



BUILDING ASSETS FOR SUSTAINABLE RECOVERY AND FOOD SECURITY

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Coping with disaster

THE GREAT FLOOD OF 1993 was one of the most devastating natural disasters to ever affect the United States. It was estimated that the flood's immediate impact was the loss of 52 lives and the temporary or permanent relocation of more than 74,000 people from their homes. Estimates of damages and losses in the nine-state area affected by the flood amount to approximately \$18 billion, with agricultural losses to crop production and livestock sectors totaling \$8.9 billion. Through flood and crop insurance, agricultural stabilization assistance, homeowner loans, and emergency food aid, the federal government paid \$6.2 billion for restoration after the flood. Despite catastrophic losses, the agricultural sector in the midwestern part of the United States was able to recover and suffered minimal long-term losses because of privately and publicly funded insurance programs and federal aid.

Natural disasters, such as droughts, floods, and earthquakes, can devastate the lives of rural people. In the United States, where mechanisms and markets exist to assist individuals affected by natural disasters, complete recovery eventually comes through subsequent years of agricultural productivity. Yet for others, particularly in areas of weak market access and poor infrastructure, such as in Ethiopia and Honduras, the passage of time does not offer the prospect of recovery but only further traps people in poverty and food insecurity, while their assets continue to be depleted.

For these people, external shocks such as natural disasters lead to enduring hardship.

Understanding what turns a onetime shock into an inescapable poverty trap can help policymakers develop mechanisms to protect people hit by sudden disasters who, on their own, are unable to recover even as time passes.

Breaking the cycle of poverty

The South Wello Zone of Ethiopia is often referred to as the buckle of the country's famine belt, and the region has been hit hard by drought. Major droughts from 1969-1973 resulted in a famine that killed approximately 300,000 peasants of Tigray and Wello. Another famine in 1984-85 killed or displaced hundreds of thousands of people. In Ethiopia, where functioning land, labor, and credit/insurance markets are absent, households rely on their assets to ensure survival through repeated natural disasters.

Prior social science research recognized that the local effects of natural disasters are unevenly distributed among households and that local responses are highly differentiated by wealth, gender, and socioeconomic status. Applied research increasingly demonstrates the key role that assets play in mitigating the adverse effects of climatic shocks and economic restructuring. The economics literature often looks at the insurance role of assets such as oxen, with particular attention to how these assets smooth consumption

in the absence of functioning markets. Anthropologists and sociologists have tended to use a broader definition of assets that emphasizes the critical role social relations and networks (social capital) play in periods of economic instability. The two approaches are not incompatible. Social networks serve an important role in resource allocation and risk management. In that sense, they can be treated as an economic asset. In areas where markets are poorly developed, these social organizations often play critical roles in allocating factors of production and providing safety nets for communities and households.

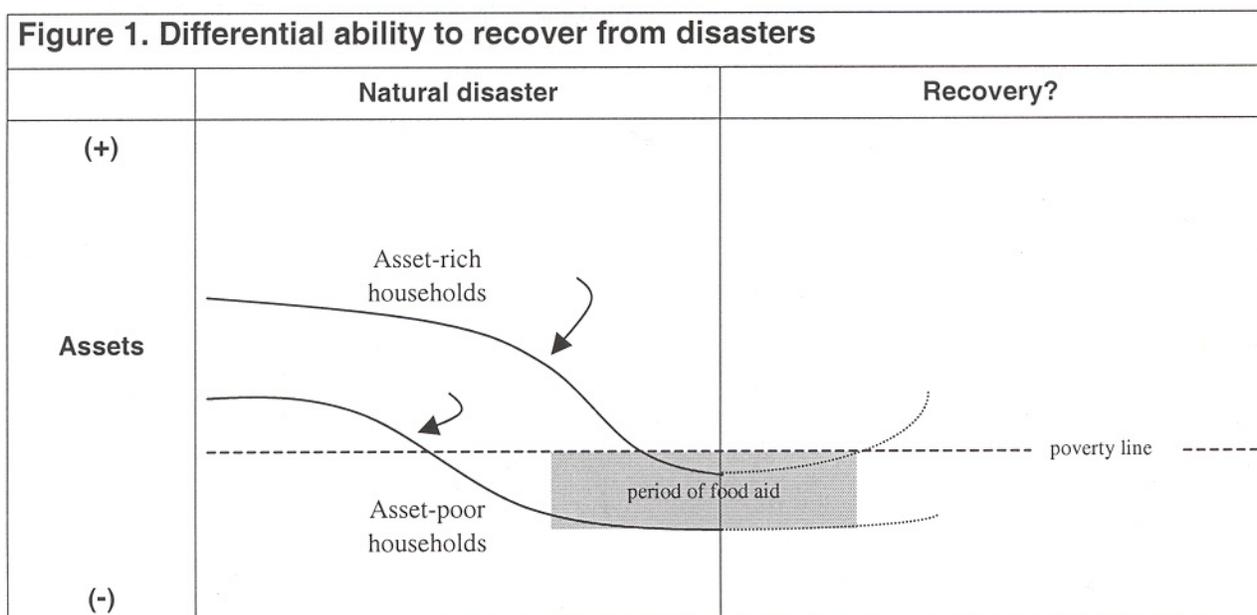
BASIS research findings collected during the drought of 1999-2000 regarding the role of assets in mitigating risk are consistent with what was previously recognized by social scientists. Empirical observations in South Wello resulted in a preliminary model of the process of asset depletion in response to environmental and market conditions. Well-off households achieve or maintain higher asset holdings (livestock, cash, and equipment) due to their ability to fully respond to economic opportunity, purchase devalued assets from poorer households, and keep their assets and products off a devalued market. Asset-poor households find their accumulation constrained by an inefficient asset mix (e.g., abundant land but insufficient labor, or excess labor but inadequate human capital to engage in off-farm employment), declining values for their meager assets as markets for

these goods also collapse, declining wages for their labor while costs of borrowing increase, and declining access to social networks and support institutions during periods of massive depletion.

