

# The Impact of Shocks on Gender-Differentiated Asset Dynamics: Evidence from Bangladesh

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**H**USBANDS AND WIVES ACCUMULATE AND OWN ASSETS BOTH INDIVIDUALLY AND JOINTLY, AND THEY USE these assets differently to cope with adverse events, that is, shocks (for more information, see the companion policy note on this research by Quisumbing, Kumar, and Behrman). These dynamics are important because female control over assets positively affects household well-being, especially regarding children. It is important to consider the various types of assets involved in order to gain a comprehensive understanding of the impact of shocks on household assets. This policy note summarizes research that builds on existing studies on the gender-differentiated impacts of shocks on household asset holdings in Bangladesh, which is among the countries most vulnerable to climate change because of its densely populated coastal area and large population living below the poverty line.

## CONTEXT, DATA, AND SAMPLE DESCRIPTIVES

An individual's asset base depends on assets brought to marriage and the ability to accumulate more, which is based on marital status, religion, ethnicity, and inheritance and property rights. For women, the accumulation of assets is especially context-dependent, in terms of social and traditional rules affecting their ability to participate in the labor force and inherit assets. In Bangladesh, women's asset composition changes, due to remittances, from agricultural tools to nonagricultural assets and poultry, while jewelry remains their primary means of storing value. Ownership of one type of asset may also facilitate access to another, such as the use of owned land as collateral in credit markets.

The data underlying this research took the form of a two-round, representative household survey panel dataset collected in 31 of Bangladesh's 64 districts in 2010 and 2012. For the purposes of the study, intrahousehold dynamics—especially as they relate to bargaining power—form the focus of the investigation rather than differences between households; hence the study sample was restricted to households comprising couples; female-headed households were excluded to ensure comparability across the sample.

The research covered an array of shocks, including climate shocks (floods, droughts, and cyclones), nonclimatic shocks (death, illness, and dowry payments and wedding expenses), as well as positive shocks (inheritances, remittance payments, and dowry receipts). Assets were categorized as natural capital (land holdings), physical capital, livestock holdings, and financial capital (measured as credit owed). Husbands and wives had a mean age of 46 and 38 years, respectively, during the baseline data collection and less than four years of schooling. Households had five members, on average, and owned 79 decimals (about 0.8 acres) of land valued at 598,938 taka (equivalent to US\$7,394 in 2012) and nonland assets of 33,763 taka (US\$417) in 2012.

The share of sample households affected by various shocks are presented in Table 1. Due to potential reporting bias, the incidence of shocks was determined based on both household and community-level reports.

## RESULTS

In general, households were able to accumulate land, livestock, and nonland physical assets between the two survey rounds (Table 2). While women held fewer livestock and physical assets than their husbands, the most noticeable discrep-

**TABLE 1** The share of households affected by shocks between 2010 and 2012

Type of shock	Mean
Share of households affected by climatic negative shocks	
Flood	0.38 [0.32]
Drought	0.45 [0.52]
Cyclone/tornado	0.31 [0.29]
Share of households affected by nonclimatic negative shocks	
Death or illness of a household member	0.26
Dowry or wedding expenses	0.05
Share of households affected by positive shocks	
Receipt of a remittance	0.20
Receipt of a dowry or inheritance	0.04

**Source:** Calculated by authors based on survey data.

**Note:** Covariate shocks were reported by households as well as community officials. The share of households affected according to the latter are given in brackets.

ancy was in land holdings, with husbands owning 96 percent of the households' total land area (Box 1).

Even though the value of women's nonland assets increased between the two survey rounds, the larger share of the monetary value of physical assets remained in the hands of the husbands. Results indicate clear differences, with men generally holding more assets, except for jewelry (Table 3). Overall, nonland assets were more equally distributed than land; however, livestock holdings were small (less than one tropical livestock unit). Although the majority of male household members older than 15 years reported agriculture as

their main occupation in 2010, farmers in Bangladesh are more oriented to rice cultivation and fishing rather than rearing livestock.

### *The Impact of Shocks on Aggregate Asset Holdings*

Surprisingly, experiencing a flood does not affect aggregate asset holdings. Cyclones and dowry payments reduce husbands' asset holdings, whereas death and illness lead to both spouses disposing of their individual assets, leav-

**TABLE 2** Summary of major asset ownership

Assets by owner	Mean	
Husbands' assets	2010	2012
Plot size (decimals)	68	76
Livestock (TLU)	0.61	0.70
Physical assets	0.19	0.21
Outstanding credit (taka)	11,548	4,913
Wives' assets		
Plot size (decimals)	0.84	0.96
Livestock (TLU)	0.34	0.38
Physical assets	0.09	0.10
Outstanding credit (taka)	5,157	6,096
Jointly held assets		
Plot size (decimals)	2.50	1.38
Livestock (TLU)	0.09	0.09
Physical assets	0.13	0.15
Outstanding credit (taka)	5,980	6,792
Number of observations	678 households	

**Source:** Calculated by authors based on survey data.

**Notes:** TLU = tropical livestock units; 100 decimals = 1 acre; 1 US dollar corresponded to 81 Bangladeshi taka in September 2012, according to the International Monetary Fund's exchange rates. Physical assets are measured with the help of an index.

