countries.**

The Global program includes research and training activities that cut across two or more BASIS regions. It also includes research and training activities occurring outside the current regions of focus.

## BASIS CRSP Research Projects

- ◆1◆ **Agriculturalists' Asset and Income Diversification Patterns to Ensure Sustainable Livelihoods**
- ◆2◆ **Differential Responses of Rural Residents to Long-term Economic Change in Kita, Mali**
- ◆3◆ **Other Global Projects**
  - **Horn of Africa Symposium: Agricultural Policy, Resource Access and Human Nutrition**
  - **Irrigation, Participation and Factor Markets in Tanzania: A Participatory Research Program**
- ◆4◆ **Policy Briefs**
- ◆5◆ **Synthesis and Cross-Regional Work**

## Acronyms used in this section

CMDT	<i>Compagnie Malienne de Développement des Textiles</i>
ISH	Institut des Sciences Humaines, Bamako, Mali
ME	Management Entity
NGO	Non-governmental Organization
OSSREA	Organization for Social Science Research in Eastern Africa
REDSO	Regional Economic Development Services Office
USAID	United States Agency for International Development

## Asset and Income Diversification Patterns to Ensure Sustainable Livelihoods

### Collaborating Institutions and Researchers

#### Cornell University

Christopher B. Barrett, Associate Professor,  
Department of Agricultural, Resource and  
Managerial Economics, Principal Investigator

#### Clark Atlanta University

Mesfin Bezuneh, Associate Professor and Department  
Chair, Department of Economics

#### Egerton University

Abdillahi A. Aboud, Professor and Dean, Faculty of  
Natural Resources and Environmental Sciences

#### Michigan State University

Daniel C. Clay, Director, Institute of International  
Agriculture  
Thomas Reardon, Associate Professor, Department of  
Agricultural Economics

*Project dates: October 1998 - September 2000  
(completed)*

*A one-year, no-cost extension was granted on the  
original project due to movement of project personnel.*

*Support: Core funding, with matching funds provided  
by Cornell University.*

### Program Overview

Diversification patterns reflect individuals' voluntary exchange of assets and allocation of assets across various activities to achieve an optimal balance between expected returns and risk exposure, conditional on the constraints they face (e.g., due to missing or incomplete markets for credit, labor, or land).

Much attention has been paid to the role of non-farm livelihoods in coping with natural and policy shocks. This project improves our understanding of the diversification strategies African farmers pursue, the constraints limiting their options, and the effects of common policy interventions.

The purpose of this project was to examine/assess the source and degree of diversification in pursuing sustainable "livelihood" strategies in rural Africa. Projects were undertaken in three locations: Côte d'Ivoire, Rwanda, and Kenya.

### 1999-2000 Activities: Project Completed

All three papers programmed for this project were written and disseminated, as was an unplanned BASIS Policy Brief. All three papers are under consideration for publication in academic journals. The project has also given rise to a special issue forthcoming in 2001 of the journal *Food Policy*, copies of which will be distributed to various research institutions in Sub-Saharan Africa.

Researchers drafted and disseminated a detailed review of concepts, definitions, data collection and analysis methods for the study of rural livelihoods with special interest to the overall conceptualization of diversification research. Empirical studies have exhibited a wide variety—bordering on confusion—of systems to classify assets, activities, and incomes as pertains to diversification behavior. BASIS researchers argued that the classification should conform to the standard practice of national accounts and macro input-output table construction, classifying activities into economic sectors with standard definitions.

"Livelihoods" is a term used frequently in recent diversification research. The link between livelihoods and incomes can be made by valuing the output of livelihood activities at market (and/or virtual) prices. Such valuation permits an analytical link between household/community behavior (thus a micro view of diversification) and the aggregate functioning of markets (thus a link with the meso and macro levels and the policies pertaining thereto).

A BASIS Policy Brief entitled "Can't Get Ahead for Falling Behind: New Directions for Development Policy to Escape Poverty and Relief Traps" makes the link between two policy options: development assistance and market imperfections. Development assistance is increasingly mired in humanitarian assistance and unable to invest significant sums in preventive, structural efforts toward sustainable rural development. Micro- and meso-level market imperfections limit the possibilities for people with poor endowments of land, financial savings and human capital to be able to work their way out of poverty. Structural market imperfections give rise to discernible poverty traps that, in the aggregate, create a "relief trap" for development assistance policy.

Researchers drafted and disseminated two research papers. The first, "Heterogeneous Constraints, Incentives and Income Diversification Strategies in Rural Africa," explores the determinants and welfare effects of income diversification in rural Africa, based

*(Continued, Page 93)*

## Key Findings and Results

### **Livelihood Strategies in Sub-Saharan Africa**

The rural nonfarm economy provides a significant share of income to smallholder households in Sub-Saharan Africa and provides an important means of livelihoods diversification so that households can self-insure against production (e.g., crop yield or livestock productivity) and price risk.

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*A livelihood strategy dependent on agricultural production on one's own farm plus wage labor on others' farms or unskilled nonfarm employment yields uncertain income.*

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This project contributes in two ways to this burgeoning area of interest among development professionals:

First, it provides an accessible, practical synthesis of the existing literature, especially as regards basic methodological questions of definitions, conceptual relationships, data collection issues, and appropriate statistics for analysis of livelihood diversification questions. The first paper by this project team makes a case for some methodological standardization in this area and offers some suggested definitions and methods that fit most existing and prospective analytical needs.

Second, using data from three quite different agroecologies in Sub-Saharan Africa, the project finds important common factors that explain both patterns of income diversification among rural Africans and the welfare effects of alternative, discernible diversification strategies. Skilled, rural nonfarm income is quite concentrated among an elite who are better educated, have better market access, greater *ex ante* wealth, etc. Those who lack land and education are unable to exploit fully entrepreneurial opportunities in either the agricultural sector or the skilled nonfarm sector, where capital or skill requirements to entry into high-return niches protect activities with positive marginal profits.

A livelihood strategy dependent on agricultural production on one's own farm plus wage labor on others' farms or unskilled nonfarm employment yields uncertain income. In addition, the cost of factor market limitations that confine identifiable subpopulations to less desirable diversification strategies is not just static, it is also dynamic; their upward income mobility is significantly impeded.

So who is likely to be trapped in low-return, relatively higher risk livelihoods strategies in rural Africa? Dependence on low-return, unskilled, off-farm agricultural wage labor—the best indicator of being forced into a low-return livelihood strategy—is declining in households' land/labor endowment ratios. Households that are relatively well-endowed with land tend to rely less on unskilled labor earnings. Households that do not depend on such income sources enjoy superior returns distributions to their livelihoods strategies, a finding that is consistent across all sites in the study.

## Asset and Income Diversification Patterns to Ensure Sustainable Livelihoods

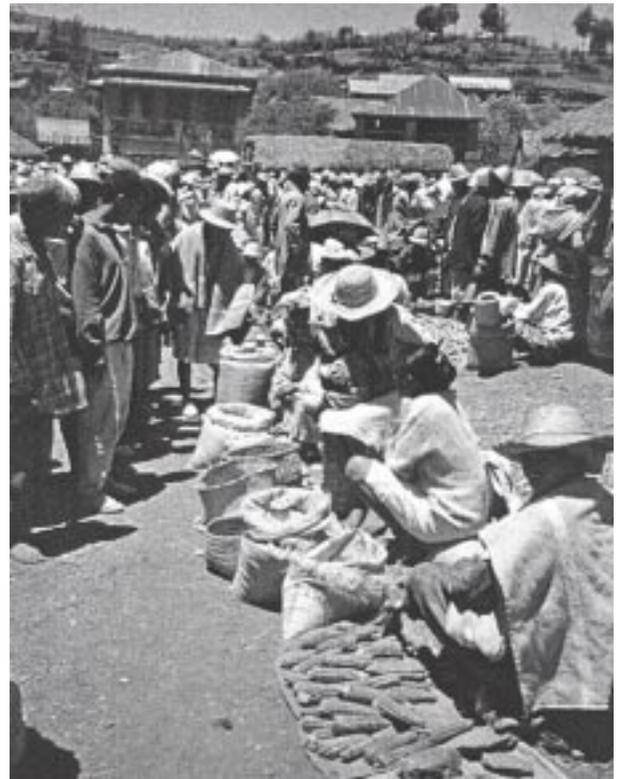
*(Continued from Page 91)*

on data from subhumid regions of Côte d'Ivoire, semi-arid regions of Kenya, and highland regions of Rwanda. It concludes that livelihood strategies including non-farm income sources—especially those derived from other than unskilled labor—are associated with higher income realizations and upward earnings mobility.

As the main source of employment and wage goods, improved agricultural productivity indisputably plays a central role in resolving rural poverty problems in Africa. And facilitating broader access to land likewise can help improve the lot of the poorest. But the evidence clearly points to the necessity of a vibrant rural nonfarm economy, and to the importance of securing access for all to attractive niches within the nonfarm sector through improved liquidity and market access. If progress is to be made in combatting rural African poverty, donors and policymakers must recognize that rural African

households draw heavily on off-farm and non-farm income, and that the most successful commonly draw heavily on such sources.

