Water Quality after Hurricanes Irma and Maria: US Virgin Islands
Abstract:

• In 2017, the USVI was hit by two Category 5 hurricanes. Residents had no water, food or electricity.
• Homes within the Virgin Islands contain cisterns that are filled with rainwater collected from rooftops; These water sources were contaminated post storms.
• The Water Ambassador Quality Program, funded by the US Department of Agriculture NIFA and the Association of State and Territorial Health Officials, provided 200 homes with water testing services.
• UVI held nine focus groups for 500 residents, trained 54 youth and teachers in things such as: water quality and tips on waterborne/foodborne diseases, mental health and how to combat disease. This Citizen Science project was well received.
Hurricanes Irma and Maria
September 2017

Source: NASA Earth Observatory images by Joshua Stevens, using Landsat data from the U.S. Geological Survey
Impacts of Irmaria in USVI
Participatory Research and Community Education
Participatory Research and Community Education
Solar Farm Aftermath

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Saturday, Oct. 05, 2014

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Tuesday, Sep. 12, 2017

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Sunday, Feb. 24, 2019
Physical and social impacts
US Virgin Islands Survey

Community Attitudes, Perceptions and Dispositions
Source of water in Residential Areas:

- Cistern water: 71.67% (559)
- City water: 22.18% (173)
- Other (please specify): 6.15% (48)
If you have a cistern, did you have to buy water to refill it in the last year?

- Yes: 29.96% (216)
- No: 70.04% (505)
If you have a cistern, do you filter it prior to use?

- Yes: 49.35%
- No: 50.65%
If you have a cistern, do you treat the cistern water with chemicals?

- Yes: 43.14%
- No: 56.86%
Water Quality Sampling Locations, St. Thomas
Water Quality Sampling Locations, St. Croix
Do you take any steps/measures to conserve water or energy?
How would you say your water/energy conservation efforts compare to a year ago?

- Water conservation:
  - Don't know/don't conserve: 6.54%
  - Conserve less: 26.80%
  - About the same: 61.44%
  - Conserve more: 5.23%

- Energy conservation:
  - Don't know/don't conserve: 4.38%
  - Conserve less: 5.94%
  - About the same: 59.69%
  - Conserve more: 29.99%
Environmental Monitoring: Post Hurricane vs. Present
Participatory Research and Community Education
Acknowledgments

Special thanks to our student research assistants Calwyn Morton, Ajodie Dasent,

Funding:

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