Figure 1 illustrates the depletion of assets as households are affected by an external shock, as observed by BASIS research conducted from 1997-2000. In times of drought, all households explore options for maintaining their income and optimizing their survival but are affected by the drought differentially. Asset-

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rich households take longer to reach the stage at which massive depletion occurs. The period of food aid (shaded area) can be of great benefit to households, yet it covers a finite period and will end while some households are still in poverty. Food aid assists households in surviving the impact of drought, first by providing nourishment when other sources of food have withered, and, second, by reducing the necessity for households to sell their assets to purchase food. However, food aid alone is not enough to help families recover in the long term from natural disasters.



Source: Adapted from Roth (1999).

New approaches for permanent relief

Policies that help households retain assets are only part of the solution to protect people hit by sudden disasters. Further research on the period of recovery is needed to assist policymakers in developing mechanisms for more permanent relief. BASIS researchers will explore the role that assets and factor markets play in helping households recover from natural disasters. In areas where land, labor, credit, and insurance markets are weak or nonexistent, BASIS

Asset-poor households may never be able to reaccumulate depleted assets

hypothesizes that asset-rich households will reaccumulate assets at much steeper rates, while asset-poor households may never be able to reaccumulate depleted assets even as more time passes. In other words, they will be trapped under the poverty line with no way of emerging. Food aid will have helped many households through the immediate period following a natural disaster, yet some families will find that they can never recover from the poverty in which they find themselves.

BASIS research will provide opportunities for analysis of different policy frameworks on factor market access and food security in the Horn of Africa and Central America, two regions of strategic importance in poverty-oriented research. The project will document:

- how asset-use strategies and livelihoods vary under different market regimes,
- the role nonfarm income plays in resistance to and recovery from climate and economic shocks,
- how social capital and networks are mobilized to substitute for markets and how they can play significant short- and medium-term roles in coping and recovery strategies,
- gender and class differences across varied cultural and risk environments, and,
- the interaction between factor market policies and poverty reduction and food security.

Without an understanding of how factor markets relate to cycles of poverty and asset depletion, policy interventions have tended to be restricted to targeted, short-term efforts, such as food aid relief and highly subsidized credit schemes that neglect long-term development and sustainability. The goal is to gather information to inform policy for sustainable development following natural disasters, particularly to address the needs of the asset-poor households.

Sites

Selection of the three research sites was informed by differences in factor market depth or development and food security (Figure 2). The South Wello and Oromiya Zones in Ethiopia have the weakest factor markets with undeveloped labor and credit markets and a highly constrained land market (i.e., land sales are not allowed by the state). Ethiopia also is among the poorest nations in the world and among the world's largest per capita recipients of food aid, and the South Wello area is among the poorest and most food insecure regions in Ethiopia.

Figure 2. Selection of research sites

Research sites	Factor market depth ^a	Food security index ^b
South Wello/Oromiya, Ethiopia	Poor	Poor-to-fair
Samburu/Baringo, Kenya	Poor-to-fair	Fair
Honduras	Fair-to-good	Fair-to-good

^a A relative indicator; all the sites have relatively poor factor market integration.
^b A relative indicator; Ethiopia is the only site with prevalent famine and food aid.

Honduras is one of the poorest countries in the Western Hemisphere. Unlike in Ethiopia, however, Honduran households have relatively good access to factor markets and are able to pursue relatively complex mixes of farm and nonfarm activities. BASIS began working in Honduras just as Hurricane Mitch struck with terrible devastation. Similar to the Horn of Africa, low-levels of education and remunerative wage employment, thin credit markets, high market transactions costs, and environmental degradation are critical constraints in rural areas. It remains a critical and yet unanswered question as to the degree to which



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rural Honduran households have been able to recover from the natural disaster compared to how many households are trapped in poverty. The comparative research permits assessments in areas where poverty and market failure can result in famines as well as in areas where the outcomes are not as desperate.

The Samburu and Baringo Districts in Kenya represent areas where market development lies between the extremes. These are pastoral livestock areas where nonfarm activities are significant and a considerable amount of comparable data is available.

Policy Impacts

The persistence of extreme poverty and high rates of food insecurity in large parts of the world poses a development challenge. The United Nations designated the Horn of Africa as a global priority area because of its ongoing conflicts and long-term food security problems. A UN task force, headed by the Executive Director of the World Food Programme, hopes to develop an accelerated program to alleviate poverty, food insecurity, and social conflict in the region. In September 2000, the task force visited north-central Ethiopia to assess the food situation in drought-stricken zones, such as South Wollo. Similar poverty alleviation efforts are underway in the region, including programs by USAID/Ethiopia and REDSO.

This BASIS project will be of direct relevance to these initiatives by offering successful approaches to development and disaster assistance, targeted assistance for the most vulnerable groups, asset rebuilding (for instance, through restocking and/or credit and input programs), and, most importantly, market development. A growing proportion of development funds are targeted to disasters, and yet low-income populations, facing continued poverty as a result of these disasters, become dependent on food aid. Once this

short-term solution is gone, these populations face a second disaster: lingering, hopeless poverty. BASIS offers a means of breaking out of these traps through improved factor market policies, asset use, and livelihood strategies.



Suggested reading

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