

# Resisting Disasters: Four Coastal Communities against All Odds.

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# Sea Grant- Puerto Rico

- An educational program dedicated to the conservation and sustainable use of coastal and marine resources in Puerto Rico, the US Virgin Islands, and the Caribbean region.
- Our mission is twofold: (1) to fund scientific research in the thematic areas of conservation and the use of coastal and marine resources; (2) to offer marine extension services by making use of our experience and by applying the scientific knowledge that is generated through our research to the problems and issues that our community of users face everyday.

# Sea Grant Puerto Rico- Research

- Inventory and population studies of important coastal species and biological resources
- Studies that promote habitat restoration and reforestation
- Impacts of climate change
- Development of environmental indicators and environmental/biological standards for public health
- Establishing the resilience capacity or limit of adaptive change of local communities frequently visited by tourists and resource users and their ability to adapt to climate change
- Assessment of the socioeconomic impact of commercially and recreationally important marine organisms on local communities
- Studies on the impacts of invasive/exotic species and pathogens
- Establishing baselines of commercial and recreational marine organisms to obtain reliable estimates of size and catch trends
- Habitat mapping and identification of critical areas
- Physical models which link watershed and coastal processes in order to address and test a wide variety of issues

# Sea Grant Puerto Rico-Education

- The UPR Sea Grant College Program's Center for Marine Education provides information and a better understanding of the conservation of Puerto Rico's marine resources for students, teachers and the general public.



# Sea Grant Puerto Rico- Outreach

- The UPR Marine Outreach Program is a multi-island information and technology transfer program implemented to educate and change the attitudes, perceptions, and practices of resource users, resource managers, and the general public in relation to the sustainable use of Puerto Rico's coastal and marine resources.



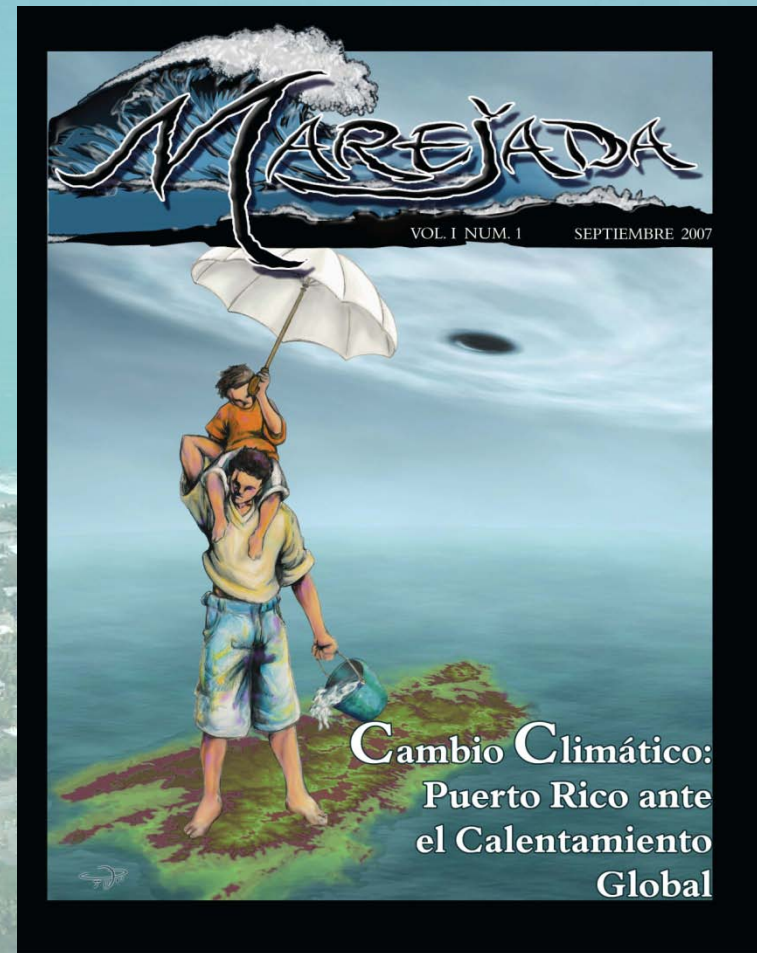
# Sea Grant Puerto Rico- CCD

- The Coastal Community Development Program goal is to establish sustainable development as the fundamental principle for the use and development of our coasts.
- Promote capacity building in areas of sustainable economic development, smart growth, and coastal resources conservation.



