

Oceans and coastal protection

Prof. Sieuwnath Naipal
Anton de Kom University of
Suriname



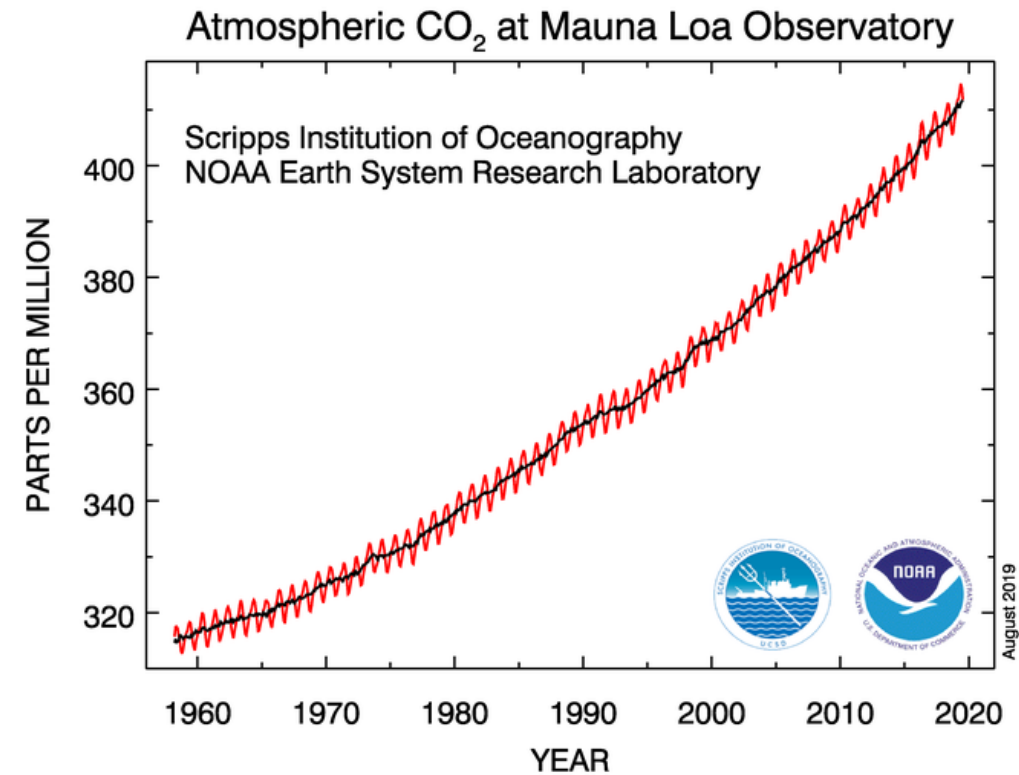
#ParlAmericasCC

#TimeForAction

@ParlAmericas

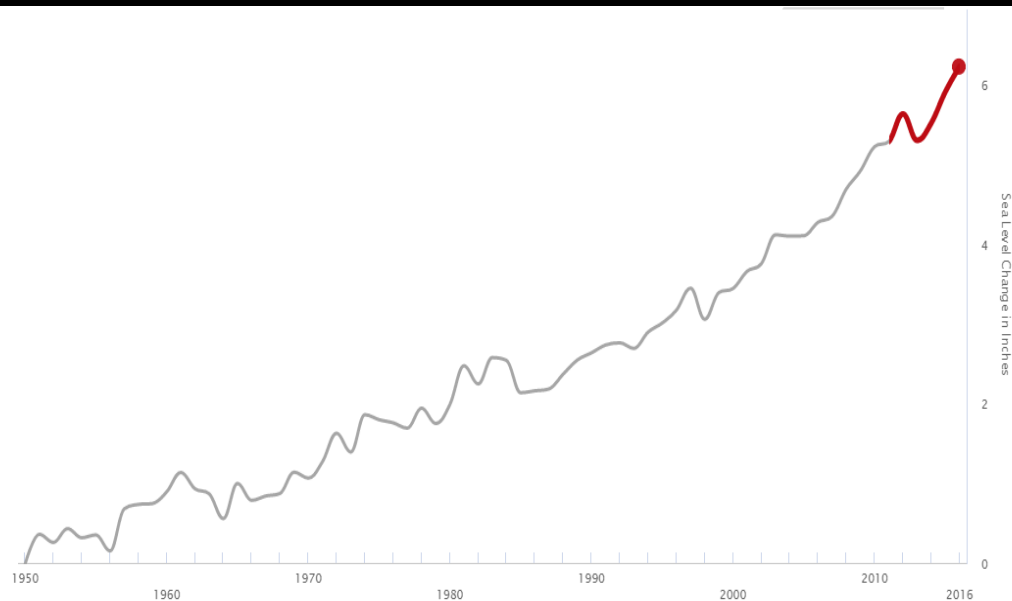
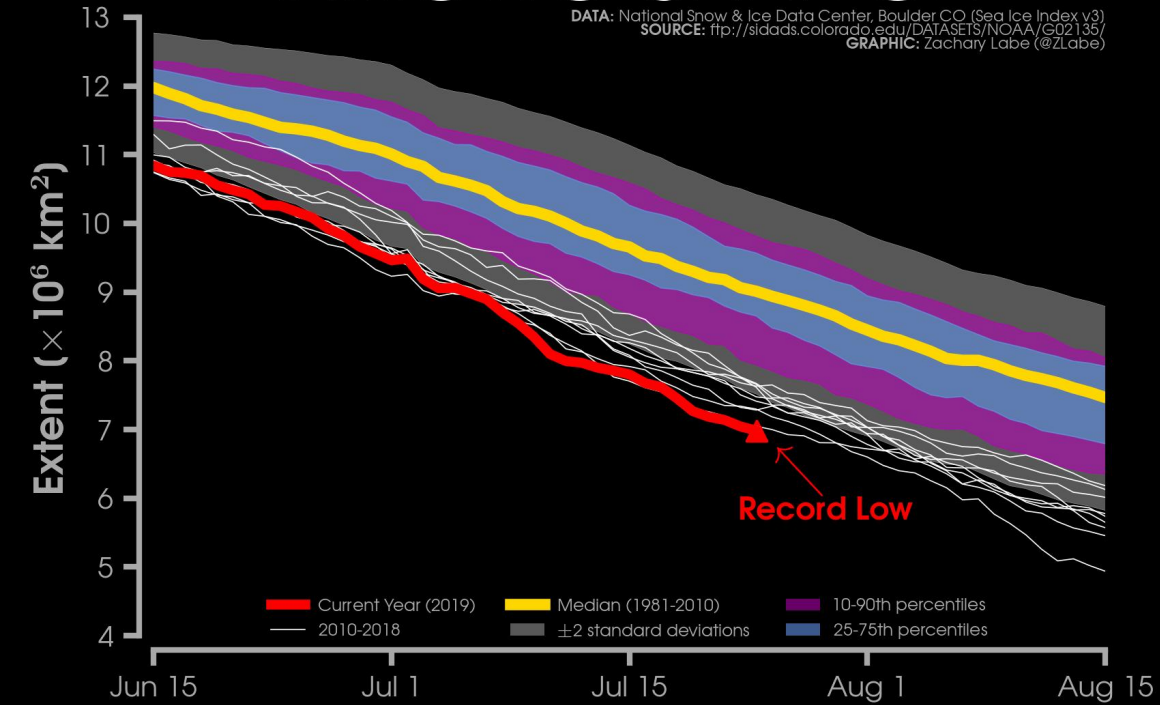
Extra heat in the atmosphere

- Produces extreme drought, flooding
- Impacts the jet stream
- Makes forest more susceptible for fire through evaporation of moisture
- Promotes forest fires (100 of such wild fires)
- Root cover on the artic ice, ice melt, sea level rise.
- Ocean absorbs more CO₂, more heat, results in acidification, produces less coral reefs, seaweed, less oxygen....

