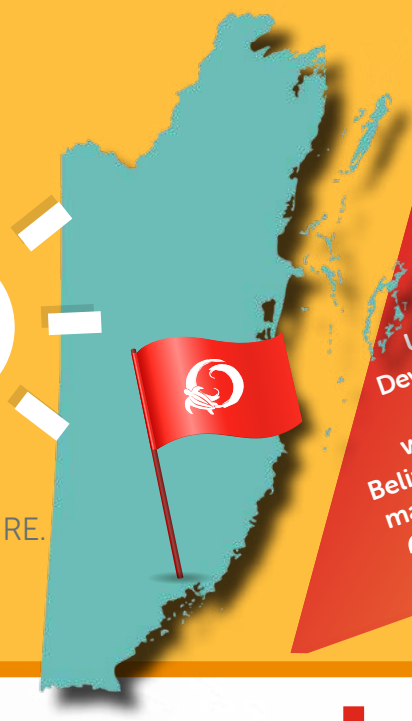
ECOLOGY PROJECT INTERNATIONAL

CLIMATE CHANGE IN BELIZE



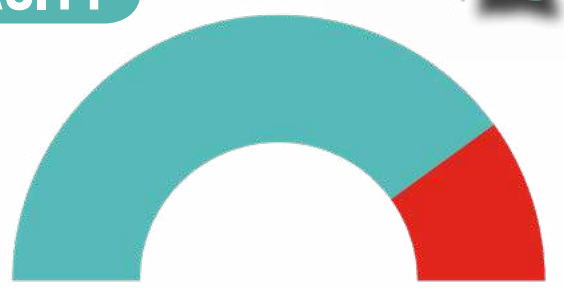
The United Nations Development Program estimates that without intervention, Belize's annual temperatures may increase by as much as **3.3°F** by **2080**.

SMALL BUT BIODIVERSE, BELIZE IS EXCEPTIONALLY VULNERABLE TO CLIMATE CHANGE GIVEN THAT HURRICANES, SEA LEVEL RISE, COASTAL EROSION, AND CORAL BLEACHING WILL LIKELY INTENSIFY IN THE FUTURE. WHAT ARE EPI STUDENTS DOING TO HELP?

DEPENDENT ON BIODIVERSITY

1 OUT OF 4 JOBS

in Belize is tourism-related. This industry is largely dependent on the coastal areas that are home to an astounding amount of wildlife. Climate change threatens the natural resources that are critical for the sustainability of the tourism sector.



Nearly **80%** of the Mesoamerican Barrier Reef, the 2nd largest reef on the planet, resides in Belize.

$22 BILLION

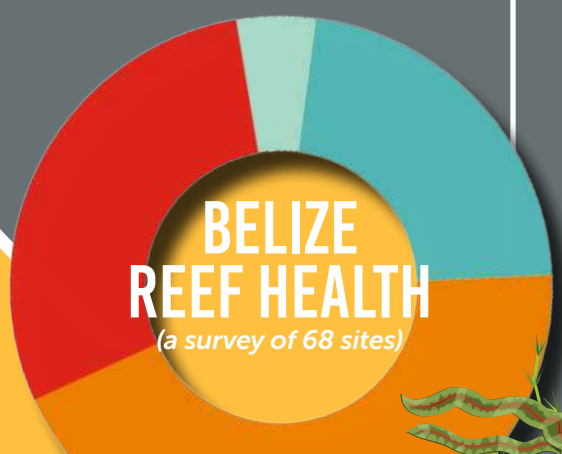
PROJECTED LOSS IN BELIZE'S GDP DUE TO CLIMATE CHANGE BY 2050

THE FORESTS BETWEEN THE TIDES

MUCH OF BELIZE'S STAGGERING MARINE BIODIVERSITY DEPENDS ON THREE TROPHIC FOUNDATIONS: **CORAL REEFS, MANGROVES, AND SEAGRASSES**.

CORAL REEFS

The structure of coral reefs provides protection for coastal communities against storms and tidal volatility, but rising sea-surface temperatures and acidification due to increased atmospheric carbon are damaging reefs.