In “The Response of Income Diversification to Macro and Micro Policy Shocks in Côte d'Ivoire and Kenya,” researchers present evidence on the effects of two different policy shocks. Côte d'Ivoire data show that massive currency devaluation induced a reallocation of effort toward the production of tradable agricultural commodities. But households with poor endowments were less able to respond to attractive emerging on-farm and non-farm opportunities. Thus the benefits of exchange rate reform accrued disproportionately to households that were richer prior to devaluation. Food-for-work transfers to households in semi-arid Kenya appear to have significantly reduced the liquidity constraints faced by project participants, enabling them to pursue more lucrative non-farm activities and higher-return agricultural production patterns. Food-for-work had no discernible effect on income diversification because the agroecology necessitates considerable diversification whether or not one participates in the food-for-work project.



**Lack of skills and capital mean hard, low-wage work to ensure survival for rural families like those of the two girls (left) or the market women(right) pictured above. Some, like the young girls, are employed in agriculture or basic food processing for neighbors. Others, like the market women, turn to petty trade, a nonfarm niche with virtually no cash entry barriers but where it is difficult to turn a profit in excess of a farm laborer's wage rate.** Photos by Christopher Barrett

## **Additional Activities not Anticipated in Work Plan**

Two additional activities were completed: (1) a BASIS Policy Brief written with Michael Carter and (2) a successful proposal to *Food Policy* for a special issue on the theme of income and livelihoods diversification in rural Africa.

## **Results**

The project identified the land poor and those with limited education as especially likely to depend on livelihood diversification strategies offering both low expected returns and limited risk reduction. This population is structurally unable either to enter higher-return niches of the non-farm economy or to engage household labor fully in production on their own farms. This is the population that depends especially on unskilled, low-wage labor and has very poor prospects for upward income mobility. Researchers also demonstrated that food aid programs in Kenya targeted well to these subpopulations have a demonstrable effect in increasing higher-return livestock and nonfarm incomes.

## **Review of Problems or Issues**

Researchers originally planned to exploit a data set from Ethiopia, but some crucial variables were found to be incomplete. Since ample data was available from the other sites, they dropped the problematic data.

## **Collaboration with Other Projects**

The project has shared findings and observations with the USAID Global Livestock CRSP project “Improving Pastoral Risk Management on East African Rangelands: Identifying Opportunities for Reducing Household, Community, and Environmental Stress and Promoting Rural Development,” which likewise has a component emphasizing asset, activity, and income diversification in rural Africa.

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## Differential Responses of Rural Residents to Long-term Economic Change in Kita, Mali

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### Collaborating Institutions and Researchers

**American University, Washington, DC**

Dolores Koenig

**Institut des Sciences Humaines (ISH)**

**Bamako, Mali**

Tiéman Diarra

Mama Kamaté

Ladji Siaka Doumbia and Amadou Tembely, junior researchers under this grant.

*Project dates: March 1999 - August 2000 (completed)*

*Support: Core funding only*

### Project Overview

This project focused on the contribution of both non-agricultural and “secondary” agricultural activities to the economic well-being of a rural agricultural zone in Western Mali. In particular, the researchers sought to learn more about the contributions of secondary activities to economic strategies of both the better and less well-off, and the ways in which people get access to the skills needed to benefit from these “secondary” activities.

The research was funded by several grants. A Fulbright-Hays faculty research grant primarily funded Koenig’s salary. A grant from the Cultural Anthropology Program of the National Science Foundation funded local interviewers, data entry and subsidiary personnel, as well as local transport costs. The BASIS CRSP competitive grants program funded involvement of Malian counterparts and dissemination of results.

### 1999-2000 Activities: Project Completed

The major activity was an intensive field study of 60 sample rural households. Individuals were interviewed every 10 days in two zones in the Kita zone in Western Mali. Throughout the 1999-2000 agricultural season (May 1999 - February 2000), data were collected on agricultural activities, non-agricultural activities, and income and expenditures. Within each household, a sample of up to five individuals of different social categories (household head, other married male, unmarried male, younger married woman, older married woman) were followed, forming a sample of 229 individuals. Two interviewers continued work in Bamako from March through July 2000, completing data entry.

During 2000, two workshops held in Bamako served to share findings and the possibilities for development initiatives with representatives of NGOs, international organizations, government agencies, and other interested parties.

About 38 people attended the first workshop on March 23 to learn about preliminary results of the quantitative study. Analysis of work time data from the first quarter-year (May-July 1999) showed that agriculture remained the most important activity in these zones. But residents also carried out other activities, including artisanal activities (e.g., masonry, blacksmithing, tailoring and weaving, making cords and mats, construction, transport, baking) and trade. Livestock raising was also important, as were activities involving the use of natural resources (e.g., beekeeping, fishing, and gathering). Although agricultural work occupied the largest amount of residents’ time, it was by work in other activities such as artisanal activities or trade that they earned the most income. Both livestock raising and non-agricultural work brought in significant income. Nevertheless, trade brought in the greatest income to this rural population (See box, Page 97).

This zone has been recently affected by activities of the CMDT (*Compagnie Malienne de Développement des Textiles*), which accents cotton production. Despite strong cotton extension, people continue to cultivate peanuts, formerly the predominant cash crop. Farmers said that they continued to cultivate peanuts because they can be eaten if they don’t sell. In the period concerned, the greatest amount of agricultural work in collective fields was on sorghum, the basic food grain.

In this zone, women have not yet benefited directly from the significant economic changes of recent years. Compared with men in all categories, women had very low incomes with no possibility of participating in new income-producing artisanal or commercial activities. However, women did receive significant sums of money through extended family and ceremonial obligations.

The second workshop was held July 24. About 35 individuals attended to learn about qualitative work done through June 2000 and the possibilities for development initiatives. Research findings included suggestions, as follows:

Agricultural extension agencies should undertake numerous activities including the following:

- Aid strategies of multiple activities (pluriactivity) and through technical extension help diversify agricultural activities such as gardening, tree cultivation, and livestock raising.

- Study new possibilities for community acquisition of means of production (plows, draft animals) and for mutualization of agricultural credit.
- Work with equipment users to increase value-added, so that the benefits of equipment use are not limited to the ability to decrease effort.

#### Concerning livestock:

- NGOs and technical services ought to undertake campaigns to encourage improved caretaking methods.
- A design for an affordable model habitat for animals would be useful.
- More information about animal health and disease would help to assure better herd health. Studies on the value of traditional treatments would be useful, along with greater transfer of information to locals concerning diseases treatable by modern methods.

#### Concerning commerce and skilled trades:

- People undertaking commerce would like to see improvement of roads, greater access to transport vehicles, easier access to bank loans, and a decrease in taxes.
- Artisans would benefit from increased possibilities for refining their skills. Given that there are very few training programs for those who wish to learn new artisanal activities, it would be interesting to look at the possibilities here, especially after market studies.
- The literacy level and general knowledge level of youth ought to be increased.
- With the opening of a new road between Kita and the capital, the possibility of new external markets (e.g., Bamako and other Malian cities) ought to be studied.

#### Regarding the status of women in the study area:

- NGOs who intervene should support efforts undertaken by women, reinforcing their organizational structure by creating associations and women's groups in the villages and improving access to credit.
- In addition, NGO's should work on developing activities that generate income, facilitate the access of women to agricultural equipment, inputs, mills, carts, etc., including committees to manage and monitor equipment use, and initiate women in management skills (especially using functional literacy programs).

### Review of Problems and Issues

The major issue was the inclusion of two junior researchers on the project. The goal was to combine a learning experience for junior researchers while also getting supplementary data for the project. While the learning experience for the junior researchers regarding field research and social science issues was relatively good, senior researcher Kamaté had to spend most of his time mentoring the two junior researchers.

The other main problem involved the amount of data collected; it surpassed the team's ability to process it in a timely fashion. Data were to be ready for final analysis at the end of summer 2000, but several unforeseen circumstances slowed work. Tiéman Diarra left ISH in June 1999, although he continued to contribute to the project through planning and writing. Then, in November 1999, Dolores Koenig was involved in a minor car accident that required medical evacuation to the US. Although she returned to Mali within two weeks, work was considerably delayed by her recuperation.

Household Characteristics by Stratum and Economic Strategy							
Stratum	Economic Strategy	N	Number Present	Age Head	Number Cattle	Revenue in FCFA	Cotton Growers
Successful	Agriculture + livestock	11	28	60	34.5	70,431	9/11
	Non-agricultural work	5	20	52	7.6	443,187	1/5
Coping	Agriculture	7	22	59	3.6	51,725	7/7
	Non-agricultural work	2	29	51.5	0	24,935	0/2
	Non-ag + agriculture	6	9,5	45.2	1.7	30,659	5/6
	Multiple activities	7	17	57.3	5.3	52,272	6/7
Unsuccessful	Agriculture	4	14	58	0	35,138	2/4
	Other	2	8	48.5	0	24,475	1/2

N = number of households in stratum; Number Present = mean number of persons presents; Age = mean age of household head; Number cattle = mean number of cattle by household; Revenue = mean income by household, collected from May to August 1999 ; Cotton = number who worked on cotton fields between May and August 1999.

## **BASIS Research and Results**

### **The Role of Non-agricultural Activities in a Rural Area where Most People Consider Themselves Farmers**

Researchers hypothesize that the combination of agricultural and non-agricultural activities allows people to increase their standard of living. It may also have the potential to lead to more ecologically sustainable approaches to rural development by mitigating new land clearing.

Researchers determined different “economic strategies,” which varied according to strata. Three main strata correlated with different living standards (see table, Page 96):

- successful households with the most wealth;
- coping households who can meet their needs under normal economic conditions, and
- unsuccessful households who are so resource short that they will virtually always face problems.