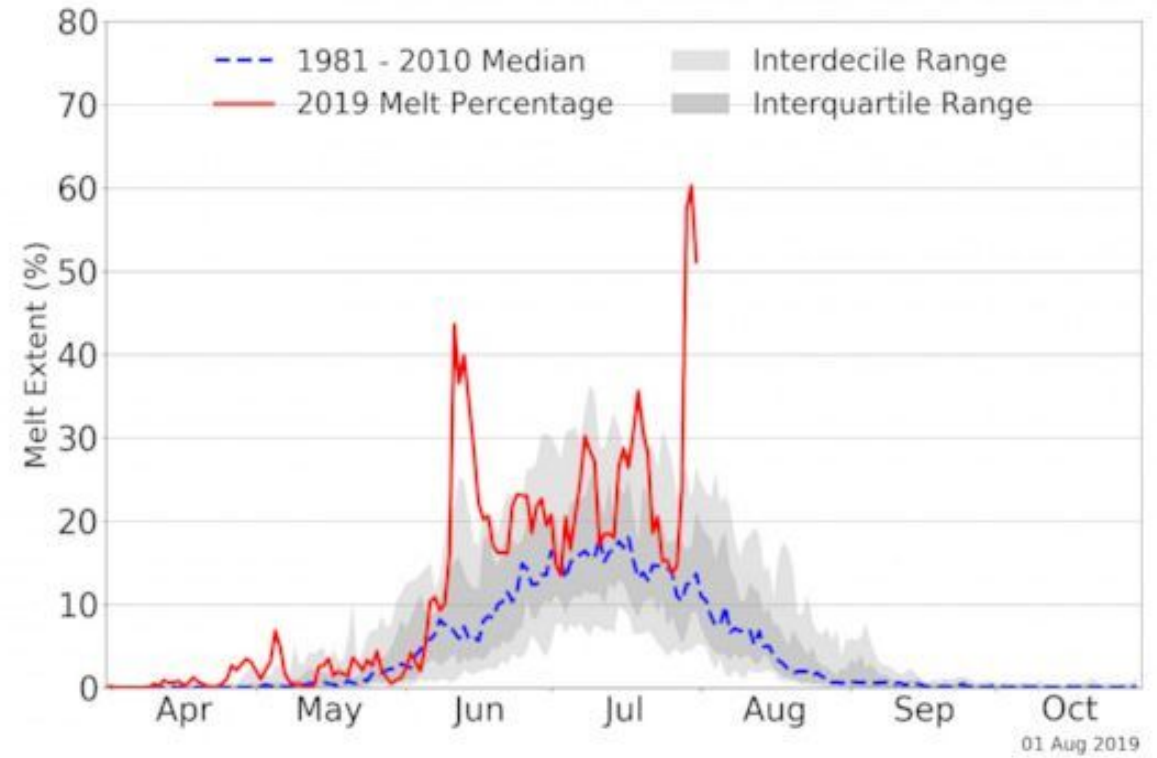


ARCTIC SEA ICE

DATA: National Snow & Ice Data Center, Boulder CO (Sea Ice Index v3)
SOURCE: <http://sidacs.colorado.edu/DATASETS/NOAA/G02136/>
GRAPHIC: Zachary Labe (@ZLabe)



Greenland Melt Extent 2019



Sea level is rising with a rap tempo

- Absorbed heat are released in the atmosphere in a complex way
- Low-lying areas are getting inundated frequently
- Coastal wetlands may fail to keep pace with the SLR
- Extra water creates new hydrology
- Extra water promotes erosion in the coastal wetlands

April 12, 2018

Higher seawater levels means larger volume to store
Penetration of seawater takes place at many locations;
Whilst drainage of the stored water take place via streams and creeks



