

# Using Satellite Imagery to estimate Vegetation loss in Mangroves Due to Hurricane Maria and Assess Recovery of Mangroves in SW and NE Puerto Rico

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# What are Mangroves + Why are they important?

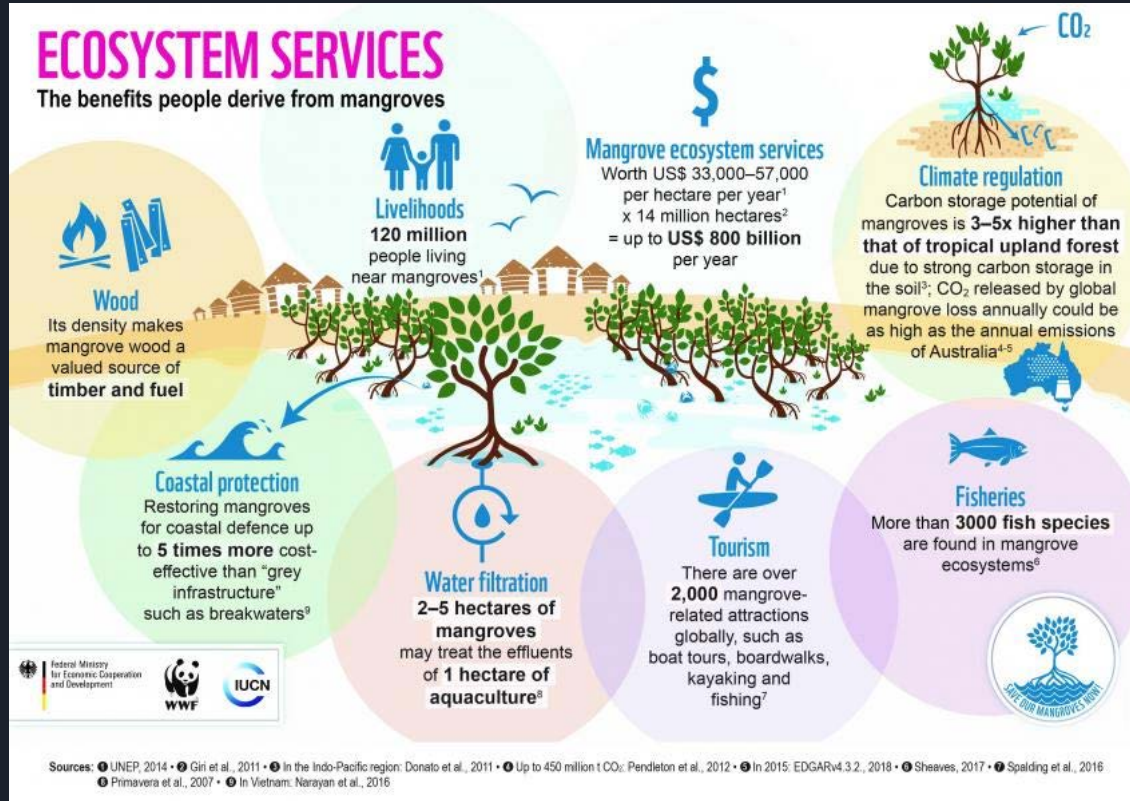
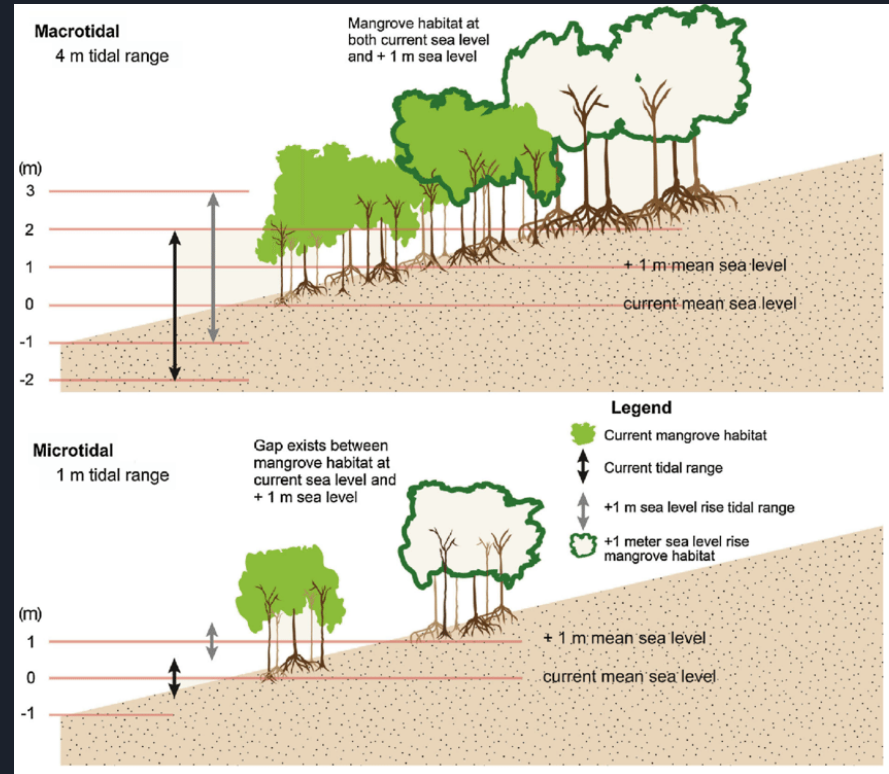