ONLY 7% OF THE WORLD'S MANGROVES ARE **PROTECTED**

MANGROVES

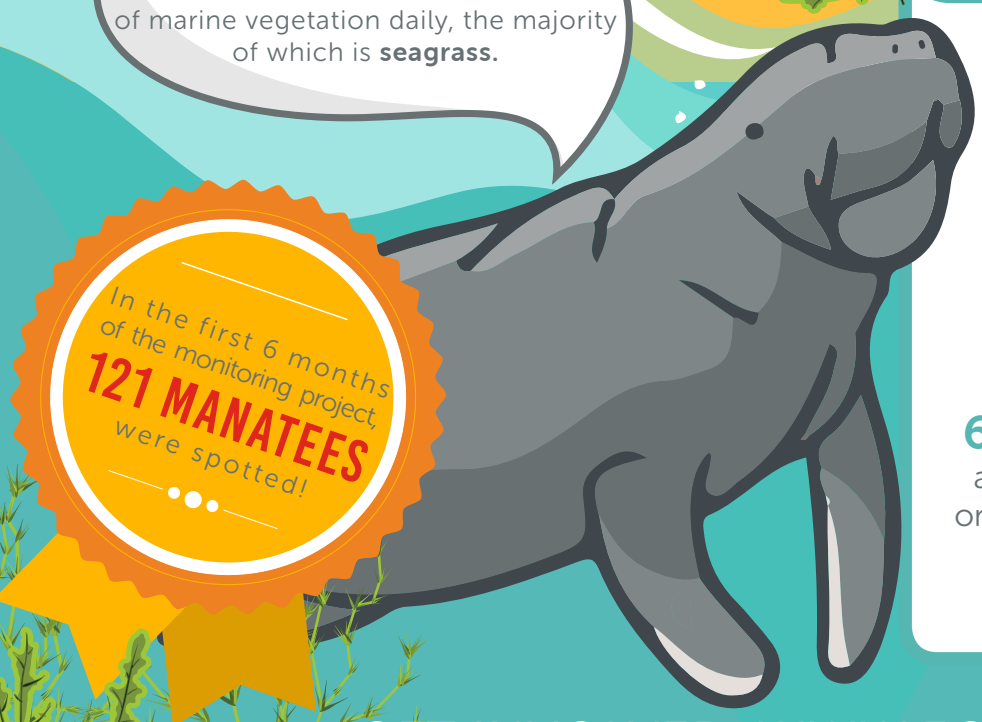
Mangroves provide coastal stability in the face of elevated tides caused by climate change, but increasing sea levels inundate mangrove flats, reducing their distribution and survival.

SEAGRASS

Seagrass beds store carbon like underwater forests, helping to offset climate change and ocean acidification, but warming waters deposit algae on them – reducing or even eliminating these important marine nurseries.

SEAGRASS BEDS CAN STORE UP TO **237,000 TONS** OF CARBON PER SQUARE MILE

Manatees eat nearly **100 LBS** of marine vegetation daily, the majority of which is **seagrass.**



In the first 6 months of the monitoring project, **121 MANATEES** were spotted!

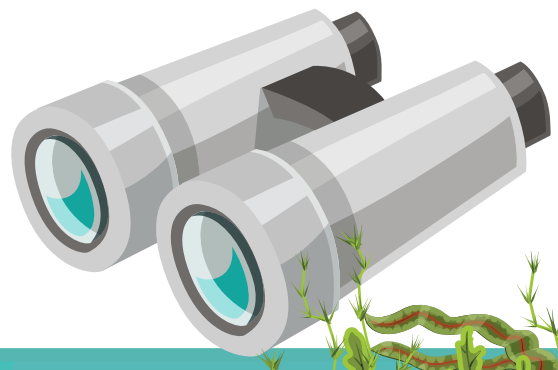
INFLUENCING POLICY

Alongside EPI's newest research partner,

TIDE – Toledo Institute for Development and Environment

EPI students will monitor **6 SPECIES OF SEAGRASS** and identify organisms that depend on them. This body of data will inform future fishing and conservation policies in Belize.

This year, more than **130 EPI STUDENTS** will contribute to studies that help identify the distribution, movement, and threats to endangered manatees in Belize's Port Honduras Marine Reserve.



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