



A Brief Status Report for the Dessie Mini-Workshop

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BASIS CRSP

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I. INTRODUCTION

Food security, sustainable increases in land productivity, minimizing environmental degradation, reducing social conflicts over resources, and increasing employment and returns to labor are priority needs through out the Greater Horn of Africa. These issues involve three complementary but at times competing land use systems: 1) intensive highland production with some export crop production and intensive dairying; 2) mixed dryland farming; and, 3) extensive range land with transhumant pastoralism.

The rural population of Ethiopia like the populations in other countries in the Horn of Africa is vulnerable to harsh food insecurity and poverty. Poor resource access and use is the central constraint to eliminating food insecurity and reducing poverty.

The USAID funded BASIS Project in South Wollo began in 1996 with reconnaissance survey. The areas around Dessie, the capital town of South Wollo zone, located in the eastern Amhara region of Ethiopia, were selected for the following reasons:

- within short distance, land use management changes rapidly along the highland-to-lowland transect;
- Dessie is close enough to important markets and to the main market road to Addis Ababa to allow the study of agricultural policy and markets on resource use, food productivity, and adoption of commercial inputs associated with new farm technology;
- the choice of Amhara region is also expected to allow BASIS to observe and contribute to the region's progress toward decentralized economic planning (Bruce et al, 1997).

The Research Framework

The framework upon which the South Wollo study is based is merging factor market analysis with food security under highly diverse land use systems and agroecologies. It is also perceived that the highland-to-lowland transect along the escarpment at Dessie provides regional focus for studying linkages among land, water, labor, and financial markets as they relate to economic growth and food security in ways that have broad policy relevance. The framework emphasizes the need to address food availability and food security and contributions to concrete policy applications.

The overarching objectives of the BASIS project in Ethiopia are therefore food security (including poverty alleviation) and sustainable economic development (BASIS, 1997). It is also the strategy of the Basis Project in Ethiopia to establish the program first in the field before engaging in debates at the federal level and the priority is working with zonal and regional officials (e.g.. zonal and regional Bureaus of Planning and Economic Development or equivalent offices). One of the recommendations of the 1999 BASIS-CRSP Regional Seminar held at Dessie is that successful intervention strategies and policy action in the region will require continued interaction among researchers, donors, policy makers, local stakeholders, and individuals in the concerned communities.

The BASIS IDR project activities have been on-going since 1997 at three levels: regional market study; community study and household study. The status of the activities is highlighted in the following sections.

2. SURVEY OF MARKET CENTERS AND FUNCTIONS

This research activity examined the functions of food markets and their influence on food security. An inventory was made on services, infrastructure, institutions, flows between centers, and other settlement-level data. An assessment was made regarding the role these markets have in providing opportunities for farmers, acting as service centers for inputs and providing employment. The variables emphasized include: spatial access to market centers and infrastructure, economic functions of market centers, highland-lowland linkages, and regional ecology.

The findings of the survey show that income levels are higher the closer one is to towns and the role of market centres can be crucial to rural development. Yet in order to have impact these centers need strong relations with rural areas. The study identified the market centres, the existing functions, what needs strengthening, and the linkages with rural areas. Conclusions from this inventory include that most market centres are no more than service centres without productive linkages with rural areas. With landholdings very small in the region and frequent rain failures, it might be beneficial for the market centres to diversify to aid rural growth in general ways and not merely through agriculture.

3. COMMUNITY-BASED ASSESSMENT OF FOOD SECURITY AND MARKET ACCESS

The assessment covered 21 kebele (PA) associations and attempted, employing survey, ethnographic and rapid rural appraisal methods, to find answers for relevant research questions: What types of community-level coping mechanisms exist to address food insecurity? How have recent experiences with food insecurity affected community organizations and their risk management strategies? What formal/informal institutions help mobilize capital and labour for producers? What types of formal and informal arrangements regulate access to agricultural and other resources, and how have they been impacted by recent government reforms?

