

BASIS CRSP Fifth Annual Report

ACTIVITIES
2000-2001

and

WORKPLAN
2001-2002



Broadening Access and Strengthening Input Market Systems

October 2001



B A S I S

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BASIS CRSP

Fifth Annual Report

Broadening Access and Strengthening Input Market Systems
Collaborative Research Support Program

ACTIVITIES

October 1, 2000 - September 30, 2001

and

WORK PLAN

October 1, 2001 - September 30, 2002

Provided by:
BASIS Management Entity
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1357 University Avenue
Madison, WI 53715 USA

October 2001

Acknowledgment

This report has been produced by the BASIS Management Entity (ME) located at the Land Tenure Center, University of Wisconsin–Madison.

BASIS ME staff worked collaboratively to condense 2000-2001 annual activity reports and 2001-2002 work plans submitted by BASIS researchers, the foundation for this report. All researchers deserve thanks for their thorough and interesting accounts. Special appreciation goes to those who sent photographs to illustrate their work with BASIS clients . . . rural people in developing countries around the world.

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Overview

From the Program Director

In the first and second years of BASIS CRSP operation, our work focused on establishing collaborative partnerships and research programs in five BASIS regions—Central America, Central Asia, Horn of Africa, Southeast Asia, and Southern Africa. In the third year, Southeast Asia was dropped as a focal region, and the BASIS emphasis shifted to implementation and generating policy recommendations. Our programs in certain places—El Salvador— progressed more rapidly and began to produce early impacts. By the time of the fourth annual report, BASIS research programs had become fully established in all regions, and BASIS findings were being widely communicated at policy conferences, through printed matter, to our clientele, and on the BASIS web page.

This fifth annual report covering the period September 2000 through September 2001 marks a number of important transitions:

First, it substantially brings to closure our research and training activities begun in the first-five years of the BASIS CRSP. Projects initiated under the BASIS Competitive Grants Program and in Russia, the Newly Independent States and Southern Africa were completed. In other BASIS regions—the Horn of Africa and Central America—a few activities will be continuing into the next fiscal year through no-cost extensions.

Second, considerable time and effort was given to research synthesis and integration, both within and across regions. During this fifth year, workshops aimed at synthesizing findings of BASIS research programs were held in Central America, Russia, and Southern Africa. In addition, BASIS researchers served as moderators and peer reviewers for the World Bank Consultative Meeting on Land Issues which sought to globally synthesize lessons learned on land use and management.

Third, BASIS successfully completed the process of program renewal begun in the fourth year, and was awarded a second five-year extension of funding from October 2001 through September 2006. As part of program renewal, the BASIS Management Entity office helped coordinate the selection of five new regional projects, the preparation of the BASIS phase II proposal, and the successful defense of that proposal before the newly formed SPARE Committee.

Fourth, at the end of September 2001, I resigned as program director of the BASIS CRSP and the Management Entity shifted from the Land Tenure Center to the Department of Agricultural and Applied Economics at the University of Wisconsin-Madison. I am very pleased with what the BASIS CRSP accomplished during my four years as program director. We were able to implement a global program of research and training that covered three continents and over twenty country programs. The worth of our research programs has been validated by governments that use BASIS results to design project interventions and reform policy, and by the financial contributions provided by USAID regional and country missions. We developed and supported collaborative partnerships and helped bridge gaps between the research and policy setting communities.

Both the External Evaluation Panel and the Administrative Management Review conducted in year four gave BASIS researchers and the Management Entity very high marks for our research and training accomplishments, for the partnerships we established, for our operating efficiency, and for our global outreach. While at times we groaned under the administrative challenges, we never lost sight of our mission to create a CRSP that empowered decentralized ownership and global governance.

(Continued, next page)

These results would not have been possible without the contribution of numerous individuals and organizations in the US and abroad. Special thanks go to the staff of the Management Entity who helped me over the years with program management and administration, in particular, Beth Amspaugh, Kurt Brown, Marsha Cannon, Danielle Hartmann, Carole Karsten and other staff of the Land Tenure Center.

The Board of Directors helped provide important guidance on policy and program strategy, while the BASIS Technical Committee advised me on technical programs. Special thanks go to Pauline Peters who served as chair of the Technical Committee, and to the regional coordinators of BASIS programs—Peter Little for the Horn of Africa, Claudio Gonzalez-Vega for Central America, Pauline Peters for Southern Africa, Peter Bloch for Central Asia, and Richard Blue for Southeast Asia. Without their dedication to the pillars of collaboration, research and international outreach, this program would never have gotten off the ground, or reached the heights that it did.

I have had the good fortune over the years of working with USAID project officers—Lena Heron, Deborah Rubin, and Pamela Stanbury—who helped promote BASIS, and shape and reshape the CRSP in response to global challenges and USAID’s changing needs. I also had the sound counsel of Jean Kearns and the BASIS External Evaluation Panel, who appreciated our goals and helped us in so many ways to get there.

Finally, last but not least, we of the Management Entity gratefully acknowledge the many contributions of our principal investigators and their supporting organizations that researched, taught, collaborated and participated, often far beyond the resources we provided. Without all of you, it would not have been possible, or nearly as much fun.

But, as we conclude this phase of BASIS, another phase has been born—one with new actors, a new mission, a new clientele, and new management. From all of us of BASIS I, we pass to you the foundations we have laid, and our best wishes for the future.

Michael Roth
Program Director
February 2002



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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 US 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 resource are policy concerns in all regions.

Central America



BASIS CRSP Research Projects

- ◆◆ **El Salvador Research Program**
 - 1.A. **Rural Household Panel Surveys**
 - 1.A.1. Evolution and Dynamics of Rural Poverty: Measurement and Analysis
 - 1.A.2. Geographic Isolation, Transaction Costs, and Labor Market Outcomes
 - 1.A.3. Household Integration to Markets: Agricultural and Non-agricultural Occupations
 - 1.A.4. Household Types and Resource Conservation Behavior
 - 1.B. **Segmented Market Niches in Rural Financial Markets**
 - 1.B.1. Differential Access to Financial Services: Measurement and Analysis
 - 1.B.2. Poverty and Innovative Technologies to Deliver Rural Financial Services
 - 1.C. **Beyond Landownership: Strategies for Improved Livelihood Security, Factor Market Access and Environmental Governance in El Salvador—*New BASIS I Project***
- ◆◆ **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**
- ◆◆ **Second BASIS National Seminar in El Salvador: Rural Poverty, Vulnerability and Credit**

Acronyms used in this section

BASIS	Broadening Access and Strengthening Input Market Systems
BFA	<i>Banco de Fomento Agropecuario</i>
CAM/FINCA	<i>Centro de Apoyo a la Microempresa / Fundación Integral Campesina</i>
CARE	Committee on American Relief in Europe
CRECER	USAID-sponsored project on Equitable Economic Growth
FIDEG	<i>Fundación Internacional para el Desafío Económico Global</i>
FLACSO	<i>Facultad Latinoamericana de Ciencias Sociales</i>
FUNDAUNGO	<i>Fundación Dr. Guillermo Manuel Ungo</i>
FUSADES	<i>Fundación Salvadoreña para el Desarrollo Económico y Social</i>
GOES	Government of El Salvador
GTZ	<i>Deutsche Gesellschaft Fur 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
LASA	Latin American Studies Association
LCSES	Latin America and the Caribbean Region (World Bank)
LMDSA	Law for Modernization and Development of the Agricultural Sector
NECLAS	North East Universities Conference on Latin American Studies
NGO	Non-Governmental Organization
OSU	Rural Finance Program at The Ohio State University
PROSEGUIR	<i>Programa de Seguridad Jurídica Rural</i>
PTT	<i>Program de Transferencia de Tierra</i>
STATA	A statistical analysis software program
UCA	<i>Universidad Centroamericana José Simeón Cañas</i>
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, and Nicaragua.

The El Salvador program, established in 1997, analyzes how shortcomings and improvements in the performance of financial, labor, and land markets influences household welfare and the evolution of rural poverty in this country. Policy recommendations based on emerging research results are expected to increase access by the poor to these factor markets and contribute to sustainable livelihoods.

The research agenda seeks to explain the evolution and dynamics of rural poverty, the determinants and consequences (by gender) of differential household participation in labor markets, in opportunities for human capital formation, and in migration and remittance flows, as well as the environmental consequences of adverse income shocks. Research on innovations in rural lending technologies seeks to broaden access to sustainable financial services by the rural poor. A closely related project, based on a competitive grant, focuses on the interaction between household risk management, land market participation and education in El Salvador.

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.



El Salvador Research Program

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
Rafael Pleitez-Chávez, Graduate Research Associate (former
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Douglas H. Southgate, Professor

OSU-affiliated researchers

Jonathan Conning, Assistant Professor, Williams College
Jeffrey Hopkins, USDA (former post-doctoral researcher,
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Sergio Navajas, Economist, USAID/Bolivia (formerly post-
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Rodolfo Quirós, Academia de Centroamérica, Costa Rica

Facultad Latinoamericana de Ciencias Sociales (FLACSO)

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University

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FUSADES is the principal BASIS research collaborating institution in El Salvador. It coordinates the activities of other Salvadoran Research Organizations (FUNDAUNGO, FLACSO, and UCA) as well as the program's interactions with Salvadoran impact organizations (GOES through the Ministries of Agriculture, Economy, Education) and the financial organizations being investigated (*Financiera Calpiá*, CAM/FINCA, and BFA).

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Julia Evelyn Martínez, Researcher

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Project dates: June 1997 – June 2002

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

Background

In the 1990s, the Government of El Salvador (GOES) 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. Rapid output growth resulted from the policy reforms and continued beyond the first half of the 1990s. By the end of the decade, however, Gross Domestic Product had stagnated. At the same time, urban poverty had declined much more rapidly than rural poverty. Moreover, in a few years, El Salvador suffered severe adverse shocks (drought, hurricane, earthquakes). The government has thus been faced with urgent challenges — to reactivate the economy, combat rural poverty, and promote broadly-based recovery from adverse shocks.

BASIS CRSP research has been helping to enable these goals in several ways. The project has been offering policymakers a better understanding of household strategies to deal with the adverse shocks and a more accurate evaluation of household opportunities to escape poverty and conserve natural resources. The project has also been monitoring the impact of policy reforms and advising the authorities on the design and implementation of alternative interventions.

Initial Conditions. A multi-year program of research, dissemination and policy dialogue was developed in mid-1997, based on a preliminary diagnosis of factor market issues. Several initial conditions and historical events were

identified as having shaped land, labor, and financial market performance and as having influenced rural poverty and resource conservation in rural El Salvador.

- Unfavorable relative factor endowments—strong human pressures on land due to high population density and inefficient distribution of land holdings
- 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 economic and political evolution during the 1990s 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. Finally, after the turn of the century, El Salvador adopted the US dollar as its currency.

Multi-year research agenda. The research agenda that evolved from the identification of these key initial conditions has attempted to understand the determinants and consequences of rural poverty. This emphasis has reflected concerns emerging from the exceptionally strong bias in El Salvador during the 1990s toward urban poverty alleviation interventions and outcomes. As rural poverty was being brought into the core of the country's recent policy agendas, it also began to dominate the BASIS CRSP research agenda.

In general, 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:

- 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,
- 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 access to land and attenuated ownership of land as well as differential household asset accumulation and risk-management strategies.

To investigate these labor, financial, and land market issues, BASIS CRSP in El Salvador has broadly relied on three types of research inputs:

- Data gathering: the construction of detailed, longitudinal data panels with information from periodic household surveys at the national level
- Data analysis: the systematic exploration of specific questions using data from the household surveys
- Institutional stocktaking: evaluations of the macroeconomic, institutional, and regulatory environments and of their influence on the performance of key factor markets, as background for the interpretation of results from the data analyses

Research activities have been complemented by the broad dissemination of results, policy recommendations, sustained efforts to build local capacities for investigation, training of researchers, and a research-based policy dialogue with both the USAID Mission and the GOES.

For the period covered by this report (October 1, 2000 to September 30, 2001), the work plan proposed specific activities, including completion of data gathering, data analysis, research workshops in the spring of 2001, preparation for a synthesis workshop, and the Second National BASIS seminar. It was expected that a strong program of dissemination and public discussion of research results would accompany policy dialogue. Institution building efforts would continue through frequent interaction of Salvadoran and US researchers, graduate training of Salvadoran investigators, and opportunities for Salvadoran researchers to present their research results in international forums.

A number of unfortunate circumstances, including several major earthquakes that devastated El Salvador in early 2001, made it impossible to attain these goals as rapidly as planned. In particular, the 2001 work plan had considered

two main synthesis and dissemination activities. First, a number of research papers were to be presented at a BASIS international research workshop in San Salvador, originally planned for early May 2001 and now tentatively scheduled for April 2002. A synthesis of lessons and observations and the accompanying policy recommendations were to be presented at a second national BASIS seminar, originally planned for late August and held in early December 2001. Publication of research papers and seminar proceedings has been postponed until 2002.

1.A. RURAL HOUSEHOLD PANEL SURVEYS

Research team: Beneke de Sanfeliú, Calderón, Andrade-Eekhoff, González-González, Gonzalez-Vega, Lardé de Palomo, Navajas, Pleitez-Chávez, Quirós, Rodríguez-Meza, Salazar, Shi, Southgate, Trigueros, and Vides de Andrade

During 2000-2001, researchers focused on analysis and dissemination of research results. Analytical results were not produced as early as expected, however, due to unavoidable delays in the completion of the databases.

In 1996, FUSADES had implemented a *First National Rural Household Survey* using a questionnaire adapted from the World Bank's *Living Standards Measurement Survey* and interviewing a carefully selected, stratified, random sample of rural households.

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.

In 2000, the *Third National Rural Household Survey* was implemented, to allow construction of a panel with three biannual observations for each household (1995, 1997 and 1999). Researchers are exploring options for funding the *Fourth National Rural Household Survey* in 2002.

The program's 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—has made it possible to capture the influence of policy changes and exogenous shocks on household behavior.

In 1997-98, researchers administered the *First Survey of Calpiá's Rural Borrowers*. During 2000, they surveyed the rural clients of several rural finance organizations. The main purpose, as discussed below, was to compare a profile of the general rural population with the client profiles. This comparison would shed some light on how the choice of lending technology influences the breadth and depth of outreach of these organizations, especially among the rural poor. Until this research, little was known about the clients' poverty status and other socio-demographic-economic characteristics.

Table 1. BASIS CRSP Household Surveys in El Salvador

Survey	Data for Year	Number of Observations
1. First National Rural Household Survey	1995	738
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	241
6. Survey of <i>Calpiá</i> Urban Borrowers	1999	137
7. Survey of <i>Calpiá</i> Peri-urban Borrowers	1999	364
8. Survey of Rural BFA Borrowers	1999	286
9. Survey of BFA Peri-urban Borrowers	1999	194
10. Survey of CAM/FINCA Rural Borrowers	1999	115
11. Survey of CAM/FINCA Peri-urban Borrowers	1999	192
12. Survey of CAM/FINCA Urban Borrowers	1999	52

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

2000-2001 Activities

Fieldwork began in late January 2000, to collect data for calendar year 1999. Researchers planned to complete all the interviews by late March 2000 but were delayed by a number of unusual reasons, mainly because households were difficult to locate, especially since some had moved—sometimes abroad.

By December 2000, the FUSADES team was still attempting to locate some of the households selected for the sample a year earlier. Final construction of the data sets and, thereby, the analysis could not proceed until these interviews had been completed. At the end of the year, the research team decided to conclude data collection, even if the target numbers had not been reached. Earthquakes in January and February of 2001, however, soon interrupted final preparation of the databases. While recovering from disruption of its own activities, FUSADES was asked by the GOES to assist in compiling detailed earthquake damage inventories, thus its research staff could not return to BASIS topics until June. Finally, the databases became available by August 2001. Preliminary results had been discussed with interested parties, including assessments of earthquake impacts for the GOES and the USAID Mission.

Although these delays in the generation of the data sets slowed emergence of the analytical outputs, a number of results were generated. Analyses of panel data contributed to a shift in the research focus from just the incidence and

determinants of rural poverty, to the volatility of incomes and the limitations of the risk-coping mechanisms available to rural households. The shocks associated with *El Niño* and Hurricane Mitch allowed examination of differential degrees and patterns of access to factor markets in the risk-management strategies of rural households. The 2002 household survey will shed light on the consequences of the 2001 earthquakes.

Team members met frequently to discuss research design and results. The most important of these were the June 29, 2001 BASIS Research Workshop, to review work in progress, and discussion workshops preceding the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, on December 5, 2001.

A number of survey related materials are posted in the website of the OSU Rural Finance Program [<http://aede.ag.ohio-state.edu/programs/ruralfinance>]. This includes each of the questionnaires employed in all of the surveys and the corresponding coding manuals and other user instructions. The FUSADES/OSU teams, at the request of other researchers, policymakers, and USAID Mission officials, have frequently prepared special tabulations of the data. The complete, carefully revised databases resulting from the 1996, 1998 and 2000 household surveys are also posted at this site as are the databases related to *Financiera Calpiá*. Interested researchers are encouraged to contact the OSU team for further explanation about the proper and efficient use of these data. See Central America Activity 2 (Conning) for an example of how the El Salvador survey data were further analyzed.

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

Research team: Beneke de Sanfeliú, Gonzalez-Vega, Rodríguez-Meza, Shi

2000-2001 Activities

Disagreements about the extent and causes of rural poverty have dominated recent policy debate in El Salvador and Central America. While several programs have been targeted to alleviate rural poverty, many debates and interventions have been conducted without complete understanding of the actual levels and the determinants of poverty and its evolution over time.

In the 1990s, poverty alleviation in El Salvador was mostly an urban phenomenon, and rapid economic growth seemed to have passed by most of the rural population. When growth decelerated by the turn of the century, poverty did not decline any further in the rural areas. The BASIS CRSP research agenda seeks to understand the reasons why this has been the case.

The three *National Rural Household Surveys* have made it possible to estimate levels of poverty, at the household level and on a *per capita* basis, and to classify households by poverty, according to their sources of income or to basic needs satisfaction indicators.

BASIS CRSP research in El Salvador has been concerned with income instability and the identity of the poor. Despite the evident high costs of the strategies adopted by poor rural households in attempts to stabilize income, limitations result from low levels of initial asset endowments (in particular, human capital and land) and from imperfections in the markets for credit, insurance, off-farm employment, and land.

Not all rural households cope with income instability in the same ways. To discover what determines the success of coping strategies employed by different classes of rural households, researchers sought to learn more about the identity of the poor. They learned that instability of household incomes resulted in a high degree of *mobility* of the households across the deciles of the income distribution.

Most investigations in developing countries ignore the *identity* of the poor. For policymaking, the key question is whether poverty has increased because new poor have joined the existing poor or whether some people have escaped poverty and others have become poor. BASIS CRSP research in El Salvador can answer these questions because the surveys follow the same households over time.

As shown in the tables below, panel results reveal that only 39 percent of the households were poor in all three years (1995, 1997 and 1999). Similarly, only 12 percent were not poor in all three years. In general, almost 50 percent of the households in the panel were sometimes poor and sometimes not poor.

Evolution	Poverty Level			% Families
	1995	1997	1999	
Structurally poor	Poor	Poor	Poor	38.9%
Temporary poor-2				28.3%
	Non-poor	Poor	Poor	6.8
	Poor	Non-poor	Poor	3.8
	Poor	Poor	Non-poor	17.7
Temporary poor-1				21.3%
	Non-poor	Non-poor	Poor	2.3
	Non-poor	Poor	Non-poor	7.9
	Poor	Non-poor	Non-poor	11.1
Non-poor	Non-poor	Non-poor	Non-poor	11.5%

Evolution	Median Household Income			% Families
	1995	1997	1999	
Structurally poor	8,411	7,270	9,335	38.9%
Temporary poor-2	13,217	10,684	25,251	28.3%
	23,824	7,889	9,741	6.8
	9,579	38,945	13,660	3.8
	10,420	10,024	38,825	17.7
Temporary poor-1	18,524	23,856	32,069	21.3%
	24,904	27,552	8,212	2.3
	28,904	8,484	34,248	7.9
	9,877	32,614	33,745	11.1
Non-poor	29,288	34,399	39,121	11.5%
All	13,032	12,391	18,926	100.0%

BASIS CRSP research has found significant differences between the chronically (structurally) poor and the temporarily poor. The structurally poor rely more heavily on agriculture to generate household income (between 53 and 60 percent of total income). The non-poor rely more heavily on non-agricultural sources (between 55 and 67 percent of total income). The fewer years a household has been poor, the less it has relied on agriculture for income. Transfers from outside the household are most important for those households transitorily in poverty (16 percent of total income) and not that much for the poor (10 percent) or the non-poor (7 percent).

Average total household income for the panel declined 11 percent between 1995 and 1997 and increased 44 percent between 1997 and 1999. Between 1995 and 1999, non-agricultural income sources accounted for 72 percent of the increase in household incomes. Agricultural income sources accounted for less than 1 percent, while transfers (mostly remittances from abroad) accounted for 27 percent of the increase. Stagnation of agricultural incomes was the net outcome of increases in the value of the household's own production and reductions in wages and other income earned in agriculture outside the household.

The increase in non-agricultural incomes reflected a sharp rise in independent activities (microenterprises), which contributed 69 percent of the increase; non-agricultural wages accounted for 33 percent. The growing importance of non-agricultural microenterprises, in both increasing and stabilizing income, has been confirmed by BASIS CRSP researchers using other sources of data.

Asset accumulation continued unabated during the period. Average schooling increased from 2.8 years in 1995 to 3.3 years in 1999. Households with electricity increased from 56 percent in 1995 to 71 percent in 1999, while the average distance to a paved road declined from 5.7 kilometers to 4.9 kilometers. These improvements reflect the impact of government activities in rural areas. Despite income shocks, private accumulation of household assets was very rapid. Households with a TV increased from 46 to 63 percent in only four years, and households owning a refrigerator increased from 22 to 35 percent.

While visiting hard-to-reach rural households, researchers assisted with drinking water quality tests. Analysis conducted on site and at the FUSADES Quality Control Laboratory showed only 11 percent of households treated their drinking water with chlorine but for 50-60 percent of the households bacterial contamination was above recommended standards. Both organic and inorganic chemical pollutants were found. Ministry of Health authorities are concerned about the high levels of contamination, the low level of awareness among households, and the absence of household practices to address the problem.

1.A.2. Geographic Isolation, Transaction Costs, and Labor Market Outcomes

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

2000-2001 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. During 2001 researchers worked to understand the implications of geographic isolation on labor market outcomes and to identify any gender differences in these outcomes.

Vides de Andrade, Lardé de Palomo and Calderón constructed a panel of persons from the households in the surveys with additional support from the InterAmerican Development Bank.

Geographic isolation results in higher transaction and production costs and, in turn, in less participation in labor markets, low labor productivity, and lower incomes from working. When distinguished by gender, geographic isolation leads to lower labor force participation by women but not by men. Isolation also results in higher rates of underemployment of the household's labor force, while distance to markets determines the types of occupations, by sector, and labor earnings, particularly for women.

Distant households are more engaged in agriculture, while those with good access to markets can also develop non-agricultural activities. Both levels of education and proximity to markets influence the sector of occupation. Those in non-agricultural occupations earn higher wages and work more hours per week. Among the non-agricultural activities, 33 percent are low-productivity activities and 67 percent are high-productivity activities. The marginal productivity of education is always positive and higher levels of education are a key credential for access to high-productivity non-agricultural jobs. Regression results show that access to these occupations is significantly less for women than for men. Several econometric models developed by the researchers confirmed the education, gender, and location effects.

1.A.3. Household Integration to Markets: Agricultural and Non-agricultural Occupations

Research focused on three areas: labor market choices between agricultural and non-agricultural activities, market participation and productivity, and employment opportunities for women.

2000-2001 Activities

Poverty and Human Capital Formation

Research team: Gonzalez-Vega, Lardé de Palomo, Trigueros

Understanding the role of education in the determination of rural poverty and income requires answering the question, "what is the role of poverty in investments in education and human capital formation?". BASIS CRSP provided support for Alvaro Trigueros' doctoral dissertation research, "Growth and Trade with Endogenous Human Capital Formation."

Trigueros investigated changes in the policy environment in El Salvador during the 1990s and the current distribution of the stock of education. He asks questions about the role of policies and economic growth in shaping the future distribution of income and, thereby, the future distribution of educational opportunities and intergenerational social mobility. At the National BASIS Seminar in December 2001, Trigueros discussed why not all boys and girls go to school; that is, what household and individual characteristics influence educational achievements. He also discussed the role of child labor on schooling.

The evidence that child work within the household negatively influences schooling was not statistically significant. In contrast, child work outside the household reduces the probability of being in school, particularly for boys (33 percent of those 14 years old or older were not in school for this reason). Other factors that reduce the probability of being in school include the presence of younger siblings (for older children) and higher fertility rates among household women. The distance to primary school is no longer important, as there are schools everywhere, but the distance to the secondary school negatively influences matriculation.

Factors that improve the probability of being in school are the presence of female workers in the household (particularly for young girls), a literate head of household (although gender of the household head is not a significant influence). Probability of school attendance increases with the years of education of the parents and with income per capita. Land ownership and, in particular, remittances from abroad increase the probability of being in school.

Migration and Remittances

Research team: Andrade-Eekhoff, Gonzalez-Vega, Lardé de Palomo, Rodríguez-Meza

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 the 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 questions about the impact of migration and remittances on Salvadoran factor markets remain unanswered. What are the impacts of remittances on the household's labor supply, investment decisions, holdings of financial assets, and consumption smoothing?

International and internal migration from the rural areas of El Salvador has continued to increase during the period under analysis. Three-quarters (72 percent) of the migrants go to the United States or Canada. Of all migrants identified by the 2000 household survey, 46 percent are men going abroad, 27 percent are women going abroad, and 27 percent are local migrants.



An ox cart with wooden wheels is not an unusual site on rural roads in El Salvador. While urban areas experienced economic growth and poverty alleviation during the 1990s, rural areas were left behind. BASIS researchers seek to understand ways that economic growth and income stability can be achieved through strategic investment in road and rural infrastructures. Photo by Jorge Salazar (FUSADES)

Research reported by Andrade-Eekhoff at the December 2001 National BASIS Seminar revealed interesting details about this migration flows:

- Women leave before men and economic reasons are the most important motivation, although many women leave to join families abroad.
- Savings are the most important source of funding, although some migrants abroad borrow for the transition.
- The migrants abroad are young (on average, 24 years old), with at least five years of schooling.
- The men had been engaged mostly in agriculture and are now engaged in manufacturing or services abroad.
- The women had been students or were not working.

Remittances decline with the time since departure and the presence of new children abroad. Among the households in the 2000 survey, 59 percent did not have migrant relatives, 15 percent had migrants but did not receive remittances, and 26 percent had migrant relatives who sent remittances. There are no significant differences in current expenditure patterns among households with remittances and those without remittances. Households with remittances do not consume more. They, however, save more and, as a result, have accumulated more household assets and improved their housing. Their opportunity to increase their future incomes is greater.

1.B. SEGMENTED MARKET NICHES IN RURAL FINANCIAL MARKETS

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

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 households that borrow from particular lending organizations, to study the determinants and consequences of constrained access to formal and semiformal financial services; and (1.B.2) detailed analysis of the lending technologies and innovation employed by different credit organizations to reach various segments of the rural population.

2000-2001 Activities

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

Research focused 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, was compared across the clients of several rural financial organizations.

Survey data confirmed low levels of access to credit that have characterized the rural areas of El Salvador. In 1999, 64 percent of the rural households in the sample did not receive any loan from formal, semiformal, or informal sources of credit (including friends and relatives) and did not purchase anything on credit. Moreover, less than 10 percent of the rural households interviewed had loans from any formal source, including *Calpiá* and the BFA.

Access to credit matters, however. Statistical analysis by Rodríguez-Meza indicated that per capita household income was significantly higher for rural households with access to formal and semiformal credit sources (7,600 colones) than for those with no access or access only to informal sources of credit (5,200 colones). In addition, while 78 percent of the households with access to credit have electricity, this is true for only 66 percent of those without access to credit.

Human capital, represented by average years of schooling for those in the household's labor force, are greater for those with access to loans (4.7 years) than those without access (3.7 years). Higher levels of education allow borrowing households easier access to loans, and the loans allow them to keep their children in school longer, thereby contributing to the household's human capital investments.

Portfolios of household activities are more diversified among borrowers than non-borrowers, including a significant difference in the number of non-agricultural occupations undertaken. Access to credit appears to matter for the development of higher-productivity non-agricultural occupations (microenterprises). Households with access to informal lenders only are more isolated from markets and must travel longer to find a paved road. They are mostly engaged in agricultural occupations and their incomes are lower.

Informal loans seem to be sources of last instance to address adverse shocks. Thus, credit is not a homogeneous good. Formal and semiformal credit are used mostly for productive undertakings, as an income-enhancing tool when the household has attractive productive opportunities. Informal credit is used as an *ex post* consumption-smoothing tool.

Researchers found that rural financial markets in el Salvador are highly segmented, with formal and semiformal sources offering larger loans, for production purposes, at lower interest rates and longer terms to maturity. Transactions costs and delays in loan disbursement increase with the formality of the credit source. It often takes more than a month for the BFA to disburse the funds after an application for a rural loan. Informal credit sources are used for emergency and consumption purposes, at higher interest rates but much lower transactions costs. Informal credit is rapidly disbursed, for shorter terms to maturity.

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 clienteles (market segmentation). BASIS CRSP research seeks to identify the market niches in which these organizations operate and contrast profiles of their clienteles.

BASIS CRSP researchers examined *Financiera Calpiá*, an organization that has been successful in reaching large numbers of rural households in a sustainable manner. In December 2000, Pleitez-Chávez completed mapping the lending technology used by BFA, the state-owned agricultural development bank, and the village banking program of CAM/FINCA.

Client profiles are of interest to donors, lending organizations, and researchers for several reasons:

- Mechanisms to improve the performance of rural financial markets can be suggested by detailed analyses of the lending technologies employed by different credit organizations to reach various segments of the rural population and the innovation in lending technologies that are allowing some of these organizations to reach the rural poor
- Client profiles offer donors a better understanding of the nature of the outreach of particular organizations or particular lending technologies, in comparison to policy targets, and thereby provide justifications for their interventions. These profiles also offer benchmarks for evaluations of project impacts
- Client profiles offer lending organizations a better understanding of the size and composition of their actual and potential market niches. These profiles can assist in the design of new products and financial technologies, evaluation of client satisfaction,

understanding of competitive pressures in these market segments, and in preparatory steps for building tools for credit scoring

- Client profiles offer researchers the opportunity to identify the limitations of alternative lending technologies
- Knowledge of the relationships between lending technology and client profiles can help answer questions about the efficiency, equity, and sustainability of rural financial intermediation
- Comparisons of client profiles with national and regional distributions of the relevant characteristics allow researchers and lending organizations opportunities to measure the potential market and identify opportunities for expansion with or without revisions of the lending technology

Survey data for 1999 show that *Financiera Calpiá* has been outstanding for its lending technology innovations, which have allowed this organization to reach rural households and lend for agricultural purposes in a profitable fashion. Indeed, *Financiera Calpiá* reaches many poor clients in the rural areas. In 1999, two-fifths (39 percent) of its rural clients were below the GOES poverty line. This proportion had been 36 percent in 1997.

Although rural households experienced severe adverse shocks during 1997, the households of *Calpiá* clients had been more successful, on average, than the aggregate rural population in responding to these shocks. This better performance accentuated in 1997 the income gaps between *Calpiá* borrowers and rural households at large. *Calpiá*'s outreach to the poor had not resulted from loan targeting but rather from features of their lending technology.

To better manage its own risks, *Calpiá* prefers households with a highly diversified portfolio of activities. In 1997, the average number of different sources of income had been 5.8 for *Calpiá* borrowers compared to 4.3 for the rural population at large. In 1999, these indicators had changed to 5.7 for *Calpiá* and 5.4 for the rural households. *Calpiá* borrowers, in general, are becoming more specialized, using their comparative advantages, while the rural population has been successfully adding non-agricultural activities to their income diversification strategies.

Calpiá borrowers live closer to roads, markets, and schools. Only 33 percent of the rural population of El Salvador live as close to centers of economic activity and physical infrastructure as do the households of *Calpiá* clients. From a possible total of 22 points, *Calpiá* borrowers showed an average 11.5 index of household assets, compared to 8.0 for the rural population. *Calpiá*'s lending technology has made it possible for the rural poor to offer their household items as non-traditional collateral on loans. Despite income fluctuations from year to year, the rural households of El Salvador have been accumulating assets at a rapid rate.

As proxied by their levels of schooling, *Calpiá* borrowers are more productive than the rural population at large. The working force at *Calpiá* households had an average of 4.3 years of schooling, compared to 3.9 years for the rural population.

In the rural areas, *Calpiá* borrowers are more diversified, with a combination of agricultural and non-agricultural sources of income. In those areas, the clients of the BFA are poorer households, characterized by low levels of education, greater geographical isolation, and smaller number of working household members. Few BFA clients in rural areas show any non-agricultural incomes at all.

CAM/FINCA clients rarely work in agricultural occupations, are mostly devoted to trading activities, and are more educated *Calpiá* clients. All of these distinctions verify the segmentation of rural financial markets.

In the peri-urban areas (*cabeceras de municipio*), in contrast, these three rural finance organizations are competing for clients in very much the same market segment. The peri-urban households are smaller, younger, and more educated than their rural counterparts. Larger proportions of their household labor force are engaged in self-employment in non-agricultural sectors. They are much closer to schools, markets, and roads. There are no significant differences in this respect across the clients of the three organizations. Average non-agricultural household incomes are 64,684 colones for BFA clients, 59,079 colones for CAM/FINCA clients, and 71,139 colones for *Calpiá* clients in these towns.

Given *Calpiá's* lending technology, not all rural households in El Salvador would be eligible for loans. Considering household portfolio diversification, between 35 and 45 percent would be eligible. From the perspective of asset holdings, between 40 and 60 percent would be eligible. From the perspective of distance to paved roads, 30 to 60 percent would be eligible. Only 50 percent would have the required human capital. Thus, for *Calpiá* to expand its coverage it would have to revise some of the components of its lending technology. These research results have been amply discussed in El Salvador and in international forums including the Fourth Seminar on New Development Finance, at the University of Frankfurt, and the Workshop on Theoretical and Empirical Research on Microfinance, at the University of Heidelberg.

1.C. Beyond Landownership: Strategies for Improved Livelihood Security, Factor Market Access and Environmental Governance in El Salvador— *New BASIS I Project*

Research team: Gonzalez-Vega, González-González, Southgate, Trigueros, Vega, de Bremond, Shelley

Support from an add-on provided by the USAID Mission in El Salvador will allow research on El Salvador's experience with post-war agrarian resettlement processes. BASIS researchers will analyze a sample of landholders under the most recent land transfer program, *Programa de Transferencia de Tierras* (PTT).

In fulfillment of the 1992 peace accord following El Salvador's civil war, more than 36,000 former combatants and their families received land between 1994 and 1999. Social and political pressures to complete land transfers eclipsed other concerns, such as ecological constraints and the biophysical appropriateness of the land being settled or the land uses intended by beneficiaries. Considering the environmental and social aspects of household production might have helped to ensure more appropriate settlement patterns and more secure avenues to productive livelihoods over the long term. However, PTT subsumed such considerations.

Researchers aim to improve understanding of the dynamic relationship between improved access to factor markets through tenure security, management of environmentally sensitive resources by rural communities, and the role of social organization in mediating such processes in rural El Salvador. The goal is to build critical understanding of how such programs can contribute to improved livelihoods as well as environmental security. This is of unquestionable value in El Salvador today as debates around rural development and territorial and land-use planning advance to the forefront of national politics.

2001-2002 Work Plan

Although some preliminary organization occurred during the 2000-2001 planning year, most of the research will take place during 2001-2002. There will be three phases of research activity analyzing existing data sets and collecting additional information where needed:

Phase 1: Assessment of regional differences in land quality, access to markets and social organization in the PTT sector;

Phase 2: Case study analysis and characterization of formal and informal institutions mediating factor market access and land use change;

Phase 3: Comparative analysis of BASIS National Rural Household Survey and datasets from Programa de Seguridad Jurídica Rural (PROSEGUIR) and CARE/ El Salvador.

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.

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

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 2000-2001 successfully completed his second 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.



1999-2000 Competitive Grant Award

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

Collaborating Institutions and Researchers

Williams College, Massachusetts

Jonathan Conning, Co-Principal Investigator,
Assistant Professor, Department of Economics

Universidad Centroamericana, "José Simeón Cañas" (UCA), El Salvador

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Pedro Olinto, Research Fellow

Project Dates: October 1999 – September 2001 (completed)

Support: Core funding and The World Bank

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 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.

2000-2001 Activities

Researchers used the rural household panel dataset to investigate the responses of rural Salvadorans to the adverse shocks experienced in 1997. They examined the highly differentiated impact of an economic downturn on household behavior and welfare using four compatible approaches:

1. An analysis of the changes of household labor allocation between 1995 and 1997 that showed a sharp drop in wage employment and an increase in self-employment hours;
2. A dynamic poverty decomposition analysis that suggests that an important part of the measured rise in rural poverty in this period was due to the loss of wage-labor hours, to which households responded by falling back on self-employment activities;
3. Panel regression results suggesting that households with land and other assets such as sewing machines or a bicycle were in a better position to withstand earnings losses associated with diminished employment than were landless households, by intensifying the use of these assets (although this did not completely compensate for the latter losses); and
4. School enrollment regressions suggesting that landless households were less able to protect investment in children's schooling in response to an economic shock.

A paper summarizing these results has been circulated and presented at the Latin American and Caribbean Economics Association (LACEA) meetings in Rio (2000), at the Latin American Studies Association (LASA) meetings in Washington (2001), and at the North East Universities Conference on Latin American Studies (NECLAS) in 2001, and is under review at an academic journal. An early version of this work also served as a background paper for a World Bank publication *Securing our Future in a Global Economy*.

Conning and Trigueros helped develop and test a new module on land transactions that was added to the rural household survey. Data was 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.

Data is being assembled and analyzed to examine hypotheses about the operation of rural land lease markets in El Salvador, including the relationship between reported property rights security (type of title, history of conflicts in the area), and the pattern and volume of rentals, sharecrops, and other land transactions. The researchers have been in communication with others working on similar issues in Nicaragua, Honduras, Mexico and Dominican Republic in an effort to compare methodologies and results.

The empirical puzzle of explaining the low volume of land lease transactions in El Salvador that was identified by earlier studies such as the World Bank's Rural Development Study (1997), will be examined in more depth with the data collected.

