D-Lab: Water, Climate and Health

EC-Kit (for *E.coli* testing)

Hurricane Maria, Puerto Rico

Susan Murcott and Julie Simpson
Feb. 7, 2019

D-Lab Development through Discovery, Design and Dissemination

Middle: Courtesy of Bureau of Land Management. This image is in the public domain.

Definitions

Weather: the state of the atmosphere at a place and time with respect to it's properties (temperature, wind speed, barometric pressure, etc.)

Climate: average weather, typically over a period of decades or longer, identified using statistical tests by changes in the mean and/or variability of its properties (temperature, wind, cloudiness, moisture, pressure, etc.)

My Extreme Weather Story

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I spent my honeymoon in Poipu, Hawaii, which is where the eye of Hurricane Iwa struck on Nov. 23, 1982

Blue Hill Meteorological Observatory

April 1, 2017 Snow Blizzard!

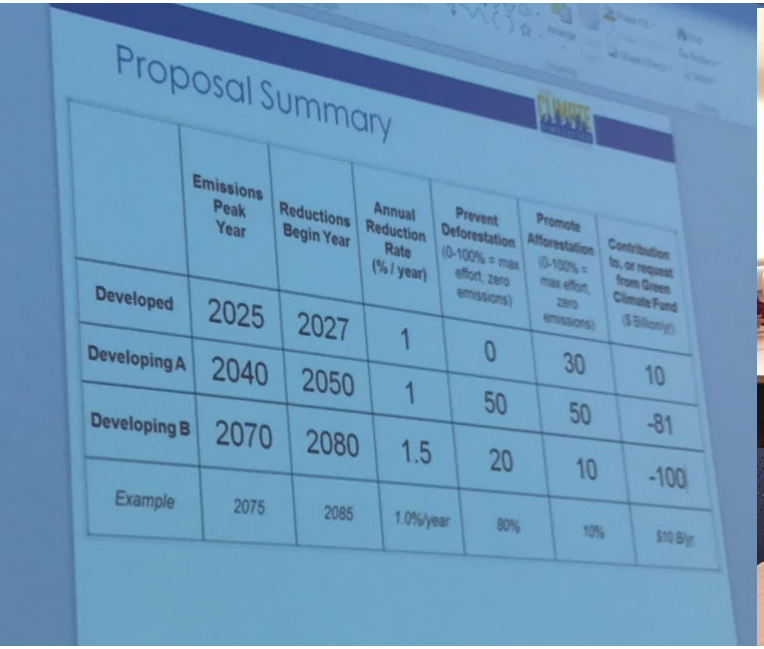
Course Description

- 1st course at MIT (or almost anywhere) combining water, climate change and health
- Action learning, field trips
- Mix of student's diverse disciplines, grads & undergrads, various nationalities, MIT, Harvard, Wellesley and more!

- **Climate Science**:
- **Climate Policy**: Guest lectures on global circulation models, carbon sequestration and game-playing with the C-ROADS World Climate Simulation to test emission reduction policies
- **Field trips**: Blue Hill Meterological Observatory, Hull Wind Energy Boston-Cambridge flood control, zero carbon home
- **Projects**: class solutions to water, climate change & health challenges.

World Climate Simulation

C-ROADS World Climate Simulation game to test global emissions reduction policies

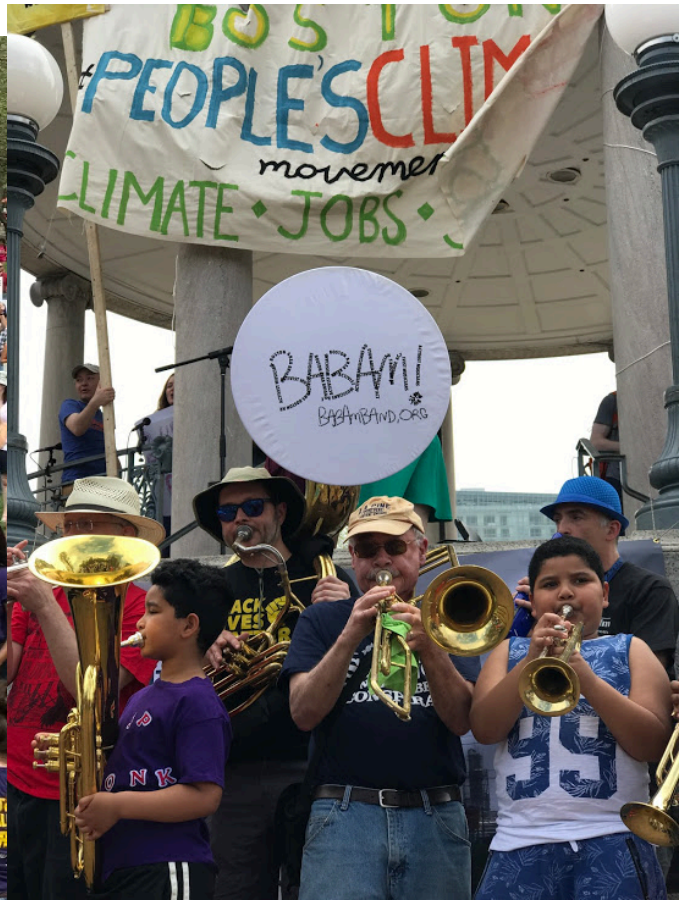


Some Past Highlights

Arnold Arboretum –

"Tree Architecture"

Boston People's Climate Movement - April 29, 2017



Tidmarsh Restoration & Living Observatory

Transforming a 100+ year old commercial cranberry bog and restoring its natural river flow and wetlands to enhance habitat, biodiversity and coastal protection from sea level rise.

http://tidmarsh.media.mit.edu/

MIT OpenCourseWare
https://ocw.mit.edu

EC.719 D-Lab: Weather, Climate Change, and Health

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