Within each strata there were a variety of economic strategies that mixed agricultural and non-agricultural activities in different ways. The preceding table summarizes some of the characteristics of these households.

More successful households tend to have larger numbers of people; it appears that they are able to convince younger men to stay home when they marry instead of creating their own household units. These young men often undertake remunerative non-agricultural activities and are required to put less time into household agricultural tasks, something not possible in poorer households.

Within the successful group, households seem to have chosen between a strategy based on agriculture and livestock (in which case wealth remains vested in large cattle herds) and one based more on non-agricultural activities (in which case the strategy is more cash-based).

Among the coping group, a strategy of multiple activities seems even more important for raising standards of living; these households show, on average, both the highest incomes and the highest number of cattle. Among both the successful and coping groups, many farmers have taken up cotton cultivation for cash, with the exception of those who have made a major investment in non-agricultural activities, the requirements of which often conflict with those of cotton.

The problems of the poorest stratum are reflected in a variety of characteristics: low incomes, lack of larger livestock, small size of household, and limited ability to participate in cash crop cultivation.

This research should have an important impact on the kinds of development initiatives to be pursued in the zone. Not only should agriculture-based strategies be pursued, but organizations should look to the kinds of non-agricultural activities that can be developed. In this zone, most of the non-agricultural activities were carried out to meet local needs for better housing, furniture, transport and consumer goods, but local markets were somewhat limited because local purchasing power was relatively low. With the opening of a new road between this zone and the capital, non-agricultural activities that produce goods that can be sold in urban domestic markets should be investigated.

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## Other Global Projects

- **Horn of Africa Symposium: Agricultural Policy, Resource Access and Human Nutrition**
  - **Irrigation, Participation and Factor Markets in Tanzania: A Participatory Research Program**
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## Horn of Africa Symposium: Agricultural Policy, Resource Access and Human Nutrition

### Collaborating Institutions and Researchers

Michael Roth, Senior Scientist, Land Tenure Center,  
University of Wisconsin-Madison  
Abdel Ghaffar M. Ahmed, Executive Secretary,  
OSSREA, Addis Ababa, Ethiopia  
Kristy Cook, Technical Adviser, Africa Bureau, USAID

**Project dates:** October 1998 –September 2000

**Support:** Major funding through add-on (USAID/REDSO). Additional funding provided by Global Livestock Collaborative Research Support Program, Food and Nutrition Technical Assistance (FANTA), LINKAGES, USAID Global Bureau, USAID Africa Bureau and US universities.

Note: The section on Greater Horn of Africa has a complete description of this workshop.

In eastern and southern Africa, the topic of appropriate interventions to enhance nutrient utilization reveals wide divisions between nutritionists and social scientists, and between researchers and policy makers. Many nutrition and health scientists are not entirely familiar with linkages among policy, resource access, technology, food security, markets and income. Agricultural and social scientists tend to view these connections through different disciplinary lenses and often lack an adequate understanding of health constraints, micronutritional requirements, and nutritional intake to design an integrated nutrition policy.

An international symposium held in Addis Ababa, Ethiopia, November 3-5, 1999 brought together more than 50 participants from teaching and research institutions, regional networks, government, and donor agencies to develop strategies for narrowing these divisions.

## Irrigation, Participation and Factor Markets in Tanzania: A Participatory Research Program

### Collaborating Institutions and Researchers

**Economic and Social Research Foundation, Dar es Salaam, Tanzania**  
Samuel Wangwe, Executive Director, Economist  
Jeanne Koopman, Economist

**Tanzania Ministry of Agriculture and Cooperatives  
Irrigation Section**  
Rhoda Kweka, Soil Scientist and Gender Specialist,  
Dar es Salaam  
Mary Mboya, Sociologist, Participatory Irrigation  
Development Programme, Dodoma

#### Other

Kenneth Petro, Interpreter/Trainer  
Anna Deogratias, Research Intern

*Project Dates:* October 1999 - December 2000

**Support:** Core funding only. Additional support from collaborating Tanzanian institutions: Irrigation Section, Ministry of Agricultural and Cooperatives, and Economic and Social Research Foundation

Note: The section on Greater Horn of Africa has a complete description of this activity.

### Program Overview

BASIS approved a 1999-2000 competitive grant proposal for the initial 12-month phase of a new research program to study the efficiency and equity impacts of irrigation projects on different groups in irrigating communities. The full research program proposes to analyze 10-12 irrigation schemes and their associated watersheds over a three- to four-year period. The work is being undertaken in cooperation with the Tanzanian Irrigation Department.

As a result of changing policy priorities by both government and donors, irrigation schemes in Tanzania exhibit considerable differences. The Irrigation Section of the Tanzania Ministry of Agriculture and Cooperatives recently initiated policies to increase community participation in initiating, planning, executing, and managing traditional irrigation scheme rehabilitation projects. This research project provides information on how participation by different segments of the farming community affects both the processes and outcomes of scheme rehabilitation.

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## Policy Briefs

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### Coordinated by BASIS CRSP ME

Michael Roth, Director

Kurt Brown, Publications and Outreach

*Project dates: Started September, 1998*

*Support: Core funding only*

Four Policy Briefs were published during 1999-2000.

1. *Alternative Strategies for Managing Tropical Floodplain Rivers*, by Michael Horowitz, Institute for Development Anthropology. December 1999, 8 pp.

This Brief examines long-term research on dam-regulated floodplain rivers in the tropics. Work in the Senegal Valley has generated a new approach to the controversy over hydropower in developing countries. The debate has pitted environmentalists, social scientists, and human rights activists against civil engineers, host governments, and the major international funding institutions. It is hoped that a new solution will lead to a socially equitable, gender sensitive, economically viable, and environmentally sustainable means of achieving power production, flood control, expanded irrigation, and navigation without further impoverishing the often hundreds of thousands of downstream farmers, fishers, and herders whose livelihoods depended on a river's natural flow and silt transport regime.

2. *Can't Get Ahead For Falling Behind: New Directions for Development Policy to Escape Poverty and Relief Traps* by Christopher B. Barrett, Cornell University, and Michael R. Carter, University of Wisconsin-Madison. January 2000, 8 pp.

Development policy is caught in a vicious circle of vulnerability, crisis and reactive aid. So, too, are the lives of the very people aid policies are designed to benefit. In an effort to stimulate new directions in development assistance policy, the Brief explores the trap of reactive aid which recent research suggests is costly, of limited effectiveness, and commonly crowds out efforts to address underlying structures that create and perpetuate vulnerability. Then the Brief considers the related micro-level poverty traps that emerging analysis attributes largely to the ills of dysfunctional

factor markets compounded by social exclusion. Both traps can only be escaped through a simultaneous effort to re-target development assistance to firm up factor markets and crowd-in investment. Foreign aid must be properly targeted toward remedying market deficiencies that set vulnerability traps for both the poorest and for development assistance.

3. *Tenure and Management of Tree Resources in Eastern and Southern Africa*, by Brent Swallow and Frank Place, International Centre for Research in Agroforestry. February 2000, 8 pp.

Population and land use bring different pressures to bear on tree management and tenure issues. Trees are essential throughout sub-Saharan Africa. Products include fuel wood, fruits, poles, timber, and medicines. Wood provides over 80 percent of cooking energy in nearly all countries of eastern and southern Africa. Trees also provide vital environmental services such as nitrogen fixing, watershed protection, soil erosion control, and carbon sequestration. Trees can be key components of rich, biodiverse ecosystems. Stakeholders in agroforestry and forest systems include private farmers, communities, nations, and the global community.

This Brief focuses on two distinct population pressures and land use domains common in eastern and southern Africa: (1) highly-populated areas where cultivation is the dominant land use and few off-farm sources of trees exist, and (2) relatively low-populated areas with a significant amount of forest and woodland where there is increasing encroachment from migrating populations. The Brief highlights important tree resource management issues and identifies policy implications.

4. *Horn of Africa Regional Symposium: Agricultural Policy, Resource Access, and Human Nutrition* by Absel Ghaffar Ahmed, Kristy Cook, and Michael Roth with assistance from Kurt Brown and Marsha Cannon

More than 50 participants from teaching and research institutions, regional networks, government, and donor agencies in Eritrea, Ethiopia, Kenya, Tanzania, Uganda, the United States and Zimbabwe attended the symposium, held November 3-5, 1999, in Addis Ababa, Ethiopia. See Horn of Africa section of this report for more details.

## Synthesis and Cross-Regional Work

The original BA posal included a number of strategies and mechanisms SIS pro to support synthesis, including a second country workshop within each of the 5 regions to present findings and policy recommendations, and evaluate impacts, and 1-2 inter-regional workshops covering a subset of BASIS research themes. The slow pace of work on synthesis to date is partially the outcome of the pace of research programs in each research site, and inadequate funding to cover all sites and research themes. In addition, two synthesis directors have resigned since 1997, and there has been lack of clarity and agreement

between USAID and researchers on specific types of synthesis activities and outputs.

During 1999-2000, for the first time, BASIS research findings have reached the stage where synthesis is feasible and broad-based. In addition, agreement has been reached between USAID and researchers on a set of activities that are concrete and of synthesis interest – interregional workshops. Since budgetary resources are not sufficient for stand-alone interregional workshops funds are being “piggybacked” onto workshop activities already planned within the regions.