BASIS has supported Alvaro Trigueros in his Ph.D. research on household investment in education in El Salvador. His

hypothesis is that asset ownership and incomplete financial markets play an important role in shaping educational outcomes. Trigueros is using the three-year rural household panel data set to investigate the relationship between individual and household level characteristics and different educational outcomes, such as years of schooling completed, school enrollment, and school coverage.

2001-2002 Work Plan

This activity is substantially complete and has more than fulfilled the terms specified in the proposal. Work will continue on data analysis and completion of Trigueros's degree within the limits of remaining funding.

Key Findings and Results

Asset Ownership, Financial Markets Shape Educational Outcomes in El Salvador

Using household panel survey data from 1995, 1997 and 1999, Alvaro Trigueros is analyzing the relationship between schooling and child labor and numerous characteristics including gender, per capita net income and remittances, land ownership, and distance to primary and secondary schools. Although analysis is still underway, some early results are reported here:

1. Per capita net income has a positive and significant effect on school attendance for girls, but not for boys. This suggests that girls living in poorer households have a lower chance to attend school, while the income effect is zero for boys. Girls' schooling in rural households in El Salvador appears to be treated as a luxury. This conclusion serves as a warning when interpreting school attendance gaps between girls and boys, that could wrongly lead to the conclusion that gender discriminations are dissipating in El Salvador.
2. Per capita remittances had a positive effect on school attendance for girls in 1995 and for boys in 1997, providing some support for the argument that family remittances tend to favor school attendance. However, results were not robust.
3. Land ownership correlates favorably with school attendance for boys and girls, but mostly for girls.
4. Distance to primary and secondary schools is an important factor associated with the probability of school attendance for boys and girls. Results also reflect school policy in El Salvador that has favored construction of primary schools, thus increasing school attendance at the primary level. Less attention has been given to construction of secondary schools and therefore transportation costs to attend secondary schools are higher.

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

Collaborating Institutions and Researchers

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

Sonia Agurto, Research Director,
Gender Studies Program

International Food Policy Research Institute (IFPRI) Washington DC

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Brad Barham, Professor

Michael Carter, Professor

Juan Chamorro, Graduate Research Assistant

World Bank, Washington, DC

Latin America and the Caribbean Region (LCSES)

Isabel Lavendenz, Senior Land Resources Specialist

Project dates: November 1999 – September 2001 (completed)

Support: Core funding; add-on: USAID/LAC. 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.

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.

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.

2000-2001 Activities

Analysis of the Nicaraguan household data that was collected in early 2000 continued. Outputs include two papers: Carter (2001), and Carter and Chamorro (2001). This work was presented before professional conferences where special sessions brought together related work on land access issues. These papers along with an output reported last year (Carter, Michael and Juan Chamorro, *Estudio De Las Dinamicas De La Economia Rural: Impacto De Proyectos De Legalización De La Propiedad En Nicaragua*) also informed two pieces of policy work:

- World Bank Electronic Conference and Consultative Meeting on Land Issues (April 2001, Washington, D.C.)
- World Bank review of proposed Nicaragua Land Administration Project

Nearly 1,000 households were interviewed in rural Honduras over the April-May, 2001 period. As reported last year, the Honduras data collection had been postponed because of funding delays. Leading up to data collection, a major questionnaire was designed to measure both land and credit access, and income generation and coping strategies used by families to deal with the devastation of Hurricane Mitch.

Preliminary analysis of the Honduran data began in July 2001 and the Barham *et al.* and Boucher papers based on the data were presented at the September 2001 International Congress of the Latin American Studies Association.

Comparative analysis on the impact of providing land titles to women in Honduras and Nicaragua began in August 2001. Funding delays stalled implementation of this effort and new funds provided by BASIS permitted work to begin. The full research team met in Madison in August-September 2001. A preliminary analysis based on the Nicaraguan and Honduran household data sets has been prepared. Further deepening and revision of this work is continuing into 2001-2002.

2001-2002 Work Plans

While BASIS support for this project officially ended in September 2001, analysis and policy dissemination efforts are just now getting into full swing. The full research team plans to meet in Davis, California in January 2002 where they will bring together work from the Honduras and Nicaraguan sides of the project and a single monograph will be designed. Jolyne Sanjak (USAID) and Klaus Deininger (World Bank) are expected to attend and assist in planning a policy impact and dissemination strategy.

Collaboration with Other Projects

The work on Honduras—with its special attention to household's capacity to cope with risk—has opened the door to cooperation with Peter Little's project in the Horn of Africa. Carter traveled to Ethiopia in June 2001, and the groundwork

has been laid for a full-scale Ethiopia-Honduras comparative project that will take place as part of the BASIS II research program.

Key Findings and Results

Access to Land Matters

BASIS research in Honduras and Nicaragua informs land policy development. Key research findings include:

- Access to land matters in three ways:
 1. Boosts expected income,
 2. Helps families deal with shocks and smooth consumption, and
 3. Because of (1.) and (2.), access to land boosts human capital accumulation by stabilizing school attendance. This finding warns against accepting the false dichotomy—either human capital accumulation or land-oriented policies—as the way out of poverty. In fact the two appear to be complementary.
- Despite indications that land is especially valuable for land-poor households and, therefore, these households should be especially competitive in land markets, researchers found that:
 1. “Unassisted” land purchase markets appear to be biased against small-holders.
 2. Land rental markets do not seem to have much impact on the structural divide between large and small farms, and thus they are unlikely to offset any new ownership concentration or rectify any old ownership concentration, despite evidence of their increasing activity and importance.
 3. Together, Points 1 and 2 indicate that at least in Central America's dualistic agrarian structures, policy reform packages that secure property rights but do nothing about assisting land markets are unlikely to boost land access of land-scarce households.
- Good rural development policy takes proactive steps to overcome economic barriers and assist markets in moving productive land into the hands of less-well-off households. Policies that assist households in securing some form of land ownership rights might prove necessary so that small holders have a shot at accessing the capital they need for production.
- Finally, while joint titling of land to women has been relatively scarce in Nicaragua and Honduras (despite government and NGO efforts to prioritize it), analysis confirms that entitling women generates multiple benefits and, other things being equal, promotes household expenditures on food and education.

Second BASIS National Seminar in El Salvador: Rural Poverty, Vulnerability and Credit

BASIS CRSP research activities generated important results of interest to researchers and policy makers in El Salvador.

At the *Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit*, held December 5, 2001 in San Salvador, policy makers and outside academic discussants participated in the debate on these results. Participants included:

- Minister of Agriculture Salvador Urrutia, presented opening remarks
- Minister of Education Evelyn de Lovo, presented closing remarks
- Principal Advisor to the Minister of Education, Carlos Briones, a key discussant in the morning Chairman of the Central American Network of Microfinance Organizations, Luis Castillo, a key discussant in the afternoon

The National Seminar was attended by 269 people from all sectors of society (69 from banks and financial institutions, 59 from government agencies, 110 from non-government organizations, 12 from producer associations, and 13 from international organizations). Of the total, 161 were males and 107 females.

Dynamics of Poverty in El Salvador

At the conference, BASIS researchers presented research findings and provided new insights on several major topics.

Remittances. Formerly, the paradigm was to study remittances as a separate category of income, leading to the belief that remittances were not used productively. BASIS research shows instead that remittances do not change the structure of consumption for households and have positive impact on the age at which children are able to receive schooling and the amount of education they receive.

Who is in poverty, how long they stay there, and how they get out. BASIS work on the dynamics of rural poverty in El Salvador has transformed the way poverty is viewed. Formerly, poverty was measured simply by income level, in the belief that poverty was fairly static; i.e., households that showed low income in any one year generally would be the same households with low income in any subsequent year. Making credit available to these households was thought to be the best way to alleviate poverty.

BASIS has changed this thinking. Rural poverty is not merely a problem of low income but a problem of the social management of risk. A number of other elements can put households at risk: natural disasters, low education, and poor access to markets, roads, and schools. In other words, there are very different types of poverty and policies must take this into

account. Alleviation of poverty comes from households having the necessary tools for managing risk.

Because BASIS panel surveys look at poverty *over time*, the project is able to show how and why household income changes and how such change relates not merely to access to credit, but also to factors such as the environment, health, education, and infrastructure. BASIS allows for a more complete profile of poverty. It does not merely show who currently is poor based on a measurement of income, but it shows the combination of factors that can result in households becoming poor. It also shows the factors that can be addressed in order to allow households to escape poverty. The BASIS model on the dynamics of poverty has become the national paradigm and is used by a committee on social policy that is examining ways to alleviate poverty.

BASIS Research Impacts in El Salvador

• Sustainable Rural Roads Program

Government action improved roads in rural areas, bringing additional benefits of increased access to education and income.

• Human Capital Investment

BASIS survey workers receive training that prepares them to compete successfully for permanent full-time employment as enumerators.

Sustainable Rural Roads. BASIS work has revealed that distance to roads and other infrastructure has a large negative impact on poverty and education. As a result of BASIS research, the Sustainable Rural Roads Program was initiated. This is an example of the link between research results and government action. The program has reduced the distance to paved roads and to schools, and is showing evidence of children receiving more education as a result. In addition, households have greater access to microenterprises and income earning opportunities.

Human capital investment. Survey workers hired by BASIS research partners such as FUSADES gain skills, and some find full-time employment as enumerators. For the most recent survey in the ongoing Rural Household Panel Surveys, BASIS hired 30 survey workers. More than 200 El Salvadorans applied for these positions, which have become very sought after. Not only do the BASIS surveys offer a chance for employment in a country that is suffering from high unemployment, but the training BASIS provides has proved to be very valuable in securing permanent work after the survey. Of the people working on the recent BASIS survey, six were hired by *Financiera Calpiá*, one by FUSADES, and one by the National Resource Commission.

Next Steps

The 2000-2001 work plan included two main synthesis and dissemination activities—the *International BASIS Research Workshop*, postponed to late April 2002, and the *Second*

National BASIS Seminar, held in early December 2001. The research team is committed to producing a synthesis of results highlighting the connections between labor, financial, and land markets in a risky environment with incomplete institutional infrastructures.

The extent of synthesis and dissemination efforts will depend on the program's ability to secure additional resources. As indicated earlier in this report, a number of unfortunate circumstances, including earthquakes, have made it impossible to attain project goals on schedule. The resulting delays and complications have increased the costs, thereby reducing the availability of funds for the synthesis efforts. At a minimum, however, project synthesis will include publication of several research papers during the first half of 2002. Kurt Brown of the BASIS CRSP Management Entity will prepare a conference report on the *Second National BASIS Seminar* (December 2001), and Gonzalez-Vega and Rivera-Campos will write a synthesis brief incorporating the results to be presented at the *International BASIS Research Workshop* in April 2002.

The BASIS El Salvador program is seeking additional resources that would make it possible to invite more participants to the April 2002 workshop, increase the number of research results publications, and expand the scope of synthesis outputs to be disseminated in El Salvador



BASIS research partner FUSADES received El Salvador's 2001 National Environmental Award in the Researcher Category. Francisco Bertrand Galindo (center), Minister of Governance, presented the award to Margarita Beneke de Sanfeliú, Director of Research and Information Center, and Jorge Zablah, FUSADES president. The award recognized de Sanfeliú's report describing water quality in rural areas. While visiting hard-to-reach rural households, BASIS researchers assisted with drinking water quality tests. Analysis conducted on site and at the FUSADES Quality Control Laboratory showed that only 11 percent of households treated their drinking water with chlorine, but for 50-60 percent of the households bacterial contamination was above recommended standards.

and abroad. Support to analyze data from the *Fourth Rural Household Survey* will also be critical, to expand the panel of household observations with information about the earthquake year.

AGENDA

Second National BASIS Seminar Rural Poverty, Vulnerability and Credit

5 December 2001

Hotel Princess, San Salvador, El Salvador

MORNING

Opening speech

Lic. Jorge Zablah Touché, President, FUSADES

Opening speech

Ing. Salvador Urrutia Loucel, Minister of Agriculture and Livestock

Moderator: Dr. Claudio González Vega

- *Evolution of rural poverty, 1995-1999: Panel Study*
Ing. Margarita de Sanfeliú – FUSADES
- *Geographic Isolation and Rural Labor Market*
Lic. Anabella de Palomo – FUSADES
- *The Economy of Education and Child Labor in Rural Areas of El Salvador*
Dr. Alvaro Trigueros – University of Central America
- *International Migration from Rural Zones*
Lic. Katharine Andrade-Eekhoff – FundaUngo
- *Comments*
Dr. Carlos Briones – Ministry of Education

AFTERNOON

Moderator: Dr. Roberto Rivera Campos

- *Poverty, Land and Natural Resource Use*
Dr. Douglas Southgate – The Ohio State University
- *Vulnerability and Credit Access for Rural Households*
Dr. Jorge Rodríguez – The Ohio State University
- *Credit Technology and Client Profile of the Financiera Calpiá*
Dr. Claudio González Vega – The Ohio State University
- *Credit Technology and Client Profile of BFA and CAM/FINCA*
Lic. Rafael Pleitez – The Ohio State University
- *Comments*
Lic. Luis Castillo – FUSAI

CLOSING

Dra. Evelyn de Lovo, Minister of Education

Note: The seminar was held in El Salvador and conducted in Spanish. The agenda has been translated into English for presentation in this report.

2000-2001 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://aede.ag.ohio-state.edu/programs/ruralfinance>>

◆1◆

El Salvador Research Program

1.A. National Rural Household Survey

Publications

Beneke de Sanfeliú, Margarita (2001), *Determinación de la Calidad del Agua de Consumo Humano de las Familias Rurales: Estudio Socioeconómico*. Serie de Investigación No. 2. (ISBN 99923-816-5-5), 40 pp.

Beneke de Sanfeliú, Margarita (2001), "Determinación de la Calidad del Agua de Consumo Humano de las Familias Rurales: Estudio Socioeconómico," *Boletín Económico y Social*, No. 187, June, San Salvador: FUSADES (ISSN 1021-6375), 12 pp.

Beneke de Sanfeliú, Margarita (2001), "El Papel de las Microempresas en el Ingreso de los Hogares Salvadoreños," *Boletín Económico y Social*, No. 188, July, San Salvador: FUSADES (ISSN 1021-6375), 12 pp.

Vides de Andrade, Ana Regina, Anabella Lardé de Palomo, and Lissette Calderón Martínez (2001), "Geographic Exclusion in Rural Areas of El Salvador: Its Impact on Labor Market Outcomes," Washington, D.C.: InterAmerican Development Bank, in collaboration with BASIS, 32 pp.*

1.B. Segmented Market Niches in Rural Financial Markets

Publications

Gonzalez-Vega, Claudio, Anabella Lardé de Palomo, Rodolfo Quirós *et al.* (2001). "The Environment for Rural Financial Markets in Costa Rica and El Salvador," in Mark Wenner (ed.), *Promising Practices in Rural Finance in Latin America and the Caribbean*, Washington, D.C.: The InterAmerican Development Bank.

Navajas, Sergio and Claudio Gonzalez-Vega (2001), "An Innovative Approach to Rural Lending: Financiera Calpiá in El Salvador," in Mark Wenner (ed.), *Promising Practices in Rural Finance in Latin America and the Caribbean*, Washington, D.C.: InterAmerican Development Bank*

1.C. Beyond Landownership: Strategies for Improved Livelihood Security, Factor Market Access, and Environmental Governance in El Salvador

Southgate, Douglas, Jeffrey Hopkins, Claudio González-Vega and Jorge Rodríguez-Meza (2001), "Rural Poverty, Income Shocks and Land Management. An Analysis of the Linkages in El Salvador," abstract, *American Journal of Agricultural Economics*, December.

Presentations and Reports

Andrade-Eekhoff, Katharine (2001), "Migración Internacional desde las Zonas Rurales," presentation to the BASIS Research Workshop, San Salvador: FUSADES (June 29).

Andrade-Eekhoff, Katharine (2001), Prepared section on Migration for *Informe sobre Desarrollo Humano. El Salvador 2001 (Human Development Report)*, San Salvador: United Nations Development Programme.

Andrade-Eekhoff, Katharine (2001), "Migration and Labor Markets in Rural El Salvador," paper presented at the Session on Migration, Transnationalism and Cross-Border Alliances, at the Annual Meetings of the Latin American Studies Association (LASA), Washington, D.C. (September 9).

Andrade-Eekhoff, Katharine (2001), "Migración Internacional desde las Zonas Rurales," lecture for the Course on Politics and Government, San Salvador: Friedrich Ebert Stiftung (November 24).

Andrade-Eekhoff, Katharine (2001), "Migración Internacional desde las Zonas Rurales," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5). * PowerPoint presentation.

Beneke de Sanfeliú, Margarita, Claudio González-Vega, Anabella Lardé de Palomo, and Mauricio Shi (2000), "Rural Household Poverty in El Salvador," presentation to the USAID Mission, San Salvador (December 7).

Beneke de Sanfeliú, Margarita and Mauricio Shi (2001), "Dinámica de Ingreso de los Hogares Rurales 1995-99," presentation at BASIS Research Workshop, San Salvador: FUSADES (June 29).

Beneke de Sanfeliú, Margarita (2001), "Determinación de la Calidad del Agua de Consumo Humano de las Familias Rurales: Estudio Socioeconómico," public lecture attended by 130 people, San Salvador: FUSADES (August 12).

Beneke de Sanfeliú, Margarita, Anabella Lardé de Palomo and Mauricio Shi (2001), "Drought and Rural Households in El Salvador," presentation to the USAID Mission, San Salvador (September 12).

Beneke de Sanfeliú, Margarita, Anabella Lardé de Palomo and Roberto Rivera Campos (2001), "Determinants of Water for Human Consumption in Rural Households: A Socioeconomic Study," presentation to the Minister and staff of the Ministry of Health, San Salvador (September 21).

Beneke de Sanfeliú, Margarita (2001), "Determinación de la Calidad del Agua de Consumo Humano de las Familias Rurales: Estudio Socioeconómico," lecture on occasion of receiving the *National Prize for the Environment - Researcher Category*, San Salvador (October 30).

Beneke de Sanfeliú, Margarita (2001), "Evolución de la Pobreza Rural 1995-1999: Estudio de Panel," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5). * PowerPoint presentation.

Conning, Jonathan, Pedro Olinto and Alvaro Trigueros (2001), "Estrategias de Ajuste de los Hogares Rurales frente a una Contracción Económica," working paper translated into Spanish by Carolina Avalos de Trigueros, San Salvador: FUSADES.

González-González, Adrián (2001), "Concentración y Diversificación de los Ingresos de los Hogares Rurales," presentation to the BASIS Research Workshop, San Salvador: FUSADES (June 29).

Gonzalez-Vega, Claudio (2001), "Tecnologías de Crédito y Perfil de Clientes," presentation to BASIS Research Workshop, San Salvador: FUSADES (June 29).

Gonzalez-Vega, Claudio (2001), "Estrategias del Hogar y Conservación de Suelos," presentation to BASIS Research Workshop, San Salvador: FUSADES (June 29).

Gonzalez-Vega, Claudio (2001), "Tecnología de Crédito y Perfil del Cliente de la Financiera Calpiá," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5). * PowerPoint presentation.

Gonzalez-Vega, Claudio (2001), "Tecnología de Crédito y Perfil del Cliente de la Financiera Calpiá," presentation to the staff of Financiera Calpiá (December 6).

Gonzalez-Vega, Claudio (2001), "Tecnología de Crédito y Perfil del Cliente del BFA," presentation to the staff of Banco de Fomento Agropecuario (December 6).

Gonzalez-Vega, Claudio, Rafael Pleitez-Chávez and Jorge Rodríguez-Meza (2001), "Tecnología de Crédito y Perfil del Cliente de CAM/FINCA," presentation to the staff of CAM/FINCA (December 7).

Lardé de Palomo, Anabella and Lissette Calderón (2001), "Cambios en la Composición de la Muestra de Hogares y de Personas: Causas y Consecuencias," presentation to BASIS Research Workshop, San Salvador: FUSADES (June 29).

Lardé de Palomo, Anabella (2001), Coordinated Chapter V, on Equity and Social Development, for *Informe sobre Desarrollo Humano. El Salvador 2001 (Human Development Report)*, San Salvador: United Nations Development Programme.

Lardé de Palomo, Anabella (2001), "Aislamiento Geográfico y Mercado Laboral Rural," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5). * PowerPoint presentation.

Lardé de Palomo, Anabella (2001), "Women's Social Exclusion in Rural Areas and its Impact on Labor Market Outcomes," Meeting of the Country Teams of the Social Exclusion Project, The InterAmerican Development Bank, in Mexico City (July 16-17).

Navajas, Sergio (2001), "La Importancia del Perfil del Cliente: Experiencia en Bolivia y en El Salvador," paper presented to the Seminar on Evaluation of Impact of Microcredit Projects, CODESPA, Madrid, Spain (April 24).

Navajas, Sergio and Claudio Gonzalez-Vega (2001), "Matching Lending Technologies and Clients: Evidence from Rural El Salvador," paper presented at the Fourth Seminar on New Development Finance, University of Frankfurt (September 4).

Navajas, Sergio, Claudio Gonzalez-Vega, Jorge Rodríguez-Meza, Adrian González-González and Rafael Pleitez-Chaves (2001), "Lending Technologies and Borrower Profiles: Evidence of Exclusion and Inclusion from El Salvador and Bolivia," paper presented at the Workshop on Theoretical and Empirical Research in Microfinance, University of Heidelberg (September 10).

Navajas, Sergio, Claudio Gonzalez-Vega, and Adrián González-González (2001), "Do Lending Technologies Exclude the Poor? The Case of Rural El Salvador," paper submitted to the LACEA Meetings, Montevideo, Uruguay (October).

Pleitez-Chaves, Rafael (2001), "A Critical Appraisal of the Rural Lending Technology of the Banco de Fomento Agropecuario (BFA) in El Salvador," field research report (March).

Pleitez-Chávez, Rafael (2001), "Índices de Pobreza y de Desarrollo Humano para los Hogares Rurales," presentation to BASIS Research Workshop, San Salvador: FUSADES (June 29).

Pleitez-Chávez, Rafael (2001), "Las Microfinanzas y Pobreza en El Salvador," paper presented at the Annual Meetings of the Salvadoran Association of Economists (COLPROCE), San Salvador (August 13).

Pleitez-Chávez, Rafael (2001), "Tecnología de Crédito y Perfil del Cliente del BFA y CAM/FINCA," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5). * PowerPoint presentation.

Rodríguez-Meza, Jorge (2001), "Usos de Dominancia Estocástica para Comparar Distribuciones de Ingreso por Fuentes de Acceso al Crédito," presentation to BASIS Research Workshop, San Salvador: FUSADES (June 29).

Rodríguez-Meza, Jorge and Claudio Gonzalez-Vega (2001), "Access to Loans, Risk, and Market Participation in El Salvador," paper presented at the Workshop on Theoretical and Empirical Research in Microfinance, University of Heidelberg (September 10).

Rodríguez-Meza, Jorge (2001), "Vulnerabilidad y Acceso al Crédito de los Hogares Rurales," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5). * PowerPoint presentation.

Southgate, Douglas, Jeffrey Hopkins, Claudio González-Vega and Jorge Rodríguez-Meza (2001), "Rural Poverty, Income Shocks and Land Management. An Analysis of the Linkages in El Salvador," Selected Paper, Annual Meetings of the American Association of Agricultural Economics, Chicago (August 7).

Southgate, Douglas (2001), "Pobreza, Uso de la Tierra y Recursos Naturales," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5).

Trigueros, Alvaro (2000), "Land and Labor Adjustment Strategies during an Economic Downturn in Rural El Salvador," paper presented at the LACEA Meetings, Rio de Janeiro (October 11).

Trigueros, Alvaro (2001), Coordinated Chapter IV, on Growth, Opportunities and Economic Stability, for *Informe sobre Desarrollo Humano. El Salvador 2001 (Human Development Report)*, San Salvador: United Nations Development Programme.

Trigueros, Alvaro (2001), "Tierra y Formación de Capital Humano," presentation to BASIS Research Workshop, San Salvador: FUSADES (June 29).

Trigueros, Alvaro (2001), "La Economía de la Educación y el Trabajo de Niñas y Niños en las Areas Rurales de El Salvador," paper presented at the Second National BASIS Seminar on Rural Poverty, Vulnerability and Credit, San Salvador (December 5).

Vega, Lilian (2001), "Capital Social y Transferencia de Tierras," presentation to BASIS Research Workshop, San Salvador: FUSADES (June 29).

Vides de Andrade, Ana Regina (2000), "Women's Social Exclusion in Rural Areas and its Impact on Labor Market Outcomes," Meeting of the Country Teams of the Social Exclusion Project, The InterAmerican Development Bank, in Rio de Janeiro, Brazil: (October 10-11).

Vides de Andrade, Ana Regina (2001), "Participación en los Mercados Rurales según Género: Fuentes de Exclusión Social," BASIS Research Workshop, San Salvador: FUSADES (June 29).

Questionnaires

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

- 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*

Questionnaires prepared during 2000-2001:

- Third National Rural Household Survey 2000
- Second Survey of Rural 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

Databases (available in Stata 7 and as Text Files)

- First Rural Household Survey 1996
- Second Rural Household Survey 1998
- First Rural *Calpiá* Survey 1998

Databases completed during 2000-2001:

- Third Rural Household Survey 2000
- Second Rural *Calpiá* Survey 2000

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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1999-2000 Competitive Grant Award
**Rural Households' Land and Labor
Market Participation Strategies
in El Salvador in the 1990s**

Asterisk (*) indicates the document is available on the
Internet at <http://wso.williams.edu/~jconning/papers.html>

Publications

Conning, Jonathan, Pedro Olinto, and Alvaro Trigueros
(2001) "Managing Economic Insecurity in El Salvador:
Asset Ownership and Labor Household Labor Adjustment,"
submitted for journal publication. 39 pp.*

Conning, Jonathan, and James A. Robinson (2001) "Land
Reform and the Political Organization of Agriculture."
33 pp.*

Conning, Jonathan (2001) "Latifundia Economics." 39 pp.*

Trigueros, Alvaro. "Essays in Development and Human
Capital Accumulation." Draft Ph.D. dissertation, Department
of Economics, Vanderbilt University. Degree expected
May 2002.

Trigueros, Alvaro. "The Economics of Schooling and Child
Labor for Boys and Girls in Rural Households in El Salvador:
1995-1999." One or two papers from this output will be
submitted to academic journals. Trigueros is also applying to
present at the Latin American and Caribbean Economic
Association meeting scheduled to be held in Madrid, fall 2002.

◆3◆

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

Publications

Agurto, S., E. Katz, J. S. Chamorro and M. R. Carter.
"Entitling Women: Gender, Land Rights and the Household
Economy in Rural Nicaragua and Honduras." September
2001 (draft).

Barham, B., S. Boucher and P. Useche. "The Long and
Grinding Road of Inegalitarian Agrarian Structure in
Honduras: Impacts of Market Reforms and Hurricane
Mitch," September 2001, presented at the International
Congress of the Latin American Studies Association,
September 2001, Washington, D.C.

Boucher, S. "Economic Reforms and Capital Access in
Honduras." September 2001.

Carter, Michael R. "Land Access and Class Mobility
through Three Decades of Agrarian Reform and
Liberalization," 26 pp., September 2001.

Carter, M. R. and J. S. Chamorro. "The Economics of
Liberalizing Segmented Land Markets: Theory and
Evidence from Nicaragua," 34 pp., September 2001.
Presented at the American Agricultural Economics
Association annual meetings, August 2001, Chicago, and at
the International Congress of the Latin American Studies
Association, September 2001, Washington, D.C.

Deininger, Klaus, and Juan S. Chamorro. "Equity and
efficiency impacts of land rights regularization: The case of
Nicaragua," *Journal of Development Studies* (forthcoming).

Pedro Olinto, K. Deininger, and B. Davis. "Land market
liberalization and the access to land by the rural poor: Panel
data evidence of the impact of the Mexican *Ejido* reform,"
December 2000. Presented at the International Congress of
the Latin American Studies Association, September 2001,
Washington, D.C.

Eastern Europe and Eurasia



BASIS CRSP Research Projects

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

- ◆2◆ ***Farm Profitability, Sustainability and Restructuring in Russia—Golitsyno II* Market Oriented Reform in the Russian Agricultural Sector**

Acronyms used in this section

AFE	Agrifood Economy, IET, Moscow
AREC	Agriculture and Resource Economics
BASIS	Broadening Access and Strengthening Input Market Systems
CIS	Commonwealth of Independent States
E&E	Eastern Europe and Eurasia
ERS	Economic Research Service of the United States Department of Agriculture
FAO	Food and Agriculture Organization of the United Nations
IET	Institute for Economy in Transition
IRIS	Institutional Reform and the Informal Sector
LPI	Land Privatization Index
REPI	Real Estate Privatization/marketability Indicators
USAID	United States Agency for International Development
USDA	United States Department of Agriculture

BASIS CRSP Research in Eastern Europe and Eurasia

◆1◆

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

Collaborating Institutions and Researchers

FAO

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

Jim Riddell, Land Tenure Service, FAO/Washington

University of Wisconsin-Madison

David Stanfield, Principal Investigator and Senior
Researcher, Land Tenure Center

Project dates: October 1999 – July 2001 (completed)

*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 purpose of this project is to evaluate the viability of creating a “land privatization index” (LPI) to measure the extent and/or rate of land privatization—based on assessment of data in selected countries in Eastern Europe and in Russia. Such an index should be of interest to both national policy makers and international development agencies because it will help evaluate successful transitions to market economies and determine when further assistance in the land privatization process is necessary.

Studies were carried out in seven countries: Albania, Azerbaijan, Belarus, Georgia, Lithuania, Moldova and the Russian Federation. A workshop to review these case studies and develop a LPI was held August 21-23, 2000 in Minsk, Belarus.

In the CIS (Commonwealth of Independent States) countries, there is substantial debate about the various privatization options, and a desire to share experiences. This project comes at an opportune time.

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 in their individual countries.

In order to create the LPI, participants first needed to come to consensus about the definition of privatization.

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 are additional 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.

A specific piece of real estate moves 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 appropriate land market development policies. With special studies to generate the needed data, it would be possible to produce a simple average of the four main Real Estate Privatization/marketability Indicators (REPI) for each country. The indicators are the percent of privatized agricultural land, apartments, land under houses and land under commercial/buildings. Country policy makers might seek REPI for each region of a country.
- In this effort, attention should be paid to the following:
“Agricultural land” should be classified using 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,” should include the “shared out” type of privatization, but exclude tenure forms that do not specifically include the right to transfer ownership to another physical or legal person.
- Information gathered permanently for a set of real estate privatization indicators is not needed after the transition programs are mostly completed.
- 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 Activities

The Summary Report and recommendations for real estate privatization indicators, seven Country Studies, the Comparative Land Statistics Report, and the Bibliography on Land Privatization in Transition Countries were produced in both English and Russian. These documents were mailed to participants in the Minsk workshop (see BASIS CRSP Fourth Annual Report for agenda and participant list) and to USAID, Washington, in July 2001.

Key Findings and Results

Land Privatization in Eastern Europe and the Former Soviet Union

BASIS research in Eastern Europe and the Former Soviet Union tested the viability of an index to measure land privatization, useful to both national policy makers and international development agencies.

BASIS methodology for evaluating real estate “marketability” in different countries is being used in USAID’s Center for Development Information and Evaluation study, *An Assessment of USAID’s Investments in Land Markets and Property Rights*. The assessment will help USAID identify key operational issues that constitute “conditions for success” or “best practices.”

In Georgia, the USAID-funded Land Market Development Project is developing indicators based on land price, type of transaction and location. These statistics should provide some indication of general economic levels and measures of success of projects aimed at creating and stimulating land markets. The project in Georgia is working closely with officials who are striving to implement the Minsk Conference recommendation that statistics be produced to document the evolution of land markets. There has been substantial progress in this regard, with agreement in principle from the Chief Registrar of Immovable Property Registration.

The Land Market Assessment project, supported by USAID’s Center for Development Information and Evaluation, Bureau for Policy and Program Coordination, is using methodology developed in the LPI project. Land Tenure Center researchers have been contracted to help assess the impact of USAID supported projects on land markets, and will describe the degree to which real property is “marketable” in six countries.

Golitsyno II: Farm Profitability, Sustainability and Restructuring in Russia—

Market Oriented Reform in the Russian Agricultural Sector

Collaborating Institutions and Researchers

Russia

Institute for Economy in Transition (IET)

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

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

Project dates: October 1998 – September 2001 (completed)

Support: Core funding only.

Additional Support: Program oversight and administrative support 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, and the Economic Research Service, USDA, is cost sharing with salary and other research computational facilities support.

Background

Agricultural policy and institutional reform in Russia has lagged, in large part, due to a fundamental disagreement among Russian factions as to the proper direction and pace of reform. The October 1-2, 1999 Golitsyno I workshop, “Issues in Privatization and Restructuring of Russian Agriculture: Agricultural Policy” (described in the BASIS CRSP Fourth Annual Report, 1999-2000) initiated discussion among Russian policymakers and researchers, as well as international scholars and officials. Golitsyno I marked the end of a process of Russian research and resulted in the “Golitsyno Consensus,” a document of conclusions and recommendations regarding necessary next steps in restructuring Russia’s agricultural sector.

In March 2000, Vladimir Putin was elected President of Russia, and by July 2000 a new government had been formed. A planning workshop on “Market-Oriented Reform in the Russian Agricultural Sector” was held July 11-12, 2000 at IRIS with American and Russian participants (described in the BASIS CRSP Fourth Annual Report). Those present agreed on the need for a working conference, called Golitsyno II, on market oriented reform in the Russian Agricultural Sector, to be held in July 2001.

2000-2001 Activities

Golitsyno II took place July 6-7, 2001 at the Golitsyno Conference Center, near Moscow. A total of 53 people—38 Russians and 15 from the US—attended. The primary Russian organizers were the Institute for Economies in Transition and the Ministry of Agriculture; the US organizer was IRIS at the University of Maryland.

Golitsyno I, held at the same location in October 1999, was primarily a Russian affair with relatively limited American involvement. Golitsyno I was intended to initiate consensus building among various Russian factions regarding the proper direction and pace of agrarian reform, begun in the 1990s. Seminar participants worked to single out the most important institutional changes in Russian agriculture and define ways for future reform. They reached conclusions, identified trends, and listed measures to promote institutional development in the midst of major land privatization and farm reorganization. What emerged was a research agenda, an agreement to hold a second conference, and the beginning stages of collaboration between Russian and US researchers.

Building on the recommendations of Golitsyno I, Russian and US Golitsyno II participants came together to review what was known, bring to light data that to date has been available only in Russian, and establish the intellectual component for additional research on restructuring Russia’s agricultural sector. Although co-authored papers had been envisioned, as it happened, the Russian experts became the primary authors while the US experts took on the role of discussants.

The two-day conference was organized around presentations in five areas: (1) Development of economic organization in agriculture, and markets for (2) land, (3) capital, (4) inputs, and (5) labor.

Key issues are shown in the accompanying box. The conference agenda (see Page 33) illustrates US/Russia collaboration in presentations and discussions.

Building on the Golitsyno I recommendations and consensus, Golitsyno II participants came together to discuss the necessary next steps to reinvigorate Russian agriculture. The conference began with an overview of the Russian agricultural sector. Lively discussion revealed fundamental questions regarding the value of the available data, the best research methodology to employ, the most beneficial types of disciplinary approaches, and the appropriate role for US scientists. It was suggested that a basic, step-by-step analytical approach be kept in mind for future work: assess the current state of factual and explanatory knowledge, mobilize and evaluate available data, develop new explanatory hypotheses, propose a research strategy to test the hypotheses and uncover the causes of the problems, and draw out policy implications.

The day after the conference, representatives from BASIS met in Moscow to present to key stakeholders and policymakers a briefing on the outcome and goals of Golitsyno II, with the objective of establishing the project's policy relevance.

BASIS CRSP Phase I work formally ended with Golitsyno II, which at the same time served as the starting point for the BASIS II project, "Input Market Constraints on Economic Growth in Russian Agriculture." See the Management Entity Program Development section of this report.

Key Findings and Results

With respect to land, neither full property rights nor a land market yet exists in Russia. But there are substantial regional variations in legal and practical capabilities to lease land, consolidate holdings, and capture the fruits of investment. These regional differences, and changes in recent years in some areas, provide experience that can enable BASIS to investigate the economic gains achievable through reforms of land law and practice that fall short of full, transferable property rights in farmland.

Russian farmers typically have little wealth, and access to both purchased inputs such as fertilizer and capital goods requires use of credit. Credit to farm enterprises (former collective farms) has been provided at subsidized rates, with occasional write-offs of past debts. Such credit is unsuitable either for consistent financing of current production or longer-term investment. For borrowers to obtain commercial credit at reasonable real interest rates requires assurance to

lenders against default, and this could be most readily provided in the Russian context by using individuals' shares in their former collective farms as collateral. The lack of individual property rights in land or other enterprise assets is thus a major hindrance to the development of Russian farming. Nonetheless, arrangements have been made in some localities where input suppliers or food marketing enterprises provide credit in exchange for rights to the crop grown. The research issues here involve how both the public financing and taxation of agriculture, and commercial credit arrangements, are working.

Markets for key purchased inputs are also not functioning well. Even if land and credit market problems were fixed, access to inputs needed for efficient production would likely be severely constrained. Research can quantify how serious these constraints are and what these market imperfections cost Russian agriculture, in both capability to produce and efficiency of production.

In labor markets, existing problems are again a legacy of pre-1991 Russian agricultural organization that post-1991 institutions have been unable to cope with satisfactorily. Constraints include the social-insurance role of collective farms, which the successor enterprises still retain in many areas; restrictions on residential migration and employment mobility between regions; and a lack of entrepreneurial skills among rural people. Research in this area is intended to assess the extent of these problems in selected regions, and by comparing the situation in different areas to quantify the social costs.



Informal discussions at Golitsyno II strengthened the spirit of collaboration among Russian and US scientists.
Photo by Kurt Brown.

