

Seasonal Climate Migration: Evidence from India

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Abstract :

This paper quantifies seasonal migration in response to weather shocks across India. We use station-to-station passenger data from the Indian Railways to construct district-to-district seasonal migration flows between 2011 and 2020. We find that seasonal migration increases when temperatures exceed optimal levels during the growing season, and decreases when temperatures remain in the optimal range. Seasonal migration responds not only to weather shocks in the current year, but also to cumulative shocks over the previous five years. Over a five-year interval, the magnitude of the seasonal migration response to climate shocks is comparable to that of permanent migration in the 2001 and 2011 population censuses. Our findings suggest that a substantial share of climate migration in India is seasonal rather than permanent.