Puerto Rico Disaster Mitigation and Recovery Studio

Joint work product of students in the Spring 2019 Studio

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UPRRP LA IUPI

ABSTRACT

Category 4 Hurricane Maria touched down over Puerto Rico on September 20th, 2017, with wind gusts of up to 147 mph (FEMA Hazus Report, 2017). Against a backdrop of ongoing economic malaise, the hurricane caused widespread devastation, resulting in the collapse of critical infrastructure systems. In the aftermath, Puerto Rico continues to struggle for stability, amidst an ongoing humanitarian crisis, which has also affected government functions and economic activity.

Given this context, Georgia Tech students and allied faculty interested in Global Development proposed a pilot joint studio between the University of Puerto Rico's Graduate School of Planning (EGP), and Georgia Tech's School of City and Regional Planning (SCaRP) focused on disaster mitigation, recovery and socio-economic development. Faculty are currently running parallel courses and an exchange program for the Spring of 2019, with the goal of contributing to the island's long-term recovery and development. This joint studio is funded by the American Planning Association (APA) and it is intended to be the pilot in a multi-year collaboration ending with an implementation component.

STUDENT-DRIVEN, CO-DESIGNED STUDIO

•Student-driven studio that leverages student connections and experience
•Students involved in all elements of planning:

1. Conceptual development
2. Proposal writing & Funding
3. Partnerships & communications
4. Research & content

OBJECTIVES

- The development of a transferable model to channel planning assistance to other vulnerable communities – one which captures local and international institutional resources and talent.
- Enhancing the capacity of next-generation planners to manage climate change issues and devising transferable tools and analytics that strengthen the planning capability of local communities and organizations.

CONTEXT / RESEARCH PROBLEM

- **Low income and historically marginalized communitie**s located along a degraded **3.75 mile-long tidal channe**l.
- Communities developed **informal settlements** along the borders of the channel, which has since become clogged with sediment, debris and waste.
- Over **3,000 structures still discharge raw sewage** into the channel (EPA 2015).
- Communities experienced **severe damage during Hurricane María**, and **remain vulnerable to climate threats** such as hurricanes, sea level rise, and extreme heat.

CLIENT

KEY PARTNER

Students drafted and obtained signed letter of collaboration with University administration at both Georgia Tech and UPR.

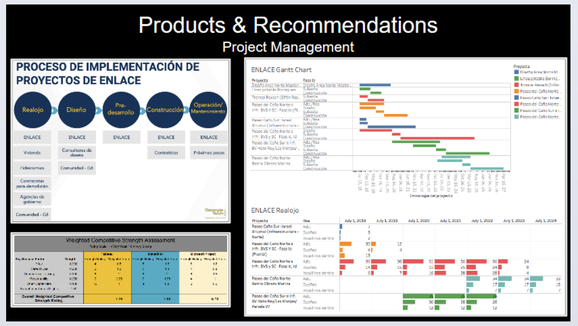
UPR helped with local partnerships, transportation logistics, and providing a work space.

University of Puerto Rico, Rio Piedras, Graduate School of Planning

METHODS

- Field work
- Interviews
- Workshops
- Round table discussions
- Empirical Work
- Data Collection and Processing

RESULTS



STUDIO FORMAT

SUPPORT FROM APA

Students helped fundraise $15,000 through the APA Disaster Grant

APA Foundation Awards $78,000 in Disaster Recovery Grants

San Juan, Puerto Rico
Recipient: University of Puerto Rico and the Georgia Institute of Technology for creating a collaborative approach to engage students and universities in disaster recovery efforts. Students will examine macro issues, such as transportation, housing, and public health, to better understand the general environment in Puerto Rico before and after Hurricane Maria.

LIMITATIONS and OPPORTUNITIES

Limitations:

- Significant burden of coordination and fundraising on student coordinators

Opportunities:

- **Recommendation 1:** Establish revolving funding support for student-driven studios
- **Recommendation 2:** Establish administrative support, and draw clear lines between faculty and student responsibilities

REFERENCES

EPA. (2015, July 30). Urban Waters and the Caño Martín Peña (Martín Peña Channel, Puerto Rico) [Overviews and Factsheets]. Retrieved March 26, 2019, from US EPA website

FEMA. (2017). Hazus: Estimated Damages Economic Losses-Puerto Rico.