CONFERENCE PROGRAM

Golitsyno II

Framework for Investigating Issues in Factor Markets and Economic Organization of Russian Agriculture

July 6-7, 2001 ❖ Golitsyno, Moscow Region

July 6	Conference Opening	Richard Blue (BASIS)
Introductory section	Moderator	V. Uzun
	Presentation: <i>A Framework for Investigating Issues in Factor Markets and Economic Organization of Russian Agriculture</i>	B. Gardner (University of Maryland)
	Discussants:	E. Serova (Institute for Economies in Transition)
	 W. Liefert (Economic Research Service, USDA)
Development of Economic Organization of Russian Agriculture	Moderator	E. Serova
	Presentation: <i>Organizational Types of the Agricultural Production in Russia</i>	V. Uzun (Agrarian Institute)
	Discussants:	Z. Lerman (Jerusalem Hebrew University)
	 L. Polischuk (University of Maryland)
	Presentation: <i>New Agricultural Operators, Input Markets and Vertical Sector Coordination</i>	D. Rylko (Inst. for the World Economy & Int'l. Relations)
	Discussants:	S. Sotnikov (Iowa State University)
	 M. Safavian (ERS/USDA)
Land Market	Moderator	S. Kiselev
	Presentation: <i>The Land Market</i>	N. Shagaida (Agrarian Institute)
	Discussants:	L. Rolfs (School of Law, Seattle)
	 Z. Lerman (Jerusalem Hebrew University)
July 7		
Capital Market	Moderator	N. Shagaida
	Presentation: <i>Credit, Finance and Investment in Agriculture</i>	O. Yastrebova (NEI, Moscow State University)
	Discussants:	G. Brock, G. Pederson
Input Markets	Moderator	D. Rylko
	Presentation: <i>Input Markets in Russia's Agriculture</i>	E. Serova (Center AFE)
	Discussants:	H. Leathers (Univ. of Maryland), S. Osborne (ERS, USDA)
Labor Market	Moderator	O. Yastrebova
	Presentation: <i>Development Labor Market in Countryside and Research Agenda</i>	S. Kiselev (Moscow State University)
	Discussant:	S. Osborne (ERS, USDA)

Researchers from the US in attendance: *Richard Blue*, Co-Principal Investigator; *Bruce Gardner*, Professor, University of Maryland-College Park; *Howard Leathers*, Professor, University of Maryland, College Park; *Greg Brock*, Assistant Professor, Georgia Southern University; *Leonard Rolfs*, Attorney, Rural Development Institute; *Sergei Sotnikov*, Post Doctoral Research Associate, Department of Economics, Iowa State University; *Peter Bloch*, Faculty Associate, Land Tenure Center, University of Wisconsin-Madison; *Glenn Pederson*, Professor, Director of Graduate Studies, Department of Applied Economics, University of Minnesota; *Bill Liefert*, Senior Economist USDA, Economic Research Service; *Stefan Osborne*, Economist USDA, Economic Research Service; *Michael Trueblood*, Economist USDA, Economic Research Service; *Mehnaz Safavian*, Economist USDA, Economic Research Service; *Kurt Brown*, Editor and Communications Director, Land Tenure Center, University of Wisconsin; *Zvi Lerman*, Department of Agricultural Economics and Management, The Hebrew University, Rehovot, Israel; *Leonid Polischuk*, Research Associate, IRIS Center.

Golitsyno II Conference Agenda. Plans are underway to publish in both Russian and English the five papers presented at the conference.

Golitsyno II: Key Issues for BASIS/Russia

The Golitsyno II conference, July 6-7, 2001, fulfilled two major purposes:

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

The conference also provided an opportunity for researchers to further develop the intellectual component for future BASIS work in Russia, where the ultimate goal is to produce sound research, policy recommendations, and outputs that lay the groundwork for solid policy intervention.

Golitsyno II participants addressed key issues relating to Russian agriculture:

Farm Structure and Profitability — *Efficiency of large farms versus small farms.* Unlike many regions where research seems to have concluded that small farm operations are generally more efficient than large farms, Russia may be anomalous. The assumption of reform that the Soviet era's large collectives should be broken into small, private farms may only constrain truly effective restructuring.

Land Market — *Value of existing data.* Trust in official government sources of data (Ministry of Agriculture, Goskomstat, Customs, etc.) varies among researchers. It was proposed at one point that the project should put together a short survey of Russian databases. The question of the data's worth is tied to the debate over methodology, i.e., whether it is best to use case studies or panel data, and whether it is appropriate or feasible for BASIS to attempt to gather its own data. It was suggested that, while they may be of questionable worth, there nonetheless does exist a plethora of data, and one valuable function of BASIS could be to test and validate them.

Capital Market — *Possibilities for establishing profitability in the agricultural sector in Russia.* A basic question is whether it is even possible to establish profitability in agriculture. Evidence shows that not only are other sectors of the economy less risky and more likely to be profitable, but that agriculture is shrinking as people leave the sector.

2000-2001 Outputs

◆1◆

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

Stanfield, J. David. *Estimating the Extent of Real Estate Privatization in Transition Countries*, March 2001. 29 p. (BASIS Progress Report).

Russian version: *Otsenka Stepeni Privatizatsii Nedvizhimosti v Stranakh s Prerkhodnoi Ekonomikoi*. Mart 2001, 41 pages.

Country Studies: Real Estate Privatization in Selected Eastern European and Eurasian Countries. March 2001, 126 p. (BASIS Progress Report).

Russian version: *Issledovaniia Otdel'nykh Stran: Privatizatsiia Nedvizhimosti v Nekotorykh Vostochnoevropeskikh i Evroaziatskikh Stranakh*. Mart 2001, 148 pages.

◆2◆

Golitsyno II: Farm Profitability, Sustainability and Restructuring in Russia — Market Oriented Reform in the Russian Agricultural Sector

Papers presented at Golitsyno II, July 6-7, 2001:

- Uzun, V. Z. *Organizational Types of the Agricultural Production in Russia.*
- Rylko, Dmitri. *New Agricultural Operators, Input Markets, and Vertical Sector Coordination.*
- Shagaida, Natalya. *The Land Market.*
- Yastrebova, Olga. *A Framework for Investigating Issues on Credit, Finance, and Investment in Agriculture.*
- Serova, E., N. Karlova, and V. Petrichenko, *Russia: The Market of Purchased Inputs for Agriculture.*
- Kiselev, S. *The Macroeconomic and Structural Shifts in a Context of the Rural Labor Market Development.*

Golitsyno II: An Eye on Russian Agriculture, report on the Workshop held in Golitsyno, Moscow Region, 6-7 July 2001, by Kurt Brown. BASIS CRSP, August 2001. 9 pp. Available on the BASIS web site.

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. Rural Household Study
 - 1.B. Case Studies on Factor Market Relations:
Resource Tenure and Resource Management Institutions
in Ethiopia
 - 1.C. Ethnographic Study of Household Livelihood Strategies

- ◆2◆ **Cross-Border Trade and Food Security in the Horn of Africa**
 - 2.A. Southern Ethiopia/Northern Kenya
 - 2.B. Kenya/Somalia
 - 2.C. Northeastern Ethiopia/Djibouti

- ◆3◆ **Irrigation, Participation and Factor Markets in Tanzania:
A Participatory Research Program**

- ◆4◆ **Alleviating Poverty and Food Insecurity: The Case of Mwea
Irrigation Scheme in Kenya**

Acronyms used in this section

ACTS	African Center for Technology Studies
CRSP	Collaborative Research Support Program
FAO	Food and Agriculture Organization of the United Nations
FEWS	Famine Early Warning System
GIS	Geographic Information System
GTZ	Deutsche Gesellschaft Fur Technische Zusammenarbeit
IBAR	International Animal Research Bureau
ICRAF	International Center for Research in Agroforestry
IDA	Institute for Development Anthropology
IDR	Institute of Development Research, Addis Ababa University
IFPRI	International Food Policy Research Institute
IGAD	Intergovernmental Agency for Development
ILRI	International Institute for Land Reclamation and Improvement
LTC	Land Tenure Center, University of Wisconsin-Madison
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
PAPPA	Policy Analysis for Participatory Poverty Alleviation, Egerton University
PARIMA	Pastoral Risk Management on the East African Rangelands
PI	Principal Investigator
REDSO	Regional Economic Development Services Office
RMI	Resource Management Institutions
SPSS	Statistical Package for the Social Sciences
TIP	Traditional Irrigation Improvement Program
UK	United Kingdom
USAID	United States Agency for International Development

BASIS CRSP Research in the Greater Horn of Africa

This section describes BASIS CRSP research projects in the Horn of Africa. Two are completed and two will continue into 2001-2002.

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.

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, once again have affected many areas throughout the region.

Drought turned into a regional famine in northeastern Ethiopia during 1999-2000 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 land, water, labor and finance. This is where the BASIS program finds its place–in identifying, analyzing, and directing factor market policy research, training, and action.

Accomplishments during 2000-2001 include:

- A new study of resource tenure and local organizations in Ethiopia, including South Wollo, was implemented and preliminary findings published.
- The third and final case study of cross-border trade, focused on the Northeastern Ethiopia/Djibouti border region, was completed.
- The final synthesis report of the cross-border project was completed.
- An MA thesis project was begun and completed by an Ethiopian graduate student.
- Two additional rounds of data collection and analysis on more than 410 households in South Wollo and Oromiya Zones, Amhara Region, were completed.
- Multiple conferences, workshops, and seminars were given and several reports were published.

◆1◆

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

Collaborating Institutions and Researchers

Institute of Development Research (IDR)

Addis Ababa University, Ethiopia

Yigremew Adal, Researcher

Yared Amare, Senior Researcher and Lecturer, Dept. of Anthropology and Sociology

Tegegne Gebre-Egziabher, Director (until October 2000)

Workneh Negatu, Director (after October 2000) and Faculty Member, Dept. of Economics

Degafa Tolossa, Researcher

Mengistu Dessalegn, Researcher

Institute for Development Anthropology (IDA)

Alfonso Peter Castro, Associate Professor of Anthropology, Syracuse University

Michael M. Horowitz, Director, IDA

Peter Little, Research Project Leader and Principal Investigator, Professor of Anthropology, University of Kentucky

Michael Shin, GIS Specialist and Assistant Professor, University of California–Los Angeles

Eric Silver, graduate student, University of Kentucky

Land Tenure Center (LTC)

University of Wisconsin-Madison

Ragan Petrie, Research Assistant

Michael Roth, Senior Scientist

Project dates: January 1998 - September 2001

No-cost extension through September 2002.

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

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

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 2000-2001 were 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 focus on two major questions: first, constraints to food security and access to land and financial resources, and second, the dynamics of household access to farm and non-farm incomes ("entitlement") and employment opportunities.

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. 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 economic agents within the household. USAID/ Ethiopia funding enabled a series of case studies on different aspects of factor markets and food security.

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.*)

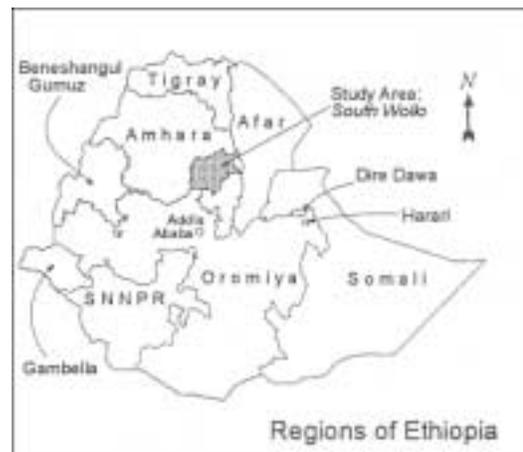
South Wollo: An Ideal Research Site

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.



1.A. Rural Household Study

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

2000-2001 Activities

The household study is being implemented in eight peasant associations from *woredas* (112 households each) located in South Wollo and Oromiya Zones of the Amhara region. The *woredas* selected represent varying agro-ecological settings. Dessie Zurie and Legambo are *dega woredas* (mainly highland), Jemma is midland (*woina dega*) and Bati is lowland (*kolla*). Three of the *woredas* are in South Wollo zone and one is Oromiya zone (Bati). Three are considered food-deficit and one is considered a food-surplus location (Jemma) in most years. These *woredas* overlap with the same field sites where the "community assessment" study (1998-2000) and the regional market town study (1998-2000) were conducted.

The first round of data collection (baseline) focused on household demographics, asset inventories, and other "stock data" and was completed during May/June 2000 (based on a sample of 428 households). The data were entered into a database and analyzed by September 2000. A "repeat questionnaire" for the household head and principal economic agents in the household was run twice during the reporting year: November/December 2000 and May/June 2001. The repeat questionnaire is focused on a subset of variables from the first round (baseline) survey and addresses production, income, asset changes, and expenditures. Economic agents, usually 1-3 adults within the household, are individuals who either manage land for farm production or are participating in wage or self employment activities. For economic agents, the following variables are 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.

Critical research questions are:

- What are the critical processes of socio-economic differentiation that most affect food security and incomes at the household level? For example, is food security and welfare most closely correlated with household differences in land holdings, non-farm income, labor availability, ownership of certain assets (e.g., plough oxen), or other socioeconomic variables?
- How do household production and income-earning strategies vary by season and by year (drought versus non-drought year)?
- How do households manage assets and investments to mitigate risks associated with food insecurity and low income?

- How is asset accumulation/depletion affected by access to non-farm employment and/or agricultural land; and how is this differentiated by gender and age of household head?

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 last severe drought of 1984, the current drought in South Wollo has been in the making for the past 3-4 years.

Impact Indicators

Food Security Policy Impact Indicators in South Wollo, Ethiopia

BASIS research brings an interdisciplinary, integrated approach to examining food security. Impact indicators include the following:

- *How zonal and regional policy makers use BASIS data to improve contingency planning for drought coping and recovery strategies.* It is expected that BASIS research results will have an impact on implementation of food security activities, including the frequency with which "vulnerable households" (landless, tenant migrants, female-headed units) participate in income-generating activities like food-for-work schemes, and have access to required input markets to recover from drought and other "shocks."
- *The extent to which BASIS emphasis on factor markets influences policy statements on food security and rural income growth at zonal and regional levels.* The indicator would be broadened to include the extent to which low-income peasants' access to land and employment are improved as a result of regional policy and program changes.
- *The extent to which Ethiopian institutions and their researchers are strengthened through policy-based research on factor markets, food security, and the latest research methods.* Currently, IDR is working closely with the Amhara regional government to help establish key socioeconomic databases for development planning.

Preliminary Research Findings

After each round of data collection and entry, descriptive statistics (frequencies, means, standard deviations, etc.) are produced for the BASIS/IDR research team. Initial assessments point to several important research and policy findings. Many confirm previous observations from the community assessments.

- More than one-third of households have lost land through recent state-imposed land redistribution programs and as many as 60 percent of households in some areas received their land through such policies. Households still believe that further land redistribution is likely and thus may be unwilling to lease-out or loan land; invest in farm assets; and migrate to areas of employment. All of these activities are discouraged by insecure tenure.
- Despite very small landholdings (average of less than 1.0 ha), access to non-farm employment sources are limited, except for food-for-work which accounts for more than 50 percent of employment among households. Because of land tenure and capital constraints, poor farmers (ironically) share-crop out land to wealthier producers who have access to oxen and inputs.
- The percentage of female-headed households is high, accounting for approximately 20 percent of total households in the study region.
- Membership in informal associations, including savings groups, is widespread but accounts for extremely small amounts of food and cash transfers.
- Post-drought, about 20 percent of households have already begun to re-build assets through livestock purchases, while most households within nine months in the wake of drought reduced sales of livestock, agricultural tools and other assets.

Immediate Post-Drought Market Characteristics South Wollo, June 2000 to December 2000

Tables 1 and 2 (next page) indicate how local farmers perceive changes in important output and factor markets. Most findings are consistent with the project model (see p. 42, "Anatomy and Chronology of Famine, South Wollo." Roth, 1999) that examines relationships between market prices and different cycles of drought and post-drought recovery stages; and predicts declines in grain, labor, livestock, and land prices during stages of accelerated drought and recoveries in livestock and other output market prices during recovery and asset rebuilding stages. From Table 1, one can see that grain prices were perceived to have declined in each *woreda*, except



Field enumerators for the rural household study in Gerado Kebele, Dessie-Zuria Woreda, South Wollo. Research during 2000-2001 focused on the social and economic causes of food insecurity in the region. Photo by Priscilla Stone.

Jemma which did not receive much food aid during the time. In the other three *woredas* large amounts of food aid were available and this had a dampening affect on local grain prices. By contrast, during March to May 2000 and prior to the widespread distribution of food aid, 88 percent of sample households perceived grain prices to be increasing.

As predicted, livestock prices in the table were perceived to increase in the immediate post-drought period when livestock supplies were limited due to previous die-offs.

Table 2 shows household characteristics and the role of non-farm employment activities, especially food-for-work, in the area. As the data show, average farm sizes are minuscule and dependence on food aid is high. There also is a significant proportion of households that are headed by females.

2001-2002 No-Cost Extension

The household study is designed to capture seasonality and income/asset cycles through repeat visits; 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 two more rounds (October- November 2001 and March 2002) of data collection on the household and economic agent "repeat questionnaires" and analyzing and writing up the results of this research by September 2002. Researchers plan to present conference papers and submit manuscripts to journals for publication.

Table 1. Local Perceptions of Market Changes, June-December 2000 (Initial Post-Drought Period)

<i>Woreda type</i>	<i>Lowland Food deficit</i>	<i>Midland, Food surplus</i>	<i>Highland, Food deficit</i>		
Name	Bati	Jemma	Dessie Zurie	Legambo	Total
N =	110	108	102	108	428
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Grain					
Increased		69	2	27	25
No change		10	1	7	5
Decreased	98	20	93	63	67
Don't know	2	1	4	3	3
Total	100%	100%	100%	100%	100%
Livestock					
Increased	92	54	81	83	78
No change	2	18		1	5
Decreased	3	28	15	12	14
Don't know	3		4	4	3
Total	100%	100%	100%	100%	100%
Borrowing Costs					
Increased	24	30	68	16	34
No change	46	65	5	52	43
Decreased	18	5	19	5	11
Don't know	12		8	27	12
Total	100%	100%	100%	100%	100%
Wage Rates					
Increased	24	22	55	8	27
No change	55	70	2	52	45
Decreased	14	8	35	13	17
Don't know	7		8	27	11
Total	100%	100%	100%	100%	100%

Note: Original tables included number of responses per category. Percentages rounded to clarify presentation.

Table 2. Socio-Economic Characteristics of Households, South Wollo and Oromiya Zones, Ethiopia, June-December, 2001

Characteristic	Bati	Jemma	Dessie Zurie	Legambo	ALL*
Average Household Size	5.84	4.50	5.04	4.71	5.03
% Female Headed	14%	31%	18%	33%	24%
Avg. Farm Size (ha)	1.06	0.91	0.55	0.84	0.84
% Who Own Oxen	64%	46%	48%	31%	47%
% Who Receive Remittances	15%	4%	4%	1%	6%
% Involved in Non-farm Waged Employment**	12%	19%	10%	12%	13%
% Involved in Food-for-Work Food Aid	59%	0%	39%	35%	34%
% Receive food aid (monthly)	95%	0%	67%	53%	54%

Notes: *Based on Sample of 428 households; **Excludes food-for-work employment.

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

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

1.B. Case Studies on Resource Tenure and Resource Management Institutions in Ethiopia

Research team: Pankhurst, Little, and Castro

Project dates: August 2000 - September 2001.

No-cost extension through September 2002.

Support: Add-on only (USAID/Ethiopia)

2000-2001 Activities

In September 1999 USAID/Ethiopia committed \$300,000 funding support to three case studies. However, due to funding constraints, only \$100,000 of the total was made available, and this was allocated to the first case study, undertaken by Alula Pankhurst of the Addis Ababa University Department of Anthropology and Sociology.

Pankhurst's study, "Conflict Management over Contested Natural Resources: A Case Study of Pasture, Forest and Irrigation in South Wollo, Ethiopia," examines resource management institutions (RMIs) and ways in which they may be related to and shaped by cultural values, and state and market forces.

During 2001 Peter Little revised 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 second tranche of funding was released. This work will focus on non-farm employment (labor markets) and migration and a policy seminar to discuss the findings of the case study and South Wollo research. It will commence in 2002 and will be completed by September 30, 2002.

Fieldwork for the first case study was carried out from January to September 2001. Researchers interviewed key actors and stakeholders, mapped environmental entitlements, and analyzed conflict and discourse.

2001-2002 No-Cost Extension

Activities to be undertaken during the coming year include:

- Initiate and complete a second case study in South Wollo; complete the final report on the resource tenure and resource management institutions case study.
- Conduct a policy seminar to be held in the Amhara regional capital, Bahr Dar, during 2002 to present the findings of the cases study research.

Key findings and results

Managing Conflict over Natural Resources in Ethiopia

Limited involvement of local informal institutions (elders, religious leaders, burial associations) is a key constraint on participatory natural resource management and the reduction of conflict in managing forest, pasture and irrigation lands in Ethiopia, according to Alula Pankhurst's case study. However, attempts by formal institutions to involve informal ones may result in the latter being co-opted, with the consequent danger that they will lose their legitimacy.

Policy makers, government and non-governmental agencies learned about the case study as part of a collection of "thematic briefings" distributed by Ethiopia's independent research institution, Forum for Social Studies. After a meeting with researchers in September 2001, local and zonal officials and Ministry of Agriculture representatives requested a memo in Amharic on how forest management could be improved, then sent it to relevant offices in the region.

The case study is included in a forthcoming book published by the Food and Agriculture Organization of the United Nations edited by A. Peter Castro and Erik Nielsen: *Natural Resource Conflict Management: Community-Based Case Studies*.



Competition over common property resources is intensifying in rural Ethiopia. Shown here is Tullu-Awolia town, Legambo Woreda, where a peri-urban center is taking root on former grazing commons. A number of forces drive the competition—including demographics (population growth, urbanization), policy (privatization, development initiatives, conservation measures), and market pressures. BASIS researchers seek to identify policy options that can result in less conflict, increased income for residents, and sustained natural resources. Photo by A. Peter Castro.



Case study interviews address the formal and informal institutions at local, regional, national and global levels that regulate access to and management of natural resources. To learn more about the controversial founding of peri-urban Tullu-Awolia, BASIS researcher Mengistu Dessalegn (left) met with the town founder Tullu-Awolia (in white) and his wife (far right). Photo by A. Peter Castro.

Seeking Solutions to Conflict Management over Contested Natural Resources

Pankhurst's research questions varied by resource type :

Forestry

- To what extent have forest resources been managed by local RMIs?
- What rules of ownership, access and exploitation have existed?
- How are rules of ownership, access and exploitation culturally legitimised?
- How have forest RMIs have been affected by:
 - government forestry policies and practices?
 - changing property rights and nationalisation?

Pasture

- What conditions account for the survival or destruction of common pasture areas?
- What are the bases for pasture resource management rules of inclusion and exclusion?
- How have pasture RMIs been affected by:
 - state interests in land?
 - nationalisation policies and practices?
- How have pasture RMIs related to :
 - market forces and urban interests?
 - changing property regimes?

Irrigation

- How is the dilemma between cooperation and differences between water users resolved?
- Who are the leaders and arbitrators of water management practices?
- How was water management affected by:
 - the removal of the landed elite?
 - the state ideology of equality?
- What are the relations between those with access to irrigation and those without?
- What has been the influence of the market on irrigation development and ideology?

1.C. Ethnographic Study of Household Livelihood Strategies

An Ethiopian graduate student in anthropology, Mr. Dejene Negassa, responded to a BASIS/IDR request for proposals, entitled "Socioeconomic Responses of Peasant Households to Resource Pressures at Kamme, Bate, Oromia Zone of Amhara Region." His proposal was selected and he was given a grant of \$4,000.

The research by anthropology graduate students is meant to complement the mainly quantitative household survey research. It emphasizes in-depth data collection among a few communities and limited number of households and utilizes participant observation and informal interview techniques, as well as structured interviews. Mr. Negassa gathered 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.

Table 3 illustrates Mr. Negassa's research findings, which show a very close relationship between land size, livestock ownership, and food security. The table below shows that those farmers who own the most livestock also cultivate the largest farms and are the least vulnerable to food insecurity (measured as "months of food shortages"). Inversely, those farmers with few livestock (0-2 head) own the smallest farms and suffer the most from food insecurity.

Table 3. Monthly Food Shortages and Land and Livestock Ownership, Oromiya Zone, Ethiopia, 1999-2000

Livestock Ownership	Land Ownership (ha)			Months of Food Shortages		
	0-1	1-1.5	>1.5	0-3	4-6	>6
0-2 (n=33)	70%	30%	---	6%	61%	33%
3-4 (n=33)	64%	27%	9%	9%	76%	15%
5-6 (n=18)	28%	50%	22%	22%	61%	17%
>6 (n=11)	9%	46%	45%	55%	45%	--

N=95 Source: Based on Negassa (2001:11). A few of the categories in Negassa's (2001) table were renamed and merged to simplify the format. The figures also have been re-calculated in percentage terms.

A second Ethiopian graduate student in anthropology at Addis Ababa University, Mr. Daniel Tesfaye, was funded through a \$4,000 grant to carry out livelihoods research in the study region, with a focus on gender and household dynamics. His project is titled, "Household Livelihood Strategies in Southern Wollo: The Case of Danka KA, Ambassel Woreda."

Training

Visiting Scholars. The Land Tenure Center welcomed then Acting Director Workneh Negatu and researcher Yigremew Adal of the Institute of Development Research, Addis Ababa, Ethiopia. They visited Madison, Wisconsin, July 10-August 22, 2001. The two scholars also visited the University of Kentucky and Syracuse University during the period August 9-15. During their stay at LTC, the IDR visitors met with UW researchers in the Department of Agricultural and Applied Economics on techniques for dealing with food security problems in the Horn, worked with Michael Roth on development of two papers using University of Wisconsin library resources, and drafted two papers, as follows:

- Yigremew Adal. *Rural Land Tenure Policy in Ethiopia: Problems and Possible Directions for Change*, Institute of Development Research, Addis Ababa University, September 2001.
- Workneh Negatu. *Resources, Technological Change and Farm-based Food Access of Rural Households: A Case Study in North Shewa*, Institute of Development Research, Addis Ababa University, Ethiopia, September 2001

Together with Michael Roth and graduate students Ragan Petrie and Tewodaj Mogue, Adal and Negatu identified papers and planned the next steps in jointly analyzing the South Wollo Rural Household Survey data.

At the University of Kentucky, Adal and Negatu worked with Peter Little on a research plan and schedule for the coming year, a plan for Ph.D. training for Ethiopian students, and analysis of data from the second round of the South Wollo household study.

At Syracuse University, Adal worked with Peter Castro on a research paper based on the findings of the Community Assessment Study and on a schedule for follow-up community assessments.

Graduate studies. Mr. Dejene Negassa began thesis research in the South Wollo study region in September 2000 and completed his work in February 2001. He wrote up his M.A. thesis and graduated in June 2001. Mr. Daniel Tesfaye started research in September 2001 and he should graduate with an M.A. degree in June 2002.



Traders with pack animals travel the main road lined with eucalyptus trees in Gerado Kebele, South Wollo. Open grazing, especially on hillsides, is being supplanted by privately managed stands of eucalyptus. Urban and peri-urban areas have opened up primarily due to road development and market opportunities. Photo by A. Peter Castro.

Collaboration with Existing Projects

During 2000-2001 the BASIS program initiated a new collaborative relationship with the IFPRI (International Food Policy Research Institute)/ ICRAF/ILRI project on “Sustainable Land Management in the East African Highlands.” The project has research sites in Amhara Region, including South Wollo. Peter Little has met with John Pender at the IFPRI offices in Washington, DC and Michael Roth attended a planning meeting for the workshop held at ILRI, Addis Ababa, in January 2001. To date, the projects have shared reports and invited researchers to attend project meetings and workshops.

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

Collaborating Institutions and Researchers

Organization for Social Science Research in Eastern and Southern Africa (OSSREA),

Abdel Ghaffar M. Ahmed, Executive Secretary
Tegegne Teka, 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
Hussein Mahmoud, Research Assistant

Project dates: June 1997 - September 2001 (completed)

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

Program Overview

Official records show that the Horn of Africa is probably the least integrated subregion on the continent, with very limited trade between countries. However, longstanding “unofficial” cross-border trade arrangements have been filling the gaps, creating outlets for border region products (livestock and agricultural products) and making available manufactured goods that couldn’t otherwise be supplied through official channels. Such cross-border trade has now become the major economic activity in some border regions.

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. The study’s underlying assumption is that improved market access—including cross-border trade—will improve disposable income and hence the food security situation of borderland inhabitants.

Field research for the cross-border study began in the summer of 1997, but most 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. Field research in northeastern Ethiopia had to be aborted due to the Ethiopia/Eritrea conflict.

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 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.

This interdisciplinary program yielded important scholarly and policy-relevant findings and has been primarily funded by REDSO/Nairobi. In April 2001 a final research seminar on the project was held in Addis Ababa, and the final research reports were completed in September 2001.

2000-2001 Activities

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.

The final report for research Site A-Ethiopia/Kenya has been completed and published in the OSSREA Development Research Report Series (October 1999). The Site B-Kenya/Somalia field report was completed in December 2000. The Site C-Ethiopia/Djibouti field research and report was completed in April 2001. The final overview report was completed in September 2001.

Tegegne Teka and Alemayehu Azeze attended the African Studies Association meetings held in Nashville Tennessee, November 16-19, 2000. After the meetings, they visited with Drs. Peter Little and Jerry Skees at the University of Kentucky, for the purpose of working on the final project report and on an agenda for the research seminar that was held in Addis Ababa, April 2001.

Key Research Findings

Cross-border trade is risky yet essential to border area inhabitants in the study area. Key research findings include the following:

- **The importance of informal finance arrangements**—more than 95 percent of cross-border commerce is financed through the trader’s own resources or from funds obtained informally from kinsmen, friends, and associates. Very few traders (less than 15 percent of the total) have access to formal sources of finance.

- **Social and wealth differentiation among traders**—there is considerable differentiation among cross-border traders, with about 20 percent of traders accounting for more than 60 percent of market transactions and 50 percent dealing with less than 15 percent of the trade. The high standard deviation and range in volume of sales in the trader samples support this pattern of inequity. However, the location of herders at the bottom of the market chain means that they accrue fewer benefits than traders.
- **Dominance of unofficial trade**—with the exception of the Ethiopia/Djibouti border, official cross-border trade in the region is minimal. Official trade between African countries is very low generally, including within the Horn. African countries, for example, contribute very little to Ethiopia's official trade, except with a few neighboring countries: Djibouti, Kenya, and Somalia. Unofficial exports of livestock along the border areas of Kenya, Ethiopia and Djibouti total more than \$40 million annually.
- **Market volatility and risk**—coefficients of variation were calculated for different types of livestock in different border markets. The coefficients of variation for the eastern Ethiopia border markets show that sheep and goat prices are more volatile in markets located near the border, than in those of the interior. The border markets are supplied by feeder markets found inside the domestic territory. The values also suggest that price risks (and potential benefits) faced by different market agents vary by market type.
- **Food security**—cross-border trade networks affect the food security situation in the border areas. Because most herders in the region finance food purchases through the sale of livestock, any downward trends in cross-border commerce and prices will have a negative effect on pastoral food security.
- The International Animal Research Bureau (IBAR) of the OAU (Organization for African Unity) and its Pan-African Rinderpest Campaign. The IBAR team has shared its reports with the cross-border team and gave a presentation at the Addis Ababa seminar (April 2001).
- The USAID-Funded Famine Early Warning Systems Project (now called FEWS-Net). Little and FEWS-Net shared data and reports from their mutual work along the Kenya/Somali borderlands. FEWS-Net office of Ethiopia also was represented at the Addis seminar.
- Save-the-Children-UK, Somali Region Ethiopia and GTZ, Negelle, Ethiopia. This project provided marketing data to the OSSREA research team and assisted the cross-border team while in the field.

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.



Livestock inoculations in the Ethiopia highlands help ensure healthy animals, essential to trade. Goats and sheep represent a mobile and valuable commodity that can be transported over land and across borders. BASIS researchers reported the value of livestock exports at the study sites at well above \$40 million annually. Many policy makers were unaware of the scale and importance of cross-border commerce. Photo by A. Peter Castro.

Collaboration with Other Projects and Organizations

- The Utah-State led Global Livestock-CRSP Project on Pastoral Risk Management on the East African Rangelands (PARIMA). The PARIMA project collaborated with the cross-border study at the Moyale, Kenya site and members attended project seminars.
- Terra Nuovo (Italian NGO) and its animal science and paraveterinary program in northeastern Kenya and Southern Somalia. Terra Nuovo collaborated with Little in the case study of the Kenya/Somalia border site.

Policy Impacts

The Importance of Cross-border Trade

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 in one key commodity—livestock—in the region.

Research impacts are listed below:

- **Carried out policy-relevant research at three key cross-border sites in the region.** With no previous systematic research on cross-border trade in livestock and grains in the region, a first step in policy dialogue has been to collect relevant information.
- **Disseminated research and policy findings.** Presentations have been made to a policy audience at an international meeting in East Africa, for USAID policy makers in Washington, DC in November 2000, and for African policy makers in April 2001.
- **A proposal for a “duty-free” zone** for commerce in the southern Ethiopia/northern Kenya study area is being discussed. The zone would cover prime livestock producing areas and is a policy initiative strongly supported by the cross-border study research findings. During fieldwork in southern Ethiopia, discussions were held with more than 20 key government officials and research findings were disseminated to them.
- **Official recognition of trade’s importance**—many policy makers were unaware of the scale (well above \$40 million annually in livestock exports alone at the study sites) and the importance of cross-border commerce.
- **Enhanced security**—lack of security is a strong impediment to efficient trade in many border areas. The resulting banditry, violence, and the attraction of criminal elements into the trade greatly distort markets and significantly reduce incomes for the poorest populations, especially pastoralists. The study has shown the downward effect that insecurity has on producer prices for livestock.

Key indicators of policy impact:

- *The extent to which findings of the research inform regional trade policies of the Intergovernmental Agency for Development (IGAD) and its relevant member countries: Kenya, Ethiopia, and Djibouti.* Recently IGAD identified cross-border trade as a key priority for the region. The livestock trade has been increasingly liberalized and traders have to pay only a small tax (about \$4 per head of cattle) to move trade animals across the Kenya/Ethiopia border.
- *The number of policy initiatives designed and implemented to facilitate cross-border trade in key agricultural commodities.* A joint border trade commission has been established, and the Ethiopian government is already allowing traders to move up to 1,000 Eth. Birr of foodstuffs (about \$120) per trip to Kenya duty free.

◆3◆

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, Project Leader, Principal Investigator, 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 - April 2001 (completed)

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

Program Overview

BASIS awarded a 1999-2000 competitive grant for the initial phase of a research program to study the efficiency and equity impacts of irrigation projects on different groups in irrigating communities. Funding was carried over through April 2001.

The work was undertaken in cooperation with the Irrigation Section of the Tanzania Ministry of Agriculture and Cooperatives. The agency is working to increase the participation of communities in initiating, planning, executing, and managing traditional irrigation scheme rehabilitation projects for which the Irrigation Section provides technical expertise, implementation oversight, and funding. The project was designed to provide information on how participation of different segments of the farming community affects both the processes and outcomes of the projects.

The research project (described more fully in the BASIS CRSP Fourth Annual Report, 1999-2000) took place in three villages—Kikavu Chini in Kilimanjaro Region, and Mtandika and Msoa in Iringa Region. Activities included discussion sessions with small groups of men landowners, women landowners, men tenants and laborers, women tenants and laborers, members of the village government, members of the water users association, and water distributors.

A survey instrument was drafted, translated into Kiswahili, and pre-tested in Kikavu Chini and Mtandika with community members who volunteered and were trained as enumerators. The village researchers improved the questions drafted by the research team and added questions of their own. They administered the survey to a random sample of men and women farmers in the two villages. The village of Msosa (located near Mtandika) was included during the second phase only, and time constraints limited activities to one week of informal group interviews.

A two-day workshop was held August 10-11, 2000, in Dar es Salaam after conclusion of the field research. Participants included 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, and enabled 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).

2000-2001 Activities

Data analysis and writing activities took place from September to December 2000, and researchers shared project results with policy makers and other researchers.

At the African Studies Association national meeting in Nashville, Tennessee, November 16-19, 2000, Jeanne Koopman gave a talk, “Adding Rural Voices to Policy Debates: Collaborative Research on Community Participation in Irrigation Schemes.” She emphasized participatory research methods that encourage villagers to take a significant role in generating research questions and in analyzing issues from their own perspective. Other scholars showed strong interest in participatory methods, and comments suggested that the methods used in this research project have wide relevance for both rural and urban research projects in Africa and elsewhere.

The project research report was completed in January 2001. It includes an annex that reviews the main recommendations from the August 10-11, 2000 workshop held in Dar es Salaam. Since its initial drafting, the report has been widely circulated in print form in Tanzania, sent to research institutions in Kenya and Zimbabwe, and shared with researchers on land and water issues in Namibia, Mozambique, and Zimbabwe.

In March 2001, the English version of the research report was distributed to participants in the August workshop; in April, a Kiswahili version was written and distributed to villagers who had participated in the research workshops.

Rhoda Kweka and Jeanne Koopman attended a March 20-22, 2001 conference organized by the Irrigation Section, Tanzania Ministry of Agriculture. Entitled “Irrigation for Food Security and Poverty Alleviation,” this was the first national conference on irrigation in Tanzania and it drew about 200 people from government, NGOs, research institutions, and donor organizations. Kweka gave a talk on gender issues in irrigation, and Koopman presented an overview of the research results. A recommendation that both government and NGOs increase their emphasis on training members of irrigators’ organizations in financial management and financial reporting was singled out as a particularly important issue. The Traditional Irrigation Improvement Program (TIP) NGO that had sponsored rehabilitations in two of the research sites said that they would modify their training programs to give greater attention to financial issues.

Research Results

The research demonstrates how government investment in participatory projects to rehabilitate traditional irrigation schemes not only improves efficiency of water use, but also contributes significantly to rural poverty alleviation.

- A participatory approach to project planning and implementation increases the social acceptability and political feasibility of distributing irrigated plots to landless households, married women, and male youth who lack independent access to land.
- The potential for poverty alleviation through land redistribution is greatest when a rehabilitation project brings new land under irrigation.

It is unclear whether Tanzania has adequate water resources to allow significant expansion of irrigated land. Some observers fear that expanding irrigation will reduce water supplies for hydro-energy, while others argue that if water is limited, irrigation should be concentrated on highly modern, efficient schemes that produce high-value crops. Already, a policy decision has been made in one major traditional irrigation rehabilitation project to prohibit expansion of the scheme’s command area, even when it is feasible to bring new land under irrigation by reducing water losses in the scheme.

The research contributes to the policy debate, pointing out that restricting the extension of traditional irrigation schemes while allowing expansion of private irrigation has the effect of restricting the access to irrigated land by the poorest segments of the rural community while allowing farmers with more resources to create privately irrigated farms.

There has been relatively little research on the demand for irrigated land by poor and socially disadvantaged groups. This research provides considerable evidence about demand for irrigated land by young men and by married and unmarried women, most of whom represent the poorer strata of rural communities.

