

Risk is a pervasive feature of life in poor rural areas of developing countries. This brief outlines a conceptual framework for understanding the nature of risks faced by poor rural households and their consequences before turning to a more detailed discussion of these risks.

A conceptual framework

The conceptual framework of risks to the rural poor has four components: settings, assets, activities, and outcomes. *Settings* describe a household's environment. It includes the physical setting (such as the level and variability of rainfall, exposure to cataclysmic events such as earthquakes and cyclones, the presence of communicable diseases, and the quality of infrastructure), the social setting (social cohesion and strife and the existence of norms of behavior), the legal setting (the formal "rules of the game" within which exchange takes place), the political setting (the mechanisms by which these rules are set), and the economic setting (policies that affect the level of assets, returns, and variability of returns on assets).

Assets, alone or in conjunction with other assets and household labor, produce a stream of income; some are also a store of value. Assets include the following forms of capital: physical, natural (land), human, financial, and social. The allocation of these assets to income-generating *activities* is conditioned by the settings in which these households find themselves. The *outcome* of these allocations is income, which is a determinant of other outcomes such as consumption, poverty, and vulnerability.

Risks and shocks

A risk is the probability of an event that generates a welfare loss¹; a shock is the realization of that risk. Shocks can be characterized in terms of their spatial and their temporal dimensions.

In rural areas of developing countries, the majority of risks emanate from the setting in which households are situated and involve common or covariant shocks. A few affect individual households and are thus idiosyncratic shocks. Distinctions in the spatial dimensions of shocks—that is, between covariant and idiosyncratic shocks—are not always straightforward. A drought might lead poor, rainfall-dependent households to sell assets to richer, non-rainfall-dependent neighbors. Although the event was common to both, it adversely affected only the poor. Some shocks are sudden and violent (such as flooding or earthquakes). Others develop slowly (such as droughts). Still others may begin quickly or slowly but persist for long periods of time (civil war is one example). Using the settings described earlier, the table in Appendix 2 classifies the temporal dimension of a number of different shocks in terms of those that are rapid onset, slow onset, and prolonged.

Consequences

Shocks can affect any of the components in the conceptual framework. These effects can take place in multiple rounds: a shock taking place in one setting can have impacts on other settings, unleashing additional effects on household assets and the processes by which households generate income and turn that income into consump-

¹ This definition differs from the usual definition in which risk refers to anything that increases the probability of above- or below-average events (while the mean remains constant); this definition focuses solely on the probability of below-average events—that is, the negative consequences of risk.

Table 1—Examples of selected shocks on household assets, activities, and outcomes

| Shock | Impact on household assets | Impact on activities and outcomes | |
|---------------------------------|--|--|--|
| | | Availability of and returns to income-earning activities | Availability and real costs of transactions |
| Floods, earthquakes, hurricanes | <ul style="list-style-type: none"> • Damage to or destruction of productive and other household assets | <ul style="list-style-type: none"> • Reduction in wage labor and other off-farm opportunities • Reduced access to agricultural inputs; inability to sell agricultural surplus | <ul style="list-style-type: none"> • Increase in food costs and other goods consumed by the household • Some goods either unavailable or rationed • Difficulty in getting access to publicly provided goods |
| Drought | <ul style="list-style-type: none"> • Livestock death | <ul style="list-style-type: none"> • Reduced returns to labor and other inputs in agriculture • Fewer wage labor opportunities | <ul style="list-style-type: none"> • Increased food costs |
| Ethnic strife, crime | <ul style="list-style-type: none"> • Confiscation of physical assets • Loss of labor through abduction, conscription, or imprisonment • Forced relocation | <ul style="list-style-type: none"> • Reduced access to agricultural inputs; difficulty selling agricultural surplus • Reduced returns due to insecurity, lower output prices • Reduced demand for labor | <ul style="list-style-type: none"> • Increased costs of food and other goods • Some goods unavailable or rationed • Difficulty in getting access to publicly provided goods |

tion. At the household level, it is helpful to distinguish between the ex ante consequences of risk and the ex post impact of shocks.