### 2000-2001 Work Plan

More resources are being allocated for synthesis activities to programs shown in the following table:

<b>Global Synthesis</b>	
World Bank Best Practices Workshop	2-3 Peer Reviewers and 2-3 persons to attend workshop
BASIS Participation at Other Conferences or in Synthesis Activities	To be determined.
Southern Africa Workshop	Joint Conference on Land and Water involving 5 countries in Southern Africa Travel support for 3-4 US researchers Invite in 2-3 other researchers from the region (e.g. ACTS and Koopman, water, Tanzania; Fusades, El Salvador, land) 2 Policy Briefs (1 on land, 1 on water)
Spring BASIS El Salvador Workshop	Invite 3-4 researchers from Honduras/Nicaragua and/or US counterparts Invite 2 researchers from Horn/Southern Africa program 1 policy brief
Russian Working Conference on Market Reform in the Russian Agricultural Sector	Invite researchers from other BASIS supported research program in the E&E. Examples: Farm Size and Competitiveness, Childress Farm restructuring in Uzbekistan and KR, Bloch Privatization indicators, Blue RDI's work on Russian Agriculture, Gender 1 Policy Brief

## 1999-2000 Outputs



### Asset and Income Diversification Patterns to Ensure Sustainable Livelihoods

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#### *Print Outputs*

Barrett, Christopher B. and Michael R. Carter, "Can't Get Ahead For Falling Behind: New Directions for Development Policy To Escape Poverty and Relief Traps," BASIS Policy Brief, November 1999 (revised January 2000). Slightly revised version being prepared for invited resubmission to *Choices*.

Barrett, Christopher B. and Thomas Reardon, "Asset, Activity, and Income Diversification Among African Agriculturalists: Some Practical Issues," report to BASIS CRSP, March 2000. Portions to be included in editor's introduction to forthcoming special issue of *Food Policy*.

Barrett, Christopher B., Mesfin Bezuneh, Daniel C. Clay, and Thomas Reardon, "Heterogeneous Constraints, Incentives and Income Diversification Strategies in Rural Africa," report to BASIS CRSP, August 2000. Article under review for journal publication.

Barrett, Christopher B., Mesfin Bezuneh, and Abdillahi Aboud, "The Response of Income Diversification to Macro and Micro Policy Shocks in Côte d'Ivoire and Kenya," report to BASIS CRSP, September 2000. Pending submission to *Food Policy*.

Barrett, Christopher B. and Michael R. Carter, "Directions for Development Policy to Escape Policy and Relief Traps," *Africa Notes* (newsletter of the Cornell Institute for African Development), February 2000, pp. 1-5.

#### *Non-Print Outputs*

Networking with other researchers interested in livelihoods diversification in rural Africa led to the proposal of a special issue of the journal *Food Policy* to the new editors, based at Wye College, U.K. The proposal was accepted and the special issue on "Income Diversification and Livelihoods in Rural Africa: Cause and Consequence of Change" will be the journal's only special issue of 2001, tentatively scheduled for June 2001 publication. Guest editors of the special issue are Barrett, Reardon, and Patrick Webb of Tufts University (not affiliated with this project). Paper submissions have been invited and are undergoing peer review.

Paper (poster) presentation on the "Impacts of Food-Aid on Nutrition and Food Security in Rural Kenya" at the 24<sup>th</sup> International Association of Agricultural Economists Conference, Berlin, Germany, August 13-19, 2000.



### Differential Responses of Rural Residents to Long-term Economic Change in Kita, Mali

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Camara, Seydou, Tiéman Diarra, Mama Kamaté, Dolores Koenig, Fatimata Maiga, Amadou Tembely and Sira Traoré. July 2000. "L'Economie Rurale à Kita: Etude dans une Perspective d'Anthropologie Appliquée (Rapport Intérimaire)." Bamako: Institut des Sciences Humaines.

Diarra, Tiéman, Ladjji Siaka Doumbia, Mama Kamaté, Dolores Koenig and Amadou Tembely. March 2000. "L'Economie Rurale à Kita: Resultats de la Première Etape." Bamako: Institut des Sciences Humaines.



### Policy Briefs

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Horowitz, Michael M. *An Alternative for Managing Tropical Floodplain Rivers*. BASIS Brief No. 1, December 1999, 8 pp.

Barrett, Christopher B. and Michael R. Carter. *Can't Get Ahead for Falling Behind: New Directions for Development Policy to Escape Relief and Poverty Traps*, BASIS Brief No. 2, January 2000, 8 pages.

Place, Frank and Brent Swallow. *Tenure and Management of Tree Resources in Eastern and Southern Africa: Problems, Evidence, and Policy Implications*. BASIS Brief No. 3. February 2000, 8 pp.

Ahmed, Abdel Ghaffar, Kristy Cook, and Michael Roth, with assistance from Kurt Brown and Marsha Cannon. *Agricultural Policy, Resource Access, and Human Nutrition: Horn of Africa Regional Symposium*. BASIS Brief No. 4, July 2000, 8 pp.



# Management Entity

## Organizational and Administrative Management

The Management Entity (ME) is responsible for administering the Cooperative Agreement from USAID and for managing the total research program. According to CRSP Guidelines, the ME receives and administers USAID funds for the CRSP and enters into sub-agreements with participating US and developing country institutions for their respective projects. The ME coordinates and leads the development of annual budgets and work plans, and it is accountable to USAID for all expenditures. The ME is responsible for implementing the program, and it establishes a system to facilitate and manage travel. It reports on the program and represents the CRSP in dealings with USAID and internationally. The ME, through its sub-agreements with participating institutions, holds them responsible for programs and accountable for use of funds. A system for effective management of the program and control and accounting of funds, including matching resources contributed by participating institutions, is maintained between the ME and participating institutions.

During 1999-2000, subagreements/modifications were made with 17 partnering institutions:

- Centre for Applied Social Science (Southern Africa)
- Clark Atlanta University (Horn of Africa and Competitive Grants Program)
- Cornell University (Competitive Grants Program)
- Economic and Social Research Foundations (Horn of Africa)
- Egerton University, Tegemeo Institute (Horn of Africa and Competitive Grants Program)
- Fundación Salvadoreña para el Desarrollo Económico y Social (Central America)
- Harvard Institute for International Development/Harvard University (Southern Africa)
- Institut des Science Humaines (Competitive Grants Program)
- Institute for Development Anthropology, Binghamton (Horn of Africa)
- Institute of Development Research, Addis Ababa University (Horn of Africa)
- Institute of Natural Resources, University of Natal (Southern Africa)

- Institutional Reform and the Informal Sector Center (Eastern Europe and Eurasia)
- International Center for Research on Women (Horn of Africa)
- Michigan State University (Southern Africa)
- Núcleo de Estudos da Terra (Southern Africa)
- The Ohio State University (Central America)
- Tashkent Institute of Irrigation and Agriculture Mechanization Engineers (Central Asia)

## Financial Contributions

The BASIS CRSP was modestly successful in attracting a number of add-ons in 1999-2000 for the 2000-2001 year. BASIS is designed to receive approximately 50% of its funding from Global Bureau and 50% of its funding through add-ons. For the 2000-2001 fiscal year, 18% of the BASIS CRSP total budget will be supported from contributions from USAID regional bureaus, missions, and other donors. The decline from past add-on levels is a result of the closure of Phase I activities, to allow for a clean start in Phase II, pending approval of the proposal submitted to USAID. New add-ons were received from:

- El Salvador Mission, \$100,000 for a land market titling activity
- Ethiopia Mission, \$100,000 to develop case studies on South Wollo research
- Zimbabwe Mission, \$100,000 for research support on the Land Reform and Resettlement II

The University of Wisconsin's Cooperative Agreement with USAID states that USAID funds must be matched by 25% excluding Management Entity operating costs, participant training, and funds that are committed under the terms of formal CRSP host country sub-agreements. The matching requirement for US universities participating in a CRSP is based on the concept that pursuit of CRSP goals will mutually benefit USAID's interest in providing development assistance for developing countries and the interest of US universities in improving US agriculture. Matching shows institutional commitment to the program.

A total of \$4,858,665 was allocated for BASIS activities through September 30, 2000. Of that amount, \$2,328,126 was expensed by host country institutions or budgeted to the Management Entity and did not need to be matched.

Therefore, the remaining \$2,530,539 must be matched at 25%, equivalent to \$629,836. As of September 30, 2000, BASIS researchers had contributed \$752,908 toward cost-sharing from non-federal sources, or a 30% match.

## Training

Each CRSP is designed to assist in building capacity and to provide training to young researchers. The BASIS CRSP is committed to making training of both US and host country students a high priority activity that contributes to the overall mission of the CRSP. It is the aim of the BASIS CRSP to promote education, training, and information exchange through collaborative research and development activities.

BASIS, along with all of the CRSPs, has begun to collect and maintain data on student training. The information that all CRSPs will collect includes the name of the student, his/her country of citizenship, university of study, discipline, degree sought, gender, advisor, and funding support from the CRSP. Each year, the researchers will submit updated training information along with the Annual Activity Report, so that students can be tracked and training data can be communicated to USAID. The BASIS management entity (along with the other 8 CRSP management offices) provided USAID in December 2000 with its first accounting of students trained under BASIS I. The new database created for this exercise would be updated on an annual basis in BASIS II. In BASIS I, there were 32 students involved in BASIS research. See Appendix C for a complete student training report.

