



EGU26-1559, updated on 10 Jun 2026

<https://doi.org/10.5194/egusphere-egu26-1559>

EGU General Assembly 2026

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## Extending tropical cyclone risk assessment through recovery simulations

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Extreme weather events such as tropical cyclones increasingly threaten societies as climate change amplifies their impacts. While climate risk assessments have traditionally focused on direct impacts, such as economic losses, population exposure, or mortality, post-disaster recovery remains largely absent from these frameworks, limiting our ability to assess long-term resilience.

This talk presents an approach to integrating recovery modeling into climate risk assessment using open-source, regional disaster recovery simulations that capture key dynamics such as resource constraints and interdependencies across systems.

Results reveal spatial disparities in rebuilding capacity relative to climate risks, highlighting where targeted policy and planning interventions could accelerate recovery and strengthen long-term resilience.