Finally, the research shows that participation by marginalized groups (youth and women, in particular) in the planning and implementation of rehabilitation projects loosens social constraints on their access to land.

Regarding government policies on training, researchers found that:

- Widespread training for all categories of farmers is an essential aspect of effective community participation in planning irrigation projects. It is also essential to the successful operation of irrigators' organizations that operate and maintain the rehabilitated schemes. Two cases demonstrated the importance of village-level training in gender analysis, resulting in improved access of women and youth to land and water. All cases showed that the leaders and members of irrigators' organizations need far more training in financial management, financial reporting, and conflict resolution strategies.

Since training is the critical ingredient for both technical and organizational sustainability, the research report stresses three points:

- The government of Tanzania can meet strong demand from villagers and local government workers by allocating far more of its own funds for follow-up training and support to irrigators' organizations.
- If local government officers are to have adequate skills and adequate funds to continue working with irrigators' organizations once donor activities are terminated, budgetary allocations for training at both central and local government levels must be substantially increased.
- Participants in the August 2000 research workshop on community participation in irrigation projects emphasized that if government relies on donor or NGO training funds alone, irrigation projects will not be sustainable.

Community Participation in Tanzanian Irrigation Schemes

BASIS case studies demonstrated the importance of village-level training in financial management and reporting for leaders of irrigators' organizations. These new local groups are forming in response to a participatory strategy being implemented by Tanzania's Ministry of Agriculture Irrigation Section.

Researchers made a presentation at the first National Irrigation Conference held in March 2001 and attended by 200 people. A representative of the Tanzania NGO that sponsored irrigation rehabilitation in villages where BASIS researchers had worked commented about training in financial management and reporting—saying that it is extremely important and that the Traditional Irrigation and Environmental Development Organization would, in future, place far more emphasis on financial management in its training program.

Collaboration with Other Projects

During the BASIS Southern Africa Synthesis Workshop, held in South Africa July 20-22, 2001, Jeanne Koopman collaborated with researchers from Southern Africa who are dealing with issues of increasing access to land and water. Koopman also collaborated with Dr. John Mugabe, executive director of the African Center for Technology Studies (ACTS) in Nairobi, Kenya and with Chris Huggins, principal researcher on the BASIS funded ACTS research project, entitled "Changing Tenure Patterns, Institutional and Policy Responses to Water Management in East Africa."

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, Principal Investigator

Egerton University, Nairobi, Kenya

*Tegemeo Institute of Agricultural Policy Analysis
and Development*

Wilson Nguyo, Director

Chris Onyango, Chief Research Officer

Mrs. Lilian Kirimi

Project Dates: *May 2000-September 2001, with no-cost extension to Sept. 2002*

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

Overview

The Government of Kenya (GOK) started the Mwea Irrigation Scheme in the 1950s as a settlement scheme for landless former freedom fighters. Mwea is the largest irrigation scheme in Kenya covering some 25,000 acres. It is the main source of domestically produced rice with an annual output of about 35,000 tons. The GOK through the National Irrigation Board (NIB) owns the land and controls the water. Farmers are issued annually renewable leases for the land they farm: four (4) acres for rice under irrigation and a much smaller unit of land for food crop production under rain-fed agriculture.

The NIB provides mechanical cultivation, fertilizers, pesticides, transport, milling, storage and marketing services for rice. It also maintains and manages the irrigation infrastructure and controls water for irrigation of rice. After selling the rice, the NIB deducts its costs before paying the balance to the farmers.

Since the original settlement, the population of the scheme has increased many fold. A large number of farmers reside in the scheme area but outside the scheme (“without” the scheme). These farmers compete with the “within scheme” farmers for scarce irrigation water, often leading to conflict. Recently, “within scheme” farmers have started agitating for ownership of the land they farm, including issuance of land titles instead of leases, and for full control and management of the scheme infrastructure, especially the rice mill and stores. They also want to market the rice themselves.

The purpose of the research is to investigate the performance of factor and product markets, and the implications of alternative institutional arrangements for

scheme operation performance. The awakening of the tenant farmers and emerging conflicts make the study even more urgent.

2000-2001 Activities

An area covering Mwea, Tebere and Wamumu sections has been demarcated for study. Within the area, certain zones are designated irrigation units while others are not.

The farmers live in villages of up to 200, close to the irrigation zones where their rice plots are situated. There are 3,270 tenants (“within” farmers) in the whole scheme. The number of “without” farmers occupying nonirrigated land within the scheme is much smaller because of the limited amount of land.

The Egerton University Policy Analysis for Participatory Poverty Alleviation (PAPPA) project has undertaken a 1998 household survey study in the Tebere zone. The BASIS activity includes a re-survey of these households to establish a longitudinal database. For the Mwea and Wamumu sections, a total of 218 households (197 “within” and 21 “without”) were considered an adequate representation of the population.

A survey instrument designed to capture income and expenditure sources was developed. Information on farm and nonfarm income sources, enterprise input/output and price data, household expenditure data, demographic, educational and health attributes are provided for in the instrument. Some information on behavioral and operational aspects in the management of rice production, processing and marketing are provided for also.

Four agricultural economics undergraduate degree holders with experience in household surveys were recruited and trained as enumerators. An experienced research assistant was recruited to assist with the supervision.

Background information on Mwea Irrigation Scheme was obtained from secondary sources—government and NIB reports, the Egerton University PAPPA report, and other published and unpublished material. The survey has been completed, although some follow-up remains in process.

Data analysis is still in process. However, farm enterprise budgets have been done. Tomatoes under irrigation offer the highest profits compared with rice and maize; farmers increase their incomes with increase in the amount of land devoted to tomatoes. However, currently, tomatoes may be grown only on land not earmarked for rice growing.

Preliminary Observations

Although no quantitative estimates are available, there is a general consensus among the farmers and even NIB authorities that the amount of water available is grossly inadequate. Since late 1999 when the farmers decided to manage the water themselves without proper liaison with NIB, rice planting has been done over a staggered

program covering several months. The conflict between the scheme farmers and the “without” farmers has worsened. The maintenance of canals and irrigation channels has deteriorated and water loss has increased.

Poor maintenance of irrigation infrastructure has aggravated the road deterioration. Delivery of inputs and collection of produce, particularly rice, have slowed and become more expensive. Seed breeding and development is no longer done. The quality of seed available has declined, which ultimately will adversely impact rice yields and quality. The quantity and quality of herbicides and fertilizers appear to be declining due to lack of good management and machinery also appears in short supply.

Farmers now make their own private arrangements for harvesting and transportation, and they are happy about making these decisions themselves. Harvesting and transportation appear to be going well. However, two factors are adversely affecting the quality of rice: (1) lack of access to the main rice mill because of a disagreement with the NIB means farmers are using less efficient small mills, and (2) lack of access to the main rice stores means farmers are storing their rice under makeshift stores which are not rainproof.

Since the standoff between the farmers and NIB arose, farmers have full control of their rice. The farmers’ Multipurpose Cooperative Society provides some of the services originally provided by NIB (water management, mechanical cultivation, milling), but marketing services are not yet developed sufficiently. In the meantime, the Society requires farmers to deliver only an amount of rice equivalent in value to the services rendered. Farmers retain most of the rice and store it at home. This means that households now have adequate quantities of rice for their consumption, an arrangement that farmers consider an improvement.

Farmers sell to itinerant traders any rice that is surplus to their needs as and when they need cash. There is no organized rice marketing system currently. However, an organized system through the Multipurpose Cooperative Society (or NIB if its position is reinstated) has potential to increase sales revenue.

2001-2002 No-Cost Extension

The project funding decision was delayed and postponed the project start until summer 2000. Then researchers had to wait for conflicts between settler-rice farmers and the NIB to subside before they could hold discussions with farmers and scheme authorities.

Researchers plan to produce a sequence of deliverables, including a final report, a dissemination seminar, non-technical policy memo(s) with emphasis on steps and approaches of implementing study findings, and a database useful to irrigation authorities, policy makers, scheme farmers, and other interested researchers.

2000-2001 Outputs

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

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

Publications

Adal, Yigremew. September 2001. Rural Land Tenure Policy in Ethiopia: Problems and Possible Directions for Change. 23 pp.

Castro, A. Peter, Yigremew Adal, Alula Pankhurst, Mengistu Dessalegn, and Indris Seid. July 2001. Report of a Research Trip: South Wello and Oromiya Zones of Amhara Region, Ethiopia. 40 pp. *

Little, Peter D. August 2001. Report on BASIS Research Planning Meeting for “Assets, Cycles, and Livelihoods: Addressing Food Insecurity and Poverty in the Horn of Africa and Central America” Project, Addis Ababa, Ethiopia, 6-8 June 2001. 15 pp.

Negatu, Workneh. September 2001. Resources, Technological Change and Farm-Based Food Access of Rural Households: A Case Study in North Shewa, Ethiopia. 14 pp.

Negassa, Dejene. May 2001. Socioeconomic Responses of Peasant Households to Resource Pressures at Kamme, Bate, Oromia Zone of Amhara Region. Report submitted to BASIS and M.A. Thesis, Department of Sociology and Anthropology, Addis Ababa University. 36 pp. *

Pankhurst, Alula (revised October 2000). The Embeddedness of Resource Management Institutions in Culture, State and Market Interlinkages and Discourses: Contrasting Case Studies of Forest, Pasture, and Irrigation in Ethiopia. Proposal. 24 pp.

Pankhurst, Alula. February 2001. State and Community Forests: Yegof, South Wello, Amhara Region. Paper presented at the Workshop on Management of Natural Resources in Ethiopia, Forum for Social Studies, Addis Ababa, 9 February 2001.

Pankhurst, Alula. In Press. Conflict Management over Contested Natural Resources: A Case Study of Pasture, Forest and Irrigation in South Wello, Ethiopia. In A. Peter Castro and Erik Nielson, eds. *Natural Resource Conflict Management: Community-Based Case Studies*. Rome: FAO. 18 pp. *

2000-2001 Outputs (Continued)

Stone, M. Priscilla. 2001. "Sustainability and Its Evil Twin." Unpublished paper under review for journal publication. 14 pp.

Stone, Priscilla, June 2001. Report of a Research Trip to Explore Gender and Intra-household Dynamics: South Wello and Oromiya Zones of Amhara Region, Ethiopia. 12 pp.

Tolossa, Degefa. September 2001. Causes of Seasonal Food Insecurity in Oromiya Zone of Amhara Region: Farmers' Views. Paper presented at the IFPRI Conference on "Sustainable Food Security For All by 2020," Bonn, Germany, 4-6 September, 2001. 34 pp.

Presentations

Castro, A. Peter "Conflict and Conservation in South Wello, Ethiopia: Implications for Sustainability," invited presentation, Yale School of Forestry and Environmental Studies, Yale University, New Haven, CT, October 16, 2001.

Castro, A. Peter. "Livelihoods and Vulnerability in South Wello, Ethiopia," invited presentation, College of Environmental Science and Forestry, State University of New York, Syracuse, NY. October 18, 2001.

Castro, A. Peter. "Collaborative Research: Cases from Kenya, Bangladesh, and Ethiopia," invited presentation, Methodology Seminar, Department of Anthropology, Maxwell School, Syracuse University, October 30, 2001.

Little, Peter D. August 2001. Time Will Tell: Shock Cycles and Poverty Dynamics in Post-Drought Recovery in Rural Ethiopia. Presentation at the Office of Agriculture and Food Security, USAID, Washington, DC, 22 August, 2001.

Roth, Michael. October 2000. Assets, Cycles, and Livelihoods: Resource Access and Asset Use to Mitigate Poverty and Food Insecurity in the Horn of Africa and Central America. Presentation prepared for the Seminar on Methodological Options in Development Research, Ph.D. in Development Program, University of Wisconsin-Madison, 10 pp.

Roth, Michael. January 2001. Participant at the Project Review and Planning Workshop on Policies for Sustainable Land Management in the Highlands of Ethiopia, sponsored by Wageningen University and Research Center (WURC), IFPRI, and ILRI at the ILRI Headquarters in Addis Ababa, 22-25 January 2001.

Roth, Michael. April 2001. Climatic Shocks, Asset Cycles, and Differential Household Responses: How Are Land Markets Affecting Communities Ability to Cope? Presentation at Land Tenure Center Seminar, University of Wisconsin-Madison. 12pp.

Tesfaye, Daniel. July 2001. Household Livelihood Strategies in Southern Wollo: The Case of Danka KA, Ambassel *Woreda*. MA Thesis Proposal, School of Graduate Studies, Addis Ababa University. 17 pp.

Data

SPSS Data Set (410+ households) and Data Outputs and Descriptive Tables of South Wello Household Survey. "Round Two," December 2000. "Round Three," June 2001.



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

Publications

Azeze, Alemayehu. April 2001. Report of the Seminar on Cross-Border Trade: Research and Policy Implications in the Horn of Africa. BASIS/OSREA, Imperial Hotel, Addis Ababa, Ethiopia, 2-3 April. 27 pp.

Little, Peter D. December 2000. Cross-Border Livestock Trade and Food Security in the Somalia and Northeastern Kenya Borderlands. 108 pp.

Little, Peter D. 2001. The Global Dimensions of Cross-Border Trade in the Somalia Borderlands. In *Globalisation, Democracy, and Development in Africa: Future Prospects*, Abdel Ghaffar M. Ahmed, ed., pp. 179-200. Addis Ababa, Ethiopia: Organization for Social Science Research in Eastern and Southern Africa (OSSREA). *

Little, Peter D. Tegegne Teka, and Alemayehu Azeze. September 2001. Cross-Border Livestock Trade and Food Security in the Horn of Africa: An Overview. 32 pp. *

Teka, Tegegne and Alemayehu Azeze. April 2001. Cross-Border Trade and Food Security in the Ethiopia-Djibouti and Ethiopia-Somalia Borderlands. 57 pp.

Presentations

Little, Peter D. February 2001. Market Booms and Displaced Traders in the Somalia Borderlands, East Africa. Hillary Term Seminar, Refugees Studies Centre, Oxford University, Oxford, UK, 14 February 2001.

Little, Peter D. and Tegegne Teka. Organized a Session on "Livelihoods and Social Change in the Dryland Zones of the Horn of Africa." Annual Meetings of the African Studies Association, Nashville, TN, 16-19 November (paper presenters included Alemayehu Azeze, Hussein Mahmoud, Peter D. Little, and Tegegne Teka).

Little, Peter D. 2000. Trade Without Government: Cross-Border Trade and Livelihoods Along the Somalia

Borderlands. Presentation for Session on "Livelihoods and Social Change in the Dryland Zones of the Horn of Africa." Annual Meetings of the African Studies Association, Nashville, Tennessee, 16-19 November.

Other

Little, Peter D. and Catherine Dolan. 2000. What It Means to be Restructured: "Non-Traditional" Commodities and Structural Adjustment in Sub-Saharan Africa. In *Commodities and Globalization: Anthropological Perspectives*.

Haugerud, Angelique, M. Priscilla Stone, and Peter D. Little, eds. 2000. Monographs in Economic Anthropology Series, Vol. 16: Commodities and Globalization: Anthropological Perspectives, Boulder, CO and London, UK: Rowman and Littlefield, pp. 59-78.

◆3◆

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

Publications

Koopman, Jeanne, Rhoda Kweka, Mary Mboya and Samuel Wangwe. January 2001. *Community Participation in Traditional Irrigation Scheme Rehabilitation Projects in Tanzania*, BASIS Research Report. 78 pp. *

Kweka, Rhoda. *Community Participation in Traditional Irrigation Scheme Rehabilitation Projects in Tanzania*, Kiswahili version. April 2001.

Presentations

Koopman, Jeanne. November 2000. "Adding Rural Voices to Policy Debates: Collaborative Research on Community Participation in Irrigation Schemes." Presentation at the annual meeting of the African Studies Association, Nashville, Tennessee. 16-19 November.

Koopman, Jeanne. March 2001. "Key Research Findings and Policy Implications." Presentation at the First National Conference on Irrigation in Tanzania, Morogoro March 20-22.

Kweka, Rhoda. March 2001. "Gender Issues in Irrigated Agriculture." Presentation at the First National Conference on Irrigation in Tanzania, Morogoro. 20-22 March.

Non-print Outputs

Database from a 20-page questionnaire administered to 80 randomly chosen informants in each of the two villages.

Slides illustrating the technical problems and successes of the three irrigation schemes studied.

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◆ **BASIS/Zimbabwe Land Reform and Resettlement Program**
 - 3.A. New Agrarian Contracts: Sharecropping, Out-Grower Schemes, and Community-Based Tourism in the Context of Zimbabwe's Land Reform — *NEW BASIS I Project*
 - 3.B. BASIS Mentors Program

- ◆4◆ **Southern Africa Synthesis Workshop**

Acronyms used in this section

ARA-SUL	Southern Regional Water Authority
BASIS	Broadening Access and Strengthening Input Market Systems
BHR	Bureau for Humanitarian Response
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CASS	Centre for Applied Social Science
CBM	Community Based Management
CBT	Community Based Tourism
COMPASS	Community Partnerships for Sustainable Resource Management in Malawi
CRSP	Collaborative Research Support Program
DANIDA	Danish International Development Agency
GTZ	Deutsche Gesellschaft Fur Technische Zusammenarbeit
ICLARM	International Center for Living Aquatic Resources
IUCN	International Union for the Conservation of Nature
IWMI	International Institute of Water Management
LRAD	Land Redistribution for Agricultural Development
LRCF	Land Reform Credit Facility
LTC	Land Tenure Center
MLRR	Ministry of Lands Resettlement and Rehabilitation
NET	Nucleo de Estudos da Terra
NGO	Non-Government Organization
OFDA	Office of Foreign Disaster Assistance
OTG	Out Tea Grower
PI	Principal Investigator
SLAG	Settlement/Land Acquisition Grant
SPSS	Statistical Package for the Social Sciences
USAID	United States Agency for International Development
WARFSA	Water Research Fund of Southern Africa
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 now face major needs and challenges in creating broad-based economic growth and building democratic systems that involve the majority of people in economic activities. While most countries are now undertaking substantial reforms to redress these inequities, and to improve standards of living, the challenges are substantial. Most reforms in terms of broadening access by lower-income groups are in the early stages of design and experimentation, and unstable economic and political conditions inhibit consistent progress in a number of countries in the region.

These challenges are particularly evident in the 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. In 2000, with funding from USAID/Zimbabwe, a BASIS research program was established to complement Zimbabwe's Land Reform and Resettlement Program, Phase II.

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



Broadening Access to Land Markets in Southern Africa

Collaborating Institutions and Researchers

University of Namibia

Multidisciplinary Research Centre

Ben Fuller, Professor, Social Sciences Division
George Eiseb, Junior Researcher

University of Natal-Pietermaritzburg, Republic of South Africa

*School of Agricultural Sciences and Agribusiness
Department of Agricultural Economics*

Mark Darroch, Senior Lecturer

Michael Lyne, Professor

Stuart Ferrer, Doctor

Andrew Graham, Masters Student

The Ohio State University

Douglas Graham, Professor, Department of Agricultural,
Environmental and Development Economics

University of Wisconsin-Madison

Ragan Petrie, Doctoral Student,

Department of Agricultural and Applied Economics

Michael Roth, Senior Scientist, Land Tenure Center

Kazito Mazvimavi, Doctoral Student, Development Studies

University of Zimbabwe

Department of Agricultural Economics

Lovemore Rugube, Professor

Project dates: May 1997 - September 2001 (completed)

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. "Disadvantaged" refers to people who were historically precluded from land markets in these countries by racial and gender segregation.

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.

Study results were achieved using the following methods:

- Monitor and compare 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-assisted transfers. This entails conducting annual census surveys of farmland transactions over the period 1997-2000 for the South African region (KwaZulu-Natal province), 1990-2000 for Namibia regions, and 1996-1999 for Zimbabwe. Annual census surveys over a lengthy period provide benchmark data for impact analysis, and help to identify the relative extent to which different modes of land distribution broaden the access of previously disadvantaged groups to land and land markets.
- Examine relationships between land tenure, managerial arrangements, farm and household characteristics (including gender), access to credit, levels of investment in agriculture, land use and rural livelihoods on transferred land.
- Follow-up surveys of a sample of the transfers identified by the census.

The differences across the three countries in terms of records available, data quality, and resources result in differences in stage of the research. The KwaZulu-Natal team completed censuses for 1997-2000 and a household survey; the Namibian team completed censuses up to 2000; the Zimbabwean team completed censuses up to 1999.

The Zimbabwean, Namibian and South African principal investigators and researchers had not collaborated on this type of research project in the past. Despite resource limitations, they were able to adapt a uniform research methodology to analyze and compare the rate of transfer of farmland to previously disadvantaged people in each of the three countries. However, due to communication difficulties, the volume of research, and the unique results and policy recommendations for each study, the three teams decided that a combined report, in uniform format and comparing trends in land redistribution across the three countries, as agreed to at the Namibia progress workshop in July 2000, should be replaced by separate country-specific reports.

The Southern Africa team presented key findings and policy recommendations at the "Broadening Access to Land and Water in Southern Africa" BASIS Synthesis Workshop held July 22-25, 2001 in Magaliesburg, South Africa. (See Section 4 for a complete summary of workshop discussion.) For the three land reform teams the primary purpose of this workshop was to summarize key results and policy recommendations from the Namibian, Zimbabwean and South African studies for policy practitioners, donors, and other researchers. One outcome of the workshop was the decision to develop the intended executive summary and

popular article for the South African team into a single *BASIS Policy Brief*.

2000-2001 Activities

1.A. South Africa

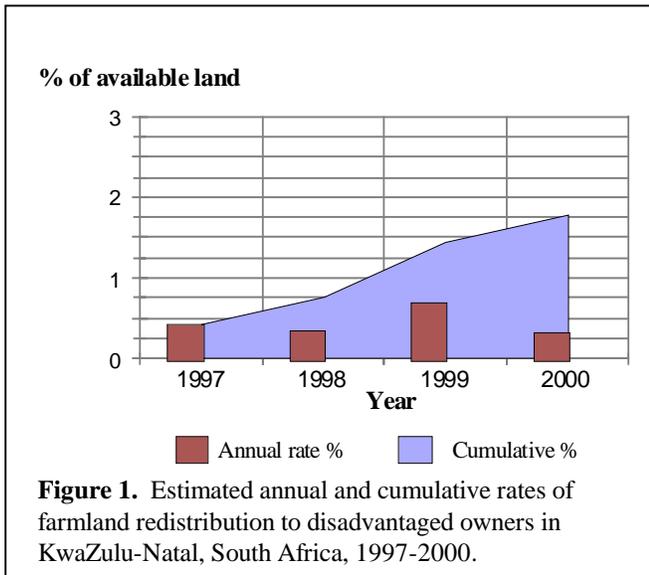
The research team had conducted a sample survey in 1999 of new entrants using redistributed farms in KwaZulu-Natal. The 1999 data were intended to provide a benchmark for comparison with a second survey of the same respondents in 2002. However, the second survey was cancelled in order to conclude the project by September 2001 and new funding has yet to be identified to continue this work. Bringing the second sample survey forward and paneling households before 2002 would not have allowed sufficient time to detect meaningful changes in perceived land rights, improvements to land, and agricultural performance. Instead, the researchers decided to adhere to the activities originally scheduled for KwaZulu-Natal in 2000-2001, as reported below:

- Completed the fourth census survey of KwaZulu-Natal farmland transactions that took place in 2000 and analyzed data.
- Analyzed the 1999 KwaZulu-Natal farmland transactions survey data. This activity contributed to capacity building as Dr. Ferrer acquired additional training in the interpretation of transfer deeds, and data capture and processing skills.
- Prepared publications, including: (1) a BASIS report comparing modes of land redistribution in KwaZulu-Natal over the period 1997-2000; (2) a journal article examining public and private initiatives to broaden access to the land market and their impact on land use and (3) a *BASIS Policy Brief* summarizing key results and policy recommendations of the South African land reform study. The *Brief* will be circulated to policy practitioners, donors and researchers in South Africa and the USA.

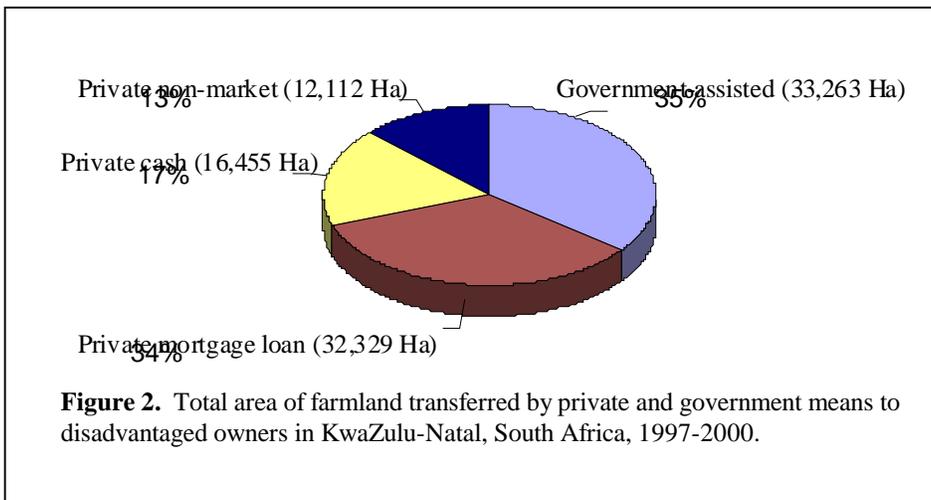
Key Findings and Results

During 1997-2000, 94,160 hectares of all commercial farmland in KwaZulu-Natal were acquired by disadvantaged owners. This area accounts for only 1.8% of the 5.31 million hectares of farmland available for redistribution (see Figure 1). Clearly, this rate of land redistribution falls far short of the goal of 6% per annum first set by the South African government in 1994. Figure 2 shows that private, non-market transfers (mainly donations and bequests) accounted for 12,112 hectares of the redistributed land. Government-assisted or SLAG (settlement/land acquisition grant) purchases comprised 33,263 hectares, while private purchases (cash and mortgage loans) accounted for 48,784 hectares.

Private purchases were promoted by sugar millers selling their estates to buyers who financed their purchases via loans with finite, diminishing interest rate subsidies. These



mortgage loans, administered by Ithala Bank, were *innovative* as the subsidy provided by the millers helped to ease cash-flow problems caused by inflation. The subsidy also declined over time as the new owners' ability to repay debt was expected to improve.



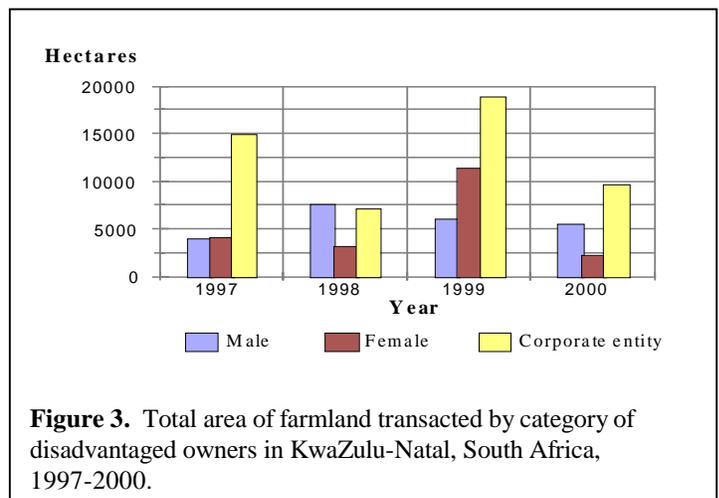
The government SLAG program not only redistributed less land than did private purchases, but also transferred land of much lower quality (weighted price of R902 versus R2935 per hectare) to beneficiaries whose land tenure is still relatively insecure.

Women are well represented in the transactions that transferred land to individual owners and married co-owners (see Figure 3 below), largely because bequests favor women. For the same reason, the total area of land acquired directly by women as owners and married co-owners (20,815 hectares) closely matched the total area acquired directly by men (22,901 hectares). Women, however, gained less land wealth through market transactions than did men, and there is concern that women are under-represented in transactions that transferred land to corporate buyers. This

certainly applies to the Trusts and Communal Property Associations established by government to represent the interests of land reform beneficiaries.

A moratorium on new SLAG projects after July 1999 reduced government-assisted land transfers in KwaZulu-Natal from a peak of 14,727 hectares in 1999 to just 2,133 hectares in 2000. The Land Redistribution for Agricultural Development, or LRAD, program that will extend larger grants to creditworthy farmers has replaced the SLAG program, but was launched only in August 2000. In the meantime, government-assisted land redistribution lost momentum throughout the country and disadvantaged people lost access to the land market. It is hardly encouraging that private purchases redistributed more land—and much more wealth—compared with the SLAG-funded purchases in KwaZulu-Natal. Overall, transfers to disadvantaged owners made up less than 10 percent of the total area of farmland transacted in the province. Clearly, the market and programs such as SLAG and LRAD have much greater potential to redistribute land than what has been realized to date.

Strong response to innovative loan products offered by Ithala Bank and the Land Reform Credit Facility (LRCF)—a wholesale financier—to help disadvantaged people purchase land or equity (shares) in viable farms suggests that access to the land market is constrained by inflation-induced cash flow problems associated with conventional mortgage loans. In addition, the costs, delays and uncertainty associated with the survey, registration and transfer of affordable land subdivisions constitute another major constraint.



Key Findings and Results: South Africa

Land Redistribution, Tenure Security, Access to Agricultural Credit and Agricultural Performance in South Africa

Improved understanding of the link between land redistribution modes, tenure security, access to agricultural credit, and agricultural performance resulted from analysis of the 1999 sample survey of new entrants using commercial farmland redistributed in KwaZulu-Natal, South Africa, during 1997.

The study population consisted of 129 households—109 who acquired land and property through government-assisted transfers, and 20 whose acquisitions came via private transactions. Study results, outlined below, help enable policy dialogue on innovations needed in program design and policies to broaden access by disadvantaged people to factor markets and sustainable livelihoods.

Tenure tended to be relatively more secure on farms purchased via private transactions. Mean tenure security index scores were highest on farms purchased privately and financed with mortgage loans (from Ithala Bank), and lowest on farms shared by large groups of households and financed with (pooled) government grants. 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 harms agricultural performance through its adverse impact on access to agricultural credit, improvements to land, investment in seasonal inputs, and crop. Agricultural credit use by respondent households was more likely with more secure tenure, higher levels of household wealth and liquidity, and higher levels of household education.

- **Policy implication.** Agricultural performance/development, and hence economic growth, will suffer due to lack of access to credit and impaired agricultural performance if land redistribution programs/policies undermine tenure security. Tenure arrangements on farmland purchased by large groups of households with government grants are less secure than on those observed on farms acquired privately by disadvantaged people. The

South African government's recent policy shift in favor of owner-operated farms is, therefore, supported. However, this change in policy has been criticized as elitist, as relatively few, creditworthy individuals are likely to benefit.

- **Alternative policies.** A compromise for policy makers is to encourage large groups of households that pool resources and purchase farmland to elect *management committees* to direct farming enterprises, in return for profit shares that could help to sustain household livelihoods.

Another alternative is to facilitate establishment of *non-user groups resembling the equity-sharing private companies* initiated by white farmers in the Western Cape province of South Africa. These farmers restructured their operations as companies with their farm workers as shareholders. The equity-sharing experience suggests that institutional arrangements such as a small management team, voting and benefit rights proportional to individual shareholdings, and (internally) tradable shares, help to eliminate free-riding within the non-user group, and so strengthen individual incentives to invest in the company and its operations.

Security of tenure appears to be a necessary but not sufficient condition for access to agricultural credit.

Enhanced tenure security provides incentives for lenders to supply credit and for borrowers to use credit. This, in turn, can lead to improved agricultural performance if households have sufficient financial resources and the capacity to adopt and manage farm technologies. When providing agricultural credit to these households, lenders need to carefully evaluate current and expected future income levels, in particular whether borrowers have the capacity to withstand income shocks caused by factors like adverse weather conditions and low product prices.

Education has a positive impact in determining credit use.

This finding suggests that agricultural productivity may be sustained if a larger share of the scarce public funds available for farmland redistribution is reallocated to emerging farmers that have relatively better technical and financial management skills.

Obstacles preventing the repeal of the 1970 Subdivision of Agricultural Land Act must be addressed without further delay. Scrapping this Act will make it easier for those poor and part-time farmers not funded by the LRAD program to finance smaller, more affordable farms. Likewise, government needs to reduce the inflation rate and to ease the statutory costs of subdividing and transacting farmland, as this would allow commercial banks to finance lower income farmers and equity shareholders. Access to larger land reform grants for farm workers and aspiring farmers would also improve the outreach of private financiers because the poor cannot make significant contributions of their own when buying equity and land. Ideally, the LRCF should be allocated a share of these grants and authorised to award them contingent upon the disbursement of a loan.

Under these conditions, the LRCF will have to be capitalised at scale in order to keep pace with growing demands for its loans from commercial banks.

While there is some evidence that women's access to mortgage finance improved relative to that of men in KwaZulu-Natal during 1997-2000, this does not account for the advantage that men have as members of corporate owners. Efforts to improve the outreach of private financiers—as outlined above—and to pay more than lip service to gender policy when awarding land reform grants would obviously help to improve women's access to the land market. Wealth redistribution through equity-sharing schemes could also help to correct gender imbalances as women are well represented amongst farm-workers in many parts of the country. A national exchange program involving mentors experienced in successful equity-sharing projects may help to transfer skills and to broaden views on approaches to land reform.

Farm invasions in Zimbabwe stress the urgent need for bold interventions to desegregate commercial agriculture in South Africa. An effective alternative to the destructive “fast track” policy adopted in Zimbabwe is to subsidize interest rates on loans made to creditworthy land reform projects. The problems associated with cheap credit programs are well documented and have encouraged the South African government to resist interest rate subsidies. However, many of these problems could be avoided by channeling *finite* interest rate subsidies that *decline over time* to new owners through commercial banks. This has the added advantage of drawing private sector finance and expertise into the land reform process. For example, the LRCF could either discount the wholesale interest rate that it charges commercial banks for its loans with deferred repayments, or it could allocate public and donor funds directly to commercial banks to fund finite, diminishing interest rate subsidies on loans made to disadvantaged buyers of land and equity.

Collaboration with Other Projects

Professor Lyne included the key findings and policy recommendations of the South African study in a report on Land Reform in South Africa prepared for the Centre for Development and Enterprise, Johannesburg, South Africa. This report was subsequently used by the Big Business Working Group—one of four such groups with whom the President of South Africa, Mr. Thabo Mbeki, regularly interacts—as input at an ongoing forum set up by big business and the South African government to discuss, and find solutions to, land reform issues in South Africa.

1.B. Namibia

Unlike the South African case, where both public and private land transfers are effective in redistributing land to previously disadvantaged people, land redistribution in Namibia is carried out primarily through government assisted land transfers and resettlement.

Namibia has also been hampered by the development of policy and legislation to assist land reform. The first major piece of land reform legislation was passed in 1995, followed by a National Land Policy a year later. In 2001 the National Resettlement Policy was introduced to Parliament, and it will be adopted in 2002. Also on the table is a Communal Land Reform Bill that calls for the creation of regionally-based Land Boards that will play a major role in land resettlement and redistribution. This bill is expected to become law in 2002. This slow development of policies and instruments has limited the options of previously disadvantaged people in obtaining land. Unlike South Africa, the development of land trusts and other means of purchasing land have not been options.

In addition, due to Namibia's sparse population relative to its land area, there were many fewer commercial farms redistributed on an annual basis than was discovered in South Africa and Zimbabwe. The decision was thus made to survey all land transfers between 1990 and the present in order to construct a sample size suitable for analysis. During the period October 1998 to September 2001, deeds data on land transfers were assembled and automated on computer for the period 1990 to 1999. In addition, a household survey was administered to a sample of 1999 land reform beneficiaries. In the FY 2001 to 2002 period, this data set was updated with deeds data for the 2000 calendar year and the full 1990 to 2000 data set was submitted to analysis.

As reported by Ben Fuller in his paper “Will There Be Enough Land to Reform?” land reform in Namibia is governed by the Agricultural (Commercial) Land Act of 1995. This Act created the mechanisms by which commercial farmland is acquired by the government for

redistribution to the formerly disadvantaged. Using a combination of direct purchases (both by the government as well as an affirmative action loan scheme run by the parastatal, Agribank) approximately 300 commercial farms with a total area of about 2.5 million hectares were purchased for redistribution. The principle that governs land acquisition is "willing seller, willing buyer." Under this principle, land is purchased on the open market.

Over the past eleven years, the government's reliance on the land market as well as its insistence on paying "just compensation" for land has come under increasing criticism. Labor unions, indigenous farmer's groups and opposition politicians have all criticized the government's stance. There has even been criticism from within the government's own ranks as "back benchers" in Parliament have raised their voices in opposition to the payment for land which they consider "stolen." While these criticisms have not reached the same level as in other countries in Southern Africa, it would be unwise to fail to pay attention. Land restitution, in response to the colonial expropriation that took place in the past century, was, and still is, a significant political force within Namibia.

Research undertaken by the University of Namibia, and supported by BASIS has uncovered weaknesses in existing legislation that has resulted in commercial farmland being removed from the redistribution process. Under the 1995 Act, commercial farmland that is sold must first be offered to the Namibian government, which can purchase and then redistribute the farm in question. However, the law applies only to the "sale" of property, a loophole used by potential "sellers" to circumvent the Act. By creating closed corporations, many landowners then "donate" their farms to the closed corporation and thus avoid having to offer the farm to the government. Once converted, the farm in question can be "purchased" by acquiring a majority of shares of the corporation. Because the 1995 Act applies only to privately-held land, not corporate shares, landholders are able to avoid land reform.

Since 1990 the government has purchased 81 farms totaling 461,000 hectares of land at a value of N\$52.5 million. On this land 9,635 settlers have been accommodated. This accommodation varies from those brought into formal resettlement schemes, to farms leased out to large farmers from Namibia's communal areas, to land held in reserve and leased out for emergencies such as drought. In addition, a number of farms have been purchased by formerly disadvantaged farmers either through an affirmative action loan scheme financed by the government, or through private banks. Overall, only 451 transactions were identified as movement of land from formerly advantaged owners to formerly disadvantaged owners. This is about 10% of the 4,140 total transactions of commercial farmland. Note that in keeping with current trends, "formerly advantaged" refers to whites and "formerly disadvantaged" refers to non-whites.

The number of transfers for women is a subset of the disadvantaged group. See Table 1 for additional information on land transfers in Namibia.