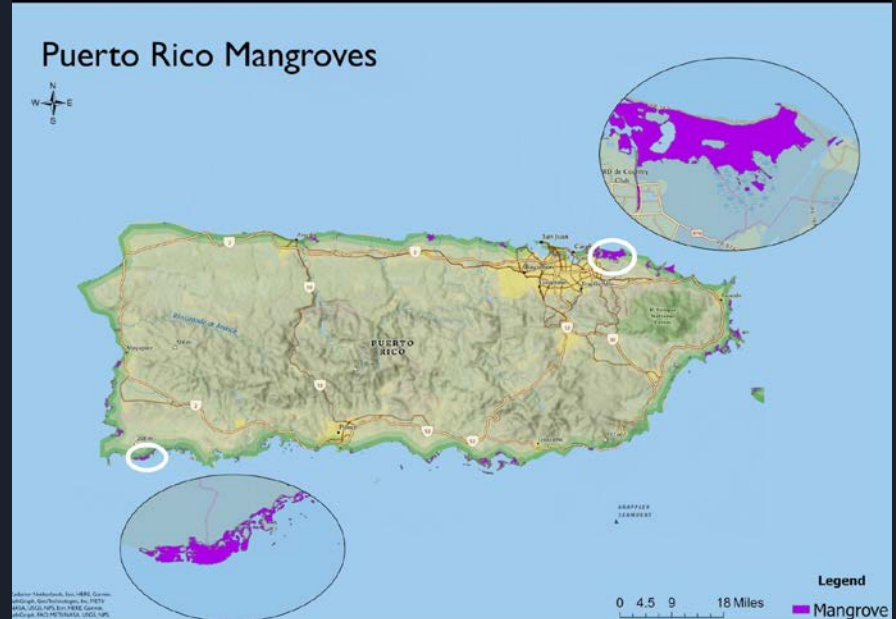
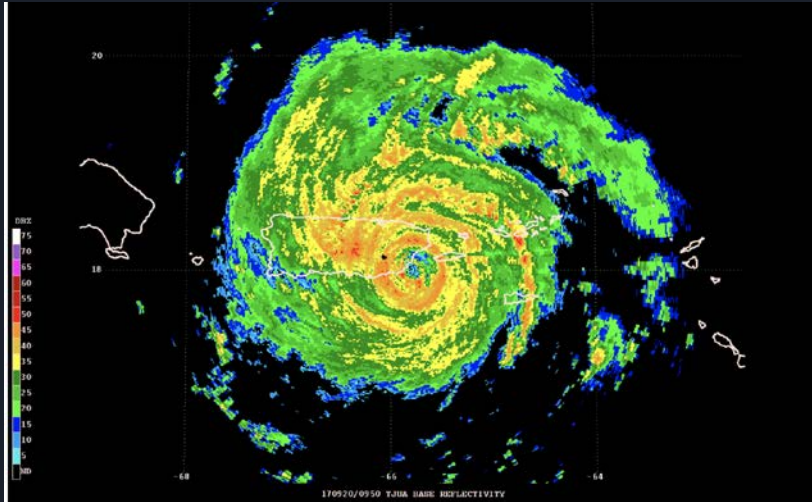
Photo credit: IUCN

