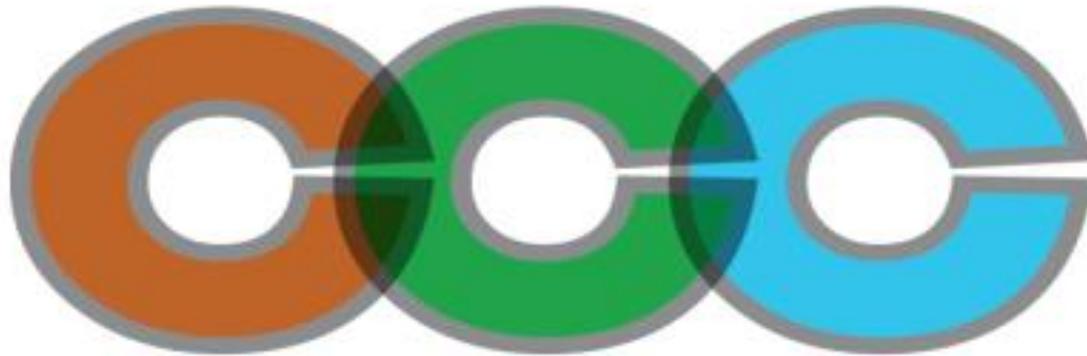
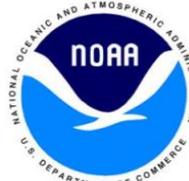


CONSEJO DE CAMBIOS CLIMÁTICOS



CLIMATE CHANGE COUNCIL
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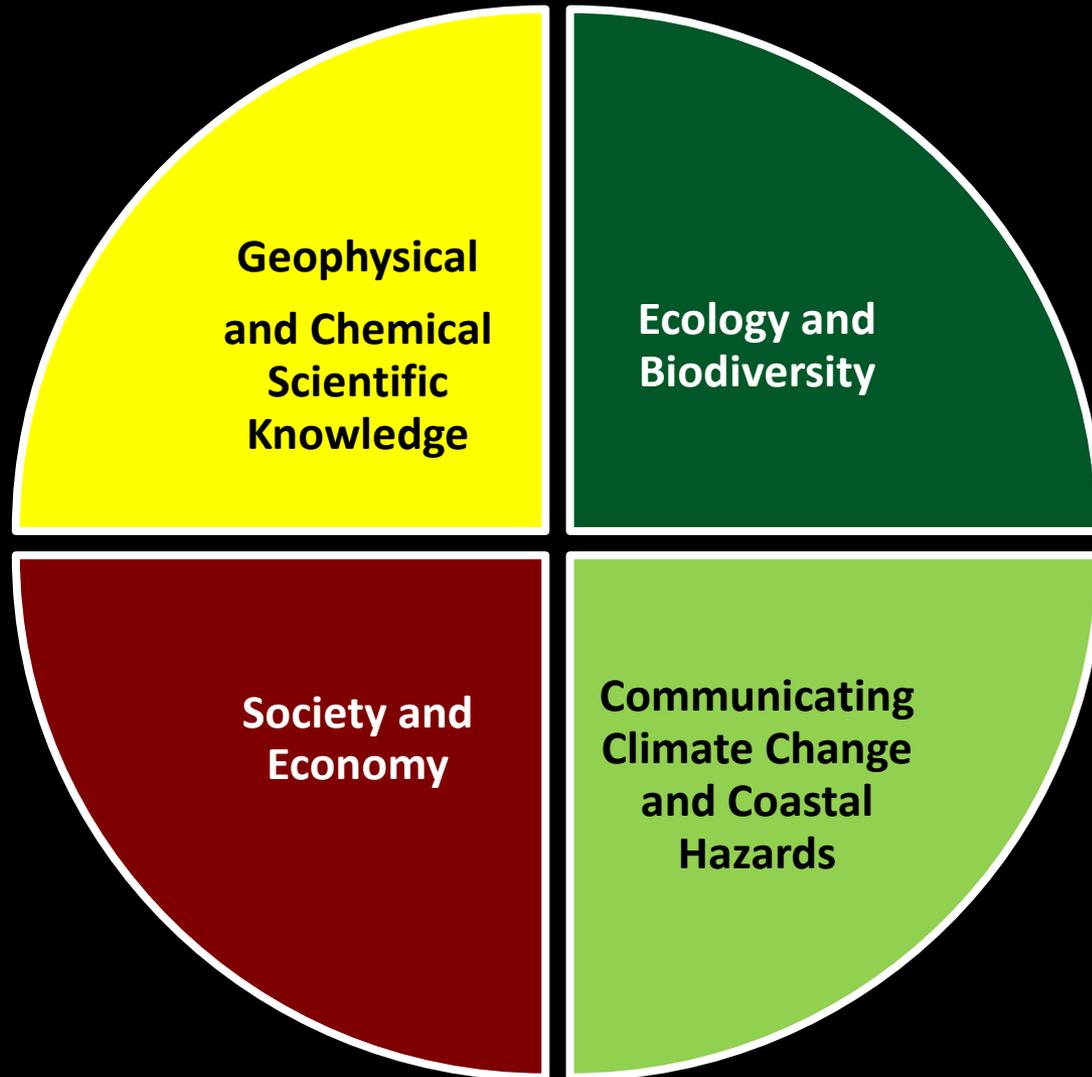
www.pr-ccc.org



