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Blame it on the Rain: The Effects of Weather Shocks on Formal Rural Employment in Colombia

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ABSTRACT

Episodes of excessive or low rainfall have not only become more frequent, but also more severe. These events can affect agricultural production and local labor markets. By combining social security records, that allow us to measure formal employment, with administrative data from weather stations, we estimate the effects of municipality-level precipitation shocks on formal rural employment in Colombia, as well as country-wide events like El Niño and La Niña phenomena. Fixed effects estimates show that episodes of excessive rainfall—measured as those that are above the 80th percentile of historical mean precipitation in the last 30 years for each municipality—have a negative impact on formal employment in rural areas for both the agricultural and non-agricultural sector, ranging from -2.2 percent to -3 percent, respectively. Likewise, we find that both El Niño and La Niña phenomena have a negative impact on total formal employment in rural areas. Additionally, we explore if the effect of rain shocks varies depending on the access to irrigation and drainage technologies, finding that municipalities with high prevalence of irrigation systems are less affected by episodes of low rainfall.

Fuente: https://www.banrep.gov.co/en/blame-it-rain-effects-weather-shocks-formal-rural-employment-colombia