## **BOX 1** Patrilineal inheritance laws and customs in Bangladesh

Even though Muslim law allows daughters to inherit small shares of land in Bangladesh, daughters often forgo their inheritance to maintain good relationships with their brothers. Hindu women are not allowed to inherit property from their fathers, and although Hindu law has been reformed in neighboring countries, Bangladesh remains a patrilineal society. Another factor making land ownership difficult for women is that men are often reluctant to give inherited land to their sisters because they are afraid the land will be divided, impeding their privacy if land is subsequently sold. Hence, they prefer to pay their sisters rather than transfer the actual land. Muslim law stipulates that widows receive one-eighth of the deceased husbands' land and that the rest be distributed among their children. In practice, widows usually live in a son's household without owning land. Widows without offspring receive one-quarter of their husbands' land, and the rest is inherited by the brothers of the deceased.

ing their jointly owned assets unaffected. It is not surprising that dowry payments mostly affect husbands' assets because wedding costs are traditionally the obligation of the bride's father. Poor people in Bangladesh may need to mortgage land or sell livestock to pay for dowries and wedding expenses; wives' individual and joint assets are also sold to meet these expenses, illustrating the immense financial burden of the tradition. Death and illness negatively affect husbands' land and nonland assets and have mixed effects on wives' land and nonland assets.

### ***The Impact of Shocks on Natural, Physical, and Livestock Assets***

Floods reduce wives' livestock holdings; droughts negatively affect jointly held nonland physical assets; and cyclones are associated with reducing husbands' physical assets, while increasing husbands' and jointly owned land holdings—which is surprising. While nonland physical assets are likely to be sold to cope with weather shocks, land holdings are not negatively affected, probably because land is difficult to re-accumulate once sold. Interestingly, remittances have a negative impact on husbands' land holdings, potentially due to the high costs of migration. Husbands may sell part of their land to facilitate their own or a child's migration in search of work; resulting remittances sent home are likely reflected in the positive impact on wives' livestock and other physical assets. Dowry payments reduce jointly owned livestock, which is traditionally acquired for the planned purpose of paying for wedding expenses.

### ***The Impact of Shocks on Physical Assets***

Cyclones are associated with a decrease in husbands' nonland physical assets due to the sale of consumer durables, while husbands maintain agricultural tools and vehicles,



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likely because of their importance in generating household income. Wives appear to accumulate jewelry and poultry, whereas husbands favor consumer goods and agricultural tools. Women seemingly prefer to invest in assets that obviously belong to them and over which they have some control, whereas men invest to improve the economic well-being of the whole family. Overall, weather shocks negatively affect husbands' physical assets, whereas other negative shocks affect physical assets held by both spouses.

### **POLICY IMPLICATIONS**

Droughts are the most frequently experienced shock by Bangladeshi households across a wide range of agroclimatic environments. Shocks resulting from climatic variability generally reduce the total asset base of husbands, as well as wives' livestock holdings and jointly held physical assets; negative nonclimatic shocks adversely affect both husbands' and

**TABLE 3** Value of nonland assets by ownership, 2010 and 2012 (2010 taka)

Asset category	2010			2012			Percentage change		
	Husband	Wife	Joint	Husband	Wife	Joint	Husband	Wife	Joint
Consumer durables	4,056	382	914	4,034	264	918	−0.5	−30.9	0.4
Jewelry	5,147	4,566	4,398	5,814	6,519	5,858	13.0	43.0	33.2
Vehicles	4,542	180	154	2,604	495	265	−42.7	175.0	72.1
Agricultural tools	5,084	264	211	4,136	128	112	−18.7	−51.5	−46.9
Other assets	1,879	45	177	2,172	9	435	15.6	−80.0	145.8

Source: Calculated by authors based on survey data.

wives' assets. Livestock is commonly used as a coping mechanism, whereas land, husbands' vehicles, and agricultural tools—which are important for generating income—are not. In general, spouses aim to keep their jointly owned assets intact, only selling them as part of a planned strategy for coping with anticipated shocks. Overall, the specific assets used to cope with shocks complement each other, highlighting the importance of a diverse asset portfolio.

Women's assets are generally beneficial to children's well-being in terms of health, education, and nutrition. This illustrates the importance of programs that aim to protect these assets and even encourage women's ownership of assets that are not readily sold to cope with shocks—for example, by reforming and enforcing inheritance laws. In turn, land ownership enables women to be more active in financial markets by providing them with collateral. Asset holdings and relative household bargaining power are interrelated, so protecting women's assets could have a positive impact on women's social and human capital, and vice versa. The payment of dowries constitutes a significant financial burden for poor people in Bangladesh; laws against the practice have been passed, but with little effect. Education on this subject, together with the provision of credit, could enhance the asset holdings of both spouses, but policy design needs to incorporate the protection of assets in the event of shocks, as well as gendered differences in the accumulation and sale of assets to cope with shocks.

## FOR FURTHER READING

Rakib, M., and J. A. Matz. 2014. *The Impact of Shocks on Gender-Differentiated Asset Dynamics in Bangladesh*. IFPRI Discussion Paper. Washington, DC: International Food Policy Research Institute

Quisumbing A. 2011. *Do Men and Women Accumulate Assets in Different Ways? Evidence from Rural Bangladesh*. IFPRI Discussion Paper 1096. Washington, DC: International Food Policy Research Institute.

Quisumbing, A., N. Kumar, and J. Behrman. 2011. *Do Shocks Affect Men's and Women's Assets Differently? A Review of Literature and New Evidence from Bangladesh and Uganda*. IFPRI Discussion Paper 1113. Washington, DC: International Food Policy Research Institute.

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