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Poverty Traps and Natural Disasters in Ethiopia and Honduras

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Introduction

Ato Mohammed, 55 and illiterate, lives in the Bati district of South Wollo Zone (Ethiopia) and heads a household of nine. He has been chronically food insecure for more than ten years, when he lost his single ox because of drought. He sold the animal to buy food at the time and has not been able to acquire another. Currently, Mohammed holds one hectare of farmland and has no grazing land. Since he owns no oxen, he has been leasing out his land for share-cropping on a 50/50 sharing arrangement. Mohammed and his family members are engaged in various types of daily labour activities for cash and food, and the household is a regular recipient of food aid.

Mohammed asserts “oxen are the crucial productive asset that would liberate me from this insecurity trap.” On the other hand, however, he does not want to take credit from a regional credit organization to buy an ox as he does not want to be indebted and fears that the debt may be passed on to his children if he fails to repay. He fears that the ox may die due to lack of adequate feed or animal diseases for which there is no dependable animal health service in the community. He also fears that he may not be able to pay back any loan, since crop failure is frequent because of insects and droughts.

The direct impacts of the droughts, hurricanes and other environmental shocks can be horrific, resulting in immediate increases in poverty and deprivation. But what are the longer-term effects of shocks on households and their livelihoods? Are households able to quickly re-establish their livelihoods and the assets needed to support them, or is recovery a slow, long-drawn-out process, especially for poorer households, who may be less able to leverage the resources needed to rebuild? Indeed, is there a “poverty trap”

from which households can rarely recover, as Ato Mohammed's¹ story suggests? And, if there is such a trap – understood as a minimum asset threshold (for example, one ox), below which accumulation and livelihood growth are not feasible – do forward-looking households adopt asset protection strategies designed to avoid the trap, but which come at the very high cost of immediately reduced consumption, with perhaps irreversible losses in child health and education? Finally, to what extent does the existence of deep markets and/or social networks offset these longer-term consequences of disaster?

To explore these issues, this chapter examines data from two macabre, naturally-occurring experiments. The first is Hurricane Mitch, which struck Honduras and other parts of Central America in 1998. Through the vagaries of Mitch, some households lost nearly all their productive assets, while others were left unscathed. These changes in asset distribution² permit us to explore questions of resilience and the speed of longer-term recovery, and to examine whether there is any evidence of poverty traps.

The prolonged Ethiopian drought of 1998–2000 presents a second kind of disaster experiment. Direct destruction of assets was modest, but the income losses of repeated crop failures in some locations forced households to choose between preserving assets, or selling them to maintain current consumption and health. Examination of household asset holdings across the drought cycle provides insight into the longer-term effects of droughts, and into particular wealth-differentiated asset management strategies.

The work is part of a comparative project that addresses the interrelationships between climatic shocks, markets and asset recovery strategies among households in developing countries (see Little *et al.*, 2002). In Ethiopia, markets are relatively weak (especially for land, labour and capital), and non-market mechanisms are important. Factor markets are better-developed in Honduras, but its inequalitarian agrarian structure may limit the effectiveness and extent of the social assets that might aid recovery in Ethiopia.³ Data on a sample of 416 rural Ethiopian households track household assets over a seven-year period of pre-drought (1996–7), drought (1998–2000), and recovery (2001–3). Data on a sample of 850 rural Honduran households capture the immediate impact of Hurricane Mitch in 1998 on assets and income, as well as these households' economic position in 2001, two and a half years after Mitch.

The remainder of this chapter is organized as follows. The second section proposes an anatomy of an environmental shock, tracing the evolution of assets through time in the face of a shock, and presents an empirical model of asset accumulation to investigate households' sensitivity to, and recovery from, shocks. The factors that influenced rural Honduran households' exposure to and recovery from the 1998 hurricane are examined in the third section. The fourth section describes the income losses households in