# Sea Grant Puerto Rico- Communications

- The main objective of this division is to inform a wide audience about the work UPR Sea Grant performs to promote the wise use of coastal and marine resources in Puerto Rico and the Caribbean.
- [www.seagrantspr.org](http://www.seagrantspr.org)



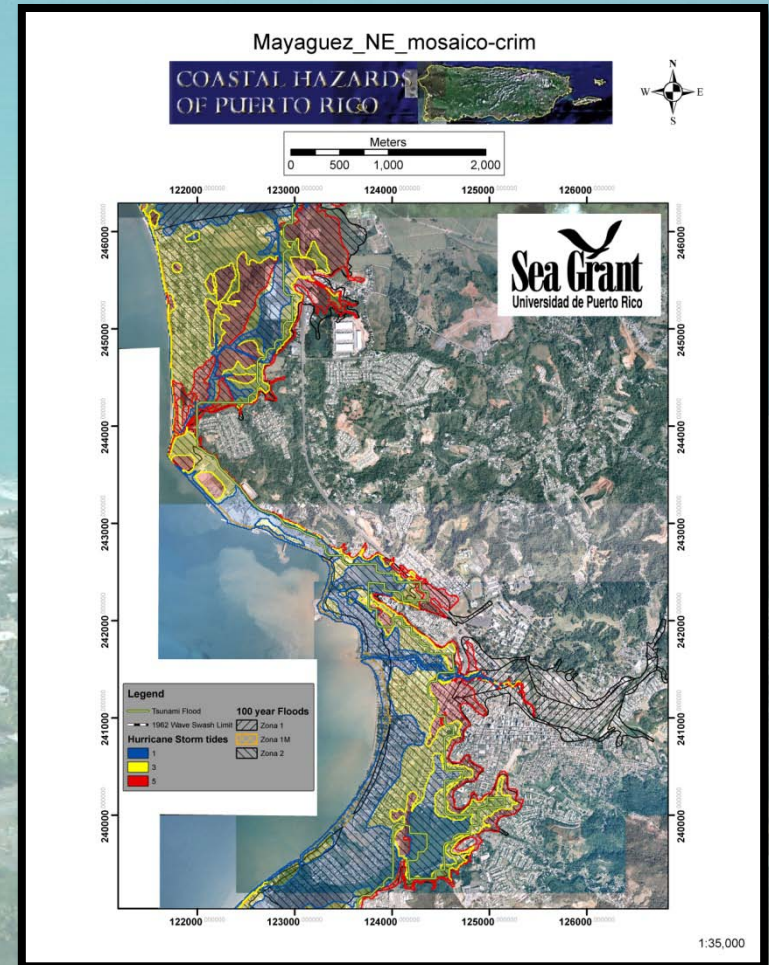
# Community Climate Change Adaptation Initiative

- To conduct rapid response, community-based, climate adaptation demonstration projects.
- Provide climate change information to decision makers.
- Assist communities directly in preparing or revising plans that included climate adaptation measures.



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- Mayaguez municipality: biggest city in PR West Coast.
- Population: 106,330 (US census, 2010).
- Several communities in the wetlands in the coastal areas of the municipality.



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- Field observations
- Focus groups
- Interagency meetings



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## San Jose Community

- Lack of a meeting center.
- Organized community.
- Concerns about evacuation route.
- Knows about risks and resilience.



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## El Seco Community

- Not organized.
- Has a municipal Center for Multiple Uses.
- Many concerns about evacuation route.
- Needs of climate change and natural disasters information.



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## El Maní Community

- Most geographical extended community.
- Organized community.
- Several concerns about evacuation route.
- Lack of Property Titles or House Deeds.



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## Overall findings:

- Members of the different communities provided information of their knowledge about coastal hazards and response measures.
- Identified climate change as a priority issue.
- Actual evacuation routes are not the best due to their proximity to the sea and riverbanks.
- Education and outreach programs from local and state government are highly needed.



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Next steps:

- Incorporate the 4<sup>th</sup> community: Guanajibo Homes to the project.
- Coordinate a conference and workshop for the communities to discuss resilience, coastal hazards, climate change adaptation, etc.
- Develop an Education and Outreach agenda on Climate Change Adaptation for these communities.

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Next steps:

Expand the project to communities in the municipalities of Anasco and Rincon

