

# Environmental stress, adaptation choices and poverty dynamics in Ethiopia

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In the face of the climate crisis, which brings with it repeated extremes of weather around the world, new work in the *International Journal of Economics and Business Research* is timely. The research, by Mulat Goshu Gebeyehu of the Department of Economics at Debre Markos University in Debre Markos Town, Amhara Region, Ethiopia, suggests that policymakers and agricultural experts should strive to increase the

effectiveness of adaptation practices and introduce new options, infrastructure, and education to help protect rural households from the devastating effects of weather variability to preclude those households falling into chronic poverty.

It is now well recognized that climate shocks, such as droughts, can have a serious, detrimental, and sometimes lasting impact on those in poverty or close to poverty in the developing world. Ethiopia is a particularly vulnerable country in this respect, especially given that the nation's economy is underpinned almost entirely by agriculture, which, of course, goes through cycles of boom and bust following the extremes in weather. Those households with workers outside agriculture are to some extent protected from the whims of the weather, but there remains a need even for them to educate, support, and protect them from poverty.

Gebeyehu has examined the relationship between [environmental stress](#), adaptation options, and poverty dynamics in Ethiopia. He analyzed three years worth of data collected from 825 rural households in the Nile Basin of Ethiopia by the Ethiopian Development Research Institute's Environmental and Climate Research Center. Using a linear fixed effects model, he found that variability in the weather significantly affected welfare across those households.

Specifically, his analysis showed that an increase in average rainfall initially has a [positive influence](#) on per capita spending for a household. However, an extreme rise in average rainfall measured by a squared average rainfall negatively affects expenditure. He also revealed that anomalies in precipitation and temperature have an adverse effect on total per capita spending, and food expenditure.

Interestingly, an increase in [average rainfall](#) reduces the likelihood of households falling into transient poverty. In contrast, an increase in temperature increases the probability of a household falling into

transient poverty and thence chronic poverty.

**More information:** Mulat Goshu Gebeyehu, Who Escapes from Poverty Understanding the Link Between Environmental Stress, Adaptation Choices and Poverty Dynamics in Ethiopia, *International Journal of Economics and Business Research* (2023). [DOI: 10.1504/IJEBR.2022.10038358](https://doi.org/10.1504/IJEBR.2022.10038358)

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