The Agricultural land census supported by BASIS CRSP found two disturbing trends. First, the number of farms transferred to the formerly disadvantaged has remained relatively constant (see Figure 4). Since 1990 roughly 9% of commercial farmland has been redistributed. This percentage includes farms purchased by the government for redistribution as well as those purchased either through affirmative action loan schemes, or through banks. In many quarters this is seen as too slow and too little, and there have been consistent calls on the government to speed up the process of redistribution. Second, 1,325 commercial farms have been transferred to corporate control since 1990, representing 25% of all commercial farms. When plotted on a yearly basis, the number of such transfers rises significantly in 1994 and then explodes in 1995, when the Agricultural (Commercial) Land Act was passed (see Figure 4). Through 1999 over 6.2 million hectares of land have been transferred to corporate status.

If patterns of the past six years continue, it is possible that over 50% of commercial farmland in Namibia will be under corporate ownership by 2015. This means less and less land will be available for the government to redistribute. While frustrations have not reached the boiling point, the Namibian government may find itself constrained by a lack of available land at just the time that popular political pressure is greatest to speed up land redistribution.

Collaboration with Other Projects

Census data was shared with Namibia's Department of Environmental Affairs in the Ministry of Environment and Tourism. This Department is overseeing the development of a new National Atlas for Namibia, and the census data will be used to provide land use maps of commercial farmland holdings.

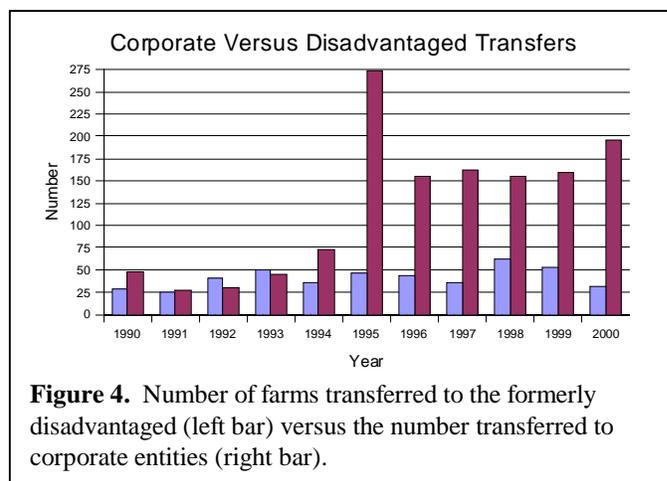


Figure 4. Number of farms transferred to the formerly disadvantaged (left bar) versus the number transferred to corporate entities (right bar).

Close cooperation with the Planning Division of the Ministry of Lands Resettlement and Rehabilitation (MLRR) was maintained throughout the year. Census data in particular was shared with the Ministry and has been incorporated into MLRR planning processes. In addition, the electronic data was handed over to the Ministry to assist in computerizing records within the Deeds Office. Findings from the census were provided to the MLRR, and have formed the basis for amendments to existing land reform legislation.

As a result of the work carried out under the BASIS Project, Dr. Fuller and Mr. Eiseb were asked to draft the Namibian Presentation to the Consultative Meeting of Ministers Responsible for Land in the Southern African Development Community, held in Windhoek in mid-September 2001.

1.C. Zimbabwe

By September 2000, the Zimbabwean research team had assembled census data on deeds transactions up through calendar year 1999. During the 2000-2001 work plan period, funding for the census activity shifted from the BASIS CRSP to the Zimbabwe Land Reform and Resettlement project administered through the Land Tenure Center and CASS, funded by USAID/Zimbabwe. Under this new funding, researchers continued to assemble and automate census data for calendar year 2000 and prepared a summary analysis of deeds transfers for the five-year period, 1996-2000.

Preliminary analysis of the 1996-1999 census data seemed to 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 *a priori* if women are truly gaining access to land through their purchases or if their names are being used as “fronts”

for land purchases by men without strengthening women’s access to land or security of tenure. Using gender disaggregated census data from 1996-1999, case studies were conducted on men- and women-acquired land through the private land market to discern modes of land access, sources of financing used, land use and performance, and constraints to women’s land market participation.

Land deeds census, data sources and methodology.

Land transactions data used in this study is secondary data obtained from records kept by the two Zimbabwe Deeds Registries, one in Harare (with records for Mashonaland, Manicaland and parts of Midlands and Masvingo provinces) and the other in Bulawayo (with records for Matabeleland and parts of Midlands and Masvingo provinces). The Deeds Registry has comprehensive records for land and /or properties in the country, including the owners at any point in time, and changes in land ownership. Because government-assisted transactions are not normally recorded with the Deeds Registry, researchers sought this information from the Ministry of Lands and Agriculture, and analyzed it separately. Information about government assisted transactions shown in figures and tables was obtained *only* from the Deeds Registry.

The Zimbabwe Deeds Registry has been computerized and now keeps an electronic record for all land transactions involving transfer of title. From the Registrar of Deeds, records for all the land/property transfers in the country were obtained for the years 1996-2000. Each Deed of Transfer contained the following information:

- Names of the new and previous owners, when they bought and/or sold the farm
- Name of the farm and subdivisions transacted
- Size of the farm and the subdivisions transacted
- Value of the farm
- Mode of payment used i.e. cash or loan, mortgage bonds or inheritance or donations.

Table 1. Land transfers in Namibia, 1990-2000

Year	TOTAL		Disadvantaged		Corp. /Advantaged		Female	
	No. Transfers	Ha. Transferred	No. Transfers	Ha. Transferred	Farms	Ha.	No. Transfers	Ha. Transferred
1990	377	1,698,807	28	117,569	349	1,581,238	19	83,671
1991	191	911,875	25	152,709	166	759,166	10	30,803
1992	265	871,099	41	115,431	224	755,668	13	38,550
1993	399	1,605,764	49	254,365	350	1,351,399	21	77,722
1994	338	1,453,748	36	107,934	302	1,345,814	17	59,168
1995	663	2,979,586	46	174,946	617	2,804,640	22	79,279
1996	449	1,733,734	43	92,112	406	1,641,622	17	43,347
1997	392	1,433,974	36	180,013	356	1,253,961	15	48,959
1998	419	1,552,316	62	851,258	357	701,058	16	57,570
1999	343	2,515,946	53	270,033	290	2,245,913	30	80,822
2000	304	1,435,406	32	329,754	272	1,105,652	29	172,848
TOTAL	4,140	18,192,255	451	2,646,124	3,689	15,546,131	209	772,739

Purposive sampling was used to identify all commercial farmland, which went through some sort of permanent transfer for the period 1996 to 2000. The full list was comprised of more than 4,000 commercial farms. The table below shows the resultant sample frames for the years 1996-2000. It must be noted that over the years some farms were subdivided into residential or industrial areas and these were excluded from the database by filtering all cases involving farms smaller than one hectare.

Year	1996	1997	1998	1999	2000
No. of farms transacted	392	367	290	166	127

The farmland transactions were then divided into two groups—“disadvantaged” and “white.” For purposes of this study the term “disadvantaged” refers to people who were historically precluded from the land market by racial segregation. Within the disadvantaged group, farmland transactions were further stratified according to the mode of financing (government-assisted, private cash, private bonds and non-market transactions) and gender of new owner (male, female and corporate entities).

Due to subdivisions and the fact that donations and inheritances were made to more than one landowner, the numbers of new owners and numbers of land transactions recorded did not tally. Another contributing factor was purchasing farms as joint ventures by two or more individuals or companies. In cases where land was acquired by companies, trusts or corporations, the names of the directors were obtained from the Companies Registry and were used to determine whether the land was transferred to disadvantaged people. However, neither the Deeds Registry nor the Companies Registry recorded landowner race or gender, which researchers deduced solely on the basis of names.

The study revealed that the Zimbabwean land market is performing poorly in transferring land from whites to the previously disadvantaged. In South Africa, roughly five percent of the agricultural land is transacted each year; in Zimbabwe the annual turnover averaged just 1.4 percent over the five-year census period (1996-2000). Trends in the rate of land redistribution are shown in Table 3. The dismal performance of the land market can be attributed largely to rampant inflation in the Zimbabwean economy that raised the cost of capital needed to finance farm purchases. Rising nominal interest rates—from 27% in 1996 to over 70% in 2000—also explain a steady decline in the number of farm transactions financed with mortgage loans.

Table 3. Estimated Rate of Land Redistribution in Zimbabwe

Year	1996	1997	1998	1999	2000
Farmland Available	15,106,479 hectares of farmland originally available for redistribution.				
Land Transacted (ha)	215,058	350,647	295,450	133,503	92,443
Percent of area redistributed (%)	1.424	2.321	1.955	0.883	0.611
Net area acquired by disadvantaged (ha)	59,722	32,715	24,685	79,502	33,059
Rate, land Redistribution (%)	0.396	0.213	0.163	0.527	0.219
Cumulative rate, land redistribution (%)	0.396	0.609	0.772	1.299	1.518

Restrictions on the subdivision of large commercial farms into smaller, more affordable units also reduce access to land markets. In Zimbabwe, the process of applying for permission to subdivide land is very cumbersome. The application has to be approved by some 13 government departments or parastatals. The Ministry of Local Government administers subdivisions through the Regional, Town and Country Planning Act. Clearly, there is a need to review these procedures and, indeed, the Act that discourages subdivision. While there are valid economic arguments in favor of zoning good quality land for agriculture, there is no such basis for restrictions on subdivision. Areas operated are not constrained by areas owned when there is an active rental market for land.

It is evident from the study that males still dominate the land market. The total area transferred to females as sole owners or co-owners was 60% of the area transferred to male owners. Land transfers to the female/co-owned category were mainly through private non-market transactions (inheritances and donations). Women were poorly represented in transactions financed by mortgage bonds. This could reflect adverse perceptions of their credit-worthiness or legal status. Women deserve special attention when considering strategies to broaden access to the land market. An interesting feature of Table 4 is the prominence of land purchased by corporate entities representing the interests of previously disadvantaged people.

Table 4. Gender Specific Characteristics of Farms Acquired by Disadvantaged People in Zimbabwe, 1996-2000

Characteristic	Male owner	Female owner/co-owned	Corporate owner
Mean area of farms (ha)	302 n=182	256 n=130	849 n=166
Total area of land (ha)	54,892 n=182	33,238 n=130	141,015 n=166
Total market value of land (ZW\$)	322,965,584 n=160	137,465,752 n=98	612,829,997 n=155
Weighted land price (ZW\$/ha)	7,065 n=160	6,732 n=98	4,585 n=154

Conclusions. Access to the land market in Zimbabwe has been severely constrained by high nominal interest rates caused by rampant inflation, legal barriers restricting the subdivision of large commercial farms, the absence of innovative loan products designed to ease liquidity problems associated with conventional mortgage loans, and the absence of public grants to complement loans and savings used by the previously disadvantaged (especially women) to finance land or equity in existing commercial farms.

Without serious policy efforts to reduce these constraints, land reform has relied on a political process that has failed so far to draw emerging farmers more securely into the land market.

Gender analysis. Recently in Zimbabwe, there has been an increase in the number of land purchases titled to disadvantaged women financed through the private market. Using a case study approach, Petrie, Mazvimavi and Roth (2001) examined the process by which women are gaining access to land, the sources of financing used, and the special constraints they encounter. They found that legal owners of land are not necessarily the actual users of land. That is, women and men are accessing and using land, independent of the name on the title. For example, while one-third of the case studies are classified as legally owned by a woman, only 36% of those are actually owned and managed by a woman. Also, both male and female land owners share similar financial problems, but women face unique constraints. Women often face uncertain land rights, slow title transfer, and an inability to mobilize important economic resources, like credit and farm equipment.

Background. Table 5 documents trends in ownership from the Deed's Registry and shows a slight increase in the percent of land transactions purchased by female owners and female co-owners during the 1996-1998 period. The percent of transactions by female owners and co-owners declined in 1999-2000, but during this period, roughly half of all land sales were to companies, not individuals. Since land titled to

companies makes ownership more difficult to ascertain, it is not clear if the percent of transactions going to women actually declined.

Table 5. Percentage of Land Transactions to Disadvantaged Buyers by Gender of Owner

	1996	1997	1998	1999	2000
Male Owners	44	45	36	28	35
Female Owners or Female Co-owners	27	30	39	20	20
Corporations	29	25	25	52	45

Source: Rugube and Chambati (2001).

During the 1999-2000 period, the average size of land holding purchased by women owners or co-owners increased. Table 6 shows that the average land holding size for this group was pretty stable during 1996-1998, but it tripled in size in 1999-2000. That is, during 1996-1998, female owners and female co-owners purchased an average 170 ha of land per transaction, but in 1999-2000, they purchased an average 500 ha of land per transaction. There are no clear trends in the average size of land holding for male owners.

Table 6. Average Size of Land Holding (in hectares) of Disadvantaged Buyers by Gender of Owner

	1996	1997	1998	1999	2000
Male Owners	254	310	168	393	528
Female Owners or Female Co-owners	175	179	159	575	500
Corporations	849	652	691	1076	826

Source: Rugube and Chambati (2001). Numbers are rounded for reporting here.

These results suggest that, in 1996-1998, there may have been an active market of women involved in the purchase of land. And they may have been acquiring larger parcels. But how does this increase in ownership affect tenure security and land management?

Methodology and Field Work. A case study approach was chosen to interview land owners who had recently acquired their land through the private market and had the land registered in either a woman's name, a man's name, or a woman and man's name. Male land owners were included in the sample to provide a basis of comparison to female owners. The goal was to interview a sub-sample of the land acquirers on the Deeds Registry, specifically women, to inquire about the history of land acquisition, land use and management,

household demographics, employment, land use decision-making, and any problems the land owner may have encountered in land acquisition and farm operations.

The original research approach had to be modified slightly as many of the women in the original sample could not be located. The reasons for not locating the women are varied, but include women being out of the country, the name on the title deed not corresponding to the land user, and some women refusing to be interviewed. However, by expanding the sample to female land owners who were not on the Deed's Registry list, many more women were located. In this process, it became clear that the legal status of the land owner and de facto land use was not necessarily the same. Women were using land titled to men, and men were using land titled to men and women.

A New Typology. Because of the difference in legal ownership and land use, a new typology is proposed to pick up the nuances between legal land status and de facto land use. Each case study is classified into one of six groups.

Table 7 outlines a summary of the characteristics of each land use and land management group.

In general, across all typologies, land was acquired between 1981 and 2001, with both small and large parcel sizes (ranging between 1.5 ha to 1040 ha). Women tend to be better off, both in terms of income and tenure security, in the groups where land is jointly owned by men and women (typologies IV and V). Land management responsibilities are more firmly in the hands of women when the land is owned solely by them (Typology I), but access to financial capital is strongest when land is jointly owned by men and women.

Several themes emerge from the typology:

- Land owners are not necessarily the land users, and women and men are accessing and using land, independent of the name on the title deed. Indeed, less than half of single, legal land owners, be they male or female, are also the land users.
- While men and women share certain problems, such as access to financial resources, women face unique constraints. For example, a widow retains access to the

Table 7. Summary of Characteristics of Typology						
	Typology (see key below)					
	I	II	III	IV	V	VI
Parcel Characteristics						
Size, in hectares (range)	4 – 300	50-1214	44-1040	6-570	11-300	1.5-900
Registered (Individual or Joint)	Indiv.	Indiv./jt.	Indiv.	Joint	Joint	Indiv.
Holder (Women or Men)	W	W & M	W or M	W & M	W & M	M
Transaction History						
Source of Finance (Cash, Loan, Inheritance)	C/L	I	C/L/I	C/L	C/L	C/L
Date of Acquisition (range)	1981-2001	1981-2001	1982-1998	1988-2001	1986-1996	1983-1998
Socio-Economic Status of Women						
Well-off	~	-	+	++	++	+
Secondary or tertiary educated	++	-	~	++	++	+
Owner resides abroad	+	---	---		---	---
Gender						
Woman handles day-to-day mgmt.	+++	+++	-	+	---	---
Woman is sole or primary manager	+++	+++	--	--	---	---
Woman is sole or primary decision-maker	+++	+++	--	--	---	---
Socio-Economic Status						
Tenure secure	+	~	+	++	+++	+++
Access to financial capital/equipment secure	~	--	~	+++	+++	++
<i>Typologies: I (Female Independent), II (Female Widowed), III (Female Dependent), IV (Husband and Wife Partnership), V (Ostensive Husband and Wife Partnership), VI (Male Independent). Note: +++ strongly so; + somewhat so; ~ mixed; - somewhat not so; - - - strongly not so.</i>						

land she owned with her husband, but it can take years to

finalize the transfer of legal title to her own name. Such delays constrain her access to credit and machinery.

- There is a strong prevalence of the middle class in the purchase of land. Very few of the people interviewed for the case studies were poor. Many (mainly men and married couples) had access to financial resources outside of formal banks.

Against popular notions that women do not own land in Zimbabwe, the research found that several do. However, individual female owners and managers still represent a small percent of all land owners, and women still face problems in acquiring land rights and benefiting from land use. Only 12% of our case studies were single ownership and managed by women. This research has shown how important it is to strengthen women's legal access to land and to eliminate constraints to legal ownership.

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 groundbreaking 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.

Review of Problems or Issues

The main research issue raised was how to coordinate research team activities when faced with continuing difficulties communicating across countries, especially with the Zimbabwean team, hampered by unreliable telephone, fax and e-mail links, and periodic university closures. These issues are unlikely to be resolved in the short-run. This is also one reason why separate country-specific reports have been submitted to the BASIS ME by the three land research teams.

◆ 2 ◆

Broadening Access to Water Resources in Southern Africa

Collaborating Institutions and Researchers

Núcleo de Estudos da Terra (NET)

Eduardo Mondlane University, Mozambique

Joel M. das Neves Tembe, Social Historian
Eduardo Chilundo, Environmental Geographer
Aristides M. de Estevão Baloi, Environmental Geographer
Victor Muchanga, Human Geographer

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

Grace Chilima, Chancellor College

Bryson Nkhoma, Chancellor College

Geoffrey Chavula, Lecturer, Department of Engineering, Polytechnic

Michigan State University

William Derman, Professor, Anthropology and African Studies

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

University of Zimbabwe

Centre for Applied Social Science (CASS)

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

Project dates: December 1996 - September 2001 (completed)

Support: Core funding and add-on (USAID/BHR/OFDA) Additional funds from WARFSA (Water Research Fund of Southern Africa).

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 water management patterns in contexts where water is an exceedingly scarce factor of

production, where there is increasing competition over its use and control, and where the study countries are engaged in reformulation of water policy and administrative structures, particularly decentralized forms of management.

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. The terrain has shifted, 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.

Members of the water resources research team attended the BASIS Synthesis workshop in Magaliesburg, South Africa, July 22-25, 2001, described in Section 4 of this report.

2000-2001 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.

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 during 2000-2001 included:

- Regular observations of the meetings of the Catchment Councils and selected Sub-Catchment Councils and River Boards;
- Pilot surveys in three catchments of attitudes and knowledge about water reform;
- Baseline surveys of water use, water projects, participation in the new and old structures of water management, and water investment in six villages in the three catchments. Work focused on the communal rather than large-scale farming areas since that is where most of the poor live and where there is greatest need of broadening access to water. A total of 505 interviews were completed and entered into SPSS (Statistical Package for the Social Sciences). The data have been converted into Minitab, as have the Malawi data, to facilitate comparison.

- Interviews with leaders at Catchment and Subcatchment Council levels and with representatives of the Department of Water Development and with key donors;
- Analysis of relevant documents; and
- A series of reports presented at a July 4-5, 2001 Workshop for Water Reform Stakeholders of the Manyame, Mazowe and Sanyati Catchments organized by CASS and held in Msasa, near Harare. A total of 60 people attended, including key stakeholder representatives from all the catchments, subcatchments, ZINWA, Department of Water Development, and CASS researchers.

Plans for 2000-2001 were largely completed, although the deterioration in Zimbabwe's political climate following farm "invasions" and associated civil disturbances have caused delays and difficulties in the fieldwork. The situation became more perilous during the last few months of the project. Specific activities include the following:

- Survey data analysis was delayed due to a data entry glitch, remedied in part by Dr. Peter Walker, a consultant from the University of Oregon who had come to train the researchers in data management.
- Three graduate students are working with the program: Claudious Chikozho (Master's), Pini Sithole and Jim Latham (both Ph.D.).
- A Water Resource Center has been established at CASS where all the surveys, documents, meeting notes, a computer, printer and programs are housed.
- A workshop was held in July 2001 outside Johannesburg to discuss results of the year's research and to plan for BASIS II research.

In summary, observations of the pilot Catchment Councils and their Sub-catchment Councils over the past three years have shown that significant progress has been made in forming institutions as stipulated in the 1998 Water Act.

However, considerable work remains to be undertaken in consolidating the decision-making capacity of the institutions involved, as well as equipping them with the resources required to adequately and effectively reach the broad spectrum of water resource users.

The research team's analysis also notes the need for targeted intervention in the implementation process in order to clarify and strengthen respective roles and responsibilities among stakeholders. Finally, the research has shown that, due to the very nature of the reform process and the peculiarities of the Zimbabwean context, a wider local and stakeholder capital base is essential to sustain the comprehensive program envisaged. This becomes particularly relevant as the process expands to cover all seven Catchment Councils and inevitably consolidate the numerical preponderance of small to medium-scale over large-scale agricultural water users. Key findings and results are reported in the following box.

Decentralization and Stakeholder Participation

BASIS Researchers Analyze Water Policy Reform in Zimbabwe

Household Survey

Results indicated widespread lack of knowledge about the new water management institutions. Most water users did not support pricing water for all uses, but about 60 percent agreed that water for irrigation and piped water were different and should be priced.

Institutional and Policy Review Findings

Within the context of Zimbabwe's current economic situation, donor withdrawal and land invasions, the shift from a government funded and operated water sector to a new user-funded parastatal has become increasingly problematic. The transition is far behind schedule and complex funding arrangements for ZINWA will be difficult to achieve under insecurity.

Although Catchment Councils are supposed to be funded by ZINWA, donors such as GTZ and Royal Netherlands Embassy are currently funding them. Subcatchment Councils are to be self-funded, and prices were levied—but farmers are not paying. Since permits have not been issued and donors are providing monies, for the moment the Councils are functioning. Their sustainability depends upon commercial farmers who will have the largest amount of permitted water and thus pay the most.

In July 2001 the first provisional water permit was issued. The event (see photo, next page) was highly promoted and celebrated. Although this was the only permit issued prior to September 30, 2001 it marks the initiation of Catchment Councils' powers to issue permits on the recommendation of Subcatchment Councils.

Equity and Access

Researchers had anticipated measuring the success of water reform by analyzing the patterns of issuing water permits. The permits include amount of water requested and the purpose for which the water would be used. They planned to examine who the new users were—how many, their gender, location and how they obtained sufficient resources to use water for commercial purposes. However, the permitting process has been delayed by land invasions and the difficulties in the wider policy environment.

Despite the emphasis upon equity, reform has been market led. The principles underlying water allocation have been changed. For example—rivers, once run on the basis of those with the earlier water rights date having priority, are now to be run on a proportional allocation system, to ensure equity of access by those with water permits and thereby not

prejudicing new permit holders. Catchment and Subcatchment Councils will be tasked with ensuring that all people using water for commercial purposes pay for that water. Policies have not been put in place to ensure greater access and equity for women. For example, women could have been introduced explicitly as one of the key stakeholders, thus assuring their representation, but they were not.

Gender Dimensions of Water Reform

Representation on the Catchment Councils is by economic sector. To date, in our study areas, few women have been selected to serve, and those that have are older and/or widowed, a social status that permits women greater freedom of movement and public voice. Efforts to liberalize women's access to credit, land and other resources can place them on more equal footing with men. In the absence of these kinds of tangible reforms and benefits, women's participation in the new institutional structures is not likely to increase.

Some preliminary policy recommendations

- ***A deliberate strategy is needed*** to mobilize and allocate resources and strengthen water management institutions' capacity to effectively implement the reform process. Dependence upon large-scale farmers has been put into doubt along with donor funding. Alternative resources need to be found to sustain the stakeholder participation process.
- ***Rationalize boundaries*** of water management, to fit with known administrative and political ones. The new boundaries solely based upon watersheds require reconciliation with other boundaries to minimize conflicting accountability and planning by stakeholders, existing institutions and the new institutions of water management.
- ***Broaden and reinforce the financial base*** of water reform by greater emphasis upon equity dimensions. Without smaller-scale agriculturalists having a real stake in water neither the goals of water reform nor the sustainability of the new institutions of water management can be realized. This might include provision of free water for a few years with increasing rates after a grace period.
- ***Adopt a more holistic approach to the land/water interface*** by linking land and water reform. While this is not possible in the short term, in the longer term the success of Zimbabwean agriculture will depend upon strategies for maintaining the irrigation infrastructures on commercial farms including hundreds of dams, piping, pumps, etc. What options are available will depend upon the outcomes from this prolonged period of unrest and land invasions.

Collaboration with Other Projects

Research teams in Zimbabwe and Malawi have engaged in collaborative meetings and exchange of information with the Water Research Fund of Southern Africa (WARFSA) and the International Union for the Conservation of Nature (IUCN), and have been successful in obtaining funding for graduate students working on BASIS-related research. Researchers have also collaborated with WaterNet and with the International Institute of Water Management (IWMI) office in South Africa through discussions of research findings at workshops sponsored by these organizations and in one-on-one meetings with personnel from these groups.

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 conducted research at five sites in the Zomba district, Lake Chilwa Catchment. Activities included household surveys, participant observation by resident research assistants, interviews of key informants, and inventories of key water sources. Researchers also reviewed and collected basic data on water supply and quality in the Chilwa Basin.

In general, plans for 2000-2001 have been mostly completed although there was delay in the analysis of the household surveys due to prior data input problems. Lack of a project vehicle caused frequent delays in planned activities. Specific completed activities include the following:

- Researchers met with representatives of policy institutions and projects in Lilongwe and Zomba, including the Ministry of Water Development, Department of Environmental Affairs, USAID Malawi Mission, Department of Agriculture and Irrigation, Ministry of Health and Population, Zomba District Assembly, Zomba Municipal Assembly, Southern Region Water Board, USAID COMPASS Project, ICLARM, and the DANIDA-funded Lake Chilwa Wetlands and Catchment Management Project. Discussions raised awareness of the poor water quality in the Likangala River and many water points in the Lake Chilwa Catchment, as revealed by the 2000 BASIS/Ministry of Water Development Water Quality Survey.
- A District Assembly consultative workshop, aimed at opening dialogue with the Zomba Assembly, was held on March 21, 2001. An impact of the workshop has been more frequent interaction between some policy makers (especially Members of Parliament and Councillors) and BASIS researchers.



The first water permit in Zimbabwe was awarded on July 12, 2001 in Mutoko. Shown above are (from left to right), Mr. George Chinamorai, Chairman, Nyagui Subcatchment Council; Mr. S. Hungwe, President, Zimbabwean Farmers Union; Mrs. and Mr. Kachidza, recipients of the water permit; and Mr. Chapfika, Member of Parliament for Mutoko South District. Photo by Bill Derman.

- Researchers prepared a review of new policies and laws as they relate to water sector reform and community based natural management to present at the July 2001 BASIS synthesis workshop in Johannesburg. The paper calls attention to numerous inconsistencies and areas where “harmonization” is required between new environmental policies, water policy and law, and the new Local Government Act in particular. See findings below.
- Grace Chilima, research assistant, enrolled in the Masters program in Environmental Economics and will begin course work in September 2001. David Mtilatila, a final year B.S. student in Civil Engineering at the Polytechnic, was hired to design and administer a questionnaire on Health, Sanitation and Hygiene in the Lake Chilwa Catchment as part of his senior thesis, completed in March 2001. The WARFSA grant (jointly won with the Zimbabwe researchers) permitted recruiting an additional graduate student, Mr. Bryson Nkoma, whose research will focus on irrigation schemes.
- Researchers underwent a one-week training in SPSS in June and also in Minitab in August. Dr. Peter Walker later joined the project to validate data quality and to advise on data programs and methods that could be used by the researchers themselves, rather than being obliged to acquire expertise from other departments. Since the Zimbabwe team also received the same training, the opportunities for ongoing collaboration beyond BASIS are thereby improved.
- In October 2000, the BASIS Project was relocated to the History Department at Chancellor College, a change that integrated the project more directly into the mainstream university system

Key Findings and Results

Data from the household survey conducted in 1999–2000 were cleaned and analyzed this year. The survey showed that the main sources of drinking water in the dry season are open wells followed by taps and boreholes. About 52% of the water sources produce water of poor quality, as determined by its saltiness, color, smell, texture and contact with animals and human beings. Almost 33% of the sources produce water throughout the year while 52% suffer occasional shortages and about 14% experience serious water shortages during the dry season, with some drying up completely.

The survey indicated that growing and selling food crops is the main income source in the area, and that most food growers are found in the estate and irrigation sectors. The urban area is relatively richer than the estates and irrigation sectors. The more affluent individuals depend on wage labor while those living on casual agricultural and non-agricultural

labor belong to the poorest category in the Lake Chilwa basin. The survey showed that there is a relationship between wealth and household size. Household sizes of the urban cluster, which tend to be richer, are larger than those in the other four clusters.

The child morbidity survey reveals that children in the study area frequently suffer from fever, diarrhea, cough, and malaria. The most common problem mentioned by respondents is fever (that can be caused by a range of conditions), followed by malaria and diarrhea.

2.C. Mozambique

With the end of war and consolidation of democratic processes, Mozambique has experienced rapid economic growth and investment, which requires institutional reforms, including the water sector. The government has started the decentralization of water management through the establishment of Regional Water Authorities, and the enhancement of community participation.

Research has focused on assessment of the impact of the 1995 National Water Policy. The general objective of the research project has been to inform policy on water access and management in the context of ongoing water sector reform in Mozambique. As in other countries in the region, providing and managing water in Mozambique has shifted from government to comprehensive river basin management strategies emphasizing stakeholders, markets, pricing and technology to promote water use efficiency, cost recovery and resource conservation. However, this trend has developed unevenly throughout the country.

Like neighboring countries, Mozambique faces water scarcity problems, but is likely to suffer more acutely in the near future due to fast-rising demands on water and because the country is downstream of almost all its major rivers. The study area is characterized by massive investment in agriculture and industry—including the major aluminum industry in Southern Africa. Maputo city is supplied with water from Umbeluzi. This leads to great pressure on water and other natural resources.

Research conducted last year showed that, although the management of the small-scale irrigation schemes in the Umbeluzi Basin comprises, in principle, a mix of government and farmer involvement, the small farmers have virtually no input into management compared with large-scale commercial farmers and with parastatal ARA-SUL (Southern Regional Water Authority). Research focused on the analysis of the social and economic impact of the changing water policy, land distribution in the irrigation schemes, and contestations among different water users, particularly the position of local groups and women in the access and management of water resources.

(Continued, page 73)

Key Findings and Results

Water Policy Review Findings in Malawi

Awareness: Almost all of Malawi's environmental policies and laws have been revised in little more than five years. Specialists are hard pressed to keep up, and in most cases, the public has yet to learn about the revisions. Much will need to be done to make people aware of the new policies and laws as they are implemented.

Local Government Act: Many of the new environmental policies and laws, including the water policy and law, were drafted or written before the Local Government Act (decentralization) was passed and do not take its provisions into account.

Local Cooperation: The laws and policies in each environmental sector promote formation of user groups or committees, usually at the community level. The result is a proliferation of committees in villages where people are struggling to earn a living. BASIS research indicates that often the same people sit on these committees, thus members are burdened with work, and many committees become inactive. Ministries and other agencies need to cooperate at the local level in forming these groups. User associations, which bring together interested parties from a wider area, might prove more manageable and effective.

Gender Issues: Women, who are generally responsible to provide households with water for domestic use and who also engage in a wide range of income activities, need more say in the decisions surrounding the installation, use, and management of water sources. Malawi could set an example in the region by expanding the voice and representation of women in the water reform process. Women play a major role in agricultural production and marketing, yet the shift from supply-side approaches and potable water and sanitation concerns to broad-based production and catchment conservation issues has rendered women invisible in the draft policy document.

Environmental Degradation: The study suggested that the widespread notion that overpopulation and poverty is the root of environmental degradation needs to be tempered. Many environmental problems identified were caused by the more affluent population, not the poor. Further, as many of these problems did not originate where they were most experienced, it is unlikely that the Community Based Natural Resource Management strategies—popular with NGOs and USAID and incorporated into most new environmental legislation—will solve the problems. Equitable means of conflict resolution will need to be developed at district or catchment level.

Community-Based Management Approach (CBM):

Overall, the CBM approach in the Lake Chilwa Basin faces a number of organizational challenges and problems including non-functional committees, non-functional boreholes, poor coordination, poor monitoring, gender inequality, and poor recognition of community labor and time costs. Government has laid out CBM procedures that, if implemented, could resolve some of the problems and challenges. Unfortunately, some of the NGOs do not follow these procedures and there is no mechanism in place to monitor or control NGO activities.

BASIS studies indicate that approximately 106 wells have been sunk in the area by different agencies (governmental and non-governmental) and around 25% of them are non-functional. Non-functioning water sources are drying up because of poor siting, lack of spare parts, poor workmanship due to a failure to follow recommended standards, and inadequate supervision of works.

All agencies involved in water supply programs in the study area advocate community-based management. They view the involvement of beneficiary communities as the best means to ensure a sustainable and good quality supply of water. But they follow different approaches. Issues found to be obstacles to achieving the goals of effective and equitable CBM include the following:

- *Too Many Uncoordinated Committees:* Apart from the Water Committees, there are committees for school, church, village natural resources, (fishing) beach, health, etc., often made up of the same members. Committees place heavy demands on members' time, often are poorly coordinated, follow different rules, and sometimes duplicate roles. While different agencies share objectives and deal with the same communities, their different approaches without clear mechanisms of co-ordination result in contradictory practices and "confusion" among villagers.
- *Gender Issues:* Researchers found that while most women understand the need to contribute to maintenance funds, committee discussions and other development activities, their views are often overshadowed by other members and chairpersons, the majority of whom are men. Women, due to their being present more often than men (many of whom move out of the area for work), are often targeted for voluntary work, thus reducing the time they have to spend on productive activities. Some members try to "create time" for other activities by frequently absenting themselves from committee meetings; others delegate work to their children. This has costs for families, individuals, and the management of water resources.

Mozambique (continued)

This is the final stage of the research project and provides an integrated overview of Umbeluzi Basin social-economic dynamics of water access and management. Activities during the year included:

- Field-work at Boane District headquarters, Maputo city, Massaca and Mafuiane Villages, collecting interviews among users and institutions dealing with water issues, and including a bibliographical survey.
- A BASIS/NET Workshop held at Pequenos Libombos Dam on September 29, 2001 with the objective of sharing research outputs with stakeholders of the irrigation schemes of Massaca and Mafuiane, academics and representatives of local administration, community leaders, water agencies, and representatives of the Ministries of Agriculture and Public Works.
- Mapping of the Umbeluzi Basin.

Researchers shared outputs with colleagues of the Agronomy Faculty, Universidade Eduardo Mondlane. E. Chilundo participated in the Water, Human Rights and Governance Conference in Kathmandu, Nepal, February 26-March 2, 2001.



In Mozambique's Umbeluzi Basin, water resources are in great demand. Rural residents, like the man in the photo above, haul water for household uses such as drinking, cooking, and washing. Water is also essential for livestock and crop irrigation—both formal schemes and household plots. Population growth, rising export agriculture, and climate change resulting in erratic rainfall and recurrent droughts have all exacerbated water scarcity in the region. Photo by Rosaque Guale.

Key Findings: Mozambique

Water Policy Reform in Mozambique

BASIS researchers identified a number of implications regarding water policy in Mozambique:

- The National Water Policy considers water an economic good. Nevertheless, the price of bulk water is still influenced by the government and prices do not guarantee cost recovery by water authorities so that they can become financially autonomous.
- There is need to review the existing water policy and clearly define the roles of government, corporations and other water agencies. Research revealed very weak involvement of water users or stakeholders in water resources management. A top-down approach in water resource management should be avoided in order to stimulate community participation on planning and development.
- The overall strategy for access to water in Mozambique is still sustained by the government. An integrated approach to planning and management of water resources should be based on the principles of sustainable development. Further, to be achievable, the following reforms should be embarked upon as a matter of priority:
 - ⇒ Implement legal reforms to allow greater and more equitable use of water for irrigation development and other activities.
 - ⇒ Enhance water users and community participation in water access more effectively.
 - ⇒ Review the water prices.
 - ⇒ Establish basin committees in order to ensure the efficiency of resource management.
 - ⇒ Encourage research activities and technology development.
- For successful agricultural activities there is need for a cost-benefit analysis for irrigation schemes and concession of agrarian credits.
- There is a need for institutional capacity-building at all levels of water management and water development.
- Delay of the implementation of this Policy compromises the overall development of agriculture and irrigation schemes.
- There is a need to stimulate the interface among water users within the country and between neighboring countries and compare experiences of irrigation schemes management.

BASIS/Zimbabwe Land Reform and Resettlement Program

Collaborating Institutions and Researchers

Rutgers University

David Hughes, Co-Principal Investigator and Lecturer,
Department of Human Ecology

Southern African Regional Institute for Policy Studies (SARIPS)

Sam Moyo, Program Director

University of Wisconsin-Madison

Land Tenure Center

Michael Roth, Senior Scientist, Co-Principal Investigator

University of Zimbabwe

Centre for Applied Social Science (CASS)

Phanuel Mugabe, Director, Co-Principal Investigator

Department of Economic History

Pius Nyambara, Co-Principal Investigator and Lecturer

Eira Kramer, Lecturer and Chair

Edmore Mufema, Lecturer

Joseph Mtisi, Lecturer

Yale University

Vupenyu Dzingirai, Post-doctoral Fellow, Program in
Agrarian Studies

Yuka Suzuki, Ph.D. Candidate, Anthropology

Project dates:

July 2000 - October 2002 (*New Agrarian Contracts*)

July 2001-October 2002 (*Mentors Program*).

Note: The project exceeds the September 2001 BASIS CRSP end date; funds are channeled through the LTC project rather than BASIS CRSP.

