Project Status Report: CEEn-2018CPST-0DR-004 **Report Date: 11/26/2018**

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Project Title: Flood Mapping

1) Summary of technical/non-technical challenges encountered

- Technical Challenges
  - How do we develop a flood-impact curve?
  - What data do we need from ESRI/INDRHI?
  - How can we use satellite imagery to validate the flood extent mapping?
- Non-Technical Challenges
  - Team members have conflicting schedules and limited time to dedicate.

2) Team approaches & resolutions to overcome challenges

- We will reach out to Water Resources professors to see if anyone has expertise in developing flood impact curves.
- We will begin researching flood-impact curve generation methods independently.
- We will search the Dartmouth Flood Observatory archives and collect satellite data for future validation efforts.

3) Status of challenge resolutions & potential project impact

- Dr. Nelson gave some limited direction on Depth-Damage curve generation. We will reach out to other Water Resources professors to learn more.
- Wade has downloaded shapefiles of historical floods in the Dominican Republic from the Dartmouth Flood Observatory.
- Dan has researched Depth-Damage curve generation. We are now considering using a curve that was developed for South Africa based on the similarity of their economies.
- Jared has reached out to Fidel to learn more about previous flood-damage curve generation efforts in South America. We are waiting to hear back.

4) Project status & summary

- We have received some population and boundary data and have some resources to obtain more.
- Our two main tasks of emphasis are:
  - Researching Depth-Damage Curve generation.
    - We are looking at countries that are economically comparable to the Dominican Republic to look at using pre-existing damage curves.
  - Collecting data from the Dartmouth Flood Observatory