Landholdings in the zones are very small, progressively reaching sizes no longer able to support a household. Droughts, small landholdings, underemployment and thin markets in land, labour and capital are creating serious food insecurity. Possible interventions and policy were addressed; these include long-term leaseholds and multi-year land transactions, skills training and other income earning opportunities, and reducing the loss of rural resources due to drought through more prompt relief assistance, interventions in livestock and grain markets, provision of animal feed, and expanding access to credit.

4. HOUSEHOLD STUDY

Objectives

The objective of the household survey is to study the relationship between assets, livelihood and food security under different scenarios of drought shocks. The ultimate goal of the study is to identify policies that improve household access to land, labor and capital (physical,

financial and human) markets and performance of the markets. The mediating roles of different institutions will be also examined.

Research Design and Data Collection

The research is a longitudinal study aimed to capture changes in access to resources, resource use, factor market performance and their relations with food security over years and seasons under different socio-economic and biophysical settings. In order to effectively trace changes based on reliable data recall, repeated surveys of same households were planned to take place every quarter of the study year. But, due to irregular pattern of rainfall (e.g. drought in 1999/2000; failure of the short season (*Belg*) production in 2000) and the resulting irregular seasonal activities, and a longer period required for farmers to thresh harvested crops and know yield data, the repeat surveys were done almost every four months, i.e. three times per year.

Sampling

Agroecological zones play a significant role in food production and security under conditions of most areas in Ethiopia. We used the three traditional agroecological zones to stratify the study areas. The agroecological zones are (i) *Dega* (high altitude, moist and low temperature), *Woinadega* (mid-altitude, sub-moist and medium temperature), and *Kola* (low-altitude, semi-arid and high temperature). Another important factor considered in selection of the study areas was growing seasons. In general agriculture in Ethiopia follows two seasons: (i) the *Belg* (planting in February/March to harvesting through June - August); (ii) *Meher*, planting June – August to harvesting in October-January). Certain areas receive only *meher* or *Belg* rains while certain areas receive both *Meher* and *Belg* rains. Four woredas were selected for the study purposively with the aim of representing agroecologies described. These are (i) Legambo woreda (*dega*) (2) Dessie-Zuria woreda (*dega/woinadega*) (3) Jamma woreda (*dega*) and (4) Bati woreda (*kola*) Except Jamma woreda, the rest of the *woreda* selected for this study were included in the 1999 community assessment. Jamma woreda is included in the household survey for the reason that it is one of the areas in South Wollo with good agricultural potential and performance, providing possibly a scenario of best agricultural area.

In each woreda two PAs were selected purposively on the basis that one of them is nearer (5-12 Km.) to woreda capital town and the other being relatively far (13-30 Km.) from it. The selection of the PAs was done in consultation with the Woreda officials and extension experts of the Bureau of Agriculture. From each PA was then 56 households were selected randomly expecting a total attrition rate of about 28 % by the final (sixth) round survey that would assure us a minimum of 40 households to participate in all rounds of the household surveys. The farm households were selected from the sampling frame constructed from the list of PA-registered farm households and the list of farm households who are not formally registered with PAs, but engaged in farming using land plots they obtain through different mechanisms like gifting, sharecropping or renting. The latter list was constructed on the basis of information provided by PA leaders and other informants.

Surveys

Data was collected from the members of randomly selected households in rounds of household surveys using formal and structured questionnaires that were first pre-tested and improved.

Two instruments have been administered to each household during the surveys: (1) Household Demography and Inventory Questionnaire, which was administered during the Baseline (first round) survey; (2) Repeat Production, Income and Expenditure Questionnaire, which is administered during the Repeat surveys.

The Baseline Survey

The Baseline Survey (the first round survey) was conducted during May/June 2000. Its purpose was to collect a baseline information upon which to monitor changes in the inventoried stocks of assets and foods over seasons through the subsequent Change Monitoring Repeat Surveys.