## Technical Committee

The BASIS Technical Committee convened in Columbus, Ohio on September 7-9, 2000 hosted by The Ohio State University Rural Finance Program. Pauline Peters chaired the meeting. Minutes of the meeting can be found on the BASIS web site at <http://www.wisc.edu/lrc/live/tc0009m.pdf>.

## External Evaluation Panel

The External Evaluation Panel (EEP) conducted an extensive review of the BASIS CRSP during 1999-2000, including site visits to each of the main regions in which BASIS conducts research. The EEP met in January 2000 to establish guidelines for these site visits and assigned members to each region.

- B. Jean Ruley Kearns, Executive Director of the Consortium for International Development and EEP chair, attended the Agricultural Policy, Resource Access, and Human Nutrition workshop held November 3-5, 1999 in Addis Ababa, Ethiopia, where she met with researchers from all of the Horn of Africa research activities. Dr. Kearns was also

scheduled to travel to Zimbabwe and Malawi in July 2000, but was unable to because of unexpected health issues. This site visit was tentatively postponed until July 2001.

- David Abler, Department of Agricultural Economics, Pennsylvania State University, traveled to Nicaragua in February 2000.
- Elizabeth Dunn, Department of Agricultural Economics, University of Missouri-Columbia, evaluated the El Salvador program in March 2000.
- Allen Featherstone, Department of Agricultural Economics, Kansas State University, met with researchers in South Africa and Namibia to evaluate the Southern Africa Land project.

The EEP, including the fifth member, Angelique Haugerud of Rutgers University, prepared a summary report of its findings with recommendations for improvements for each individual project and also more generally for the CRSP as a whole. The complete report is available on the CRSP web site at <http://www.wisc.edu/lrc/live/basrep5.pdf>.

## Board of Directors

The Board of Directors (BOD) met on October 8, 1999 to discuss program activities as well as policies and procedures for planning BASIS Program renewal. Findings of the BOD are reported in the *BASIS BOD Minutes* and can be accessed through the BASIS Web page. Three new members joined the BASIS BOD in 1999-2000:

- Doug Maxwell, College of Agriculture and Life Sciences, University of Wisconsin-Madison.
- Rekha Mehra, International Center for Research on Women
- Ruth Meinzen-Dick, International Food Policy Research Institute

## BASIS Travel Grants

In 1999-2000, BASIS continued the travel grants program established in 1998-1999. Travel grants are available to BASIS researchers to cover their expenses to register, travel, and attend international workshops, seminars, and conferences. The grants provide support and funding to BASIS researchers who would like to make presentations at seminars, conferences, or workshops nationally or internationally. Such presentations not only help increase the participation of BASIS partners, but they also increase the visibility of BASIS researchers in the United States and abroad. Additionally, participation in public forums such as a seminar, conference, or workshop is one method of disseminating the benefits of the BASIS CRSP. Finally, taking part in conferences is an ideal method of networking with other development professionals and of developing strategies for possible collaboration.

In 1999-2000 Michael Horowitz, (Institute for Development Anthropology, Binghamton, NY), was awarded a BASIS travel grant in the amount of \$4,000 to support attendance at the Cultures and Biodiversity Congress" (CUBIC 2000), at Kunming, China, July 21-29, 2000. Dr. Horowitz presented a paper entitled, "Management of Semiarid Rangelands: The Cultural Experience and Knowledge of Herders in Asia and Africa."

## Publications and Outreach

The Publications and Outreach team focused on increasing its capacity to market and package BASIS research in the 1999-2000 year. As an example, the BASIS Editor attended the Horn of Africa Regional Symposium: Agricultural Policy, Resource Access and Human Nutrition, in Addis Ababa, Ethiopia, on November 3-5, 1999 and assisted the participants in summarizing workshop outcomes. In addition, he was able to promote and market the results of the workshop through various written and visual materials.

The BASIS CRSP joined the other CRSPs in creating a briefing package for the new US government administration in Washington, DC. In one concise document, BASIS summarized its mission and objectives, listed highlights of the multiple research and policy initiatives that have taken place over the past five years, and documented training and capacity building accomplishments.

Publications and Outreach piloted a *BASIS Profile*, synthesizing various BASIS activities contributing to a major theme. The first *Profile* focuses on the dynamics of poverty and poverty alleviation from a factor market perspective.

During 1999-2000, the BASIS ME produced a number of other printed and visual materials, listed below:

- *BASIS CRSP Third Annual Report*, October 1999, 99 pp.
- *BASIS CRSP Program Update*. October 1999. 11 pp.
- "Zimbabwe briefing document." October 1999. 2 pp.
- "New international projects for UW." (Press release on Zimbabwe project). October 1999, 1 p.
- "BASIS CRSP Factsheet." February 2000, 2 pp.
- *BASIS Available Publications*. April 2000, 2pp.
- "Number of total/women involved in BASIS CRSP." April 2000, 2 pp.
- *BASIS External Evaluation Report*, 1999, May 2000, 74 pp.

- *The Land Tenure Center in Africa*. Briefing package that includes BASIS projects in the region, information on visiting scholars, training and education, and "key emerging land issues in Africa." Material to compile the package came in part from BASIS work and researcher contributions. August 2000, 5 pages.
- "Dynamics of Poverty." August 2000. *BASIS CRSP Profile*, 2 pp.
- *The Land Tenure Center in Russia, Eastern Europe and Central Asia*. Briefing package that includes BASIS projects in the region, information on visiting scholars, training and education, and "key emerging land issues in Russia, Eastern Europe and Central Asia." Material to compile the package came in part from BASIS work and researcher contributions. September 2000, 6 pp.
- *Global Research for Agricultural Development and Sustainable Resource Management in Developing Economies. Profiles of Collaborative Research Support Programs and Key Accomplishments, FY 1997 to FY 2001*. The BASIS contribution to this document is 12 pages and includes information on BASIS projects, purpose, accomplishments, collaborating and participating institutions, funding levels, training accomplishments, and testimonials. September 2000.
- *Four Policy Briefs*, listed in Part 4 of the Global Programs and Synthesis section of this report.
- Multi-media archive established, with over 100 images currently available

In November 1999, the BASIS ME implemented a web-based policy regarding BASIS outputs. Instead of trying to publish all BASIS outputs in hard copy through the BASIS Publications Series, all outputs would be posted on the BASIS web site. It was anticipated that by making the outputs immediately available on the web, it would serve to disseminate BASIS CRSP work in a wide, cost effective, and timely manner. It would also help to enhance discussion and networking among researchers.

Based on web tracking, this web-based communications policy has been effective. Average hits per month on the main BASIS home page have increased by over 60% following its implementation. Hits on the Publications and Outreach page have nearly doubled from a year ago. The Horn of Africa page has seen a marked increase in visitors. This could be attributed to the increase in the number of publications on the web site, the advertisement by the PI of the publications posted, and the inclusion of papers presented at the workshop held in the region. Continued efforts in 2000-2001 will be made to expand the impact of the BASIS CRSP web site. See Appendix B for a table of 1999-2000 web "hits."

## **BASIS CRSP Renewal Process**

The BASIS Management Entity spent a large portion of its time in 1999-2000 coordinating and preparing to submit a program renewal proposal to USAID, due in January 2001. In November 1999, the ME developed the BASIS Strategy for Program Renewal, a roadmap of activities and decision points leading up to October 2001 and commencement of the second five years of BASIS.

The renewal process included:

### **November 1999**

Strategy for Program renewal developed  
<<http://www.wisc.edu/lrc/live/basglo9911a.pdf>>

### **November 1999–March 2000**

EEP regional site visits

### **December 1999**

Vision Statement Email Conference

### **January 2000**

Stock taking exercise at USAID

### **February 2000**

Renewal Committee meeting

### **March 2000**

Expression of Interest request issued to all partners

### **May 2000**

Administrative Management Review

### **May 2000**

Request for pre-proposals issued for BASIS CRSP Phase II  
<<http://www.wisc.edu/lrc/live/basglo0005a.pdf>>

### **August 2000**

Pre-proposal deadline

### **September 2000**

Evaluate pre-proposals

### **September -December 2000**

Compile Program Renewal Proposal for submission in January 2001

## **2000-2001 Work Plan**

*Synthesis.* The major focus of the BASIS CRSP in Year 5 will be to support analysis and synthesis activities of the research projects. Each major regional program will coordinate a synthesis workshop to be held during this final year of BASIS CRSP Phase I. The purpose of the workshop is to bring together researchers from the multiple projects in the region, as well as researchers from projects in other regions examining similar topics, to discuss similarities and differences of their research findings in relationship to factor markets. Policymakers from the region will also be invited to attend and contribute to the discussions. Teams of researchers will be identified at each synthesis workshop to summarize the discussions in a *BASIS Brief* format. Though the ME will not be coordinating these meetings, members of the ME staff will be in attendance at each of the workshops to assist with the synthesis component and participate in the discussions. The following are tentative dates for the synthesis workshops:

Central America, May 7–9, 2001

San Salvador, El Salvador

Southern Africa, last week of July

Johannesburg, South Africa

Russia, July 6–7, 2001

Golitsyno, Russia

*Impact Monitoring.* In conjunction with USAID and the other eight CRSPs, the BASIS CRSP Management Entity will also coordinate impact monitoring activities in 2000-2001. This new initiative is intended to both strengthen each CRSP's impact reporting and monitoring system, and to help integrate that impact monitoring into a global system of results reporting being developed by Texas A&M University and the University of Florida. Such a global system would assist USAID in meeting its reporting requirements.

