

Guatemala



Title: Utilizing parametric insurance to enhance post-disaster response and coastal protection measures in the Mesoamerican Reef Region (MAR)

Organization: Mesoamerican Reef Fund (MAR Fund)

Location: Belize, Guatemala, Honduras, Mexico

Solution: An innovative insurance instrument to enhance post-disaster response and coastal protection measures



Reef responder making coral stabilization during a post storm, reef response training in Roatan, Honduras @Martin Leglize

Caribbean coastal communities in the MAR are highly vulnerable to climate hazards. The MAR acts as a crucial natural barrier, protecting communities and supporting their livelihoods. However, the reef itself is increasingly at risk from extreme climate events which drive coral loss and threaten its protective function. To address this, MAR Fund proposes a community-led, nature-based solution focused on post-storm reef restoration, aiming to enhance climate resilience across the region through innovative insurance products, pre-positioning risk financing, and targeted interventions.



Key achievements

- Forecast-based financing instrument designed and implemented to cover 4,180 hectares of coral in the MAR
- Secured insurance coverage of additional reef sites covering the entirety of the Mesoamerican Reef off the coast of Honduras
- 365,000+ people received immediate post-hurricane coastal protection in Honduras
- 39 responders trained and certified for hurricane reef damage in Honduras
- Three Reef Response Coordinating Committees established in Honduras



Social impact

- Safeguards coastal communities livelihoods
- Supports sustainable tourism and fisheries
- Engages local communities and authorities in disaster preparedness and response



Adaptation benefits

- Mitigated hurricane damage through timely post-disaster reef response
- Enhanced resilience of coral reefs as nature-based coastal protection
- Integration of climate adaptation into disaster risk management strategies





 **Innovation**

- Innovative reef insurance mechanism overcoming post-disaster budgeting challenges
- Customized payout structures for different sites ensure adequate response funding
- Scalable model for expending insurance models and adaptable to other regions facing similar climate risks
- Integration of financial tools with ecological restoration efforts for long-term resilience

 **Replication potential**

- Feasibility to replicate in other regions with coral reefs facing similar risks
- Uses globally available exposure and hazard data relevant to other disasters and ecosystems
- Demonstrated success for rapid pay-out distribution process

 **Funding snapshot**

- UNDP-AFCIA grant: US\$235,000 (first grant: \$125,000; scaling grant: \$110,000)
- InsuResilience Solution Fund: \$174,474
- German Government through the KfW Development Bank through MAR Fund's Reef Rescue Initiative: \$107,943

Investability	
Sustaining criteria	<p>Premium co-financing support received from InsuResilience Solutions Fund and UNDP-AFCIA</p> <p>Endowment funds are being requested by potential donors to implement a revenue-generating mechanism that will sustainably finance the regional reef insurance policy</p> <p>Contribution from regional government and non-governmental partners to insure the reefs they work on</p>
Financial innovation	<p>Competitive pricing due to well-understood hurricane risk in the insurance industry</p> <p>Development of rapid pay-out distribution guidelines applicable globally</p> <p>Potential to stimulate a broader market for natural capital insurance</p>
Expected return	<p>Each reef site has a bespoke pay-out structure based on cost of response, hazard intensity thresholds, and premium budget</p>



To learn more, visit the [UNDP-AFCIA](#)
 To contact the organization, visit [MAR Fund](#)