MRR INNOVATION LAB PROJECT IN BRIEF

BUILDING RESILIENCE THROUGH SOCIAL PROTECTION AND NUTRITION IN BANGLADESH

Resilience has become critical for rural families in developing countries who are disproportionately at risk of climate-related disasters. This MRR Innovation Lab project tests multiple measures of resilience with data from a pilot program in Bangladesh for women in rural households with incomes below the poverty line. These results will show whether the program built resilience to shocks that include the COVID-19 pandemic, and will contribute to a simplified approach to measuring resilience in development programming.

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Project Partners
Bangladesh Agricultural University, International Food Policy Research Institute (IFPRI)

Development Innovation
Resilience measurement

Commodity
Multiple

Targeted Population
Women and children in rural communities

Country/Location
Bangladesh

Timeline
2022-2023

Funding
$299,106 (USAID)

The Challenge

Resilience has become a central organizing principle for much of USAID's work, and the Agency has extensively supported research on defining and measuring resilience. One concept[1] describes resilience as a capacity to ensure that shocks and stressors do not have long-lasting negative consequences. Another concept[2] characterizes resilience as reflecting underlying absorptive, adaptive and transformative capacities.

This second concept is comprehensive, and variables within these three capacities provide a means to quantitatively measure resilience. However, implementing this approach in development programming can be a challenge in terms of its technical demands, identifying causal relationships between the programming and resilience indicators,[3] and limited application to household-level impacts.

With data from a nutrition-sensitive pilot intervention, in Bangladesh this MRR Innovation Lab research team is comparing several resilience measures by how well they predict how households withstood the COVID-19 pandemic. The team is also exploring the extent to which household-level resilience measures capture gendered resilience, as well as to what extent a social protection intervention developed resilience to the impacts of the COVID-19 pandemic.

RESEARCH INNOVATION

Research on resilience in low- and middle-income countries is vast. A new systematic review found more than 9,000 published or working papers from 2008-2019.[1] However, across these papers, "resilience" is often neither clearly conceptualized nor measured in terms of the relationship between shocks or stressors and the dynamics of people's well-being. Very few studies rigorously assess how development interventions can enhance resilience.

There is now an opportunity to expand upon the foundation USAID has established for measuring resilience in development programming. Practical guidelines to implement quantitative resilience measurement without the need for significant technical knowledge can contribute to ensuring development programs truly produce resilience. It can also establish a set of comparable data that can further improve development targeting and monitoring. Based on the results of this MRR project in Bangladesh, the team is developing a practical user guide that outlines a simplified methodology for measuring resilience. This will allow for replication in other settings and studies.

[1] Barrett, C., et al. 2021. "A Scoping Review of the Development Resilience Literature: Theory, Methods and Evidence." Cornell University Working Paper.

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Research Design

The Transfer Modality Research Initiative (TMRI), a pilot program implemented in Bangladesh by the World Food Programme from 2012-2014, provided monthly cash or food transfers with and without nutrition behavior change communication (BCC) for women in poor rural households. TMRI was implemented as a randomized controlled trial (RCT) to test its impacts, which showed significant improvements in the well-being of women and children both during and after the program.

This MRR research project expands on this study to build evidence on how to support resilient escapes from poverty with a particular focus on gender and nutrition. With new surveys in communities that participated in TMRI, the research team is testing whether the program enhanced households' resilience to shocks such as COVID-19. The analysis will also suggest whether more resilient households, however measured, were better able to withstand the effects of the pandemic.

The team is also examining whether women are more likely to be protected from shocks when they live in a resilient household. The original RCT showed that TMRI reduced intimate partner violence while increasing women's agency as well as their social and community support.[4] The MRR team is expanding on these findings to test whether women's wellbeing and safety is greater in resilient households and whether this result changes depending on the measure of resilience.

This project includes using the rich data collected in the TMRI study and new surveys to test and compare measures of resilience developed and prioritized by USAID and to make these measures technically simpler and more comprehensive. One of these measures is the Ability to Recover from Shocks and Stresses Index (ARSSI), which is used by USAID and Feed the Future with programming in Bangladesh.

Development Impact

The results of this project can help governments in low-income counties develop shock-responsive social protection programs that promote resilience. The broader aim is to advance knowledge on how to quantitatively measure resilience so development organizations such as USAID and local and international NGOs can more easily and effectively evaluate which interventions truly build resilience. This research most immediately contributes to the USAID Bangladesh Country Development Cooperation Strategy Development Objective 3: Strengthened Resilience to Shocks and Stressors.

The Government of Bangladesh is embarking on a multi-year strategy to strengthen the National Social Security Strategy (NSSS). Given that current government interventions include both in-kind (food) and cash transfers, this project's results provide evidence of the relative effectiveness of different approaches in protecting women and households from the impacts of shocks such as COVID-19.

This work is also strengthening the operationalization of the concept of resilience to enable USAID and its partners to improve monitoring and evaluation. The research team is developing a practical user guide that outlines the simplified methodology for measuring resilience. The goal is to easily adapt and use the instrument across USAID and external sectors and institutions.

[1] Constas, M., et al. 2014. "Resilience measurement principles: Toward an agenda for measurement design." Food Security Information Network.
[2] Vaughan, E. et al. 2018. Resilience Measurement Practical Guidance Note Series 3: Resilience Capacity Measurement. Mercy Corps.
[3] Upton, J., et al. 2020. "Caveat utilitor: A comparative assessment of resilience measurement approaches." Cornell University Working Paper.
[4] Roy, S., et al. 2019. "Transfers, behavior change communication, and intimate partner violence: Post-program evidence from rural Bangladesh." *Review of Economics and Statistics.*

Development Opportunity: Bangladesh

161.4 : Population in millions (2018)
14.8% : Poverty rate at $1.90/day, 2011 PPP (2016)
102.2 : Rural population in millions (2018)
40.2% : Total employment in agriculture (2018)
15.2% : Prevalence of undernourishment (2016)
36.1% : Prevalence of stunting for children under 5 years (2014)

Source: World Bank

Bangladesh has made real progress in agricultural productivity. Since the early 1970s, the country has gone from having a food deficit to nearly self-sufficient in rice production. Even so, ensuring every family receives adequate nutrition remains a challenge. As recently as 2014, the rate of child stunting in Bangladesh was 36 percent, and as recently as 2016 the prevalence of undernourishment was 15 percent.

Weather-related disasters in Bangladesh create additional challenges, particularly for rural families. The country is exceptionally vulnerable to floods with its numerous rivers and streams and dense population.

While Bangladesh's existing resilience-building efforts have mitigated damages and saved countless lives, more research is needed to inform how to most effectively protect vulnerable households from and build resilience against weather-related hazards like Cyclone Fani.

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