The ME will continue to monitor all subagreements and program budgets, and establish memoranda of understanding where appropriate. The BASIS ME will participate in the CRSP Council and other CRSP activities, and coordinate efforts with the other CRSPs in highlighting CRSP activities and increasing funding support. As always, BASIS will continue to communicate with a variety of institutions to expand its network, to attract add-on contributions, and to highlight accomplishments of BASIS activities.

The BASIS publications and outreach team will continue to increase its capacity for marketing and packaging BASIS research and training through a variety of focused activities. The web site will be used as a resource for all activities and outputs.

**BASIS CRSP**

**Matching Contributions**

**September 1996 -September 30, 2000**

**APPENDIX A**

	<b>TOTAL US Expenses 96-00</b>	<b>Total Match Provided 9/96-9/00</b>	<b>Total Match % Provided to Expenses</b>	<b>TOTAL Match Required 9/96-9/00</b>
<b>Management</b>				
Communications / Briefs	\$26,857.00			\$6,714.00
Travel Grants	\$22,900.00	\$1,745.00	7.6%	\$5,405.00
Research Synthesis/ Executive Committee	\$6,814.00	\$0.00	0.0%	\$1,704.00
<b>Research</b>				
LTC -Central Asia	\$180,696.00	\$13,403.00	7.4%	\$45,174.00
LTC-Eastern Europe, Eurasia	\$115,712.00	\$45,275.00	39.1%	\$26,448.00
LTC-Horn of Africa	\$73,830.00	\$19,439.00	26.3%	\$18,457.00
LTC-Sahel Activities	\$20,000.00			\$5,000.00
LTC-Southern Africa	\$96,656.00	\$7,934.00	8.2%	\$24,164.00
LTC-South East Asia	\$31,386.00			\$7,846.00
LTC-Peri-Urban ,Global,Russia	\$45,244.00	\$3,668.00	8.1%	\$11,311.00
UW-Dept AAE-Carter	\$148,350.00	\$61,587.00	41.5%	\$37,088.00
UW-AAE Roth/Chavas/Petrie	\$9,999.00			\$2,500.00
UW BASIS Research Support	\$81,448.00	\$194,816.00	239.2%	\$20,362.00
Policy and Praxis **	\$0.00	\$7,857.00		
OSU	\$528,519.00	\$142,570.00	27.0%	\$132,130.00
FUSADES	\$0.00	\$29,715.00		
Harvard University	\$167,564.00	\$41,612.00	24.8%	\$41,891.00
MSU	\$53,164.00	\$21,660.00	40.7%	\$13,291.00
IDA	\$656,500.00	\$123,652.00	18.8%	\$164,125.00
ICRW	\$106,328.00	\$17,161.00	16.1%	\$26,582.00
Blue-EC,Synthesis,Russia,SEA	\$78,056.00	\$0.00	0.0%	\$19,514.00
IRIS	\$30,347.00	\$0.00	0.0%	\$7,587.00
Cornell	\$24,274.00	\$20,814.00	85.7%	\$6,069.00
Clark Atlanta	\$20,035.00	\$0.00	0.0%	\$5,009.00
American University	\$5,860.00	\$0.00	0.0%	\$1,465.00
<b>TOTAL</b>	<b>\$2,530,539.00</b>	<b>\$752,908.00</b>	<b>29.8%</b>	<b>\$629,836.00</b>

**APPENDIX A**

**BASIS CRSP**

**Institutional Budgets**

**September 1996 -September 30, 2001**

	<b>TOTAL Budget thru 9/01</b>	<b>TOTAL Core FY 00/01</b>	<b>TOTAL Add-on FY 00/01</b>	<b>TOTAL Carryover FY 99/00</b>	<b>TOTAL Budget FY 00/01</b>
Management					
ME	\$1,402,660.00	\$250,000.00	\$40,000.00	\$25,437.00	\$315,437.00
Communications / Briefs	\$56,131.00	\$19,774.00	\$0.00	\$10,000.00	\$29,774.00
Travel Grants	\$51,500.00	\$0.00	\$0.00	\$28,600.00	\$28,600.00
Research Synthesis	\$98,938.00	\$74,404.00	\$0.00	\$4,493.00	\$78,897.00
Impact Monitoring & Evaluation	\$55,000.00	\$55,000.00	\$0.00	\$0.00	\$55,000.00
LTC -Central Asia	\$184,540.00	\$0.00	\$0.00	\$3,843.00	\$3,843.00
LTC-Eastern Europe, Eurasia	\$141,164.00	\$9,759.00	\$0.00	\$25,612.00	\$35,371.00
LTC-Horn of Africa	\$126,086.00	\$28,700.00	\$0.00	\$23,554.00	\$52,254.00
LTC-Sahel Activities	\$20,000.00	\$0.00	\$0.00	\$0.00	\$0.00
LTC-Southern Africa	\$121,377.00	\$14,325.00	\$0.00	\$10,396.00	\$24,721.00
LTC-South East Asia	\$31,386.00	\$0.00	\$0.00	\$0.00	\$0.00
LTC-Peri-Urban ,Global,Russia	\$45,244.00	\$0.00	\$0.00	\$0.00	\$0.00
UW-Dept AAE-Carter	\$322,495.00	\$140,000.00	\$0.00	\$65,855.00	\$205,855.00
UW-AAE Roth/Chavas/Petrie	\$9,999.00	\$0.00	\$0.00	\$0.00	\$0.00
UW BASIS Research Support	\$81,448.00	\$0.00	\$0.00	\$0.00	\$0.00
Policy and Praxis	\$24,774.00	\$0.00	\$0.00	\$0.00	\$0.00
OSU	\$857,365.00	\$177,156.00	\$80,000.00	\$71,690.00	\$328,846.00
FUSADES	\$363,632.00	\$0.00	\$0.00	\$14,358.00	\$14,358.00
HIID	\$265,097.00	\$80,340.00	\$0.00	\$17,193.00	\$97,533.00
MSU	\$124,097.00	\$38,367.00	\$0.00	\$32,566.00	\$70,933.00
INR	\$313,877.00	\$19,452.00	\$0.00	\$53,877.00	\$73,329.00
CASS	\$89,931.00	\$26,898.00	\$0.00	\$4,750.00	\$31,648.00
NET	\$36,229.00	\$0.00	\$0.00	\$16,753.00	\$16,753.00
IDA	\$917,781.00	\$93,301.00	\$80,000.00	\$111,751.00	\$285,052.00
OSSREA	\$250,335.00	\$20,000.00	\$0.00	\$7,763.00	\$27,763.00
IDR	\$173,338.00	\$19,945.00	\$0.00	\$40,351.00	\$60,296.00
ICRW	\$106,328.00	\$0.00	\$0.00	\$0.00	\$0.00
TIHAME	\$42,195.00	\$0.00	\$0.00	\$0.00	\$0.00
Blue-EC,Synthesis,Russia,SEA	\$78,056.00	\$0.00	\$0.00	\$0.00	\$0.00
IRIS	\$211,219.00	\$125,000.00	\$0.00	\$55,872.00	\$180,872.00
Cornell	\$24,274.00	\$0.00	\$0.00	\$0.00	\$0.00
Clark Atlanta	\$58,726.00	\$15,696.00	\$0.00	\$22,994.00	\$38,690.00
Egerton University	\$109,778.00	\$41,883.00	\$0.00	\$23,822.00	\$65,705.00
American University	\$5,860.00	\$0.00	\$0.00	\$0.00	\$0.00
Institut des Sciences Humaines	\$19,140.00	\$0.00	\$0.00	\$0.00	\$0.00
ESRF/ Tanzania Project	\$80,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Zimbabwe / Rutgers	\$160,000.00	\$0.00	\$80,000.00	\$80,000.00	\$160,000.00
<b>TOTAL</b>	<b>\$7,060,000.00</b>	<b>\$1,250,000.00</b>	<b>\$280,000.00</b>	<b>\$751,530.00</b>	<b>\$2,281,530.00</b>

BASIS CRSP  
Financial Statement  
October 1999-September 30, 2001

	FY 2001			TOTAL	CUMULATIVE	
	CORE	add-on	Carryover FY 99/00		CORE	add-on
<b>Management</b>						
ME	\$250,000.00	\$40,000.00	\$25,437.00	\$315,437.00	\$1,074,517.00	\$1,402,660.00
Communications	\$19,774.00		\$10,000.00	\$29,774.00	\$56,631.00	\$56,631.00
Executive Committee	\$0.00			\$0.00	\$23,934.00	\$23,934.00
Travel Grants/Program Development	\$0.00		\$28,600.00	\$28,600.00	\$61,500.00	\$61,500.00
Impact Monitoring & Evaluation	\$55,000.00			\$55,000.00	\$55,000.00	\$55,000.00
Program Development-Phase II	\$140,000.00			\$140,000.00	\$140,000.00	\$140,000.00
<b>Research</b>						
Research Synthesis	\$74,404.00		\$4,493.00	\$78,897.00	\$75,004.00	\$75,004.00
Competitive Grants	\$0.00		\$27,805.00	\$27,805.00	\$267,353.00	\$267,353.00
Central America	\$177,156.00	\$80,000.00	\$121,200.00	\$378,356.00	\$874,022.00	\$1,243,722.00
Eastern Europe and Eurasia	\$134,759.00		\$85,327.00	\$220,086.00	\$579,200.00	\$627,200.00
Greater Horn of Africa	\$219,525.00	\$80,000.00	\$225,096.00	\$524,621.00	\$1,034,375.00	\$1,717,532.00
Southern Africa	\$179,382.00	\$80,000.00	\$223,572.00	\$482,954.00	\$726,090.00	\$1,106,090.00
SE Asia					\$76,530.00	\$76,530.00
Global Program					\$75,841.00	\$75,841.00
BASIS Research Support (Roth, Thiesenhusen)					\$81,448.00	\$81,448.00
Peri-Urban Synthesis					\$29,555.00	\$29,555.00
Sahel Activities					\$20,000.00	\$20,000.00
<b>TOTAL BUDGETED</b>	<b>\$1,250,000.00</b>	<b>\$280,000.00</b>	<b>\$751,530.00</b>	<b>\$2,281,530.00</b>	<b>\$5,231,000.00</b>	<b>\$7,060,000.00</b>
Percentage Add-ons of Total Budget		18%				26%

