

# Using Nature-Based Solutions to Build Climate Resilience

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February 9, 2022



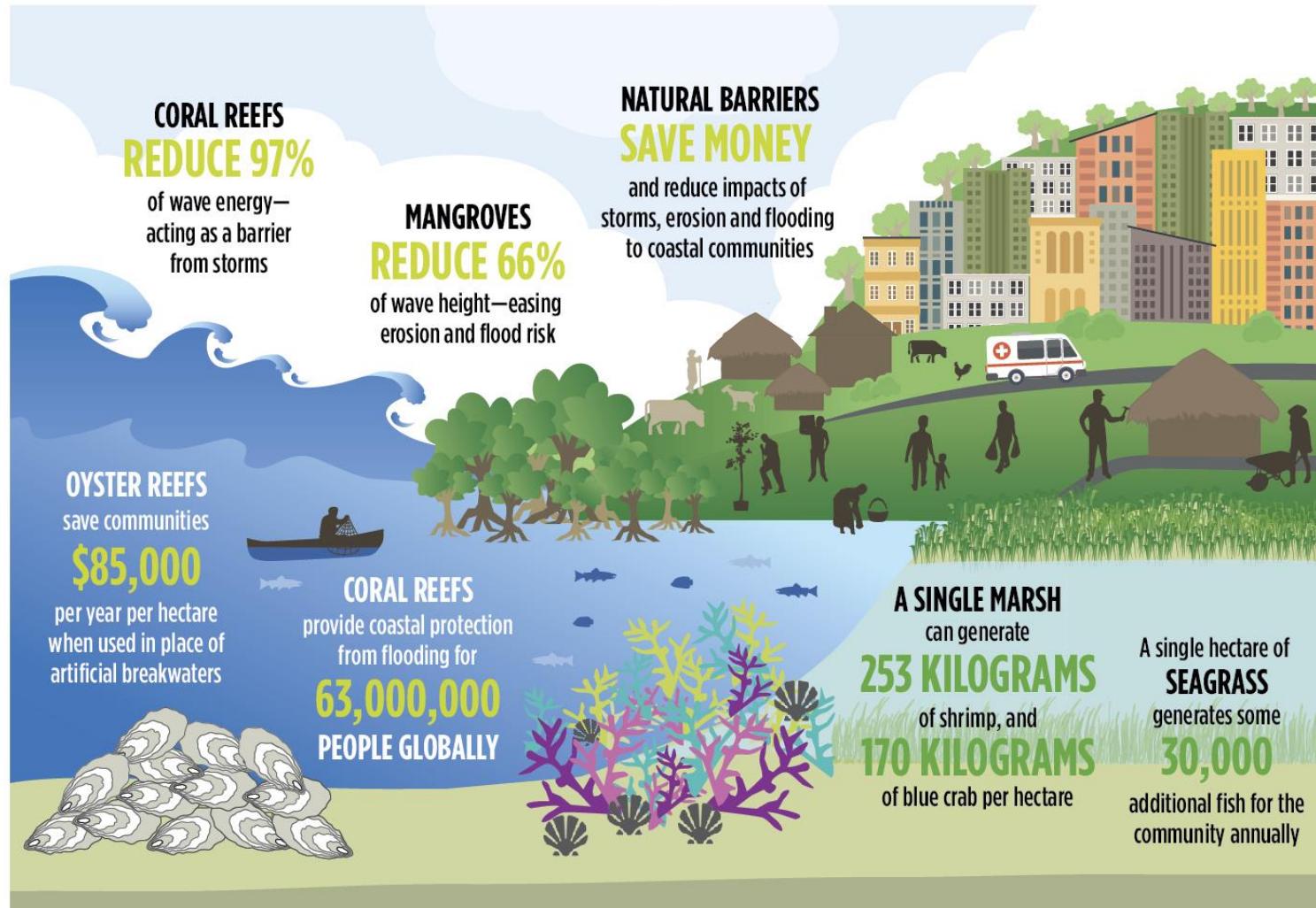


# Need for Climate Change Adaptation: Impacts of Climate Change

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- More than 11,000 disasters over the last 50 years have been attributed to weather, climate and water-related hazards.
- This has led to 2 million deaths and US\$ 3.6 trillion in economic losses.
- More than 600 million people (around 10 per cent of the world's population) live in coastal areas that are less than 10 meters above sea level.
- Rising seas and greater storm surges could cost coastal urban areas more than \$1 trillion each year by 2050

# NATURE PROTECTS PEOPLE





# Value of Reefs

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- Increase climate resilience:
  - Reefs can reduce wave energy by 97%
  - Reefs protect more than 200 million people from storms
- Improve Livelihoods & Food Security:
  - Coral reef fisheries are worth \$6.8 billion a year
  - Fish accounts for about 17% of protein at the global level and exceeds 50% in many least-developed countries.
  - Approximately 50% of all international tourists travel to coastal areas.
  - Offer valuable goods and services worth about \$375 billion each year to communities around the world.