August 5, 2019



August 5, 2019



8/20/95

Sediment trapping units

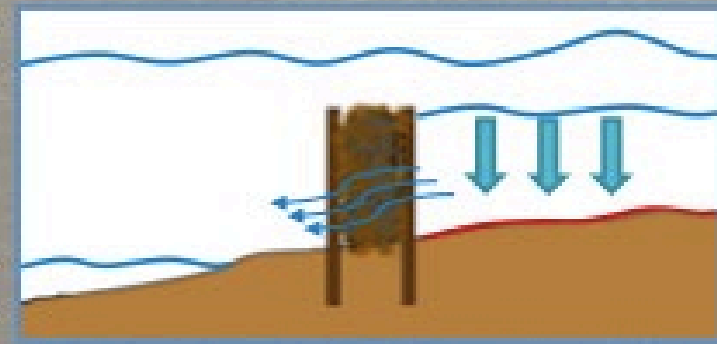
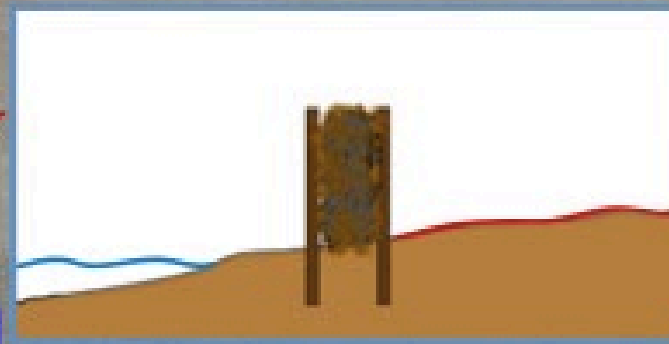
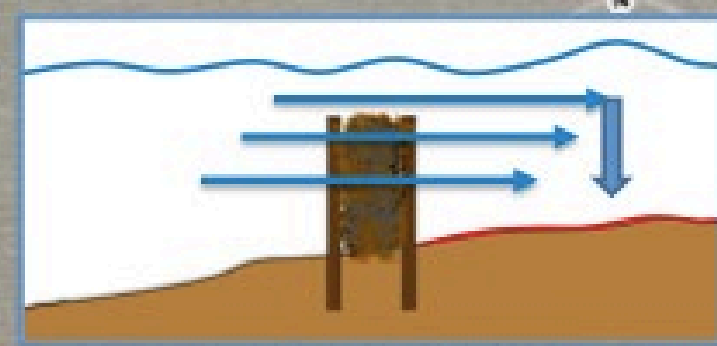
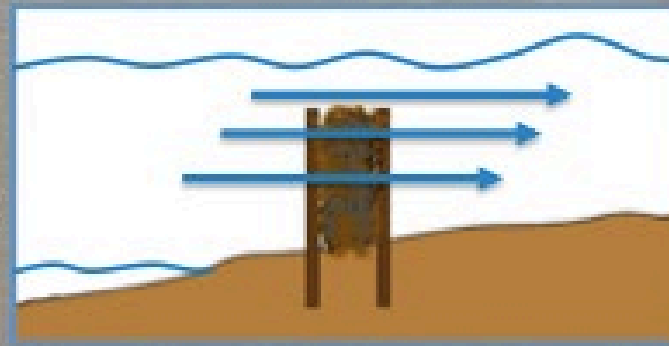
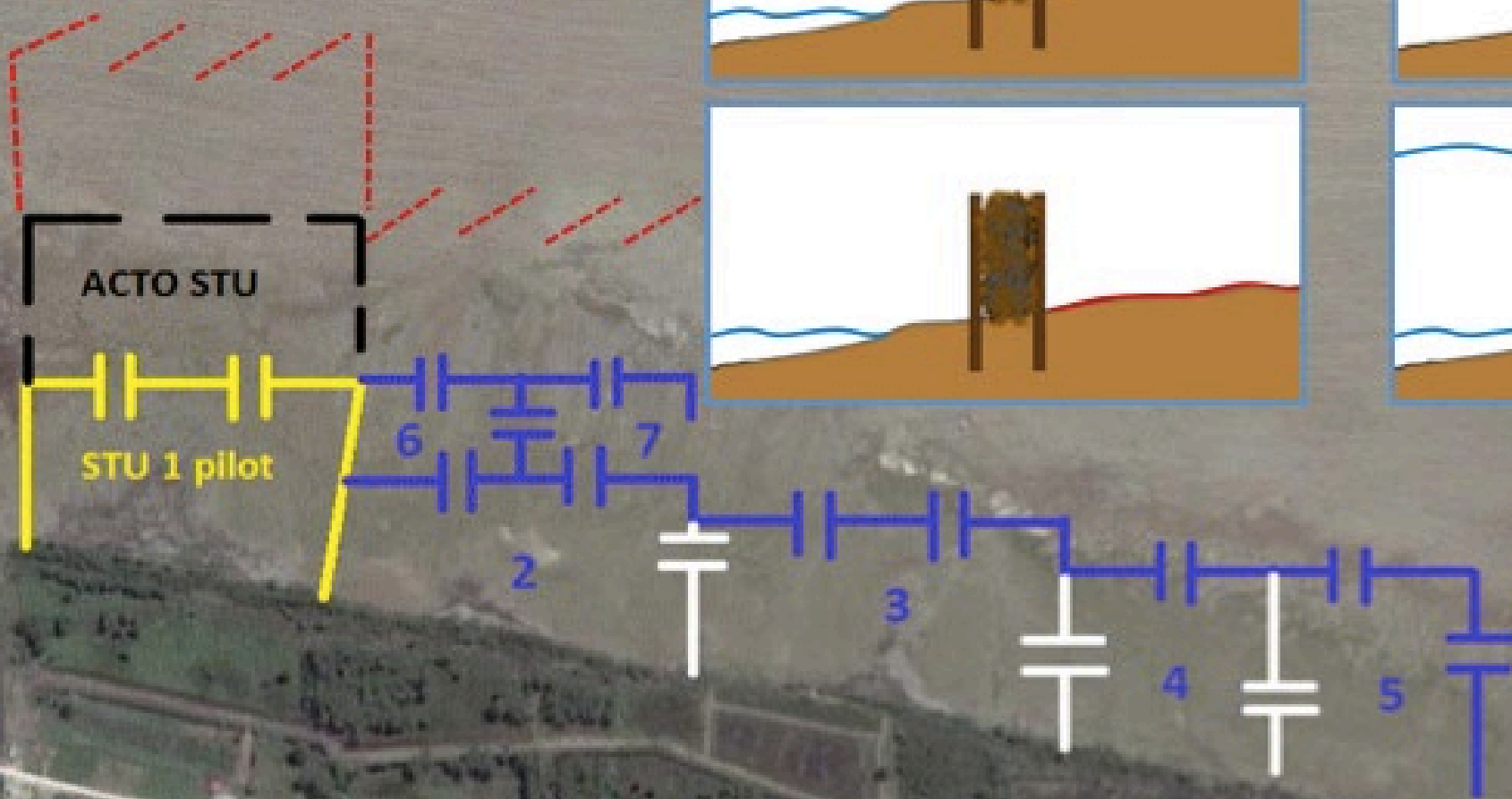


Image © 2018 DigitalGlobe

Grantsville Road

Google earth

1970

Imagery Date: 8/25/2015

5°54'04.34" N 55°13'07.33" W elev 3 ft eye alt 5538 ft

Mangroves

The key to fight against climate change



Thank you