Ex ante, risk shapes the assets that households hold and the activities that they undertake. The threat of shocks discourages innovation and risk taking. Studies undertaken in south India and Tanzania show that because poor households deploy their assets more conservatively than wealthy households, their return on assets is lower. Further, the threat of shocks can make households reluctant to participate in credit markets because they fear the consequences of an inability to repay. A household may decide to grow a mix of crops that embodies differing levels of susceptibility to climatic shocks. Crops may be grown in different locations, may be temporally diverse, or may be intercropped. Similarly, the household might diversify into off-farm activities or casual wage labor. Few households have access to the rich set of financial instruments through which households in developed countries can insure against risk; publicly provided social protection also tends to be limited.

Ex post—when a shock occurs—there are consequences for household assets, activities, and outcomes (Table 1).

These shocks present households with difficult choices. In addition to seeking additional sources of income, households may respond to shocks by reducing human capital formation (by, for example, taking children out of school), selling assets (and thereby risking lower consumption levels in the future), or reducing consumption (and risking the consequences of lowered food intake, such as the irreversible consequences of malnutrition in preschoolers). The magnitude and temporal consequences of these shocks, and households' responses to them, are illustrated in Figures 1 and 2. The outcome, shown on the vertical axis, is some measure of household food security with a threshold level being denoted by a horizontal food security line.

Figure 1 represents a slow-onset shock, shown by the slow decline in household food security. The magnitude of the shock is sufficiently large to imperil life. Although the household does recover from this shock, recovery takes time and household food security never returns to its previous level; this shock has had irreversible consequences. For example, farmers in Ethiopia who suffered livestock and other losses in the droughts of the 1980s found it difficult to recover and experienced considerably slower income growth in the decades that followed.

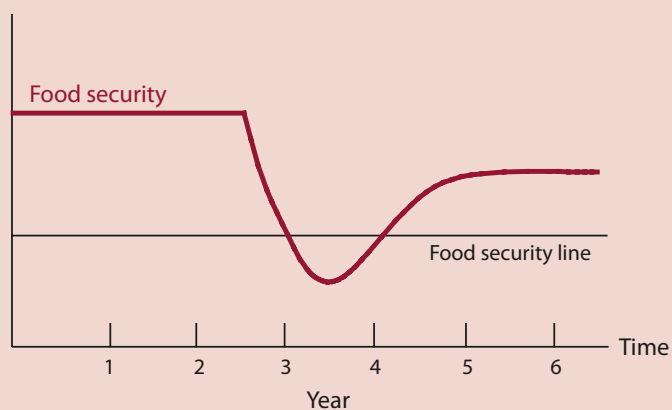
Figure 2 shows the consequences of cascading shocks. The first shock causes food consumption to fall, but not quite to a level that threatens life. This shock is followed by a second one; their combined effect is large enough to push households below the minimum food security line and produce irreversible consequences.

Conclusion

In the pervasively risky environments where the rural poor live, the rich set of financial instruments through which households in wealthier countries can insure against risk and publicly provided social protection are largely absent. This lack of insurance and social protection limits poor households' ability to move out of poverty, creates the potential for transitory events to have irreversible effects, and exposes the poor to life-threatening consequences. ■

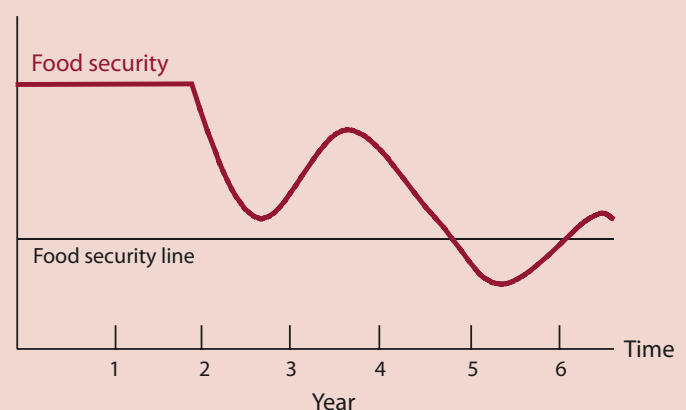
For further reading: J. Hoddinott and A. Quisumbing, "Methods for Microeconomic Risk and Vulnerability Assessment," in R. Fuentes-Nieva and P. Seck, eds., *Risk, Vulnerability, and Human Development* (London: Palgrave Macmillan and United Nations Development Programme, forthcoming), and references therein.

Figure 1—A transitory shock with life-threatening and permanent consequences



Source: Author.

Figure 2—A cascading series of shocks



Source: Author.

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