Sources: Ferrario et al. 2014; Reef Resilience Network 2018, UN 2017, USGS 2019

Photo Credit: TNC

# Value of Mangroves

- **Increase Climate Resilience:**
  - It's estimated that just **100** meters of mangroves can reduce wave height by **66%**.
  - Mangroves keep pace with moderate sea level rise, increasing the resilience of coastlines.
  - Mangroves prevent more than \$65 billion in property damages and reduce flood risk to some 15 million people every year.
- **Improve Livelihoods & Food Security:** In many countries, over 80% of small-scale fishers rely on mangroves, and there are over 4.1 million mangrove fishers globally.



# Nature Protects People Project

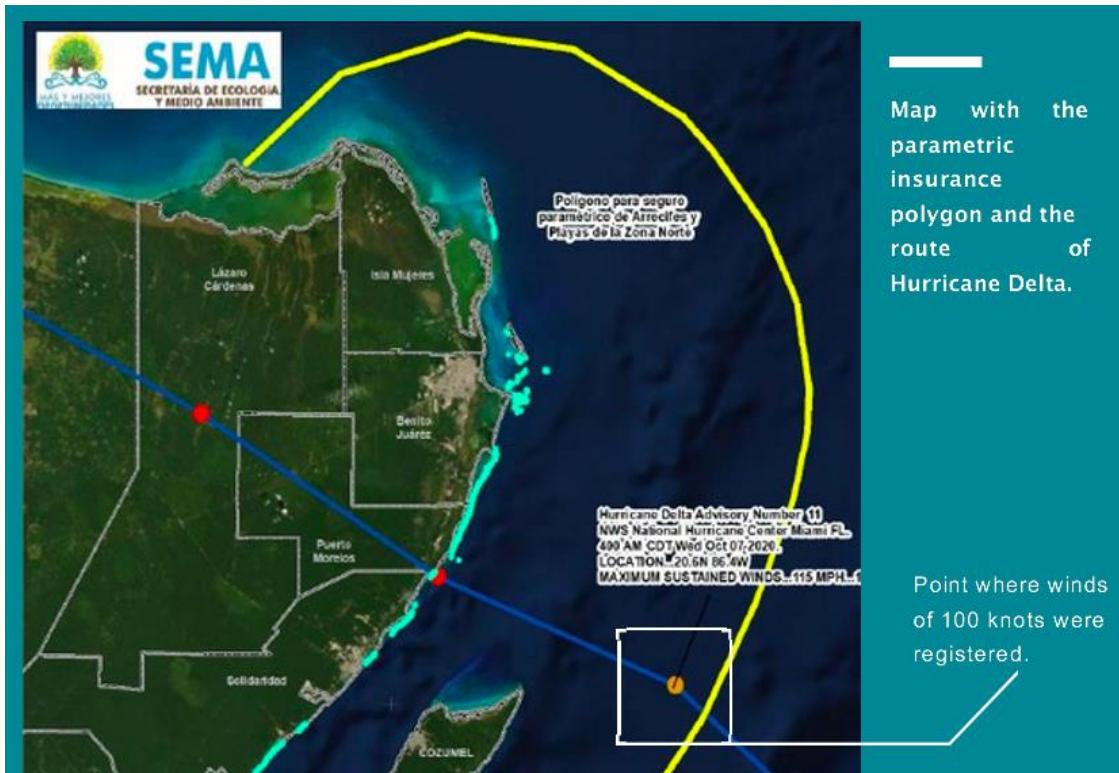
- *The Blue Guide to Coastal Resilience and Platform ([www.natureprotects.org](http://www.natureprotects.org))*
- Train on *The Blue Guide to Coastal Resilience*
- Eco-DRR app to mobilize community level action on NbS
- Support government to integrate NbS into DRR/climate policies
- Build awareness of NbS among women's networks



Children at Yellu village, Misoo, Indonesia  
Photo credit: Nugroho Arif Prabowo (IOP TNC Indonesia)

# Response and insurance triggered by Hurricane Delta October 7<sup>th</sup>, 2020

- 100 knot windspeeds
- A 40% payout or US\$850,000
- Reef brigades deployed for 2 months.
  - Stabilized 2,152 coral colonies,
  - Collected 13,570 broken coral
- Restoration efforts during the next 2 years



# Take-aways

- Nature-based solutions are increasingly being recognized as an effective, multi-benefit mechanism, to help vulnerable people become more resilient to climate change.
- Connecting science, planning and communities through partnerships is an extremely effective way to build knowledge and capacity to use ecosystems to reduce the impact of climate hazards.
- Media can improve coverage by telling human stories and positive stories.



Thank You