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Impacts of Post-Disaster Debris Management on Coastal Communities: Hurricane Helene and Milton

The U.S. faces growing challenges in managing disaster debris-ranging from building materials to vegetation generated by events like floods, hurricanes, and wildfires. Despite major investments in recovery, limited research has explored how social, ecological, and economic factors are prioritized in debris management or how these decisions affect communities. This study investigates post-disaster debris management after Hurricanes Helene and Milton in Florida, focusing on stakeholder and community perspectives. We conducted 32 semi-structured interviews with contractors and local officials to understand decision-making processes and challenges. Analysis revealed barriers such as poor coordination between agencies, environmental and health risks, and unequal access to resources and technologies. These insights will inform disaster debris management planning for Oregon coastal communities vulnerable to a Cascadia Subduction Zone earthquake and tsunami. We also discuss how qualitative findings are being integrated into geospatial tools to support more effective, inclusive debris management strategies.

Presentation Theme: This presentation explores the intersection of emergency management, disaster recovery, and environmental planning

through a case study of post-disaster debris management following Hurricanes Helene and Milton in Florida. Drawing from 32 in-depth stakeholder interviews, the research highlights how socio-economic, environmental, and institutional factors shape debris management decisions and influence community recovery. The findings offer practical insights for emergency managers on improving interagency coordination, addressing equity in resource allocation, and integrating community perspectives. The study's relevance extends to future disaster preparedness along the Cascadia Subduction Zone, with implications for incorporating qualitative insights into geospatial planning tools to enhance regional debris management strategies.

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