2000-2001 Add-ons received by:

Central America	\$100,000
Horn of Africa	\$100,000 (received 99-00, budgeted 00-01)
Southern Africa	\$100,000 (part of \$300,000 add-on, received 99-00 \$100,000 over 3 years)

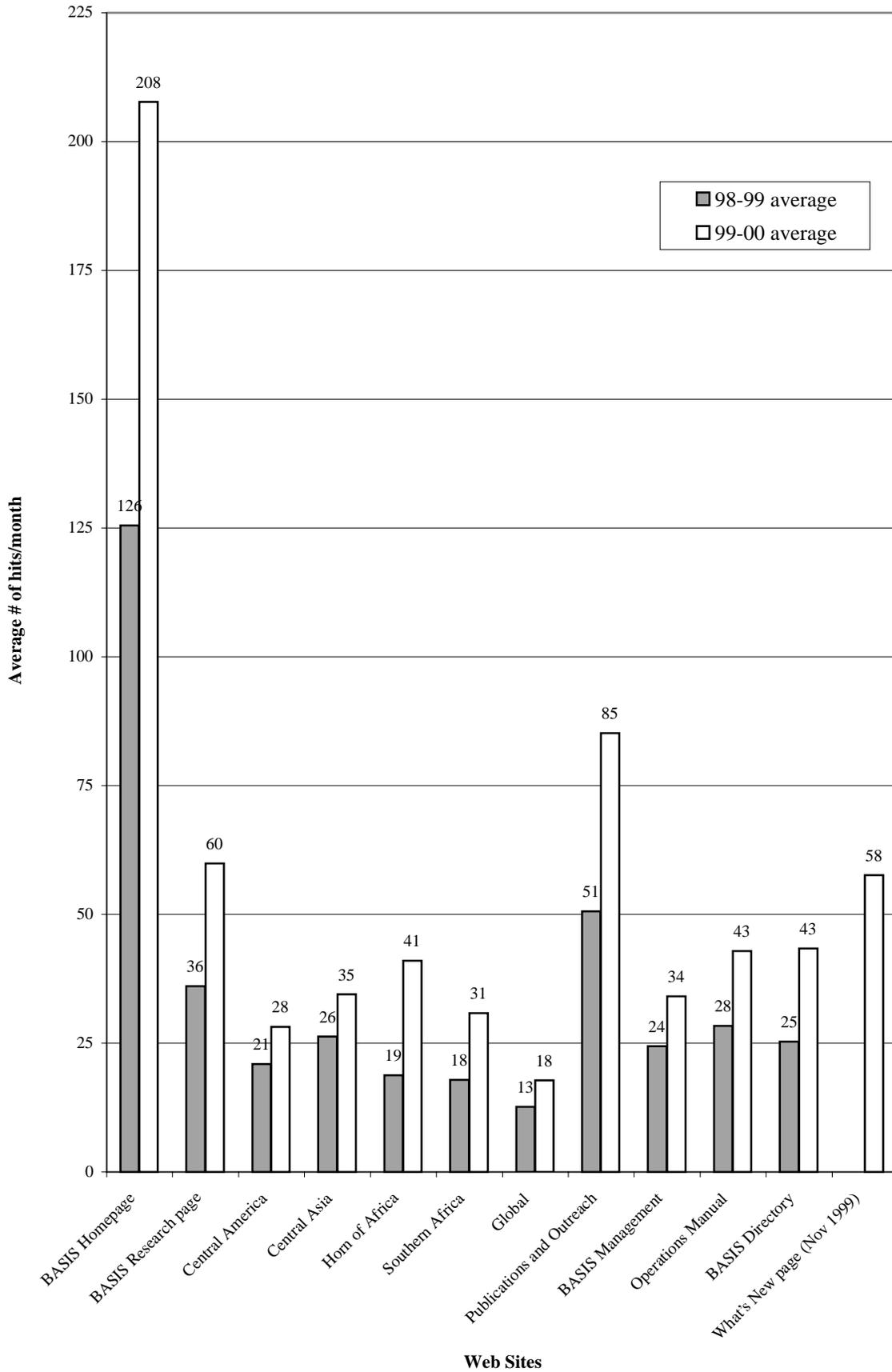
Note: 20% of each add-on is currently claimed by BASIS ME to cover expenses.

APPENDIX A

**BASIS CRSP**  
**Financial Statement-Matching Contributions**  
**October 1996-September 2000**

	FY 97	FY 98	FY 99	FY 00	FY 01	Total	Matching \$\$ Required Thru 9/00	Actual Matching \$\$ Thru 9/00
<b>Management</b>								
ME	\$160,155	\$277,360	\$298,345	\$376,800	\$290,000	\$1,402,660		
Communications / Briefs Executive Committee/ Research Synthesis	\$18,000	\$0	\$4,138	\$20,000	\$13,993	\$56,131	\$6,714	
			\$41,108	(\$17,174)	\$79,676	\$103,610	\$1,704	
Travel / Program Developmen Impact Monitoring			\$7,000	\$29,500	\$155,000	\$191,500	\$5,405	\$1,745
<b>Research</b>								
BASIS Research Support	\$81,448					\$81,448	\$20,362	\$194,816
Peri-Urban Synthesis	\$29,555					\$29,555		
Sahel Activities	\$20,000					\$20,000	\$5,000	
Competitive Grants		\$145,000	\$11,005	\$111,348		\$267,353	\$10,579	\$90,258
Global Program	\$67,737	\$8,104	(\$8,288)			\$67,553		
Central America	\$179,965	\$145,000	\$297,557	\$318,687	\$317,406	\$1,258,615	\$169,218	\$172,285
Europe & Eurasia	\$49,265	\$103,931	\$132,078	\$207,167	\$134,759	\$627,200	\$98,748	\$62,346
Greater Horn of Africa	\$205,029	\$294,321	\$615,068	\$308,537	\$293,800	\$1,716,755	\$213,628	\$160,252
Southern Africa	\$177,558	\$61,905	\$269,820	\$272,033	\$324,774	\$1,106,090	\$79,346	\$71,206
SE Asia	\$131,708	\$24,058	(\$79,236)			\$76,530	\$19,132	
<b>Total Budgeted</b>	<b>\$1,120,420</b>	<b>\$1,059,679</b>	<b>\$1,588,595</b>	<b>\$1,626,898</b>	<b>\$1,664,408</b>	<b>\$7,060,000</b>	<b>\$629,836</b>	<b>\$752,908</b>

BASIS CRSP web hits



Training Accomplishments FY 1997 to FY 2001												
Name of student	Country	University of study	Discipline	Degree	Degree obtained Y/N	Advisor	Gender	Funding				
								97	98	99	00 01	
Odil Akbarov	Uzbekistan	Tashkent Inst. of Irrigation and Ag. Mechanization Engineers	Land Reclamation	Ph.D.	N	Alim Pulatov	Male					C
Akmal Akramkhanov	Uzbekistan	Tashkent Inst. of Irrigation and Ag. Mechanization Engineers	Agricultural Engineering	MA	Y	Alim Pulatov	Male	O				
Barbara Cellarius	USA	Max Planck Inst. of Social Anthropology	Development Anthropology	Post-Doc	Y	Peter Little	Female					P
Claudious Chikozho	Zimbabwe	CASS, University of Zimbabwe	Social Studies	MA	N	Francis Gonese	Male					C
Louise Fenwick	South Africa	University of Natal	Agricultural Economics	MS	Y	Michael Lyne	Female				P	
Heidi Gjertsen	Canada	Cornell University	Agricultural Economics	Ph.D.	N	Chris Barrett	Female				P	
Adrian Gonzalez-Gonzalez	Costa Rica	The Ohio State University	Agriculture, Environmental and Development Economics	Ph.D.	N	Claudio Gonzalez-Vega	Male			p	O	O
Andrew Graham	USA	University of Natal	Agricultural Economics	MS	Y	Michael Lyne	Male				C	C
Rosaque Guale	Mozambique	Eduardo Mondlane University	Geography	Licenciatura	Y	Joanne Leestemaker	Male				P	
Dwight Haase	USA	Land Tenure Center	Sociology	Ph.D.	N	Joe Elder	Male				P	
Jeffrey Hopkins	USA	The Ohio State University	Agriculture, Environmental and Development Economics	Post-Doc	Y	Claudio Gonzalez-Vega	Male				P	
Anne Kuriakose	USA	Land Tenure Center	Development Studies (Soc.)	Ph.D.	N	Joe Elder	Female					P
Jim Latham	Zimbabwe	CASS, University of Zimbabwe	Applied Social Sciences	Ph.D.	N	Bill Derman/Marshall Murphree	Male					P
Rano Marupova	Uzbekistan	Tashkent Inst. of Irrigation and Ag. Mechanization Engineers	Agricultural Education	MA	N	Alim Pulatov	Female	P				

