



Rapid Response Reef Risk Financing in the MAR Region

Climate change puts poor and vulnerable at risk...

Communities on the Caribbean coast of Mexico, Belize, Guatemala, and Honduras are threatened by high intensity tropical cyclones, which cause damage and disruption, imperilling lives and livelihoods. The Mesoamerican Reef (MAR) is a critical natural infrastructure asset, which protects against storm surges, beach erosion, and wave-induced damage from these storms. It also provides essential ecosystem services that underpin the livelihoods of these communities. However, the reef is at risk.



The MAR, as it protects Ambergris Caye (top) and following hurricane damage in 2011 (bottom).

The MAR has faced, and survived, the impacts of tropical cyclones for eons, but as the effects of anthropogenic climate change, as well as overfishing and pollution, exert rapidly increasing pressure on the reef ecosystems, the risk of a hurricane impact leading to coral degradation and mortality has grown hugely, threatening the reef and its beneficiaries.

Climate Insurance can offer relief...

By providing a predictable and timely source of funds to conduct rapid response activities to build the resilience of the reef and restore critical ecosystem services to the coastal communities that depend on them. The MAR Fund and Willis Towers Watson are developing a parametric reef insurance product to cover tropical cyclone risk to the MAR and the almost 2 million local beneficiaries of the services it provides.



What it takes to make it happen...

In order to prepare a full proposal for the development and implementation of the proposed reef insurance programme, MAR Fund and Willis Towers Watson have conducted studies to better understand the benefits to reef resilience of early post-disaster response, the socio-economic profile of the beneficiaries of a resilient MAR, and a suitable insurance policy holder, as well as potential sources of long-term, sustainable premium finance.

- **Cost-benefit analysis shows that immediate response to reef damage by Tropical Cyclones results in a cost-benefit ratio of close to 1:10, compared to no intervention, assuming reef recovery time is halved as a result of the early response.**
- **The proposed reef insurance programme will indirectly benefit a total of 1,978,539 people local to the reef sites, at least 1,738,245 of whom are in the InsuResilience Target Group, with 1,246,806 of the beneficiaries living below respective national poverty lines.**
- **MAR Fund has been identified as the ideal insurance policy holder.**
- **Four sources of premium finance have been identified: individuals (through existing aggregators), the public sector, the private sector, and visitors / global citizens.**

How did we find out...

We conducted a thorough literature review concerning the value of early reef response and drew on previously commissioned studies to understand reef restoration costs. We used available population census information, literature review, statistical desk research, and social media to understand the beneficiary population's socioeconomic profile and analyse the main economic beneficiaries of the ecosystem services that the reef provides. We consulted legal counsel on legal matters.

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www.insuresilience-solutions-fund.org*

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