

## **The Impact of Global Wildfire on Population Migration**

Climate change has intensified wildfires, elevating climate migration to a central global theme. However, assuming universal displacement oversimplifies adaptive behaviours. Synthesising global high-resolution net migration, satellite-derived fire data, and micro-estimates of wealth from 2000 to 2019, we reveal a stratified displacement landscape. Contrary to deterministic views, we establish fire intensity as a critical threshold: high-intensity fires significantly drive net out-migration, whereas low-to-moderate intensity events exert no statistically discernible influence. Crucially, vulnerability is deeply stratified. Displacement is driven predominantly by the Global South and economically disadvantaged micro-regions. Conversely, the Global North and wealthier areas within developing nations exhibit distinct immobility, suggesting financial resources provide resilience even in fragile institutional contexts. Demographic decomposition further reveals a divergence: regions with high child dependency ratios experience proactive relocation, while aging populations demonstrate statistical immobility, corroborating the trapped population hypothesis. These findings challenge homogenised climate refugee narratives, demonstrating that displacement is determined by the synergistic interaction of fire intensity and socioeconomic fragility rather than exposure alone.