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# Designing insurance for coral reefs

## Why, what and how?

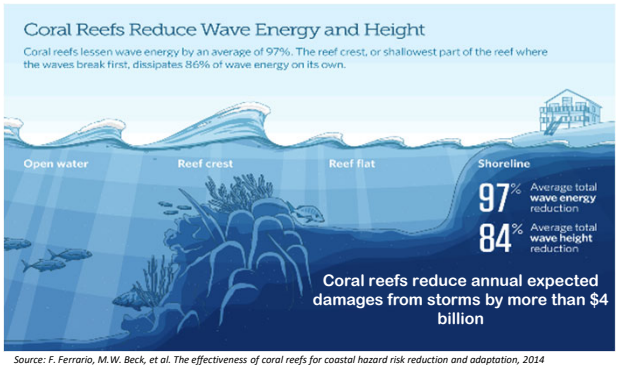
**Andrea Camargo - 11 November 2021**

1

## Why?

- Coral reefs provide a myriad of services with an estimated value of **2.7 billion per year**.
- One key service provided by coral reefs is **disaster risk reduction.**
- Across reef coastlines, coral reefs reduce the annual expected damages from storms by more than **$4 billion**.






*Source: F. Ferrario, M.W. Beck, et al. The effectiveness of coral reefs for coastal hazard risk reduction and adaptation, 2014*

It is expected that by 2050:

**800 million people** in coastal areas will be at risk from the impacts of extreme weather events such as raising seas and storm surges

with an annual cost of more than **$ 1 trillion** to coastal urban areas

2

## Why?

- The **capacity of coral reefs to provide disaster risk reduction services is at stake**.
- Coral reefs are being lost due to **to several threats** that they are constantly exposed to, such as:
  - Bleaching due to elevated sea surface temperatures
  - Habitat loss and degradation due to unsustainable coastal development
  - Overfishing
  - Pollution
  - Careless tourism
  - Natural hazards such as storms, earthquakes, and volcano ash falls

An increase of 1.5 C in water temperatures could result in the loss of **70-90%** of reef areas. An increase of 2 C will result in almost total loss.

- To guarantee that coral reefs continue providing their disaster risk reduction services as other services, it is urgent to adopt **comprehensive approaches to manage the various threats and risks** to which coral reefs are exposed to.

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3

## What?

- Insurance against insurable risks to which coral reefs are exposed to , to finance restoration and conservation.
- Insurance could be **one piece** of that comprehensive risk management approach, where other risk financing tools could be combined.
  - ✓ Insurance will be better suited to transfer high severity, low frequency events

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4

## How?

- The design of sustainable insurance schemes to protect MCEs relies upon some conditions:

1. It must be **technically feasible** to insure coral reefs;
2. A series of minimum **enabling factors** must be present in the country in which the insurance scheme will be developed;

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5

## How?

1. It must be **technically feasible** :

Coral reefs should provide quantifiable services to "owners of action"

The risks threatening coral reefs should be insurable

Insurance should be a cost-efficient tool to restore and protect

The site selection process should be considered crucial for the scheme sustainability

- ✓Sites where coral reefs provide a wide range of services to a myriad of "owners of action"
- ✓Sites where coral reefs are recognized globally for the services they provide
- ✓Sites where data quantifying services and impact of their loss is available
- ✓Sites where restoration and conservation projects are ongoing

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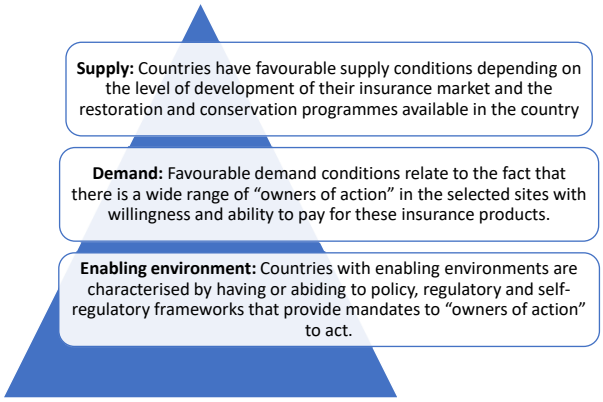
6

## How?

2. A series of minimum **enabling factors** must be present in the country in which the insurance scheme will be developed:

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7

# Thank you

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8