Before launching the Baseline survey, the research group discussed and elaborated the instrument - Household Demography and Inventory Questionnaires - for one day to the recruited supervisors who are all graduates with Bachelor degree. One supervisor was assigned for each study woreda to guide and supervise the data collection in the woreda. In this round survey, researchers and supervisors were involved in recruiting and training the enumerators (five in number) in each woreda. The woreda Bureau of agriculture and woreda administration councils greatly facilitated and simplified the selection of the PAs and reaching the selected PAs for the study. The PA leaders and DAs were instrumental in identifying and contacting the randomly selected households. The questionnaire was administered to the household head and (in some cases) principal spouse

Baseline data collected: household demography, settlement history and migration, current employment, household compound and housing assets, production, consumption and financial assets, livestock and grain inventory; landholdings and land tenure history, social capital (credit and savings groups, labor exchange associations etc), household livelihood strategy; and market characteristics.

Change Monitoring Repeat Surveys

The aims of the Repeat surveys are tracking changes in stocks and collecting data on flows of income and expenditures. The Repeat Production, Income and Expenditure Questionnaire (RPIEQ) is the instrument used for the repeat surveys. It has two parts. The first part is filled-in by the household head jointly with the principal spouse where ever possible. The second part of the questionnaire is filled-in by two or more economic agents including the household heads. Economic agents are those household members who are engaged in farm or non-farm income generating activities under their own responsibility and decision. Since the second round survey, the employment of a research assistant has facilitated more efficient survey implementation, follow-up of data collection and processing.

The First Repeat Survey (second round survey): The survey was done during November/December 2000. This is mainly to capture the inputs and outputs of the *Belg* season (March-August/2000) production in the *Belg* areas and also inputs and outputs of the

Meher (June-October/2000) production in *Meher* areas. Like in the first survey a supervisor was assigned for each of the study *woreda*. In each *woreda* eight enumerators were employed and trained to collect data from the selected households (and spouse) and two or three economic agents in the household.

The *Belg* production of 2000 (March-September, 2000 (or 1992/93 Eth. cal.) was almost a total failure due to lack of rainfall in its growing period. The data on the *Meher* harvest collected was partial as all harvested crops were not then fully threshed to get the yield data. The yield data of the 2000 (1992/1993) *Meher* production was therefore recollected during the third round survey (second repeat survey).

The third round (Second Repeat) survey was carried out in May/June 2001, while the fourth round (Third Repeat) survey was conducted in October/November 2001. The fifth round (Fourth Repeat) survey is being carried out currently (March, 2002) and the sixth round (Closing Inventory) survey is planned to be carried-out in June 2002.

In each round survey, some dropouts have been expected for different reasons. The highest dropout number was registered in the second round (First Repeat) survey in Dessie-Zuria *woreda* (Table 1). This was attributed to migration of some of the household heads and members to escape the famine caused by the failure of the *Belg* season of 2000 and the poor crop performance of the 2000 *Meher* season.

Data collected in Repeat Surveys: Change in household demography; change in assets, livestock herd adjustment; pensions and remittance; food stock adjustments; principal land uses; crop output and sales; labor time worked on farm activities; livestock husbandry; finance and credit; wage and non-wage activities; perception on wage employment; self-employment activities; consumption; expenditures; and, market characteristics.

Table 1: Sample Size and Dropouts in Survey Rounds

Woreda/PA	1st Round	2nd Round		3rd round		4th round	
	Sample size	Sample size	Dropout	Sample size	Dropout	Sample size	Dropout
Legambo	112	108	4	106	2	106	
Temu (far)	56	53	3	52	1	52	
TachAkesta (near)	56	55	1	54	1	54	
Dessie-Zuria	112	102	10	102	-	101	-
Tebasit (far)	56	47	9	47	-	47	1
Gerado (near)	56	55	1	55	-	54	-
Bati woreda	112	110	2	110	-	110	-
Chachato (far)	56	56	-	56	-	56	-
Kamme (near)	56	54	2	54	-	54	-
Jamma	112	108	4	107	1	106	1
- TulluMojo (far)	56	54	2	54	-	54	-
- Yedo (near)	56	54	2	53	1	52	1
Total	448	428	20	425	3	423	2

Figures in parentheses are percents

PA = Peasant association; Woreda is equivalent to district

Note: The average proportion of female-headed households in the sample households of the study is 24 %, the highest proportion being 33 % in Legambo woreda and the lowest, 14 %, in Bati woreda.

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