Support: Add-on only (USAID/Zimbabwe)

Program Overview

Land reform and sustainable management of land and water resources are key emerging challenges facing Zimbabwe's economy and rural development. Consensus is forming that Zimbabwe's skewed distribution of land ownership needs to be moderated to improve land use management and to better the lives of the landless and poor. A successful land reform that broadens access of the poor to land, water and financial capital resources can mean higher land use productivity, broad-based economic growth, and political stability. Conversely, a badly designed or implemented land reform program that redistributes land but fails to broaden access to capital, infrastructure or economic opportunity risks both



Two Parliamentarians from Zimbabwe learned about BASIS research findings and policy alternatives regarding land and water reform in southern Africa when they attended the BASIS Synthesis Workshop held July 22-25, 2001 near Johannesburg, South Africa. Both men serve on the Zimbabwe Parliament's Land, Agriculture, Water and Rural Development Committee. *Daniel McKenzie Ncube* (right) is committee chair and *Renson Gasela* (center) is a committee member. They spoke with *Francis Gonese* of CASS (left) during a break in the workshop where they helped advise and inform other regional participants on the challenge of land and water reform in Zimbabwe. Photo by Marsha Cannon.



Gender and land in Zimbabwe was the topic of a paper presented by Mildred Mushunje, lecturer at the University of Zimbabwe School of Social Work, at the "Who Owns America?- III" conference in Madison, Wisconsin, June 6-9, 2001. In the photo above, Mushunje (center) responds to questions with co-presenter Betty Wells, Iowa State University (left) and Beverly Phillips, Land Tenure Center facilitator (right). Photo by Katherine Davey.

economic regress and entrapping the poor in landed poverty. Zimbabwe's present economic downturn, political unrest, and battered international image only serve to underscore the importance of finding genuine land reform solutions that work on behalf of, not against, the poor.

During 2000-2001, a subagreement with Rutgers University was finalized for research on new agrarian contracts—sharecropping, out-grower schemes, and community-based tourism. A second project addresses the challenge of building a new generation of thinkers and leaders within government, civil society and the private sector to lead the development effort. The Center for Applied Social Sciences (CASS) at the University of Zimbabwe agreed to serve as the local contracting institution responsible for project implementation. While many donors have retreated from the field because of political turbulence surrounding farm occupations, this project is continuing to move forward.

3.A. New Agrarian Contracts: Sharecropping, Out-Grower Schemes, and Community-Based Tourism in the Context of Zimbabwe's Land Reform— *New BASIS I Project*

Research team: Hughes, Nyambara, Dzingirai, Kramer, Mtisi, Mufema, and Suzuki

In response to severe constraints on land and labor, rural Zimbabweans have devised oral and written contracts that allow commercial producers to project their influence across space and to new populations, without controlling land or labor directly. For example, during the 1990s smallholder farmers increasingly rented out their underused land to in-migrants on a sharecropping basis. Corporate farms (notably in the tea sector) began to recruit out-growers in communal lands and in Mozambique. Businessmen have been striking deals with rural district councils for licenses to operate in communal lands, principally for tourism ventures under CAMPFIRE (the Communal Areas Management Programme for Indigenous Resources).

Through such novel arrangements, stronger producers are gaining access to the resources of weaker producers. The cooperation of these parties may generate mutually beneficial synergy or extreme exploitation. Outcomes will depend on the terms of contracts and on the impact of wider policies, especially land reform.

2000-2001 Activities

A first draft of the proposal by Hughes, Mtisi and Nyambara was submitted to the BASIS Technical Committee for review at its September 2000 meeting. After major modifications to the proposal, BASIS approved funding in January 2001. By March 2001, the subcontract between

BASIS and Rutgers University had been signed. It took until the end of the fiscal year to complete a subcontract between Rutgers and the University of Zimbabwe Department of Economic History (Myambara and Mtisi).

Mtisi and Hughes have launched their research. Hughes has collected and analyzed economic data on eco-tourism and cash cropping in Ngorima Communal Land (Chimanimani District) and he has published one paper discussing this comparison and its implications for policy (particularly for CAMPFIRE).

Mtisi interviewed a total of 50 informants in the Honde Valley (Mutasa District), Tamandai, Gwenzi and Chinyaduma (Chipinga District) and gained a preliminary understanding of the terms and parties to tea outgrowing contracts. Nyambara interviewed a total of 15 informants and completed 30 questionnaires on sharecropping arrangements in Njelele, Nyarupakwe and Mudzongwe areas of Gokwe and got a sense of the significance of sharecropping among Gokwe villagers.

2001-2002 Work Plans

Hughes had planned to spend all of calendar year 2002 in Mutare carrying out research on community-based tourism and contract farming. However, unsettled political events and subsequent insecurity led to postponing the trip. Hughes is now scheduled to be in Zimbabwe for one year beginning May 2002. By the project's conclusion in October 2002, field research and seven policy briefs should be completed. Topics, numbers of briefs, and researchers appear below:

- Community-based tourism (1-Hughes; 2-Nyambara; and 2-Mtisi)
- Contract farming (1-Mufema and 1-Dzingirai)
- Wildlife ranching on white-owned farms as it relates to new contracts and community-based tourism (1-Kramer and 1-Suzuki)

Collaboration with Other Projects

Researchers have networked and shared information with relevant organizations in Africa and North America, as follows: *Zimbabwe*—Southern Alliance for Indigenous Resources, World-Wide Fund for Nature, Zimbabwe Trust, CAMPFIRE Association, Commercial Farmers Union, Africa Biodiversity Fund. *United States*—Biodiversity Support Program, World Resources Institute, Agribusiness in Sustainable Natural African Natural Plant Products, The Ford Foundation. *Other*—Organização Rural de Ajuda Mútua (Mozambique), Núcleo de Estudos da Terra (Mozambique), International Development Research Center (Canada), Zambia Wildlife Authority, and Conservation International.

Key Findings

Zimbabwe's land reform program seeks to redistribute land from white to black farmers. With respect to labor, implementing officers are trying to enforce a yeoman farmer model, whereby black smallholders would work on their fields and nowhere else. The reform program takes little account of circuitous routes of access to land and labor markets.

How will the land reform program influence the ongoing practices of sharecropping, contract farming, and tourism? BASIS research addresses that question and also examines the suitability of the three types of contracts for support as complementary models of resettlement.

Key policy questions were outlined in the research proposal. For example:

- Do sharecropping, contract farming, and community-based tourism reinforce or undermine the official land reform?
- If they undermine the main model of land reform, should that program give way, or should the contracts, and under what conditions?
- How can government agencies and NGOs affect the terms of the three types of contracts?

Community-based tourism (CBT) has a 10-year history under CAMPFIRE. Recent contracts involve local government less and less. Instead, small, bureaucracy-averse firms are making deals directly with individuals or groups in communal lands for the latter to provide hospitality services. These firms are thus gaining access informally to land and natural resources reserved in the 1890s for the exclusive use of black smallholders. Smallholders are gaining investment and employment.

Research findings of interest to policy makers include the following:

- CBT often takes substantial hectares of communal land out of current or potential agricultural production.
- The least local antagonism occurs when CBT uses previously alienated land and does not interfere with farming.
- Formal and informal contracts require smallholders to trade land rights for an income stream; individuals lose security and become vulnerable to risks in a highly volatile international market.
- The economic potential of tourism in eastern Zimbabwe may be highly exaggerated. In Ngorima Communal Land, tourism compares unfavorably with banana cultivation, another leading land use (see table below).

Land Use	Chimanimani Rural District Council's estimates of profit + local wages/ ha. p.a.	Actual profit + local wages per ha. for yr. immediately following the estimate
Banana production	\$4,851 (1994)	\$307 (1995)
Eco-tourism	1,471 (1999)	0 (2000)
Opportunity cost , eco-tourism	3,380	307

Note that the table reports data obtained from different years. Although it might seem logical during the current crisis to discount the high opportunity cost for eco-tourism, researchers point out the risk of constructing unrealistic best-case scenarios. The table represents the risk to which residents are subject should they invest land in eco-tourism.

Contract farming is likely to proliferate in the next few years. The corporate tea sector has led the way but it faces severe constraints in terms of land and labor.

- Findings show tea fast becoming the dominant cash crop in the Honde Valley. Out tea growers (OTG's) face land shortages and there are many land disputes now that tea has increased the value of land.
- As OTG's have no factories, they must sell to buyers with processing facilities. Thus to the buyers, the OTG's constitute a cornered market. For growers on communal lands, companies present annual contracts to producers on almost a "take it or leave it" basis.
- Buyers seem to blend "corporate" tea with tea supplied by outgrowers. Most OTG's cannot afford fertilizer, thus the chemical content in their tea is generally much, much lower than that produced on company estates.
- OTG's have had difficulties trying to organize (unionize). They appear generally divided over the question of title deeds.

Sharecropping can help overcome shortages of both land and labor in Zimbabwe's communal land.

- Immigrants continue to pour into Gokwe since the adoption of ESAP (the World Bank's Economic Structural Adjustment Program). Many people are out of work. The majority of recent immigrants have very little or no land. In the cotton-growing frontier of Gokwe, land pressure has increased and the frontier is fast closing.
- Sharecropping has become a significant feature of the agrarian structure of Gokwe villages.

Table 8. Profitability of Land Uses (US\$)

- Sharecropping is usually practiced between those who accumulated large pieces of land when it was still available but have no labor, and immigrants with labor and the money to buy inputs but no land.
- The majority of sharecropping arrangements are between relatives and friends, but there are many between complete strangers, such as established villagers and recent immigrants. Researchers are analyzing the terms of various sharecropping situations.
- Sharecropping can be seen to benefit both parties rather than as an exploitative relationship.
- In view of the slow pace of the “fast-track” resettlement program, land pressure is likely to continue increasing. Since many people prefer to stay in the communal areas, sharecropping will continue to be an important coping mechanism for the land-hungry.

Information and recommendations of interest to policy makers is expected to emerge as the research progresses.

3.B. BASIS Mentors Program

Research team: Moyo, Mugabe, Roth and Nyambara

Serious constraints hinder human capital development in Zimbabwe. Faculty involvement and skills training at the University of Zimbabwe have weakened due to faculty losses. Students entering the critical stages of thesis or dissertation research often experience funding constraints that limit fieldwork and applied studies. And there is great need for partnership between local and international organizations to apply knowledge gained from the international land reform and resettlement experience to the Zimbabwean situation, and to facilitate Zimbabwe’s contribution to the global knowledge base.

As the first step toward a long-run program (but funded only for the first year), BASIS Mentors has been established for student training and capacity building. Specifically, it will:

- Provide fieldwork and training support for up to three second-year MS or third-year Ph.D. students of Zimbabwean nationality;
- Strengthen field level research in Zimbabwe on issues of land and water reform and resettlement through project funding and student mentoring by US and Zimbabwe faculty; and,
- Create or strengthen linkages between the university community, government and civil society organizations.

The project uses \$65,000 provided by USAID/Zimbabwe through BASIS to support Zimbabwean students currently enrolled at a university in Zimbabwe or within the Southern Africa region. These students will usually have completed all necessary coursework and will be in the process of designing or implementing research geared toward completing their university degree.

Each student will be mentored by his or her major professor teamed with one of several US faculty members who have their research funded in Zimbabwe by either the BASIS CRSP or the LTC/CASS Technical Assistance Project.

Research grants were advertised in September 2001 with fieldwork, data analysis and write-up anticipated during the period January to October 2002. Pius Nyambara from the Economic History Department at the University of Zimbabwe is the Mentor Program Coordinator.

Other Southern African universities have expressed interest in this program, and in the fall discussions were underway to extend the program to the University of Malawi.

◆4◆ Southern Africa Synthesis Workshop: Broadening Access to Land and Water in Southern Africa

During a two and one-half day workshop, the six Southern Africa research teams presented their findings to identify critical cross-country or cross-region similarities and contrasts, and their implications for policy practice and research. Papers written for the workshop will be revised and several *BASIS Policy Briefs* will be produced. BASIS researchers from other regions and policymakers from Southern Africa were invited to the workshop to assist with synthesis efforts and with identifying policy implications of the research. More information about participants and a group photo appear later in this section.

Research on Access to Land

Monday, July 23 was devoted to BASIS research on land. In all three countries (South Africa, Namibia, Zimbabwe), researchers are investigating how to broaden access to land markets and promote the sustainable use of farmland. The study design in each country was to monitor the various means by which farmland is transferring to and being used by people historically disadvantaged in relation to land. This includes differentiation by race, gender, and wealth. The research monitors and compares rates at which farmland transfers to different classes of disadvantaged people over time as a result of both government land reform and private transactions.

Discussion revolved around the main research findings, their significance to the current policy debate in Southern African countries, and the limitations of the research and directions for future work.

- Government land redistribution programs in all three countries are proving to be much slower than hoped. Registration and titling are time-consuming even where demarcated farms are being transferred but they are especially slow where a large proportion of the lands need to be demarcated. There is a regional shortage of

surveyors and, in some countries, bureaucratic bottlenecks on surveying, legal drafting, registration, and general implementation.

- Private or “market” transfers are occurring faster than expected and are moving more and better quality land than government-assisted schemes. Nevertheless, private market transactions are not fully reaching the poor, women, or those with limited access to financial capital. Partnerships are needed that facilitate land transfer and ease credit constraints through both public and private sector mechanisms.
- Policies designed to transfer land to “disadvantaged” groups with the supplemental aim of facilitating their productive use of land must pay more attention to the question of how to finance access and use.
- Loans with deferred or graduated repayment schedules to commercial banks are needed to help underwrite the credit risk associated with commercial transactions and to help broaden access of black farmers to long-term mortgages.
- Innovative strategies and modes of ownership are needed that secure land and land rights. Group forms, such as community ownership and equity-sharing schemes, currently have a checkered history in the region. Yet, individual title or individualized ownership lies beyond the reach of the poor, and has problems of its own. Policy reform and program interventions are needed that help adapt ownership modes to site specific contexts and to improve their organizational and operational efficiency.
- Analysis of gender in land transfers indicates that, in all three countries, women generally have greater difficulty obtaining land ownership and the financial wherewithal to purchase land or to use it more productively, even though they are key managers and users of land.

Researchers realized the limitations of the methods available for collecting land transfer data in all three countries—title deeds from national or sub-national registries. However, this seemed to be the only way to identify a sample of new recipients of land. In addition, registries are not always up-to-date; some records are not computerized; distinctions of title owners such as race or gender had to be discerned from names and designations; and even when names are collected, it is very difficult to trace the persons and find the exact land or farm titled. Thus while researchers used all information available through the deeds registries, this data can provide only a broad picture of transfers by race and gender. Follow-up sample surveys of persons and farms are invaluable in giving researchers and policy-makers greater insight into the process of land transfer.

Research on Access to Water

Tuesday, July 24 was devoted to the research on access to water resources in the context of water policy reform. Malawi, Mozambique, and Zimbabwe are at different stages of the formation and implementation of the reforms, and the institutional shaping of the reforms differs in each.

Water research has generated the following *lessons*:

- There are very serious shortcomings in the institutional capacity for water resource management at all levels, including the capacity to issue water permits and to enforce regulations. A key question is to identify the comparative advantages of government and private organizations in water resource management. The challenges are particularly large in the face of serious shortages in all resources (financial, institutional and human), and the toll taken by the HIV/AIDS pandemic.
- Land and water are interdependent resources and the policies directed at them need to be more coordinated than they are currently.
- The distinction between water resource management and development needs to be stressed. *Management* involves already existing water sources and includes pricing, and supervisory administration of allocation.
- *Development* involves establishing new water-points and programs for water delivery. Different categories of water users are differently aligned with regard to these two aspects.
- Water development tends to be popular with donors, leading to a proliferation of water programs that, left uncoordinated, tend to produce chaotic management systems, duplication, and gaps in provision. An important role for government (at several levels) is to ensure better coordination.

Problems encountered included the following:

- The use of catchments or basins as units in water resource policy makes sense for environmental policy, but is at odds with existing political, administrative, and social units.
- The concurrent move to strengthen local government administration as part of decentralization has revealed shortages of human capacity and other resources at local levels.
- Small-scale irrigation schemes appear to be a current focus of several regional governments but there has been very little detailed research done on effectiveness of these schemes as generators of income for small farmers (for example, through market gardening).

Remaining challenges or new directions included:

- More research and policy attention addressed to rental markets for water and land, such as in small-scale irrigation schemes.
- There is disagreement over the principle of users paying fees for water. Some people claim that “water is a gift from God and cannot be bought and sold” yet there are numerous examples emerging from the research of people paying and charging for water.
- There is a need to look carefully at how local organizations (such as catchment councils and sub-catchment groups) may be aided to develop fair and transparent standards of monitoring and charging for different categories of water use.
- Gender discrimination remains a research and policy challenge: in the realm of water use, women tend to be major players but are not well represented in the management structures above village level.
- There is a need to explore the potential for private markets for water as a complement to government programs; examples include one from South Africa where government contracts with entrepreneurs to sell potable water, using the proceeds to maintain the public infrastructure it provides in rural areas.

Wednesday, July 26

The morning was devoted to a plenary discussion of the key conclusions for policy and for research on land and water policy reform, and to planning next steps: preparation of a workshop report, revision of papers, and preparation of policy briefs.

A total of 33 individuals attended, 10 women and 23 men. Notable attendees were Amon Chirwa, Ministry of Water Development – Malawi; Ms. Vuyiswa Nxasana, Chief Director for Land Reform, South Africa Department of Land Affairs; Renson Gasela, MP – Zimbabwe; Daniel McKenzie Ncube, MP – Zimbabwe; Neal Cohen, USAID/South Africa; and Dorvin Stockdale, USAID/ South Africa, Agriculture Officer.

By category, the 33 attendees represented: USAID (3), US PIs/researchers (6); host country/regional government representatives (4); host country/regional NGOs (2); host country/regional PIs/researchers (13); and others (5) including Alvaro Trigueros, University of Central America; Alta Dreyer, Institute of Natural Resources; Anne Hellum, University of Oslo; Jeanne Koopman, Boston University; and Marsha Cannon, BASIS CRSP Management Entity.

**Broadening Access to Land Markets
and Water in Southern Africa**

Final Workshop

22 - 25 July, 2001

Magaliesberg, South Africa

- 22 July** Welcome and Introductions, Workshop Objectives—Pauline Peters and Michael Roth
- 23 July** Land redistribution in KwaZulu-Natal, South Africa: Research findings and policy implications—Mike Lyne and Mark Darroch
Small groups to define synthesis issues
- Same Ingredients, Same Recipe? The future of land reform in Namibia—Ben Fuller and George Eiseb
Small groups to define synthesis issues
- Land redistribution in Zimbabwe: Research findings and policy implications—Lovemore Rugube and Ragan Petrie
Small groups to define synthesis issues
- Group Reports and Discussion of land reform policy recommendations and dissemination of findings—Chair: Mike Roth
- 24 July** Improving Access to Water Resources in Mozambique: Research findings and policy implications (Joel das Neves, A.M. Baloi)
Small groups to define synthesis issues
- Improving Access to Water Resources in Zimbabwe—Francis Gonese, Bill Derman, Claudious Chikhozo, Everisto Mapedza, Jim Latham, Zebediah Murungweni
Small groups to define synthesis issues
- Improving Access to Water Resources in Malawi—Wapu Mulwafu, Anne Ferguson, Grace Chilima
Small groups to define synthesis issues
- Group Reports and Discussion of water reform policy recommendations and dissemination of findings—Chair: Pauline Peters
- 25 July** Plenary: Summary and Next Steps



BASIS CRSP Southern Africa Synthesis Meeting, Magaliesburg, South Africa. July 24, 2001. Front row (l.to r.): **Wapu Mulwafu** (Chancellor College-Malawi), **Zebedah Murungweni** (GTZ-Zimbabwe), **Grace Chliama** (Chancellor College), **Lovemore Rugube** (University of Zimbabwe), **George Eiseb** (University of Namibia), **Everisto Mapedza** (CASS), **Aristides Baloi** (Eduardo Mondlane University -Mozambique), **Alvaro Trigueros** (University of Central America), **Ben Fuller** (University of Namibia). Back row: **Daimon Kamweba** (DANIDA-Malawi), **Anne Ferguson** (Michigan State University), **Jeanne Koopman** (Boston University), **Amon Chirwa** (Ministry of Water Development-Malawi), **Mark Darroch** (University of Natal), **Renson Gasela** (MP-Zimbabwe), **Doug Graham** (Ohio State University), **Claudious Chikozho** (CASS), **Joel das Neves** (Eduardo Mondlane University-Mozambique), **Francis Gonese** (CASS, U of Zimbabwe), **Pauline Peters** (Harvard University), **Mike Lyne** (University of Natal), **Bill Derman** (Michigan State University), **Lena Heron** (USAID), **Ragan Petrie** (University of Wisconsin), **Daniel Ncube** (MP-Zimbabwe), **Alta Dreyer** (INR), **Mike Roth** (BASIS CRSP), **Jim Latham** (CASS). Photo by Marsha Cannon.

2000-2001 Outputs

◆1◆ Broadening Access to Land Markets in Southern Africa

Journal Articles

Lyne, Michael C. and Douglas H. Graham. (2001). "The impact of land redistribution on tenure security and agricultural performance in KwaZulu-Natal." Article accepted for publication in *Agrekon*.

Graham, Andrew W. and MAG Darroch. (2001). "Relationships between the mode of land redistribution, tenure security and agricultural credit use in KwaZulu-Natal." *Development Southern Africa* 18(3): 295-308.

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." *Sociological Research Online* 5(2), www.socresonline.org.uk.

Reports

Fuller, Ben and George Eiseb (2001). "Same Ingredients, Same Recipe: Will There Be Enough Land to Reform?" 11 pp. Presented at BASIS Synthesis Workshop, Magaliesberg, South Africa, July 22-25, 2001.

Lyne, Michael and Mark Darroch. "Land Redistribution in KwaZulu-Natal, South Africa: Four Census Surveys of Farmland Transactions, 1997-2000." 31 pp. Presented at BASIS Synthesis Workshop, Magaliesberg, South Africa, July 22-25, 2001.

Petrie, Ragan, Kizito Mazvimavi and Michael Roth. "Seeking Women Land Owners and Ownership in Zimbabwe: Case Studies of Deeds Registration Haves and Have Nots." 14 pp. Presented at BASIS Synthesis Workshop, Magaliesberg, South Africa, July 22-25, 2001.

Rugube, Lovemore, W. Chambati and M. Musodza. "Land Redistribution in Zimbabwe: Five Census Surveys of Farmland Transactions, 1996-2000." 40 pp. Presented at BASIS Synthesis Workshop, Magaliesberg, South Africa, July 22-25, 2001.

Non-print Outputs

The following unique databases have been created:

- All commercial farmland transfers in KwaZulu-Natal for 1997-2000.
- All land transfers in Namibia for 1990-2001.
- All commercial farmland transfers in Zimbabwe for 1996-1999

◆2◆ Broadening Access to Water Resources in Southern Africa

Malawi

Chavula, G. and W.O. Mulwafu, 2001. "Hazardous Water: An Assessment of the Quality of Water Resources in the Likangala Catchment Area for Domestic Purposes," Presented at the BASIS Synthesis Workshop, Magaliesberg, July 22-25, 2001.

Chilima, G., B.G. Nkhoma, G. Chavula and W.O. Mulwafu, 2001. "Community Based Management Approach in the Management of Water Resources by Different Organisations in the Lake Chilwa Basin, Malawi," 12 pp. Presented at the BASIS Synthesis Workshop, Magaliesberg, July 22-25, 2001.

Ferguson, Anne, 2001. "Watershed Management in Zomba, Malawi: A Place-Based Critique of the New International Principles of Water Management." Presented at the American Anthropological Association annual meetings, Washington, DC, November 28-December 2.

Ferguson, Anne and Bill Derman, 2000. "The Value of Water: Political Ecology and Water Reform in Southern Africa." Presented at the American Anthropological Association annual meetings, San Francisco, CA.

Ferguson, Anne and W.O. Mulwafu, 2001. "Decentralization and Access to Water Resources in Malawi", 37 pp. Presented at the BASIS Synthesis Workshop, Magaliesberg, July 22-25, 2001.

Mtilatila, D., 2001. "An Assessment of the Link between Disease Outbreaks and Poor Sanitation and Hygiene Education in the Zomba BASIS Study Area within Lake Chilwa Catchment." University of Malawi: B.Sc. Thesis, Jan. 2001.

Mulwafu, W. O., 2000. "Conflicts over Water Use in Malawi: A Socio-Economic Study of Water Resources Management along the Likangala River in Zomba District", November.

W. O. Mulwafu and S. Khaila, "Conflicts over Water Use in Malawi: A Socio-Economic Study of Water Resources Management along the Likangala River in Zomba District", presented at the WARFSA/WaterNet Symposium Sustainable Use of Water Resources, Maputo, 1-2 November 2000.

Mozambique

Chilundo, E. and J. Neves Tembe, "Community Management of Water: The Case Study of Umbeluzi Basin, Mozambique," presented at the Conference and Strategic Meeting on Water Human Rights and Governance, Kathmandu, Nepal, February 26-March 2, 2001.

Neves Tembe, J. and A. Baloi, "Improving Access to Water Resources in Mozambique: Research Findings and Policy

Implications.” 13 pp. Presented at BASIS Synthesis Workshop, Magaliesberg , Johannesburg, July 22-25, 2001.

Report on BASIS/NET Workshop, Pequenos Libombos Dam, Umbeluzi, September 29, 2001.

Bibliographical Survey on Umbeluzi Basin.

Zimbabwe

Gonese, Francis T. “Policy Implications of the CASS BASIS Water Research Findings on Water Sector Reform in Zimbabwe.” 7 pp. Presented at BASIS Synthesis Workshop, Magaliesberg , Johannesburg, July 22-25, 2001.

Mapedza, Everisto. “Sanyati Catchment Council Experiences,” PowerPoint presentation at BASIS Synthesis Workshop, Magaliesberg , Johannesburg, July 22-25, 2001.

◆3◆ **BASIS/Zimbabwe Land Reform and Resettlement Program**

Mushunje, Mildred T. “Women’s Land Rights in Zimbabwe.” Presented at “Who Owns America?-III,” June 6-9, 2001. Madison, WI. 19 pp.

Print Outputs

Mtisi, Joseph. 2001. “Caught Between the Devil and the Deep Blue Sea.” Post Colonial State’s Attitude towards Squatters on Demarcated Forest Areas in Manicaland.” presented to the conference on “Rethinking land, state, and citizenship through the Zimbabwe crisis,” Center for Development Research, Copenhagen, Denmark, 4-5 September 2001 (33 pages).

Nyambara, Pius. 2001. “The Politics of land acquisition and struggles over land in the communal areas of Zimbabwe: the Gokwe region in the 1980s and 1990s.” *Africa* 71(2): 253-285.

Nyambara. 2001. “Reconstructing the contours of citizenship in a closing frontier: Agrarian Change, Immigrants and the ‘Squatter Menace’ in Gokwe Villages, 1980s and 1990s.” Copenhagen, Denmark, 4-5 September 2001.

Non-Print Outputs

“The opening of Zimbabwe: pitfalls of democratic and development liberalism,” presented to at conference on “Rethinking land, state, and citizenship through the Zimbabwe crisis,” Center for Development Research, Copenhagen, Denmark, 4-5 September 2001.

“Village republics and venture capitalists: strange bedfellows in Zimbabwe-Mozambique transborder conservation,” presented to the International Society of Tropical Foresters conference on “Transboundary Protected Areas,” Yale University, New Haven, CT, 30-31 March 2001.

“The Rhodesian order of race, space, and nature: a reappraisal in light of current alternatives.” Presented at the Association of American Geographers annual meeting, New York, 27 February – 3 March 2001.

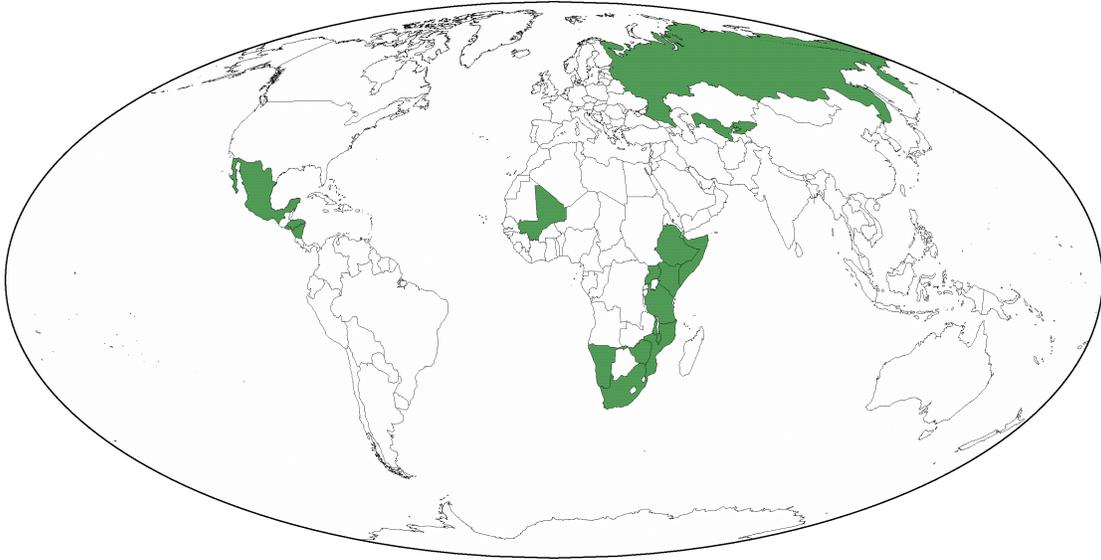
“To spread opportunity across space: smallholder-led resettlement in eastern Zimbabwe.” Presented at the African Studies Association annual meeting, Nashville, Tennessee, 16-19 November 2000.

Hughes, David McDermott. “The new native reserves: eco-tourism and the scramble for eastern Zimbabwe.” Department of Economic History, University of Zimbabwe, Harare, 10 November 2000.

Hughes, David McDermott. “Rezoned for business: how eco-tourism unlocked black farmland in eastern Zimbabwe.” Department of Human Ecology, Rutgers University, New Brunswick, NJ, 6 December 2000 (presented in a joint session with Brian Child of the Zambia Wildlife Authority).

Nyambara, Pius. “Reconstructing the Contours of Citizenship in a closing frontier: Agrarian Change, Immigrants and the ‘Squatter Menace’ in Gokwe Villages, 1980s and 1990s.” Presented to the conference on “Rethinking land, state, and citizenship through the Zimbabwe crisis,” Center for Development Research, Copenhagen, Denmark, 4-5 September 2001.

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◆ **Impact of Joint Titling on Gender Equity—*NEW BASIS I Project***
- ◆2◆ **Development of an Almanac Characterization Tool for Results Reporting**
- ◆3◆ **Synthesis and Cross-Regional Work**
 - 3.A. BASIS Synthesis Workshops
 - 3.B. World Bank Electronic Conference and Consultative Meeting on Land Issues
 - 3.C. Other

Acronyms used in this section

ACT	Almanac Characterization Tool
BASIS	Broadening Access and Strengthening Input Market Systems
CRSP	Collaborative Research Support Program
DACTRR	Development of an Almanac Characterization Tool for Results Reporting
FIDEG	<i>Fundación Internacional para el Desafío Económico Global</i>
GIS	Geographic Information System
LTC	Land Tenure Center
ME	Management Entity
PI	Principal Investigator
RDI	Rural Development Institute
USAID	United States Agency for International Development

Impact of Joint Titling on Gender Equity— *NEW BASIS I Project*

Collaborating Institutions and Researchers

University of Wisconsin–Madison

Land Tenure Center (LTC)

Susana Lastarria-Cornhiel, Principal Investigator,
Senior Research Scientist

Rural Development Institute (RDI)

Renee Giovarelli, Staff Attorney

Robert Mitchell, Staff Attorney

Michelle Ruetschle, Staff Attorney

Law School at the University of Indonesia, Jakarta

Hermayulis, Professor

Fundación Internacional para el Desafío

Económico Global (FIDEG), Nicaragua

Sonia Agurto, Senior Researcher

Universidad Pedagógica Nacional Francisco Morazán, Honduras

Sara Elisa Rosales, Professor

Project dates: September 2001-June 2002

*Support: Add-on from USAID/G/Office of Women in
Development*

Program Overview

While there is considerable theoretical evidence that women would benefit from participation in joint titling programs—where title to land is given to both male and female heads of household—little information is available on the impact of these programs for women. Systematic differences in land tenure rights between men and women contribute to structural inequality and to poverty for women.

Access to land and control over its use are the basis for food and income production in rural areas and, more broadly, for household well-being. Access to other productive resources such as water, irrigation systems, and forest products is tied to land tenure as well. Differences in the property rights of women and men, and lack of direct access to and control of land may place constraints on women's productive roles and on their power and influence in the household and the community. Women who become single heads of household are particularly vulnerable: when their access to land is through their husbands or fathers, they often lose their property after widowhood, divorce, desertion, or male migration.

This is a preparatory research activity that will design and produce a plan of action for exploring two policy-oriented objectives in Nicaragua and Honduras (with established joint titling programs), and Indonesia (with a beginning program).

Research goals are as follows:

- Determine whether joint titling of land, when compared with titling of only household heads, improves gender equity and increases women's tenure security and their access to factor markets, and
- Provide information and analysis on the implementation and effectiveness of joint titling programs themselves.

2000-2001 Activities

This preparatory phase includes the following activities: establish working relationships with country counterparts; contact and obtain cooperation from key government officials and titling programs; locate and review past studies and existing datasets to determine preliminary results and fine-tune research methods; select potential study sites and undertake rapid appraisals in each country; determine methodology and a detailed work plan for each country. While much can be accomplished using electronic communication, one meeting of principal investigators from the LTC and the Rural Development Institute and one workshop with all three country-counterparts are planned.

The activity was proposed as an eleven-month project, beginning in March 2001 and continuing through January 2002. The bulk of the planning was to be completed this fiscal year, with analysis and dissemination activities planned for 2001-2002.

During 2000-2001, contacts and working relationships/understandings have been established with the country counterparts. The researchers are identifying and obtaining documentation and research sites have been established in each country. The PI has written a guide for the rapid appraisals that will be carried out.

2001-2002 Work Plan

Due to delays in receipt of funding (September 2001 instead of March 2001) some preliminary activities were delayed. In Nicaragua, USAID/ Nicaragua requested that activities be suspended until after the Nicaraguan election in November 2001. Additionally, due to the terrorist attacks in the US in September 2001, RDI researchers who were posted in Indonesia returned to the US indefinitely. Indonesian counterparts continue to conduct research, but fieldwork may be delayed slightly. A revised timetable was created, and once work resumes in Nicaragua, researchers expect to complete the project within seven months.

In addition to the activities postponed from the first year, researchers plan to complete the preliminary research design (survey, case studies, etc.) by April, conduct a workshop with country counterparts to finalize methodology and work plan in May, then write up methodology, work plan and preliminary assessment during June 2002.

Development of an Almanac Characterization Tool for Results Reporting

Collaborating Institutions and Researchers

Richard Blue, Co-Principal Investigator, Bluemont, VA
John Corbett, Co-Principal Investigator, Mud Springs
Geographers Inc., Texas

Project dates: March 2001-September 2002

Support: Core funding

Program Overview

Development of an Almanac Characterization Tool for Results Reporting (DACTRR) is an experiment to test whether it is possible to merge household and individual survey research data with Geographic Information System (GIS) methodology to enhance the power of BASIS CRSP research.

Almanac Characterization Tool (ACT) methodology is a GIS based tool for displaying and analyzing a wide variety of geo-referenced data in space, and in time. ACT has the ability to store and manipulate a range of geophysical, demographic, and meteorological data readily available in the public domain from domestic and international institutions.

BASIS data is typically based on survey research in relatively limited geographic areas (district or small nation state) and the data contain social, physical, and economic indicators for persons and families living in rural agricultural economies. The DACTRR experiment hypothesis is that by combining ACT geophysical and meteorological data with BASIS socio-economic data, analysis will be enhanced, and through the visual presentation of ACT, the presentation of BASIS findings will be substantially strengthened.

2000-2001 Activities

In early 2001 a project concept was developed by the BASIS ME with considerable USAID interest and support. Co-PI John Corbett already had developed the ACT methodology, in part through other USAID grants. Richard Blue was asked to co-direct the research project because of his experience with evaluation methodology and his knowledge of GIS systems gained while head of USAID's evaluation program in the 1980s.

The research strategy for this experiment is simple: Using ACT methodology as the synthesizing framework, two BASIS projects (El Salvador and South Wollo, Ethiopia) submit their household data sets for incorporation into the Almanac. Both databases were anticipated to be geo-

referenced by the end of 2001. Both data sets are longitudinal, spanning multiple years.

BASIS research leaders Claudio Gonzales-Vega, Peter Little, and Mike Roth will work closely with Corbett and Blue to ensure that geo-referenced household and other survey data are faithfully incorporated. Corbett's organization in Texas will take responsibility for integrating BASIS databases into already existing data sets. Corbett's firm will load in additional geophysical and meteorological data sets for the countries and regions represented by BASIS data. Once all data had been incorporated, Corbett, Blue and the cooperating BASIS investigators plan to develop a new analytic and visualization tool based on the merged data sets.

Roth, Blue and Corbett met February 5-6, 2001 in Texas to conceptualize the project and develop the proposal. After the initial design period, the activity schedule proposed two workshops and a third meeting at which the material would be presented to a broader audience for evaluation.

The first DACTRR workshop was held April 27, 2001 at USAID's headquarters in Washington, DC. The purpose was to present and explain the ACT methodology to BASIS PIs who had already developed mature data sets and to secure their active engagement and cooperation in the experiment by making available their data sets for incorporation into the ACT framework. Representatives from USAID, CRSPs and BASIS researchers attending included: Emmy Simmons, Robert Ford (USAID); Michael Roth (BASIS ME); Charles Sloger (USAID); Bob Hedlund, (USAID); Claudio Gonzalez (BASIS El Salvador); Peter Little and Michael Shin (BASIS Horn of Africa); Richard Blue and John Corbett.

Ford conveyed USAID's general interest in developing a more effective analytical and presentational tool for agricultural research results, on a par with those being used in health and child survival sectors. Agreement was reached between DACTRR, the BASIS principals, and USAID to cooperate in the experiment.

Next Steps

By the end of 2001, researchers Blue and Corbett were still awaiting the El Salvador and Ethiopia databases. Data entry for recent rounds of the El Salvador panel data were delayed by the earthquakes in early 2001. In Ethiopia, researchers had not collected geo-reference identifiers in earlier rounds, but intended to do so in November/December 2001. As a result of these delays the work plan was substantially delayed until the first quarter of 2002. The next steps in the overall strategy are to merge the data from Ethiopia and El Salvador with the Almanac data. When draft versions of the new Almanacs are completed, a second workshop will be held to review the work, correct errors and modify the presentations. Shortly thereafter a more general presentation will be made to an audience selected jointly by USAID and BASIS CRSP ME.