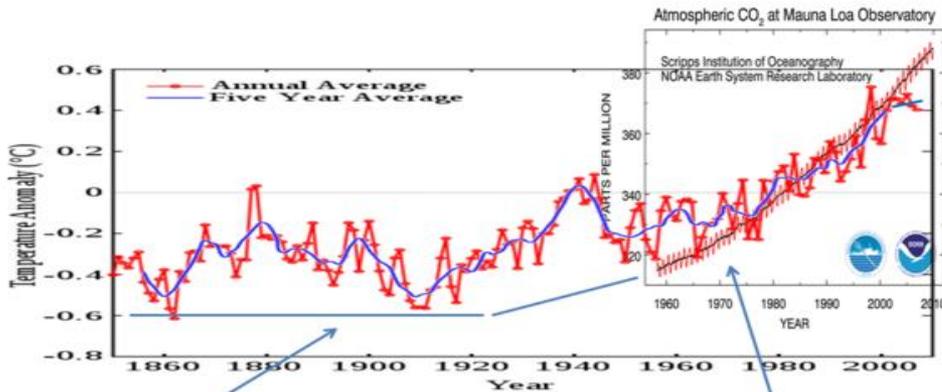
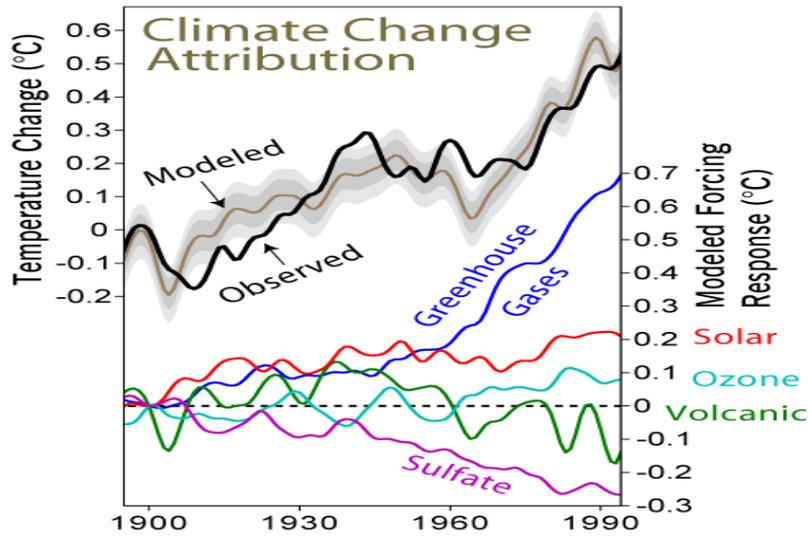
Climate Change knowledge in Puerto Rico

- **Before 2007:** farmers, fishers, construction workers, and scientists!
- 2007: IPCC 4th Assessment Report
- 2008: UPR and Sea Grant's Roundtable to assess the consequences of climate change
- 2008: Call to action was issued through a letter signed by 130 scientists
- **2008: Governor's Exec. Order establishes a High level Commission.**
- 2009: PRCZMP Coastal Hazards Strategy and NOAA Coastal fellowship
- 2009: UPR Carolina Climate Change Summits
- 2010: First meeting of the Puerto Rico Climate Change Council (PRCCC)
- PRCCC Summits: 2011, 2012, 2013, 2014, 2015, 2016
- **The State of the Puerto Rico Climate report (2010-2013): An Assessment of Puerto Rico's Social – Ecological Vulnerabilities**
- Caribbean Climate Conferences 2011 and 2015
- Call for Action COP21
- **2016 – Meeting to coordinate process to update The State of the Climate Report 2014-2017**

