Where women are economically empowered, there are fewer disaster victims
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Among the bad news related to the ill effects of climate change is that women are impacted disproportionately by the resulting disasters. Women are more likely to experience poverty, poorer health outcomes and increased vulnerability to sexual violence due to climate-related disaster events, such as floods, storms and drought.

New research that aims to quantitatively assess the drivers of suffering from disasters across less developed nations—with specific emphasis on gender relations—affirms this fact, but also reveals some good news: women who are economically empowered have a disproportionately positive impact on disaster outcomes—reducing the overall number of people affected.

Kelly F. Austin of Lehigh University and Laura A. McKinney of Tulane University looked at data from 85 less developed nations for their study, the results of which have been published in an article in Social Forces titled Disaster Devastation in Poor Nations: The Direct and Indirect Effects of Gender Equality, Ecological Losses, and Development. They found that advancing the economic status of women reduces the proportion of people affected by disasters directly, as economically empowered women are able to better prepare for and respond to disasters and indirectly, as they enhance health resources in the community that help reduce harm and prevent deaths.

"Our analysis illustrates a clear connection between female economic empowerment and a reduction in the total number of disaster victims," said Austin, Assistant Professor of Sociology and Director of Lehigh's Health, Medicine and Society Program. "The key drivers are a tendency for women to use their earnings to meet basic needs that improve public health conditions, such as education fees, healthcare costs, clean water and sanitation services, as well as the fact that women routinely provide relief efforts to the household and broader community in the aftermath of disasters."

As a result of their findings, Austin and her colleague urge recognition of women as agents of harm reduction and advocates of community development. They also recommend that improving the economic empowerment of women be a part of any comprehensive plan to combat climate change and to mitigate damage from disasters.

Gender, the environment and disaster vulnerability

Their sample includes 85 countries for which data are reported for the key variables in their analysis, including the percentage of people affected by disasters and women's economic status. The sample only included less developed nations that have experienced a flood, storm or drought in which people have been affected for any year from 2001-2010.

Austin and McKinney measured harm caused by disasters by examining the number of people affected, injured, left homeless, or killed due to floods, storms or droughts—which are some of the most common and severe disasters associated with climate change dynamics. They measured women's economic status with three key variables: women's access to ownership of land, legal access to ownership of property other than land and legal access to credit or loans.

Of particular note in their findings is the high correlation among indicators for women's economic status (access to land, loans, property) and public health resources (healthcare works, clean water, secondary schooling).

From the study: "The results...demonstrate that, consistent with our predictions, women's economic status and environmental losses represent important influences that contribute both directly and indirectly to the proportion of people affected by disasters in less developed nations. The results also establish that public health resources are
directly significant in explaining cross-national variability in injury, illness, homelessness, and death due to climate-related disasters. Specifically, we find that public health resources measured with the number of health workers, access to clean water, and participation in secondary schooling are associated with decreased suffering and death from storms, floods, and drought...Women's economic status also has a notable direct influence on the proportion of people affected by disasters, where nations' increased access to ownership of land, loans, and property by women reduces injury, illness, homelessness, and death from disasters...

**Include women, focus on preparedness**

Their results suggest that that when looking at disaster vulnerabilities and the unequal impact of environmental degradation, there should be an explicit emphasis on the role of women in mitigating harm.

The authors write: “Public policies and initiatives to address climate change effects would similarly benefit by recognizing women as agents of harm reduction and advocates of community development.”

In fact, the paper references a 2014 United Nations Framework on Climate Change report that said: "It is increasingly evident that involving women and men in all decision-making processes on climate action is a significant factor in meeting the climate challenge."

The authors point out that the same report also acknowledges that women are underrepresented in all levels of the decision-making process on efforts to combat climate change and that this is limiting.

They further state that the results of their research suggest a need to shift from post-disaster response to preparedness before a disaster strikes.

"...rather than focusing on disaster response, the conversation needs to more fully emphasize disaster preparedness. Current global governance strategies outlined in the UN's Sustainable Development Goals that call for governments to strengthen resilience, adaptive capacity, and impact reduction are steps in the right direction, but in practice global institutions have focused more on post-disaster response (e.g., coordinating NGOs that respond to disasters) rather than pre-disaster preparedness."

According to the authors, this makes economic sense as well since reports indicate that for every dollar spent on basic preparation, which includes provisions for health infrastructure like hospitals and clean water, $7 in disaster aid and recovery is prevented.


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