Synthesis and Cross-Regional Work

BASIS research findings have reached the stage where synthesis is feasible and broad-based. Agreement was reached between USAID and researchers on a set of activities that are concrete and of synthesis interest—interregional workshops. In addition, BASIS researchers participated in the World Bank Electronic Conference and Consultative Meeting on Land Issues.

2000-2001 Activities

3.A. BASIS Synthesis Workshops

Resources were allocated for three synthesis workshops, listed below. Detailed descriptions can be found in the appropriate regional section of this annual report.

- *Southern Africa Workshop*, a joint conference on land and water, with researchers from the region and from another region, e.g. El Salvador. Outputs: two policy briefs, one on land and one on water.
- *El Salvador Workshop*, with regional researchers and one or more from another region. Output: one policy brief.
- *Russian Working Conference on Market Reform in the Russian Agricultural*. Output: one policy brief.

3.B. World Bank Electronic Conference and Consultative Meeting on Land Issues

To facilitate broader discussion of land issues, and their inclusion in the policy agenda, the World Bank's Land Policy and Administration Group, together with USAID, convened a consultation meeting intended for policy makers actively engaged in land policy issues at the World Bank and with its multilateral and bilateral development partners in Washington, DC. The meeting took place April 24-26, 2001 at the World Bank headquarters. An agenda summary follows this description of the conference and meeting.

A background paper prepared by the World Bank together with comments from external peer reviewers formed the basis of discussion in an electronic conference held March 5 to April 1, 2001. Issues raised during the e-conference determined the agenda for follow-up consultation with policy makers from donor organizations and partners at the Consultative Meeting.

Each week of the e-conference focused on one of four topics addressed in the background paper: Legal and Policy

BASIS to Assist the World Bank with Regional Workshops on Land Issues

BASIS researchers have been asked to continue to work with the World Bank on defining and communicating best land policy and land use practices.

A series of four follow-on regional workshops are planned, to continue the investigation and extend knowledge about best practices in Africa, East Asia and the Pacific, Europe and Central Asia, and Latin America.

The workshops will provide key inputs for a World Bank Policy Research Report on Land Policy and Institutions to be published in September 2002.

BASIS researchers will serve as commentators and assist with preparing regional papers. In addition, BASIS will assist the World Bank in integrating findings from the regional workshops into the Policy Research Review as a final synthesis.

Framework, Land Administration, Land and Financial Markets, Land Reform, and Land and Natural Resource Management. One external peer reviewer was selected to review each of the above sections in the background paper for thematic perspective, and to serve as moderator responsible for guiding each week's theme in the e-conference.

Following the e-conference, moderators provided written documents summarizing key arguments and concerns voiced during the week's discussion. Peer reviewers were also invited to review the background paper and electronic discussion for land policy strategies in the following regions: Eastern Europe and Central Asia, East Asia and the Pacific, South Asia, Latin America and the Caribbean, Africa, and Middle East and North Africa.

The e-conference had 527 registered participants from 65 countries. Over the course of the 4-week conference, 267 messages were exchanged by 115 different contributors. The consultative meeting in Washington, DC was fixed by quota to include the seating of approximately 100 people in attendance. Participants included USAID and World Bank staff, donor representatives, and technical professionals.

Jolyne Sanjak, Land Policy Adviser, USAID, and Lena Heron, USAID Cognizant Technical Officer for the BASIS CRSP, played instrumental roles in coordinating USAID's support for the Conference, and for organizing the

(Continued, Page 91)

CONSULTATIVE MEETING ON LAND ISSUES

Co-sponsors:

World Bank's Land Policy and Administration Thematic Group and USAID

April 24-26, 2001 – World Bank Headquarters, Washington, DC

AGENDA

Tuesday, April 24, 2001

6:00-7:30 OPENING SESSION

- **Welcome and introduction:**

Frank Byamugisha, Co-chair, Land Policy and Admin. Thematic Group, World Bank

- **Opening addresses:**

Land Policy and Sustainable Development: The World Bank's Vision

Ian Johnson, Vice President, Environmentally and Socially Sustainable Development, World Bank

Property Rights as a Basis for Growth with Poverty Reduction: USAID's Perspective

Emmy Simmons, Deputy Assistant Administrator, USAID Global Bureau, Center for Economic Growth and Agricultural Development

Land Issues in the World Bank's Rural Strategy: Opportunities and Challenges

Robert L. Thompson, Director, Rural Development Department, World Bank

- **Keynote Speech:**

Property Rights and Access to Assets in a New Agenda for Rural Development

Alain de Janvry, University of California, Berkeley

Wednesday, April 25, 2001

KEY TOPICS IN LAND POLICY AND ADMINISTRATION

8:30-9:00 Plenary

Chair: *Frank Byamugisha, Co-Chair, Land Policy and Admin. Thematic Group*

- **Introduction of Participants**

- **Summary of the "Lessons Learned Paper" and its Discussion Thus Far**

Klaus Deininger, Co-chair, Land Policy and Admin. Thematic Group

- **Expectations for the Meeting**

Jolyne Sanjak, Land Policy Adviser, USAID/LAC - USDA FAS

9:00-12:30 Parallel Sessions

9:00-10:30

- **The Legal and Policy Framework**
- **Land Administration**

11:00-12:30

- **Land and Financial Markets, Land Reform**
- **Land and Natural Resource Management**

2:00-4:30 Breakout groups

- **Legal and policy framework**
- **Land administration**
- **Land and financial markets, land reform**
- **Land issues and natural resource management**

4:30-6:00 Results from the breakout groups

Open discussion

Thursday, April 26, 2001

REGIONAL PERSPECTIVES

8:30-10:00 Eastern Europe, East Asia, and South Asia

10:30-12:00 Latin America, Africa, and MENA

1:00- 3:00 4 breakout groups by region

3:00- 4:00 Conclusions from the working groups

4:30- 5:30 Panel on next steps

5:30- 6:00 Conclusion, Next Steps and the Way Forward

Klaus Deininger, Co-chair Land Policy and Administration Thematic Group Robert Thompson, Director, Rural Development Department

World Bank Conference (continued)

participation of BASIS CRSP researchers who served in the following roles:

Peer Reviewers:

- *Pauline Peters, Kennedy School, Harvard University*
Land Policy and Institutional Framework Theme
- *Michael Roth, Land Tenure Center, University of Wisconsin–Madison*
Background paper; Africa Regional Perspective

Moderators:

- *Michael Carter, Department of Agricultural and Applied Economics, University of Wisconsin–Madison*
Land and Financial Markets Theme
- *Tim Hanstad, Rural Development Institute*
Land Policy and Institutional Framework Theme

Also participating in the April meeting were Renee Giovarelli, Rural Development Institute, and Claudio Gonzalez-Vega, The Ohio State University, for a total of six BASIS representatives. BASIS outputs included four peer reviews and two summaries provided by Michael Carter and Tim Hanstad for their respective themes in the e-conference. A complete report is posted on the BASIS web site at: <http://www.wisc.edu/lrc/baspubglo.html>.

The World Bank Group's Land Policy Network web site is also of interest: <http://wbln0018.worldbank.org/essd/rdv/vta.nsf/Gweb/landpolicy>

BASIS Global Focus: 2001- 2006

The BASIS CRSP research program was extended into its second five years, and will include five new projects, each with a regional or global focus.

- Assets, Cycles, and Livelihoods: Resource Use and Asset Use to Mitigate Poverty and Food Insecurity in the Horn of Africa and Central America.
- Institutional Dimensions of Water Policy Reform in Southern Africa: Addressing Critical Water-Land Intersections in Broadening Access to Key Factors of Production.
- Institutional Innovations to Improve the Viability of Equity Sharing Under Privatization and Farm Restructuring: Helping Land Reform Beneficiaries Gain Access to Land And Financial Resources in Central Asia and Southern Africa.
- Input Market Constraints Upon the Growth of Russian Agriculture: Land, Labor, Capital and Other Inputs Under Alternative Economic Reform Policies.
- Rural Markets, Natural Capital and Dynamic Poverty Traps in East Africa.

Detailed information about these projects can be found in the *Management Entity* section of this annual report.

3.C. Other

During 2000-2001, BASIS research results from the "Agriculturalists' Asset and Income Diversification Patterns to Ensure Sustainable Livelihoods" was published in a special issue of the journal *Food Policy*, Vol. 26, No. 4 (August 2001).

2000-2001 Outputs

◆2◆

Development of an Almanac Characterization Tool for Results Reporting

Blue, Richard and John Corbett. "Development of Almanac Characterization Tool for Results Reporting (DACTRR)." Event Report. July 30, 2001. 6 pp.

◆3◆

Synthesis and Cross-Regional Work

Chavas, Jean-Paul, Michael Roth and Alex Uriarte. "Agricultural Policy, Employment and Resource Access: Economic Foundations for Sustainable Nutritional Improvements." Prepared for November 1999 Horn of Africa Symposium on Agricultural Policy, Resource Access and Human Nutrition. Revised and submitted to a journal for publication.

Barrett, Christopher B., Mesfin Bezuneh, and Abdillahi Aboud, "Income Diversification, Poverty Traps and Policy Shocks in Côte d'Ivoire and Kenya," *Food Policy*, vol. 26. no. 4 (August 2001): pp. 367-384.

Barrett, Christopher B., Thomas Reardon and Patrick Webb, "Nonfarm Income Diversification and Household Livelihood Strategies in Rural Africa: Concepts, Dynamics and Policy Implications," *Food Policy*, vol. 26. no. 4 (August 2001): pp. 315-331.

Holloway, Garth J, Christopher B. Barrett and Simeon Ehui, "Innovation and Market Creation," *Journal of the American Statistical Association*, Proceedings of the Section on Bayesian Statistical Science (December 2000): 148-153.

McPeak, John and Christopher B. Barrett, "Differential Risk Exposure and Stochastic Poverty Traps Among East African Pastoralists," *American Journal of Agricultural Economics*, vol. 83, no. 3 (August 2001): pp. 674-679.

Sherlund, Shane M., Christopher B. Barrett, and Akinwumi A. Adesina, "Smallholder Technical Efficiency: Controlling for Environmental Production Conditions," *Journal of Development Economics*, forthcoming.

BASIS CRSP Management Entity

RESEARCH PROJECTS

◆1◆ CRSP Administration

◆2◆ BASIS II Program Development

BASIS II Small Research Grants —

- ◆2.A.◆ Land, Labor, and Purchased Input Market Constraints on Economic Growth in Russian Agriculture**
- ◆2.B.◆ Institutional Innovations to Improve the Viability of Equity Sharing Under Privatization and Farm Restructuring**
- ◆2.C.◆ Institutional Dimensions of Water Policy Reform in Southern Africa: Addressing Critical Water-Land Intersections in Broadening Access to Key Factors of Production**
- ◆2.D.◆ Rural Markets, Natural Capital, and Dynamic Poverty Traps in East Africa**
- ◆2.E.◆ Assets, Cycles and Livelihoods: Addressing Food Insecurity and Poverty in the Horn of Africa and Central America**

Acronyms used in this section

ACT	Almanac Characterization Tool
BASIS	Broadening Access and Strengthening Input Market Systems
CASE	Center for Social and Economic Research
CASS	Centre for Applied Social Science
CLASSES	Crop, Livestock and Soils in Smallholder Economic Systems
CRSP	Collaborative Research Support Program
DACTRR	Development of Almanac Characterization Tool for Results Reporting
FOFIFA	Agricultural Research Institute
GIS	Geographic Information System
ICRAF	International Centre for Research in Agroforestry
IDA	Institute for Development Anthropology
IDR	Institute of Development Research
INTSORMIL	International Sorghum and Millet
IRIS	Institutional Reform and the Informal Sector
KARI	Kenya Agricultural Research Institute
LTC	Land Tenure Center
ME	Management Entity
MSU	Michigan State University
NTF	Natal Trust Farms
PI	Principal Investigator
SPARE	Strategic Partnership for Agricultural Research and Education
USAID	United States Agency for International Development
UW	University of Wisconsin-Madison

Management Entity

◆1◆

CRSP Administration

Staff

Michael Roth, Program Director
Danielle Hartmann, Program Coordinator
Marsha Cannon, Outreach and Communications
Kurt Brown, Communications
Beverly Phillips, Library and Information Services
Carole Karsten, Financial Specialist
Patty Grubb, Administrative Specialist
Tara Roffler, Project Assistant

Organizational and Administrative Management

The Management Entity (ME) is responsible for administering the Cooperative Agreement from USAID and for managing BASIS CRSP program activities. 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, work plans, and activity reporting, 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. 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 must be developed and maintained between the ME and participating institutions.

During 2000-2001, subagreements/modifications were made with 20 partnering institutions:

- Addis Ababa University, Institute of Development Research (Horn of Africa)
- Centre for Applied Social Science (Southern Africa)
- Clark Atlanta University (Horn of Africa)
- Cornell University (Program Development)
- Economic and Social Research Foundations (Horn of Africa)
- Egerton University, Tegemeo Institute (Horn of Africa)

- Fundación Salvadoreña para el Desarrollo Económico y Social (Central America)
- Harvard University, John F. Kennedy School of Government (Southern Africa)
- Institute for Development Anthropology (Horn of Africa and Program Development)
- Institute of Natural Resources (Southern Africa)
- Michigan State University, Institute of International Agriculture (Southern Africa and Program Development)
- Mudsprings Geographers, Inc. (Impact Monitoring)
- Núcleo de Estudos da Terra (Southern Africa)
- The Ohio State University, Rural Finance Program (Central America)
- Organization for Social Science Research in Eastern and Southern Africa (Horn of Africa)
- Rutgers University (Southern Africa)
- Tashkent Institute of Irrigation and Agriculture Mechanization Engineers (Central Asia)
- University of Maryland, Institutional Reform and the Informal Sector Center (Eastern Europe and Eurasia and Program Development)
- University of Wisconsin-Madison, Department of Agricultural and Applied Economics (Central America, Program Development)
- University of Wisconsin-Madison, Land Tenure Center (Joint Titling and Program Development)

Financial Contributions

The BASIS CRSP was modestly successful in attracting a number of add-ons in 2000-2001. BASIS is designed to receive approximately 50% of its funding from Global Bureau and 50% of its funding through add-ons. For the 2001-2002 fiscal year, 14% of the BASIS CRSP total budget will be supported from contributions from USAID regional bureaus and missions. The decline from past add-on levels is a result of the closure of Phase I activities and selection of new projects for Phase II. The structure of BASIS II will reduce the necessity to seek add-ons, but as always, they add depth and breadth to the research and outreach programs.

New add-ons were received from:

- Ethiopia Mission, \$100,000 to develop a second case study on South Wollo research
- Zimbabwe Mission, \$100,000 for research support on the Land Reform and Resettlement II
- USAID Office of Women in Development, \$59,036 for project on the impact of joint titling on gender equity.

The University of Wisconsin's Cooperative Agreement with USAID states that USAID funds must be matched by 25% excluding ME 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 \$6,378,620 was allocated for BASIS activities through September 29, 2001. Of that amount, \$2,782,774 was expensed by host country institutions or budgeted to the Management Entity and did not need to be matched.

Therefore, the remaining \$3,626,562 must be matched at 25%, equivalent to \$906,641. As of September 29, 2001, BASIS researchers had contributed \$1,047,275 toward cost-sharing from non-federal sources, or 29% of matching. Matching came from university support leveraged funds from Rockefeller Foundation, the World Bank, British Know-How, and in-kind contributions.

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, collects and maintains data on student training, including the student's name, his/her country of citizenship, university of study, discipline, degree sought, gender, advisor, and funding support from the CRSP. Each year, the researchers submit updated training information along with the Annual Activity Report, so that students can be tracked and training data can be communicated to USAID. In BASIS I there were a total of 43 students involved in BASIS research, with 15 of those students receiving their degrees as a result of BASIS support. See Appendix C for a complete student training report.

In addition to degree training, BASIS provides extensive opportunities for capacity building through informal training, workshops, and seminars. This type of training allows BASIS to stretch its resources to include more participants, with the focus on students, civil servants, policy makers, and NGO staff. During BASIS Phase I, 1267 people participated in BASIS workshops and training seminars.

An undergraduate student worked in the BASIS CRSP office as a communications assistant, gaining valuable hand-on experience communicating about research projects in an international environment.

External Evaluation Panel and Board of Directors

The External Evaluation Panel and Board of Directors were scheduled to meet on December 12, 2000, but unfortunately the meeting had to be cancelled due to a winter storm that closed airports from the Midwest to the East Coast. It was decided that the meeting would be cancelled rather than postponed because many of the agenda topics were of a time sensitive nature. By the time a new meeting could be scheduled, input from these groups would be too late. Instead, advice and comments were solicited by e-mail.

Publications and Outreach

The Publications and Outreach team focused on reaching audiences beyond other researchers and academics, establishing closer links with the regional programs, managing the increasing output, and highlighting BASIS as a major component of the CRSPs. The Publications and Outreach team accomplished many of these goals through the following activities:

- Russia Synthesis Meeting, July 2001, Golitsyno. Kurt Brown attended and summarized proceedings in writing.
- Southern Africa Synthesis Meeting, July 2001, Magaliesburg, South Africa. Mike Roth and Marsha Cannon attended; proceedings will be produced.
- El Salvador Second National Seminar, December 2001. Kurt Brown attended and will produce a written summary.

The BASIS CRSP joined the other CRSPs in putting together a CRSP handbook, to summarize all CRSP accomplishments over the past five years. The ME program director and staff worked with John Yohe of the INTSORMIL CRSP and staff of the Global Bureau to design and develop the handbook. The program director also worked with David Atwood of Global Bureau to develop the Foreign Aid mission statement for the handbook.

During 2000-2001, BASIS researchers produced 121 outputs. The BASIS ME either directly produced or published the printed and visual materials listed below:

- *BASIS CRSP Fourth Annual Report*, October 2000, 127 pp.
- "BASIS CRSP Program Update," October 2000, 16 pp.
- *Country Studies: Real Estate Privatization in Selected Eastern European and Eurasian Countries*. Presented at "A Land Privatization Index, Minsk" in August 2000. Published in both English and Russian. *BASIS Progress Report*, March 2001, 126 pp.

- *Estimating the Extent of Real Estate Privatization in Transition Countries*. Stanfield. Published in both English and Russian. *BASIS Progress Report*, March 2001, 29 pp.
- *Final Report: BASIS CRSP Participation in the World Bank Electronic Conference and Consultative Meeting on Land Issues*. Roth and Heron, editors, July 2001, 74 pp.
- *Five Policy Briefs*, in preparation for BASIS Phase II.

In November 1999, the BASIS ME implemented a web-based policy regarding BASIS outputs; all outputs would be posted on the BASIS web site. Based on web tracking, this web-based communications policy has been effective. Total “hits” increased 24% from last year. See Appendix B for a table of 2000-2001 web “hits.”

BASIS Synthesis Activities

The major focus of the BASIS CRSP in Year 5 was to support analysis and synthesis activities of the research projects. Each major regional program coordinated a synthesis workshop held during this final year of BASIS CRSP Phase I.

Each workshop brought 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 also attended to contribute to the discussions on policy recommendations.

Teams of researchers were identified at each synthesis workshop to summarize the discussions in a *BASIS Brief* format. Though the ME did not coordinate these meetings, members of the ME staff helped to define and communicate the purpose, goals and objectives of the workshops. They worked with regional coordinators on workshop organization and development, and ME staff attended each of the workshops to assist with the synthesis component and participate in the discussions.

The following synthesis workshops were held:

- Southern Africa, July 22-25, 2001
Magaliesburg, South Africa
- Russia, July 6–7, 2001
Golitsyno, Russia
- El Salvador, originally scheduled for May 2000, was postponed a number of times due to the impacts of the earthquakes, illnesses, and scheduling conflicts. The policy seminar was held December 5, 2001, in San Salvador.

Impact Monitoring

In conjunction with USAID and the other eight CRSPs, the BASIS CRSP Management Entity coordinated impact monitoring activities in 2000-2001. This new initiative was 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 encouraged by the USAID Global Bureau as an aid in meeting its reporting requirements.

World Bank Conference on Land Issues

The BASIS ME coordinated participation of BASIS researchers as moderators and participants in the World Bank Electronic Conference and Consultative Meeting on Land Issues. USAID/Global Bureau was co-sponsor for these activities.

The electronic conference, entitled *Land Policy Issues and Sustainable Development*, drew 527 registered participants from 65 countries between March 5 – April 1, 2001. The consultative meeting took place April 24-26, 2001 in Washington, DC, with participation limited to about 100 people. A complete report is included in the Global section of this annual report.

Other ME Activities

The ME will continue to monitor all subagreements and program budgets, and establish memoranda of understanding where appropriate. The BASIS ME participates 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, the BASIS ME 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.

BASIS II Program Development

Leadership Team

University of Wisconsin-Madison

Kurt Brown, Communications
 Michael Carter, Program Director-designate
 Danielle Hartmann, Program Coordinator
 Carole Karsten, Financial Specialist

Project dates: October 2000 – September 2001 (completed)

Support: Core funding

Program Overview

The BASIS Management Entity spent a large portion of its time in 2000-2001 coordinating and preparing to submit a program renewal proposal to USAID, due in January 2001. In May 2001, USAID approved a five-year continuation for BASIS CRSP.

Program Development and Renewal

In the final year of BASIS CRSP Phase I, many activities were accomplished to assist with finalizing plans for establishing Phase II activities. The renewal process included:

October 2000 — Proposals received and evaluated

November 2000 — Synthesis meeting with PIs, Madison

October 2000 - September 2001 — Small Research Grants

June 2000 - January 2001 — Prepared proposal

January 2001 — Renewal proposal submitted to USAID

February 2001 — Proposal reviewed by SPARE, Washington, DC

In planning for Phase II, the ME sought to ensure a coherent program that will provide the foundation for synthesis of the global program, institutional capacity building, and policy networking.

The chart (see next page) illustrates how BASIS CRSP Phase II research projects support USAID goals and objectives. In addition, it shows how the research addresses global constraints and seeks to inform policy.

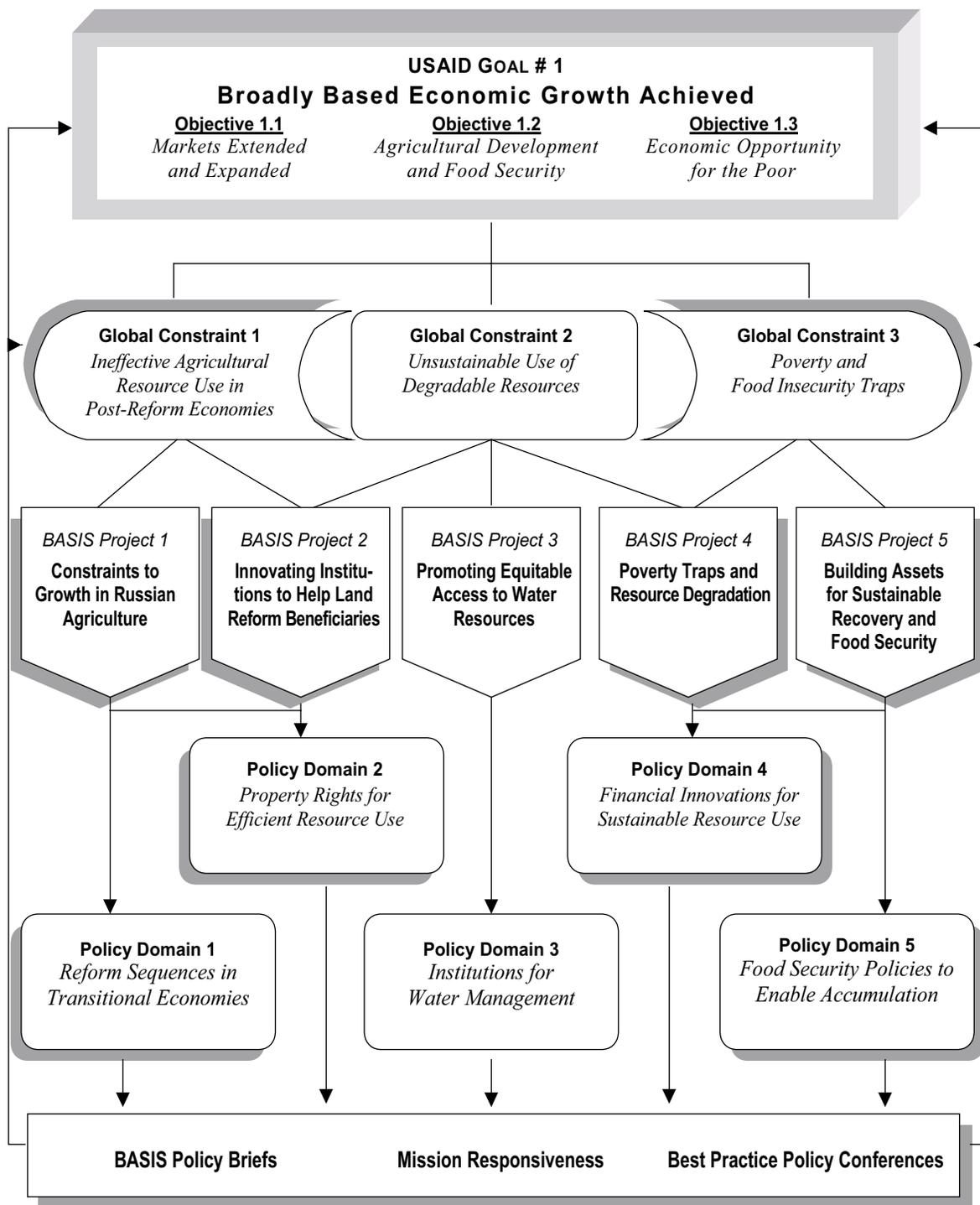
2000-2001 Activities

Four main activities were planned in the area of program development for 2000-2001.

1. BASIS Phase II proposals submitted in Year 4 were assembled and distributed for external review. A team of five evaluators, including Michael Carter (BASIS II Program Director) and Lena Heron (USAID Cognizant Technical Officer) reviewed the nine pre-proposals submitted for consideration of funding for BASIS II. The evaluators reviewed each proposal according to: technical merit, integration into policy debate, collaboration and capacity building activities, and broader applicability and potential for synthesis.
2. Principal investigators of the five winning proposals were invited to Madison in November, 2000 to set the BASIS agenda, develop the Phase II *Policy Conference Series*, and to assist with the preparation of the Phase II proposal to be submitted to USAID.
3. Principal investigators were awarded small research grants to conduct preliminary fieldwork, meet with partners, and write a *BASIS Brief* that summarizes their project. Principal investigators finalized and submitted a complete proposal and three-year work plans for their projects and contributed to the BASIS CRSP Phase II proposal.
4. Principal investigators were invited to travel to Washington, DC to participate in the presentation of the BASIS CRSP proposal to USAID.

The following five proposals were selected:

- *Input Market Constraints Upon the Growth of Russian Agriculture: Land, Labor, Capital and Other Inputs Under Alternative Economic Reform Policies.* PIs—Bruce Gardner (IRIS), Eugenia Serova (Institute for Economy in Transition-Russia)
- *Institutional Innovations to Improve the Viability of Equity Sharing under Privatization and Farm Restructuring: Helping Land Reform Beneficiaries Gain Access to Land and Financial Resources in Central Asia and Southern Africa.* PIs—Michael Roth (LTC-UW), Michael Lyne (University of Natal-Pietermaritzburg-South Africa)
- *Institutional Dimensions of Water Policy Reform in Southern Africa: Addressing Critical Water-Land Intersections in Broadening Access to Key Factors of Production.* PIs—Bill Derman (MSU), Francis Gonesse (CASS-Zimbabwe), Wapu Mulwafu (Chancellor College-Malawi)
- *Rural Markets, Natural Capital and Dynamic Poverty Traps in East Africa.* PIs—Christopher Barrett (Cornell University), Jhon Rasambainarivo (FOFIFA-Madagascar), Festus Murithi (KARI-Kenya), Frank Place (ICRAF)
- *Assets, Cycles, and Livelihoods: Resource Use and Asset Use to Mitigate Poverty and Food Insecurity in the Horn of Africa and Central America.* PIs— Peter Little (IDA), Workneh Negatu (IDR-Ethiopia).



BASIS CRSP Phase II research projects support USAID goals and objectives. In addition, the research addresses global constraints and seeks to inform policy.

The Synthesis Planning meeting held in Madison on November 10-11, 2000 was an opportunity for PIs to meet and share objectives for their respective projects. In addition, the researchers were able to articulate and connect the themes that will form the BASIS Phase II research and policy agenda; to plan the Policy Conference Series around those themes; to plan the series of BASIS Briefs that will articulate the Phase II research and policy agenda; and, to assist with the

preparation of the overall Phase II proposal submitted to USAID.

As shown in the diagram, the three global constraints that will be the focus of BASIS Phase II are: (1) Constraints to effective agricultural resource use in post-reform economies; (2) constraints to coordinated, sustainable use of environmentally sensitive resources; and (3) constraints that

trap poor households in cycles of food insecurity, economic shocks, and unproductive accumulation.

Small research grants. Each of the five projects received small research grants to assist research teams initiate their projects, finalize their research design and proposals, and brief the policy makers in their regions about the project. Each project was to produce a *BASIS Brief*, summarizing their project and placing it in the policy context of the region. The activities under each of these grants is reported later in this section of the BASIS CRSP annual report.

BASIS II proposal preparation and submission. Through the cooperation of the researchers and Management Entity staff, the BASIS II proposal was drafted and submitted to USAID on January 15, 2001. The proposal was formally presented to the *Strategic Partnership for Agricultural Research and Education (SPARE)*, a Subcommittee of the Board for International Food and Agricultural Development, on February 22, 2001. After one revision as requested, the BASIS II proposal was accepted by SPARE on May 18, 2001.

Review of Problems and Issues

Due to the limited amount of time that SPARE required for a proposal presentation, BASIS decided not to invite the researchers, both US and host country, to participate in the presentation. This was something that was planned that did not occur.

◆ 2.A. ◆ *BASIS Phase II Small Research Grant —* **Land, Labor, and Purchased Input Market Constraints on Economic Growth in Russian Agriculture**

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 Economy in Transition Analytical Centre (AFE)

Eugenia Serova, Principal Investigator, Chair and Head,
Higher School of Economics, Moscow

All-Russia Institute of Agrarian Problems

Natalya Shagaida, Consultant Economist

Vasily Uzun

Institute of World Economy and International Relations Russian Academy of Science

Dimitri Rylko, Head of Center

Israel

Hebrew University, Department of Agricultural Economics and Management

Zvi Lerman, Faculty of Agriculture

USA

University of Maryland College Park

Agriculture and Resource Economics (AREC)

Institutional Reform and the Informal Sector (IRIS)

Bruce Gardner, Principal Investigator,

Professor of Agricultural Economics

Howard Leathers, Associate Professor,

Agricultural Economics

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

Project dates: October 2000 – September 2001 (completed)

Support: Core funding

Background

A decade after the initial reforms of the former Soviet economy, the results in agriculture remain disappointing. Despite food price liberalization, barriers to marketing agricultural output are still present in many regions, and access to modern inputs is very limited almost everywhere. Agricultural output remains about one-third below the pre-reform levels of 1989-91, agricultural wages and income remain depressed.

Yet significant changes have occurred. Farm output appears to have increased on household subsidiary plots, which have been enlarged and play an important role, especially where former collective farms are weakest. New arrangements are springing up where input suppliers or other businesses related to agriculture are establishing vertically integrated or other contractual arrangements with agricultural producers. These arrangements manage to supply much-needed fertilizer, chemical, and energy inputs in ways more promising than the barter arrangements characteristic of many former collective farms. Even without fully developed land ownership rights, it appears that rental transactions where new operators acquire the use of additional acreage are increasing and becoming economically important.

2000-2001 Activities

To assess the baseline knowledge of Russian agriculture and to help determine where to focus future research, BASIS team members met in conjunction with the Golitsyno II conference in July 2001. In addition to finalizing the work plan for 2001-2002, they developed a draft Policy Brief, submitted to the ME for publication.

2001-2002 Work Plan

Through case studies, researchers will first quantify the emergence of new forms of contracting and economic organization of farming. The emphasis will be on efforts by farmers to deal with factor market constraints in purchased inputs, credit, and how independently operating farms interact with existing former collective farms as sources of raw material and inputs.

Second, using secondary data, the project will trace a macro picture for Russia of the allocation of state funds that has followed the redistribution of some resources away from former collective farms.

Third, the project will survey information available on transfers of land shares, the use of “normative” prices in taxation and transfers, and quantities of land involved in various types of arrangements.

Fourth, researchers will develop information on the number of workers on farms of different types, their employment activities (on and off the farm), and wage and nonwage

remuneration. Researchers will also look into reports that some farms have incurred serious shortages of certain categories of technically skilled workers, which has limited their capacity to adopt new technology.

Fifth, the project will assess the importance of lack of access to key purchased inputs through surveys of input quantities on various types of farm enterprises, including household plots and their relationship to the larger farm enterprises in which they are embedded.

◆2.B.◆

BASIS II Small Research Grant —

Institutional Innovations to Improve the Viability of Equity Sharing Under Privatization and Farm Restructuring

Collaborating Institutions and Researchers

Kyrgyzstan

Center for Social and Economic Research (CASE)

Meergul Bobukeeva, Attorney

DFID/Scottish Agricultural College Land and Agrarian Reform Project

Roman Mogilevsky, Executive Director; Associate Professor, American University, Kyrgyzstan

Alymbek Erdolatov, Head of Finance and Credit Chair, Kyrgyz Agrarian Academy

South Africa

Hamman, Schumann and Associates, Cape Town

Johann Hamman

Institute of Natural Resources, Scottsville

Jenny Mander, Director

Lima Rural Development Foundation, Scottsville

Peter Greene, General Manager

University of Natal-Pietermaritzburg

Department of Agricultural Economics

Stuart Ferrer, Lecturer,

Sharon Knight, graduate student

Michael Lyne, Professor and Principal Investigator

USA

Rural Development Institute

Renee Giovarelli, Attorney and Senior Legal Consultant

University of Wisconsin-Madison

Land Tenure Center (LTC)

Malcolm Childress, Associate Research Scientist

Susana Lastarria-Cornhiel, Senior Research Scientist

Michael Roth, Senior Research Scientist and Project Principal Investigator

Project dates: October 2000 – September 2001 (completed)

Support: Core funding

(Continued, next page)

◆2.B.◆ . . . Continued)

Project Overview

Central Asia and Southern Africa are undergoing political and economic transition, the former from state and collective farm ownership to private groups and individuals, and the latter to redress the apartheid and colonial heritage of a racially biased and unequal land ownership. Despite their different histories and policy contexts, however, a core problem is shared—poor people in rural areas are unable to make productive use of their land resources.

This problem is most acute where it has not been feasible to privatize land, infrastructure or movable assets to individual owners. Instead, many beneficiaries find themselves co-owning resources, often in diverse groups that lack the constitutional rules and organizational arrangements needed to effect decisive management, curtail free-riding, and encourage investment by the co-owners and outside financiers. This research aims to reveal the institutional and finance problems that lead to unprofitable and unsustainable use of co-owned resources, depriving the poor of current income, capital gains and new livelihood opportunities.

Funding for 2000-2001 was provided to prepare for the true start of the project during the 2001-2002 year.

2000-2001 Activities

Researchers traveled to the prospective equity-sharing project sites, held planning meetings in both South Africa and Kyrgystan, and prepared the final project proposal, BASIS Brief and work plan.

From March-July 2001, researchers visited the state-owned farms of Glenesk and Texas Valley near the village of Highflats, state-owned farms near the town of Eshowe, the Margate Corridor Farm and Wildlife Conservancy close to the town of Margate, and the Amahlubi land reform project. Several planning meetings were held throughout the year. In South Africa, researchers met with the Director of Natal Trust Farms (NTF) and other stakeholders to discuss the possibility of establishing equity-sharing projects on state-owned farms managed by NTF. Also, researchers explored the possibility of seeking additional funding from the KwaZulu-Natal Provincial Department of Agriculture under the proposed Land Redistribution for Agricultural Development program which finances equity-sharing projects on state-owned land. Meetings were also held between collaborating institutions to discuss logistics of the project and to disseminate preparatory information for the development of the proposal.

In Kyrgystan, a number of planning meetings were held in April 2001. Approximately 20 people from collaborating institutions, stakeholders, and USAID attended the meetings that were designed to brief USAID on the goals and objectives of the project, to provide an opportunity for the researchers to discuss specific roles and responsibilities, to review potential research sites, and to prepare the research

tools. Researchers in Kyrgystan also explored the possibility of seeking additional funding from various sources. Throughout the year, the researchers corresponded via meetings and email in order to prepare the final project proposal, the BASIS Brief and the 2001-2002 workplan.

2001-2002 Work Plan

Work will focus on conducting and analyzing case studies of equity-sharing schemes for purposes of identifying best institutional practices. Preliminary work will also begin on facilitating the implementation of two equity-sharing projects in South Africa, and monitoring the impact of privatization in Kyrgyzstan.



Options for managing environmentally valuable Trust land was the topic of discussion when BASIS researchers visited Bekhazulu community, South Africa. Shown in the top photo are (l. to r.): Amon Phewa, Chairman, Bekhazulu Trust; Mike Roth, BASIS CRSP; Albert Kheswa, member, Trust Subcommittee for the Environment; Mike Lyne, University of Natal; Marble Mabele, Trust Subcoordinator for the Environment; and Peter Greene, Lima. In the lower photo, Trust members view a wetland on their property where endangered blue and wattled cranes have been observed. Rare birds could form the foundation for an ecotourism project. Photos by Marsha Cannon.

◆2.C.◆

BASIS II Small Research Grant —

Institutional Dimensions of Water Policy Reform in Southern Africa: Addressing Critical Water-Land Intersections in Broadening Access to Key Factors of Production

Collaborating Institutions and Researchers

Michigan State University

Bill Derman, Professor, Principal Investigator

Anne Ferguson, Associate Professor

Jeffrey Riedinger, Associate Dean

Harvard University

Pauline Peters, Lecturer on Public Policy, Kennedy School of Government and Lecturer on Anthropology

University of Oregon

Peter Walker, Assistant Professor

University of Zimbabwe

Centre for Applied Social Sciences

Francis Gonese, Lecturer, Co-Principal Investigator

Jim Latham, D. Phil. candidate

Claudious Chikozho, M. Phil candidate

Pini Sithole, M. Phil. candidate

Steve Mandivengerei, M. Phil Candidate

University of Malawi

Chancellor College

Wapu Mulwafu, Lecturer, Co-Principal Investigator

Bryson Nkhoma, M. Phil Candidate

Grace Chilima, M. Phil Candidate

C. Chipeta, Professor

Polytechnic

Mr. Geoffrey Chavula, Lecturer

Project Dates: October 2000 - September 2001 (completed)

Support: Core funding

Program Overview

As water becomes more scarce and maintaining good quality becomes more difficult, a range of national and international efforts seek to improve water management. In Southern Africa in general, and in Malawi and Zimbabwe in particular, new approaches are being applied to water—the result of a long period of consultations between international organizations, national governments and stakeholders. Reforms include decentralized management, new and creative ways to engage stakeholders in water management, improved access to water for all, and improved water pricing

policies. Both Malawi and Zimbabwe have been designing and implementing new institutions to foster improved access and improved water quality. In addition, as part of the reform context, both nations are undertaking land reforms that will directly influence and affect their ongoing water reforms. These reforms—for a range of bureaucratic, political and historical reasons—are proceeding independently. In these situations of uncertainty and volatility in Malawi and Zimbabwe, policy relevant research on the intersections of land and water reform, both key factors of production, can make a significant contribution to revealing and helping to resolve policy conflicts and advancing the implementation of water reform.