PRCCC Working Groups



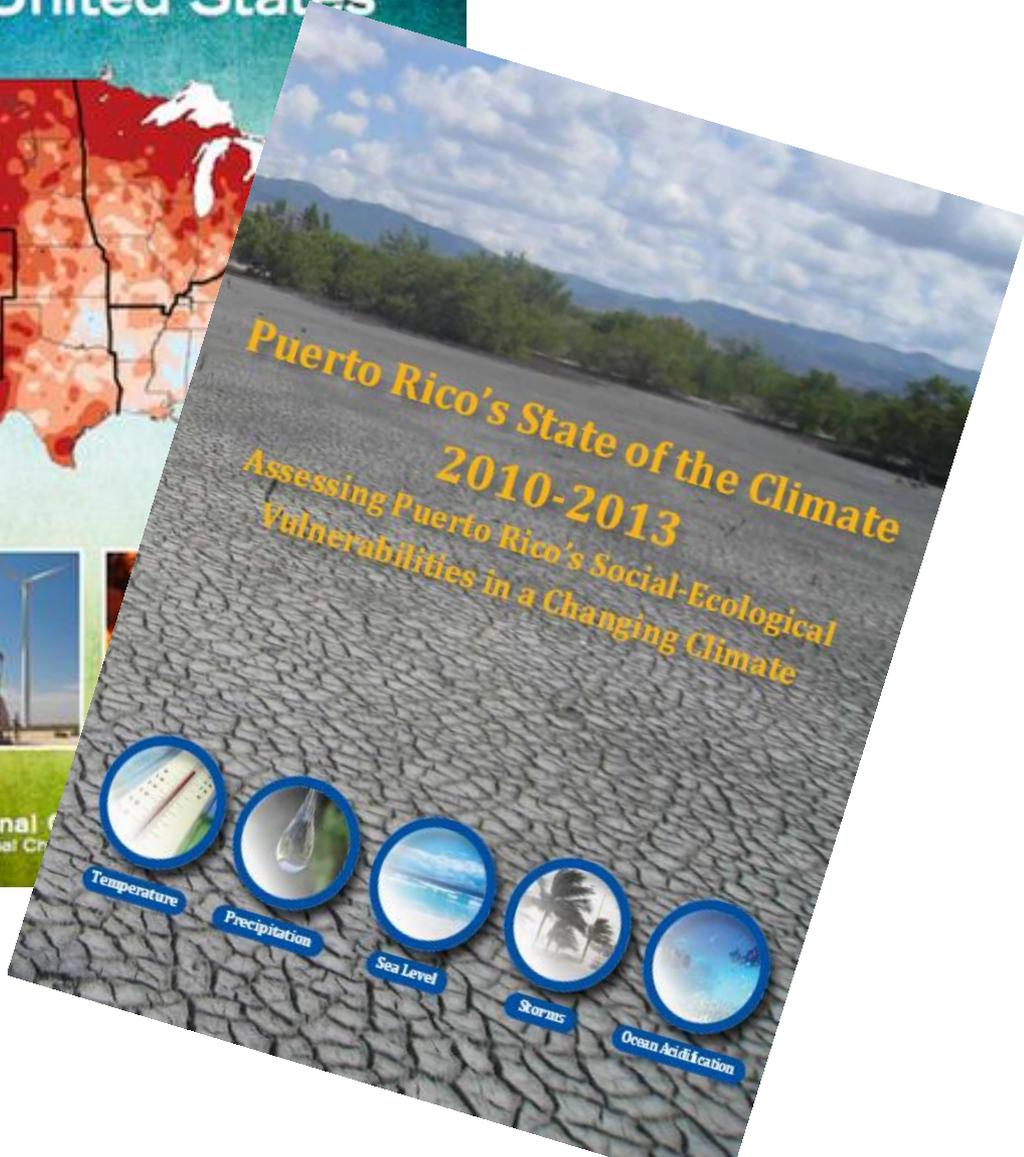
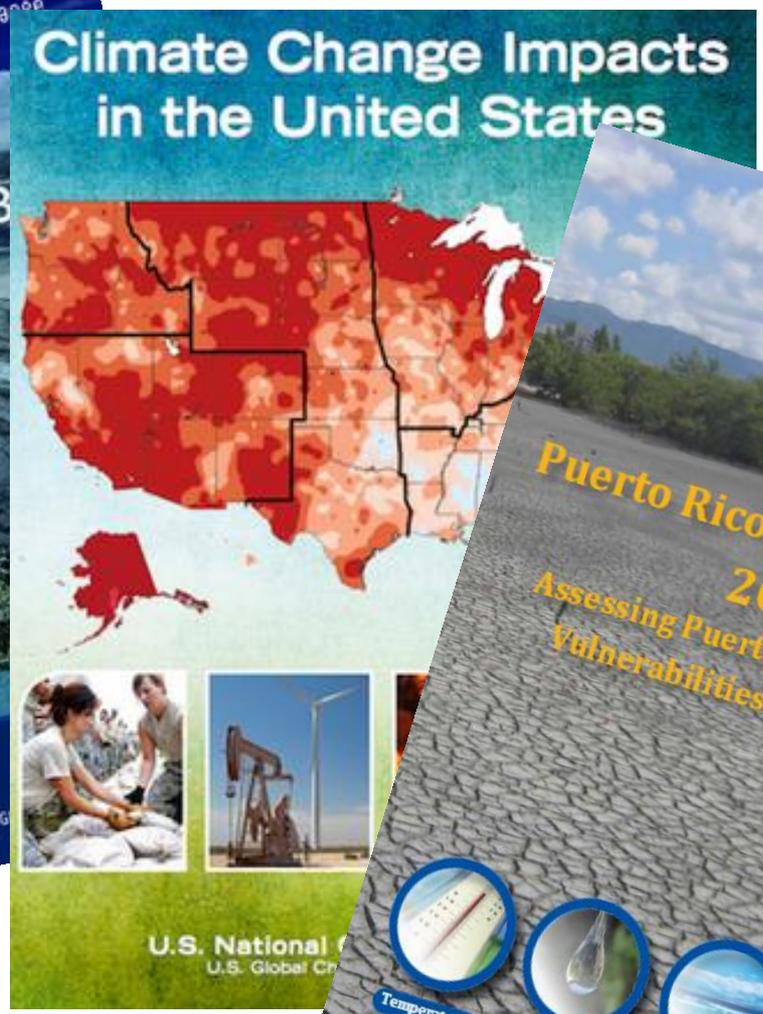