Kenneth Matengu	Namibia	University of Namibia	Environmental Mgmt	MA	N	Ben Fuller	Male			O
Scott McDonald	USA	SUNY-Binghamton	Development Anthro.	MA	Y	Michael Horowitz	Male		P	P
Lauren Montgomery-Reinhart	USA	SUNY-Binghamton	Development Anthro.	Ph.D.	N	Michael Horowitz	Female	P		
David Mfilatila	Malawi	University of Malawi-The Polytechnic	Civil Engineering	BS	N	Geoffrey Chavula	Male			P
Sergio Navajas	Bolivia	The Ohio State University	Agriculture, Environmental and Development Econ.	Ph.D.	Y	Claudio Gonzalez-Vega	Male	P	P	C
Dejene Negassa	Ethiopia	Addis Ababa Univ.	Social Anthropology	MA	N	Yared Amare	Male			P
Lydia Pedro	Mozambique	Eduardo Mondlane University	Geography	BA	Y	Joanne Leestemaker	Female		P	
Ragan Petrie	USA	Land Tenure Center	Agricultural Economics and Economics	Ph.D.	N	Jean-Paul Chavas, James Andreoni	Female	P	P	P
Rafael Pleitez	El Salvador	The Ohio State University	Agriculture, Environmental and Development Econ.	Ph.D.	N	Claudio Gonzalez-Vega	Male			P
Jorge Rodriguez-Meza	Costa Rica	The Ohio State University	Agriculture, Environmental and Development Econ.	Ph.D.	Y	Claudio Gonzalez-Vega	Male		P	P
Tara Roffler	USA	Land Tenure Center	Water Resources Mgmt, Inst. for Environ. Studies	MS	N	Mike Roth/Joy Zedler	Female			C
Mark Schreiner	USA	The Ohio State University	Agriculture, Environmental and Development Econ.	Post-Doc	Y	Claudio Gonzalez-Vega	Male	C		
Vombo Stanley	Zimbabwe	CASS, University of Zimbabwe	Applied Social Sciences	Ph.D.	N	Francis Gonese	Male			C
Francisco Taucala	Mozambique	Eduardo Mondlane University	Geography	Licenciatura	Y	Joanne Leestemaker	Male		P	
Alex Uriarte Somaglino	Brazil	Land Tenure Center	Development Studies (Ag Econ)	Ph.D.	Y	Michael Carter	Male			P
Mario Villalpando-Benitez	Mexico	The Ohio State University	Agriculture, Environmental and Development Econ.	Ph.D.	Y	Claudio Gonzalez-Vega	Male	P	P	P
Isaac Zama	Cameroon	Land Tenure Center	Environmental Law & Natural Resources Mgmt	Ph.D.	N	Richard Barrows	Male	C		
Darya Zavgorodnyaya	Uzbekistan	Tashkent Inst. of Irrigation and Ag. Mechanization Engineers	Environmental Economical Studies	MA	Y	Alim Pulatov	Female	P		

## APPENDIX D

# BASIS CRSP DIRECTORY

### Management Entity

Land Tenure Center, 1357 University Avenue, Madison, WI 53715

Tel: (608) 262-5538, Fax: (608) 262-2141

<http://www.wisc.edu/ltc/basis.html>

### Management Entity

NAME	POSITION	DUTIES	PHONE	E-MAIL
Michael Roth	BASIS Director	interCRSP issues; liaison with USAID; research design and implementation	608-262-8030	mjroth@facstaff.wisc.edu
Danielle Hartmann	Program Coordinator	project coordination	608-262-5538	dehartmann@facstaff.wisc.edu
Kurt Brown	Editor	publications, news releases	608-262-8029	kdbrown@facstaff.wisc.edu
Marsha Cannon	Administrative Specialist	reports and outreach	608-262-3658	mcannon@facstaff.wisc.edu
Carole Karsten	Financial Specialist	financial accounting and project contracts	608-265-2780	cjkarsten@facstaff.wisc.edu
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### U.S. Agency for International Development

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Mike Clark	Procurements	USAID/W - M/OP/B/PCE Ronald Reagan Bldg., Rm. 7.09-132 1300 Pennsylvania Ave NW Washington, DC 20523-7100	202-712-1323	202-216-3134	mclark@usaid.gov
Lena Heron	Cognizant Technical Officer	USAID/W - G/EGAD/AFS Ronald Reagan Bldg., Rm. 2.11, 1300 Pennsylvania Ave NW Washington, DC 20523-2110	202-712-0391	202-216-3579	lheron@usaid.gov
USAID (contractor documents)	Document Acquisitions,	USAID Development Experience Clearinghouse 1611 North Kent Street, Suite 200 Arlington, VA 22209-2111	703-351-4006	703-351-4039	docssubmit@dec.cdie.org
Mark Walther	Agreement Officer	USAID/W - M/OP/B/LA Ronald Reagan Bldg., Rm. 7.09.130 1300 Pennsylvania Ave NW Washington, DC 20523-7100	202-712-5719	202-216-3134	mwalthers@usaid.gov

Current as of March 9, 2001

**Technical Committee**

<b>NAME</b>	<b>INSTITUTION</b>	<b>ADDRESS</b>	<b>PHONE</b>	<b>FAX</b>	<b>E-MAIL</b>
Peter Bloch	Land Tenure Center, UW-Madison	1357 University Ave. Madison, WI 53715	608-265-2109	608-262-2141	pcbloch@facstaff.wisc.edu
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Michael Carter	Dept. of Agricultural and Applied Economics, UW-Madison	421 Taylor Hall 427 Lorch Dr. Madison, WI 53706	608-263-2478	608-262-4376	carter@aae.wisc.edu
Anne E. Ferguson	Women & International Development Program, Michigan State University	Center for Intl. Programs Room 202 East Lansing, MI 48824	517-432-1669	517-353-7254	fergus12@pilot.msu.edu
Tegegne Gebre Egziabher	Institute of Development Research, Addis Abeba University	PO Box 1176 Addis Abeba, ETHIOPIA	251-1-123230	251-1-551333	basis.idr@telecom.net.et
Claudio Gonzalez-Vega	Rural Finance Program, Dept. of Agricultural Economics, The Ohio State University	2120 Fyffe Rd. Room 103 Columbus, OH 43210-1099	614-292-6376	614-292-7362	gonzalez.4@osu.edu
Howard Leathers	Dept. of Agricultural and Resource Economics, University of Maryland-College Park	Symons Hall Room 3200F College Park, MD 20742	301-405-1277	301-314-9032	howardl@arec.umd.edu
Peter Little	Anthropology Department, University of Kentucky	211 Lafferty Hall Lexington, KY 40506-0024	859-257-6923	859-323-1959 Call First	pdlitt1@pop.uky.edu
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## APPENDIX D

### External Evaluation Panel

NAME	INSTITUTION	ADDRESS	PHONE	FAX	E-MAIL
David Abler	Department of Agricultural Economics, Pennsylvania State University	207 Armsby Building University Park, PA 16802	814-863-8630	814-865-3746	d-abler@psu.edu
Elizabeth Dunn	Dept. of Agricultural Economics, University of Missouri - Columbia	214-D Mumford Hall Columbia, MO 65211	573-882-8816	573-882-3958	DunnE@missouri.edu
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Angelique Haugerud	Dept. of Anthropology, Rutgers University	131 George Street New Brunswick, NJ 08901-1414	732-932-2643	732-932-1564	haugerud@rci.rutgers.edu
B. Jean Ruley Kearns	Consortium for International Development	6367 E. Tanque Verde, Suite 200 Tucson, AZ 85715-3822	520-885-0055	520-886-3244	Jkearns@cid.org

### Board of Directors

NAME	INSTITUTION	ADDRESS	PHONE	FAX	E-MAIL
Abdel Ghaffar M. Ahmed	OSSREA	PO Box 31971 Addis Abeba, ETHIOPIA	251-1-553281	251-1-551399	ossrea@telecom.net.et
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Ruth Meinzen-Dick	IFPRI	2009 Medicine Bow Dr. Wildwood, MO 63011	636-405-1711	636-405-1559	r.meinzen-dick@cgiar.org
Irving Rosenthal	Institute for Development Anthropology	2123 California Ave., NW Washington, DC 20008	202-986-3488		ros@ioip.com
Luther Tweeten	Dept. of Agricultural Economics, The Ohio State University	2120 Fyffe Rd. Room 103 Columbus, OH 43210-1067	614-292-6335	614-292-4749	tweeten.l@osu.edu

### Indefinite Quantity Contract

INSTITUTION	ADDRESS	REPRESENTATIVE	PHONE	FAX	E-MAIL
ARD Inc.	110 Main St. Fourth Floor Burlington, VT 05401	Henri Josserand	802-658-3890	802-658-4247	ard@ardinc.com
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