2000-2001 Activities

Funding for 2000-2001 was provided to prepare for the true start of the project during fiscal year 2001-2002. Activities in 2000-2001 were primarily two: a visit to South Africa and Namibia and a research workshop for the Malawi and Zimbabwe teams to discuss research results and the resultant new research directions.

In March 2001 the Zimbabwean and Malawian research teams and Ferguson met with Dr. Doug Merrey and a small team from IFAD to discuss rehabilitation of irrigation perimeters at selected sites in Zimbabwe. Also in March, Bill Derman visited Namibia and South Africa to explore the possibilities of including a third country in the proposal. However, it became clear that greater funding would be needed to expand the studies.

The research team planning workshop was held July 20-22, 2001 at a conferencenter near Johannesburg, South Africa. Researchers from Zimbabwe (Gonese, Latham, Chikozho, Mapedza), Malawi (Mulwafu, Chilima, Nkhoma,) and the US (Peters, Ferguson, Derman) met to review results from the first three years of research and to develop a research plan and strategy for the following year. They suggested continuing the institutional water studies but now expanded to include some dimensions of the emerging land reform programs in both Zimbabwe and Malawi.

2001-2002 Work Plan

The three main areas of inquiry are: (1) institutional, policy and legal studies, (2) formal and informal irrigation, and (3) global discourses and national applications of water management and security. The research focus on these areas will vary by country and by year over the life of the project.

◆ 2.D. ◆

BASIS II Small Research Grant —
**Rural Markets, Natural Capital,
and Dynamic Poverty Traps
in East Africa**

Collaborating Institutions and Researchers

Cornell University

Department of Applied Economics and Management

Christopher Barrett, Associate Professor and

Principal Investigator

John McPeak, Research Associate

Bernard N. Okumu, Research Associate

Department of Economics

Lawrence E. Blume, Professor

Department of Nutritional Science

Bartholomeu J. Minten, Senior Research Associate

Department of Animal Science

Alice N. Pell, Professor

FOFIFA (Agricultural Research Institute)

Antananarivo, Madagascar

Mr. Jean Claude Randrianarisoa

Dr. Jhon Rasambainarivo, Co-principal investigator

International Centre for Research in Agroforestry (ICRAF)

Nairobi, Kenya

Frank Place, Co-principal investigator

Mr. Justine Wangila

Kenya Agricultural Research Institute (KARI)

Nairobi, Kenya

Festus Murithi, Co-principal investigator

Collins Obonyo

Martins Odendo

Willis Olouch-Kosura

James Ouma

Project dates: October 2000 - September 2001 (completed)

Support: Core funding, with additional funding through the Cornell International Institute for Food, Agriculture and Development, the USAID Ilo project in Madagascar, the USAID Global Livestock CRSP in Kenya, and a grant from the Rockefeller Foundation

Program Overview

One-fifth of the world's population lives on less than a dollar a day, and most of those ultra-poor live in rural areas and work in agriculture. Thus, the poorest world populations rely disproportionately on the natural resource base upon which agricultural productivity depends.

Recent studies find that a disturbingly large share of these people suffer chronic rather than transitory poverty. They

appear trapped in a state of perpetual food insecurity and vulnerability because their poverty and poor market access preclude efficient investment in or use of productive assets. Furthermore, those caught in a poverty trap have strong incentives to degrade natural resources in the course of their ongoing struggle to survive. Partly as a consequence, nearly two-fifths of the world's agricultural land is seriously degraded and the figure is highest and growing in poor areas such as Central America and Sub-Saharan Africa. Such degradation exacerbates pre-existing poverty traps, by discouraging capital-strapped smallholders from investing in maintaining, much less improving, the natural resource base on which their and their children's future livelihoods depend. The resulting degradation of the local agroecosystem further lowers agricultural labor productivity, aggravating the structural poverty trap from which smallholders cannot easily escape. These problems feature prominently today in Kenya and Madagascar and in discussions among policy makers, donors, and NGOs as to how best to design poverty reduction strategies.

The project goal is to identify best-bet strategies to help smallholders escape the interrelated problems of dynamic poverty traps and natural resource depletion. Degradation of soils and market access are the primary foci. Empirical analysis, based on field work in six sites, four in Kenya and two in Madagascar, and context-driven simulation modeling will be used to identify the most promising approaches to poverty alleviation and repletion of degraded soils.

2000-2001 Activities

Project pre-proposal planning activities included four separate field visits by Cornell-based team members, a team meeting in Kenya, release of a draft policy brief, secondary data collection throughout the study sites, and primary data collection in two of the Kenya sites. In addition, researchers designed a simple, prototype bioeconomic model—Crop, Livestock and Soils in Smallholder Economic Systems (CLASSES) model—and planned the bioeconomic modeling course to be offered in 2002 to FOFIFA and KARI staff.

Field visits: In November and December 2000 Okumu visited five of the six field sites, met with community members and USAID staff, reviewed existing data and survey instruments, and became familiar with each site's biological and physical details. In March 2001 Barrett visited team members and USAID staff in both Kenya and Madagascar to coordinate field surveys, brief FOFIFA and USAID officials, and participate in a small workshop organized by the USAID mission with donor community and government stakeholders. In May 2001 Okumu returned to Kenya to coordinate with ICRAF and KARI collaborators on the prototype bioeconomic model and logistics of the June team meeting. In June 2001 Barrett, Blume, Okumu and Pell visited Kenya field sites and attended the first annual project team meeting. Researchers visited three Kikuyu farming communities in Embu and Kirinyaga.

First annual team meeting: The successful two-day BASIS CRSP team meeting in Kerugoya, Kenya, was attended by 22 people (see accompanying photo). Team members worked to finalize project objectives, research design and methods, and a strategy for outreach to national and regional policymakers, donors, and subject communities (Baringo, Embu, Marsabit, Siaya/Vihiga in Kenya, Fianarantsoa and Vakinankaratra in Madagascar). They also finalized details for the October 2001-September 2002 workplan and division of responsibilities between Cornell, FOFIFA, ICRAF and KARI. The meeting offered a valuable teambuilding opportunity for researchers from different institutions. The next meeting is planned for June 2002 in Kakamega, Kenya, near the project's western sites in Siaya/Vihiga Districts.

Draft policy brief: In August 2001 the team drafted a BASIS Policy Brief: "Missing Markets, Poverty Traps, and Soils Degradation in East Africa." It underscores the integration of the pressing problems of persistent rural poverty and loss of

natural capital in Kenya and Madagascar specifically, and east and southern Africa more generally. The brief has been submitted to the BASIS CRSP ME for publication. A project web site has been established: http://www.aem.cornell.edu/special_programs/AFSNRM/Basis/

2001-2002 Work Plan

Data collection: The project team has assembled extensive secondary socioeconomic and biophysical data on each of the six project study sites. They have identified and reviewed previous surveys on which the coming year's survey work will build in establishing panel data. Primary data collection will continue throughout the year in two of the Kenya sites where in collaboration with the USAID Global Livestock CRSP pastoral risk management project BASIS researchers are conducting quarterly surveys at household head and individual level in 30 households per site.



The Rural Markets, Natural Capital, and Dynamic Poverty Traps in East Africa project team met in June 2001 in Kerugoya, Kenya. Left to right, **Front row**—John McPeak, Ben Okumu, Sallyannie Muhoro, Larry Blume, George Karanja, Samuel Gachanja, James Ouma, Festus Murithi, Chris Barrett, Bart Minten; **Back row**—Martins Oendo, Jessica Ndubi, Collins Obonyo, David Mbugua, Alice Pell, Justine Wangila, Jabez C. Buigutt, Wellington Mulinge, Frank Place, Jhon Rasambainarivo, Jean Claude Randrianarisoa, and Francis Kihanda.

◆2.E.◆

BASIS Phase II Small Research Grant—
**Assets, Cycles and Livelihoods:
Addressing Food Insecurity and
Poverty in the Horn of Africa and
Central America**

Collaborating Institutions and Researchers

Addis Ababa University

*Department of Anthropology, Sociology and Social
Administration*

Teferi Abate, Assistant Professor

Dejene Negassa, Graduate Student

Alula Pankhurst, Associate Professor

Institute of Development Research (IDR)

Yigremew Adal, Researcher

Tegegne Gebre Egziabher, Associate Professor

Workneh Negatu, Principal Investigator and Director

Institute for Development Anthropology (IDA)

Alfonso Peter Castro, Associate Professor of Anthropology,
Syracuse University

Peter D. Little, Principal Investigator and Professor of
Anthropology, University of Kentucky

M. Priscilla Stone, Director of International Studies and
Adjunct Associate Professor of Anthropology,
Washington University of St. Louis

Organization for Social Science Research in Eastern and Southern Africa (OSSREA)

Abdel Ghaffar M. Ahmed, Executive Secretary

Tegegne Tekla, Regional Project Coordinator

University of Wisconsin-Madison

Michael Carter, Professor, Department of Agricultural and
Applied Economics

Michael Roth, Senior Research Scientist, Land Tenure Center

Project dates: October 2000 – September 2001 (completed)

Support: Core funding

Background Information

The Horn of Africa includes some of the world's poorest rural populations, most volatile political conflicts, and extreme cases of food instability. This proposed project will initiate new field research, build on existing studies and databases, and extend the comparative work in the Horn of Africa to include analyses in another region, Central America. The objective of the project is to improve understanding of the

ways in which asset cycles and poverty affect and are affected by factor market processes. As an empirical backdrop, the project highlights the theme of "shocks" (climatic and other) to better assess the dynamics of these cycles under stress and the harsh realities that confront some of the world's poorest populations. The ultimate goal of the study is to identify policies that improve household access to land, labor, and capital and factor market performance, thus allowing impoverished households to escape the debilitating cycles of poverty, asset depletion, and food insecurity. In the Horn of Africa these households are increasingly trapped in food aid dependency and unsustainable ("destructive") land use practices.

During Phase I, BASIS along with the World Bank and the Honduras Food Security Program of the European Community funded a multi-country project titled "Land Market Liberalization and the Land Access of the Rural Poor in Central America" (see Olinto et al. 1998). During the planning phase of this project, Hurricane Mitch struck Honduras with terrible devastation. Including Honduras in the project will add an important comparative element to the research. The Horn of Africa, with its weak rural labor and credit markets, normally has responded to shocks with massive injections of food aid. This project will benefit from understanding how a relatively wealthier region (Central America), with stronger factor markets, higher per capita incomes, and different social and political dimensions, responds to shocks.

2000-2001 Activities

The 2000-2001 year was devoted to preparing for implementation of this project in October 2001. In June 2001 the BASIS research team met at OSSREA headquarters, Addis Ababa, Ethiopia, to discuss and plan for a three-year research program. Goals of the meeting were: (1) review and reach agreement on the different elements of the BASIS II three-year project; (2) discuss on-going studies in the region of relevance to the BASIS II project; (3) produce a draft annual work plan for the first year (October 2001-September 2002) and a draft BASIS Brief; and (4) allow BASIS II researchers to meet each other and discuss substantive aspects of their own work.

Issues related to the proposed research discussed during the meeting included: importance of comparative research, agreement on research sites and studies, conceptual framework and terms, coordinating data sets, and confirmation of research methods. Project team members also felt strongly about including a training component. All of these issues were finalized in the proposal that was submitted in September 2001.

2000-2001 Outputs

◆1◆

CRSP Administration

BASIS CRSP Fourth Annual Report, October 2000,
127 pp.

“BASIS CRSP Program Update,” October 2000,
16 pp.

◆2◆

BASIS II Program Development

Broadening Access and Strengthening Input Market
Systems (BASIS) Collaborative Research Support
Program (CRSP) Phase II: Proposal

Draft *BASIS Briefs*

“Constraints to Growth in Russian Agriculture” by Bruce
Gardner and Eugenia Serova.

“Innovations to Improve Equity-Sharing Under Privatization
and Farm Restructuring: Helping Land Reform Beneficiaries
Gain Access to Land and Financial Resources in Kyrgyzstan
and South Africa,” by Michael Lyne, Michael Roth, Malcolm
Childress, and Roman Mogilevsky

“Institutional Dimensions of Water Policy Reform in
Southern Africa: Addressing Critical Water-Land
Intersections,” by Bill Derman, Wapu Mulwafu, and Francis
Gonese.

“Missing markets, poverty traps, and soils degradation in East
Africa,” by Christopher B. Barrett, Lawrence E. Blume, John
G. McPeak, Bart Minten, Festus Murithi, Bernard N. Okumu,
Alice Pell, Frank Place, Jean Claude Randrianarisoa, and Jhon
Rasambainarivo.

“Building Assets for Sustainable Recovery: Food Security in
the Horn of Africa and Central America,” by Peter Little,
Abdel Ghaffar M. Ahmed, Michael Carter, Michael Roth, and
Workneh Negatu.

BASIS CRSP
1996-2001
Institutional Financial Statement

	TOTAL Budget	Expenses	carryover to 2001-2002
ME	\$ 1,409,656.00	\$ 1,352,200.96	\$ 57,455.04
Communications/briefs	\$ 56,131.00	\$ 52,132.46	\$ 3,998.54
Impact Monitoring & Evaluation	\$ 65,892.00	\$ 22,618.09	\$ 43,273.91
EC99/Program Development	\$ 38,903.42	\$ 38,903.42	\$ -
Program Development-Carter	\$ 144,000.00	\$ 141,975.69	\$ 2,024.31
Research Synthesis	\$ 36,623.29	\$ 21,244.68	\$ 15,378.61
Global			
LTC Sahel	\$ 20,000.00	\$ 20,000.00	\$ -
LTC Southeast Asia	\$ 31,386.00	\$ 31,386.00	
LTC Peri-Urban, Global, Russia	\$ 45,244.00	\$ 45,244.00	
Research Support	\$ 81,448.00	\$ 81,448.00	
Cornell	\$ 24,274.00	\$ 24,274.00	
American University	\$ 5,860.00	\$ 5,860.00	
Institut des Sciences Humaines	\$ 19,140.00	\$ 19,140.00	
Joint Titling	\$ 28,004.00	\$ 17,333.74	
Central America			
Dept. of AAE	\$ 182,418.18	\$ 182,418.18	
OSU	\$809,255.00	\$ 651,142.81	\$ 158,112.19
FUSADES	\$407,070.00	\$ 363,460.84	\$ 43,609.16
Eastern Europe and Eurasia			
LTC Central Asia	\$ 184,539.00	\$ 184,539.00	
LTC-Stanfield	\$ 86,130.06	\$ 86,130.03	
LTC-Childress	\$ 55,000.00	\$55,000.00	
IRIS	\$ 221,214.00	\$ 214,926.23	\$ 6,287.77
TIHAME	\$ 50,652.00	\$ 50,652.00	
Blue, EC, Synthesis, Russia, SEA	\$ 78,056.00	\$ 78,056.00	
Horn of Africa			
IDA	\$ 917,781.00	\$ 854,235.62	\$ 63,545.38
OSSREA	\$ 250,335.00	\$ 250,335.00	
IDR	\$ 173,338.00	\$ 153,129.42	\$ 20,208.58
LTC- Horn of Africa	\$ 126,086.00	\$ 104,590.77	\$ 21,495.23
ICRW	\$ 106,328.00	\$ 106,328.00	
ESRF	\$ 80,000.00	\$ 80,000.00	
Clark Atlanta	\$ 58,726.00	\$ 24,947.86	\$ 33,778.14
Egerton University	\$ 109,778.00	\$ 44,072.50	\$ 65,705.50
Southern Africa			
Harvard	\$ 264,348.05	\$ 264,348.05	
MSU	\$ 131,197.00	\$ 151,198.00	
INR	\$ 315,877.00	\$ 315,849.00	
CASS	\$ 92,931.00	\$ 92,931.00	
NET	\$ 36,229.00	\$ 36,229.00	
Rutgers	\$ 160,000.00	\$ 34,905.53	\$ 125,094.47
LTC-SAF	\$ 121,377.00	\$ 121,377.00	
Policy and Praxis	\$ 24,774.00	\$ 24,774.00	
UW-AAE Roth/Chavas/Petrie	\$ 9,999.00	\$ 9,999.00	
TOTAL	\$ 7,060,000.00	\$ 6,409,335.88	\$ 650,664.12

APPENDIX A

BASIS CRSP 2000-2001 Matching Contributions

	TOTAL match provided	TOTAL match % provided	TOTAL match required
Management			
Communications/briefs	\$ -	0%	\$ 13,033.12
Impact Monitoring & Evaluation	\$ -	0%	\$ 5,654.52
EC99/Program Development	\$ 1,745.01	4%	\$ 9,725.86
Program Development-Carter	\$ -	0%	\$ 35,493.92
Research Synthesis	\$ -	0%	\$ 5,311.17
Global			
LTC Sahel	\$ -	0%	\$ 5,000.00
LTC Southeast Asia	\$ -	0%	\$ 7,846.50
LTC Peri-Urban, Global, Russia	\$ 3,668.26	8%	\$ 11,311.00
Research Support	\$ 194,816.38	239%	\$ 20,362.00
Cornell	\$ 20,814.00	86%	\$ 6,068.50
American University	\$ 10,941.59	187%	\$ 1,465.00
Joint Titling	\$ -	0%	\$ 4,333.44
Central America			
Dept. of AAE	\$ 140,200.00	77%	\$ 45,604.55
OSU	\$ 152,996.67	23%	\$ 162,785.70
FUSADES**	\$ 29,714.71		\$ -
Eastern Europe and Eurasia			
LTC Central Asia	\$ 13,402.90	7%	\$ 46,134.75
LTC-Stanfield	\$ -	0%	\$ 21,532.51
LTC-Childress	\$ 32,700.00	59%	\$ 13,750.00
IRIS	\$ 57,424.96	27%	\$ 53,731.56
Blue, EC, Synthesis, Russia, SEA	\$ -	0%	\$ 19,514.00
Horn of Africa			
IDA	\$ 163,064.81	19%	\$ 213,558.91
LTC- Horn of Africa	\$ 19,438.64	19%	\$ 26,147.69
ICRW	\$ 17,161.00	16%	\$ 26,582.00
ESRF**.	\$ 71,074.00		\$ -
Clark Atlanta	\$ -	0%	\$ 6,236.97
Southern Africa			
Harvard	\$ 66,087.03	25%	\$ 66,087.01
MSU	\$ 36,234.00	24%	\$ 37,799.50
Rutgers	\$ -	0%	\$ 8,726.38
LTC-SAF	\$ 7,934.32	7%	\$ 30,344.25
Policy and Praxis**	\$ 7,857.00		\$ -
UW-AAE Roth/Chavas/Petrie	\$ -	0%	\$ 2,499.75
TOTAL	\$ 1,047,275.28	29%	\$ 906,640.54

** host country institutions are not required to provide matching

BASIS CRSP
1996-2001
Regional Budgets

	FY97	FY98	FY99	FY00	FY01	TOTAL Budget
ME	\$ 160,155.00	\$ 277,360.00	\$ 298,345.00	\$ 376,800.00	\$ 296,996.00	\$ 1,409,656.00
Communications/briefs	\$ 18,000.00	\$ -	\$ 4,138.00	\$ 20,000.00	\$ 13,993.00	\$ 56,131.00
Impact Monitoring & Evaluation					\$ 65,892.00	\$ 65,892.00
Program Development-CARTER					\$ 144,000.00	\$ 144,000.00
Research Synthesis/EC			\$ 48,108.00	\$ 12,326.00	\$ 15,092.71	\$ 75,526.71
Research						
Research Support	\$ 81,448.00					\$ 81,448.00
Sahel	\$ 20,000.00					\$ 20,000.00
Peri-Urban	\$ 29,555.00					\$ 29,555.00
Competitive Grants		\$ 145,000.00	\$ 11,005.00	\$ 111,348.00		\$ 267,353.00
Global Program	\$ 67,737.00	\$ 8,104.00	\$ (8,288.00)			\$ 67,553.00
Joint Titling					\$ 28,004.00	\$ 28,004.00
Central America	\$ 179,965.00	\$ 145,000.00	\$ 297,557.00	\$ 318,687.00	\$ 317,406.00	\$ 1,258,615.00
Eastern Europe and Eurasia	\$ 49,265.00	\$ 103,931.00	\$ 132,078.00	\$ 207,167.00	\$ 164,450.29	\$ 656,891.29
Horn of Africa	\$ 205,029.00	\$ 294,321.00	\$ 615,068.00	\$ 308,537.00	\$ 293,800.00	\$ 1,716,755.00
SE Asia	\$ 131,708.00	\$ 24,058.00	\$ (79,236.00)			\$ 76,530.00
Southern Africa	\$ 177,558.00	\$ 61,905.00	\$ 269,820.00	\$ 272,033.00	\$ 324,774.00	\$ 1,106,090.00
TOTAL	\$ 1,120,420.00	\$ 1,059,679.00	\$ 1,588,595.00	\$ 1,626,898.00	\$ 1,664,408.00	\$ 7,060,000.00

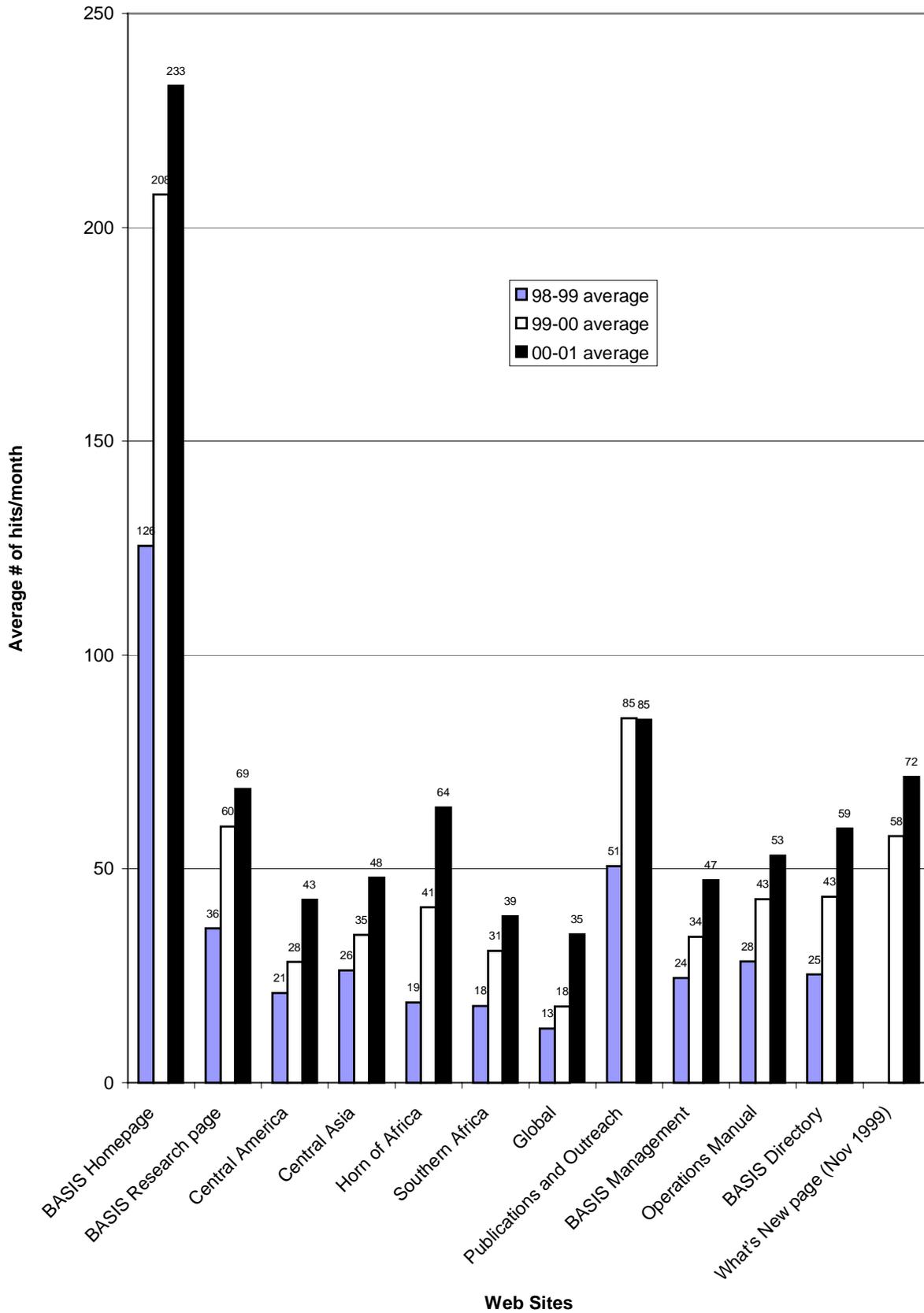
APPENDIX A

BASIS CRSP funding, FY 1997 to FY 2001				
FY	Core amount	TOTAL add-on/buy-in amount, by year	TOTAL matching contributions, by year	TOTAL
FY97	\$800,000	\$0	\$205,940	\$1,005,940
FY98	\$1,281,000	\$325,000	\$205,940	\$1,786,940
FY99	\$850,000	\$820,000	\$205,940	\$1,875,940
FY00	\$10,500	\$584,000	\$135,088	\$1,769,088
FY01	\$1,250,000	\$100,000		\$1,350,000
Total	\$5,231,000	\$1,829,000	\$752,908	\$7,812,908

**BASIS CRSP add-on funding, by source
FY 1997 to FY 2001**

FY	Source of funding	Add-on/buy-in amount
FY97	NA	\$0
FY98	USAID/REDSO	\$300,000
	USAID/Africa	\$25,000
FY99	USAID/REDSO	\$500,000
	USAID/BHR	\$200,000
	USAID/EI	\$120,000
	Salvador	
FY00	USAID/EI	\$150,000
	Salvador	
	USAID/LAC	\$74,000
	USAID/Ethiopia	\$100,000
	USAID/EE	\$60,000
	USAID/Zimbabwe	\$200,000
FY01	USAID/ EI	\$100,000
	Salvador	
TOTAL		\$1,829,000

BASIS CRSP web hits



BASIS CRSP Training accomplishments FY 1997 to FY 2001

Name of Student	Country	University of Study	Discipline	Degree	Degree obtained Y/N	Advisor	Gender	Funding*				
								Year				
								97	98	99	00	01
Odil Akbarov	Uzbekistan	Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME)	Land Reclamation	PhD	N	Alim Pulatov	Male				C	
Akmal Akramkhanov	Uzbekistan	Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME)	Agricultural Engineering	MA	Y	Alim Pulatov	Male	O				
Ajay Behl	INDIA	University of Wisconsin- Madison	Agricultural and Applied Economics	PhD	N	Michael Carter	Male					P
Barbara Cellerius	USA	Max Planck Institute of Social Anthropology	Development Anthropology	Post-Doc	Y	Peter Little	Female				P	
Walter Chambti	ZIMBABWE	University of Zimbabwe	Agricultural Economics and Extension	MSc	N	Dr. L. Rugube	Male					O
Juan Chamorro	NICARAGUA	University of Wisconsin- Madison	Agricultural and Applied Economics	PhD	N	Michael Carter	Male					P
Claudious Chikozho	ZIMBABWE	CASS, University of Zimbabwe	Social Studies	MA	N	Francis Gonese	Male				C	
Grace Chilima	MALAWI	University of Malawi	Environmental Economics	MA	N	Dr. Wapulumka Muluafu	Female				C	
Louise Fenwick	SOUTH AFRICA	University of Natal	Agricultural Economics	MS	Y	Michael Lyne	Female			P		
Heidi Gjertsen	CANADA	Cornell University	Agricultural Economics	PhD	N	Chris Barrett	Female			P		
Adrian Gonzalez-Gonzalez	COSTA RICA	The Ohio State University	Agricultural, Environmental & Development Economics	PhD	N	Claudio Gonzalez-Vega	Male			P	O	O
Andrew Graham	USA	University of Natal	Agricultural Economics	MS	Y	Michael Lyne	Male			C	C	

*Funding classifications: C: fully funded by the CRSP; P: partially funded by the CRSP; O: other funding supporting student's work on a CRSP project

BASIS CRSP Training accomplishments FY 1997 to FY 2001

Name of Student	Country	University of Study	Discipline	Degree	Degree obtained Y/N	Advisor	Gender	Funding*				
								Year				
								97	98	99	00	01
Rosaque Guale	MOZAMBIQUE	Eduardo Mondlane University	Geography	Licenciatura	Y	Joanne Leestemaker	Male			P		
Dwight Haase	USA	University of Wisconsin - Madison	Sociology	PhD	N	Joe Elder	Male			P		
Jeffrey Hopkins	USA	The Ohio State University	Agricultural, Environmental & Development Economics	Post-Doc	Y	Claudio Gonzalez-Vega	Male			P		
Sharon Knight	SOUTH AFRICA	University of Natal	Agricultural Management	MA	N	Professor MC Lyne	Female				P	
Anne Kuriakose	USA	University of Wisconsin - Madison	Development Studies (Sociology)	PhD	N	Joe Elder	Female				P	
Jim Latham	ZIMBABWE	CASS, University of Zimbabwe	Applied Social Sciences	PhD	N	Bill Derman/Marshall Murphree	Male				P	
Amelia Law	USA	The Ohio State University	Agricultural, Environmental & Development Economics	MA	N	Dr. Claudio Gonzales-Vega	Female				O	
Rano Marupova	Uzbekistan	Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME)	Agricultural Education	MA	N	Alim Pulatov	Female	P				
Kenneth Matengu	NAMIBIA	University of Namibia	Environmental Management	MA	N	Ben Fuller	Male				O	
Scott McDonald	USA	SUNY-Binghamton	Development Anthropology	MA	Y	Michael Horowitz	Male			P	P	
Lauren Montgomery-Reinhart	USA	SUNY-Binghamton	Development Anthropology	PhD	N	Michael Horowitz	Female		P			
David Mtilatila	MALAWI	University of Malawi-The Polytechnic	Civil Engineering	BS	N	Geoffrey Chavula	Male					P

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BASIS CRSP Training accomplishments FY 1997 to FY 2001

Name of Student	Country	University of Study	Discipline	Degree	Degree obtained Y/N	Advisor	Gender	Funding*				
								Year				
								97	98	99	00	01
Sergio Navajas	BOLIVIA	The Ohio State University	Agriculture, Environmental & Development Economics	PhD	Y	Claudio Gonzalez-Vega	Male		P	P	C	
Dejene Negassa	ETHIOPIA	Addis Ababa University	Social Anthropology	MA	N	Yared Amare	Male					P
Bryson Nkhoma	MALAWI	University of Malawi	African Environmental History	MA	N	Dr. W.O. Mulwafu	Male				P	
Lydia Pedro	MOZAMBIQUE	Eduardo Mondlane University	Geography	BA	Y	Joanne Leestemaker	Female			P		
Ragan Petrie	USA	University of Wisconsin - Madison	Agricultural Economics and Economics	PhD	N	Jean-Paul Chavas, James Andreoni	Female		P	P	P	P
Rafael Pleitez-Chavez	EL SALVADOR	The Ohio State University	Agriculture, Environmental & Development Economics	PhD	N	Claudio Gonzalez-Vega	Male				P	C
Jorge Rodriguez-Meza	COSTA RICA	The Ohio State University	Agriculture, Environmental & Development Economics	PhD	Y	Claudio Gonzalez-Vega	Male			P	P	
Tara Roffler	USA	University of Wisconsin - Madison	Water Resources Management, Institute for Environmental Studies	MS	N	Mike Roth/Joy Zedler	Female				C	C
Mark Schreiner	USA	The Ohio State University	Agriculture, Environmental & Development Economics	Post-Doc	Y	Claudio Gonzalez-Vega	Male		C			
Vombo Stanley	ZIMBABWE	CASS, University of Zimbabwe	Applied Social Sciences	PhD	N	Francis Gonese	Male				C	
Francisco Taucale	MOZAMBIQUE	Eduardo Mondlane University	Geography	Licenciatura	Y	Joanne Leestemaker	Male			P		

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BASIS CRSP Training accomplishments FY 1997 to FY 2001

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								Year				
								97	98	99	00	01
Daniel Tesfaye	ETHIOPIA	Addis Ababa University	Anthropology	MA	N		Male					
Alex Uriarte Somaglino	BRAZIL	University of Wisconsin - Madison	Development Studies (Ag Econ)	PhD	Y	Michael Carter	Male				P	
Mario Villalpando-Benitez	MEXICO	The Ohio State University	Agriculture, Environmental & Development Economics	PhD	Y	Claudio Gonzalez-Vega	Male	P	P		P	
Isaac Zama	Cameroon	University of Wisconsin - Madison	Environmental Law & Natural Resources Management	PhD	N	Richard Barrows	Male		C			
Darya Zavgorodnaya	Uzbekistan	Tashkent Institute of Irrigation and Agricultural Mechanization Engineers (TIAME)	Environmental Economical Studies	MA	Y	Alim Pulatov	Female		P			
TOTAL: 40	USA: 11 HOST COUNTRY: 29			PhD: 17 MS/A: 16 BS/A: 2 P-doc: 3 Lic: 2	Y: 15 N: 25		M: 27 F: 13	3	7	13	21	9

*Funding classifications: C: fully funded by the CRSP; P: partially funded by the CRSP; O: other funding supporting student's work on a CRSP project

BASIS CRSP WORKSHOPS & PARTICIPANTS: June 1997-July 2001

Start Date	End Date	Location		Workshop Title	Total	US			Host Country			Break-down Unavailable	Male	Female	Not Available
		City	Country			USAID	PI's & researchers	Other	Gov't	NGO's, PI's, researchers	Other				
6/9/97	6/11/97	Magaliesburg	South Africa	Southern Africa Regional Planning Workshop	23		5			18			19	4	
6/25/97	6/25/97	San Salvador	El Salvador	Workshop on BASIS Research Agenda in Central America	31		4		4	23			21	10	
7/14/97	7/17/97	Dessie	Ethiopia	Horn of Africa Planning and Organizational Workshop	27	2	2		7	16			26	1	
1/26/98	1/29/98	Tashkent	Uzbekistan	Organization and Planning Workshop	44	2	5		16	21			37	7	
8/12/99	8/12/99	San Salvador	El Salvador	First National BASIS Seminar: "The Influence of Labor, Financial, and Land Markets on Rural Poverty	237	5	2	4	31	195			165	72	
8/23/99	9/3/99	Madison, WI	USA	Eastern Europe and Eurasia: Rural Factor Market Concepts and Research Markets	13		4		3	6			12	1	
10/1/99	10/2/99	Golitsyno	Russia	Issues in Privatization and Restructuring of Russian Agriculture	32		4			5	3	20	24	8	
10/29/99	10/29/99	Dessie	Ethiopia	Seminar on Research Findings	17	2	3		8	4			14	3	
11/3/99	11/5/99	Addis Ababa	Ethiopia	Horn of Africa Workshop: Agricultural Policy, Resource Access and Human Nutrition	54	6	12		13	23			34	20	
2000	2000	Mwea	Kenya	Alleviating Poverty and Food Insecurity: The Case of Mwea in Kenya	4					4			4		
3/23/00	3/23/00	San Salvador	El Salvador	Breakfast Meeting	163	6	3	1	10	143			104	59	
3/23/00	3/23/00	Kita	Mali	Workshop-I on Differential Responses of Rural Residents to Long-Term Economic Change in Kita, Mali	38	2	1		1	30	4		24	14	
7/10/00	7/12/00	College Park, MD	USA	IRIS Conference on Market Oriented Reform in the Russian Agricultural Sector	20	1	13		1	4	1		17	3	
7/24/00	7/24/00	Kita	Mali	Workshop-II on Differential Responses of Rural Residents to Long-Term Economic Change in Kita, Mali	35	1			1	33			26	9	
11/17/00	11/18/00	Nashville, TN	USA	Cross-Border Presentation at the African Studies Association	4		1			3			4		
3/20/01	3/22/01	Tanzania	Morogoro	First National Conference on Irrigation in Tanzania	2		1			1				2	
4/2/01	4/3/01	Addis Ababa	Ethiopia	Seminar on Cross-Border Trade: Research and Policy Implications in the Horn of Africa	42	2	1		10	27	2		40	2	
4/24/01	4/26/01	Washington DC	USA	Consultative Meeting on Land Issues (World Bank conference) ^a	6		6						4	2	
4/27/01	4/27/01	Washington DC	USA	Development on Almanac Characterization Tool for Results Reporting (DACTRR)	10	4	4	1		1			9	1	
6/6/01	6/8/01	Addis Ababa	Ethiopia	Research Planning Meeting for "Assets, Cycles, and Livelihoods: Addressing Food Insecurity and Poverty in the Horn of Africa and Central America" Project	13		5			8			12	1	
6/18/01	6/20/01	Kerugoya	Kenya	Rural Markets, Natural Capital & Dynamic Poverty Traps in East Africa Workshop	20		5			15			17	3	
7/4/01	7/5/01	Msasa	Zimbabwe	Workshop for Water Reform Stakeholders	50							50			
7/22/01	7/25/01	Magaliesburg	South Africa	South Africa Synthesis Workshop	33	3	6	2	3	18	1		23	10	
7/6/01	7/7/01	Golitsyno	Russia	Golitsyno II: An Eye on Russian Agriculture	57	2	12	6	7	28	2		34	23	
9/20/01	9/20/01	Zomba	Malawi	BASIS Consultative Workshop for Policy Makers and Stakeholders in Zomba District	23				8	8	7		19	4	
12/5/01	12/5/01	San Salvador	El Salvador	Second National BASIS Seminar: "Rural Poverty, Vulnerability, and Credit"	269	2	4	4	29	219	11		162	107	
Total					1267	40	103	18	152	853	31	70	851	366	50

^a E-conference had 527 registered participants from 65 countries. Consultative meeting had 100 stakeholders from the international government and NGO community.

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APPENDIX D

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APPENDIX D

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APPENDIX D

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