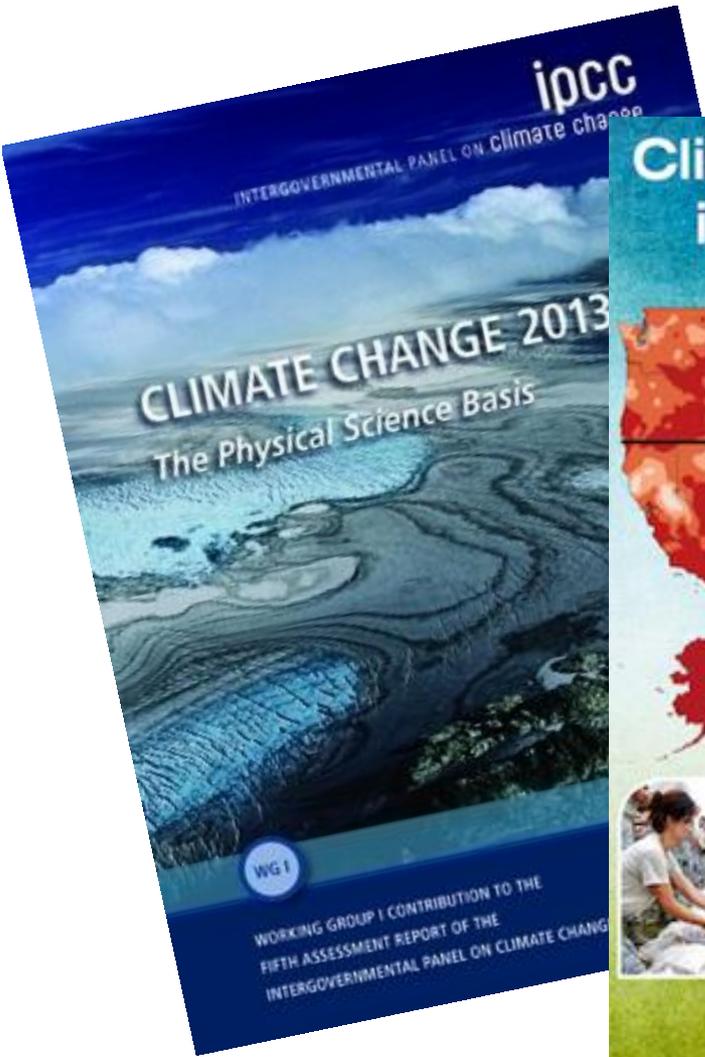
CLIMATE CHANGE DRIVERS