# What are the threats to mangroves?

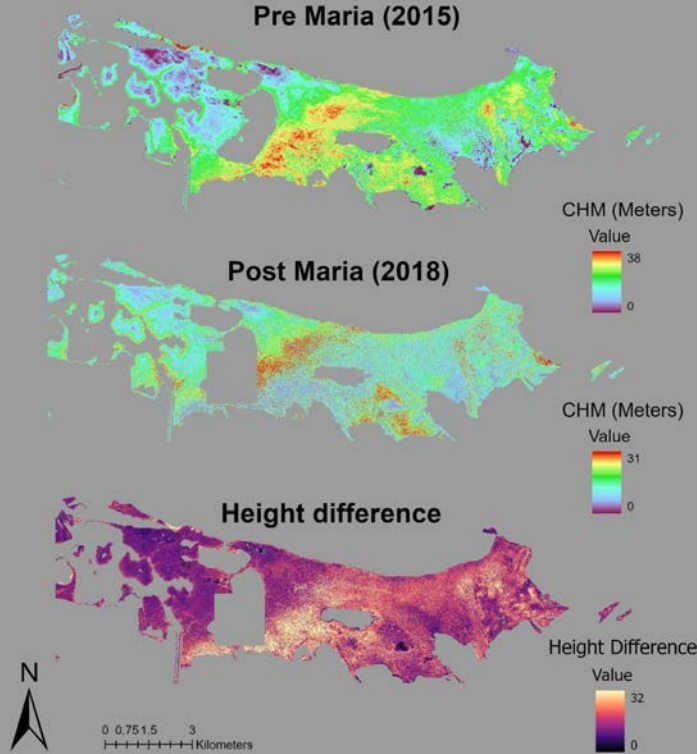
- ❖ Climate change → Sea Level Rise
- ❖ Sea Level Rise affect burial of blue carbon differently in each wetland
  - Mangroves role in this process
- ❖ Natural Disasters - Hurricanes
- ❖ Anthropogenic Activities



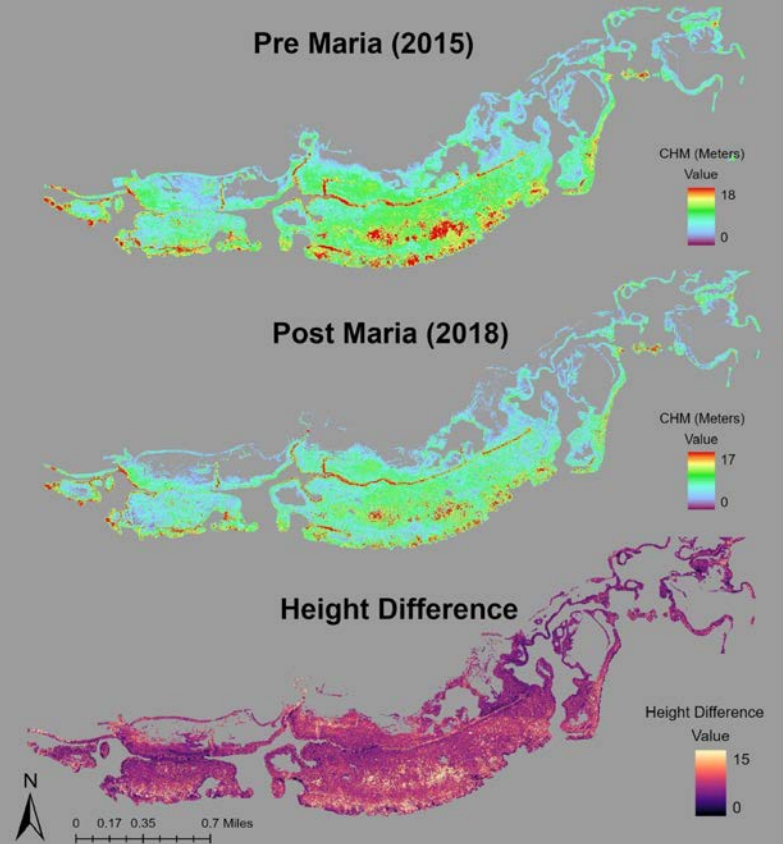
# Hurricane Maria and the devastation to Mangroves



San Juan WSR-88D radar image of Hurricane Maria at 0950 UTC 20 September, just before landfall in Puerto Rico, showing the more dominant outer eyewall. This was the last image from the radar before it was destroyed.  
Source: NOAA NWS



Canopy Height of P.R. Mangroves



Canopy Height of P.R. Mangroves

# Data Download and GIS Analysis

- ❖ Data download
  - NOAA DAV
    - Digital coast data access viewer for data sets pre and post maria 2010-present
- ❖ ArcGis
  - Satellite Imagery
    - NDVI





# References

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# References

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