CO₂ trending to 280 ppm (IPCC)

Measured CO₂ since 1960





Puerto Rico's assets at risk



- Population: **3.6 million**
- Coastal population: **2,317,189 (56%)**
- Coastal Zone : **≥1Km inland (A=368.3 mi²)**
- Territorial waters: **9 nm (A=5,078.9 mi²)**
- Coastline: **799 mi / 1,225 beaches**
- Built up areas/coastline: **24%**
- Coastal municipalities: **44**
- GDP: **~\$65 billion/yr**
- Airports: **11**
- Ports: **12**
- Miles of primary roads: **27,982.0 Km (GDB)**
- Power plant systems: **7 (5 public and 2 private)**
- Sanitary infrastructure at coastal zone: **1,080 miles**
- Waste water treatment plants : **13 (coast)**
- Industrial parks: **81 (coast)**
- Protected Areas (Land): **8.7%** (6 EcoZones)
- Protected Areas (Marine): **27.2%**
- Shallow coral reefs and associated communities designated for protection: **49%**





Foto: Leonildo Miranda



A Louisiana Tribe Is Now Officially A Community Of Climate Refugees

Since the 1950s, the Native American tribe has lost 98 percent of the land that once called home.

02/12/2016 08:19 am ET | Updated Feb 15, 2016

La OMM reporta un ritmo alarmante de cambios climáticos en 2015

Sea Rise Threatens Oakland's Sewer System

Submitted by **MCAnderson**
By Barbara Grady, Oakland



Noticias
03 octubre 2014
07:41 p.m.

Expertos discuten sobre los cambios climáticos en Puerto Rico

Resaltan los incrementos en las temperaturas tanto en el día como la noche.

registro de temperaturas extremas, intensa
val de huracanes, una tend

ROTTERDAM: THE FUTURE

Más de 150 expertos de este viernes en la proyección de huracanes en Puerto Rico, Calles del casco urbano y

Crisis en Cataño por falta de drenaje

domingo, 27 de marzo de 2016

Tipping point

Corría el verano de 2012 y los termómetros en el aeropuerto Luis Muñoz Marín comenzaban a contar una historia. Desde entonces no han parado. Además del calor, la gente comenzó a notar otra cosa: que las marejadas se comían nuestras costas.

Acuerd cambi

Puerto Rico, trabajarán juntos

jueves, 19 de noviembre de 2015 - 6:26 PM

PRESS RELEASE

Warming Climate to Hit Bay Area Sea Level Rise, More Floods Bank Report Says

June 19, 2013

Naturales y los incrementos en



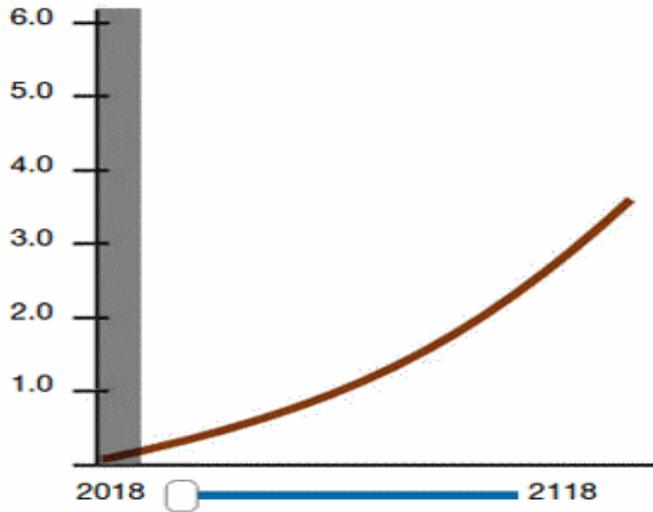




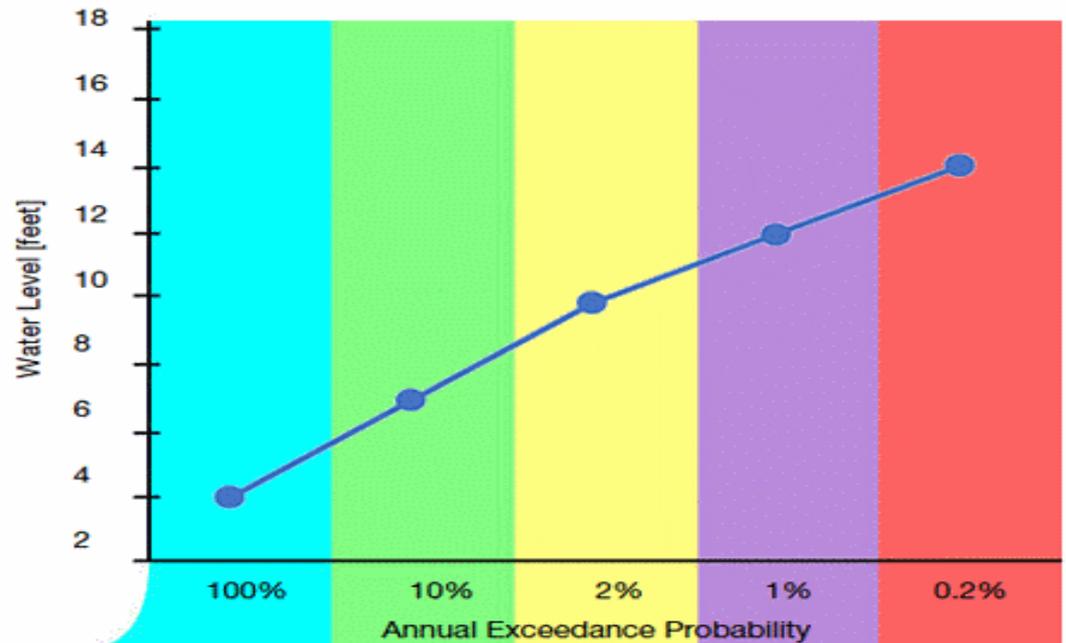




Relative Sea Level Change for USACE Intermediate Scenario



Extreme water levels



99 percent flood : with a 99 percent chance of being equaled or exceeded in nearly every year, often referred to as the annual storm.

10 percent flood : with a 10 percent chance of being equaled or exceeded in any given year, often referred to as the 10-year storm.

2 percent flood : with a 2 percent chance of being equaled or exceeded in any given year, often referred to as the 50-year storm.

1 percent flood : with a 1 percent chance of being equaled or exceeded in any given year, often referred to as the 100-year storm.

0.2 percent flood : with a 0.2 percent chance of being equaled or exceeded in any given year, often referred to as the 500-year storm.















Presidential Disaster Declarations (1989-2014)



What are you looking for?



By Year

Disaster Declaration Process

Disaster Aid Programs

Policies and Guidance

Process Fact Sheet

Presidential Disaster
Declarations

Disaster Recovery Centers

Preliminary Damage
Assessment Reports

→ Disaster Assistance Reports

Major Disaster Declarations

Number	Date	State/Tribal Government	Incident Description
4040	10/18/2011	Puerto Rico	Tropical Storm Maria
4017	08/27/2011	Puerto Rico	Hurricane Irene
4004	07/14/2011	Puerto Rico	Severe Storms, Flooding, Mudslides, And Landslides
1946	10/26/2010	Puerto Rico	Severe Storms, Flooding, Mudslides, and Landslides associated with Tropical Storm Otto
1919	06/24/2010	Puerto Rico	Severe Storms and Flooding
1798	10/01/2008	Puerto Rico	Severe Storms and Flooding
1613	11/10/2005	Puerto Rico	Severe Storms, Flooding, Landslides, and Mudslides
1552	09/17/2004	Puerto Rico	Tropical Storm Jeanne and Resulting Landslides and Mudslides
1501	11/21/2003	Puerto Rico	Severe Storms, Flooding, Mudslides, and Landslides
1396	11/28/2001	Puerto Rico	Severe Storms and Flooding
1372	05/16/2001	Puerto Rico	Flooding
1247	09/24/1998	Puerto Rico	Hurricane Georges
1136	09/11/1996	Puerto Rico	Hurricane Hortense
1068	09/16/1995	Puerto Rico	Hurricane Marilyn
931	01/22/1992	Puerto Rico	Flooding, Severe Storm
842	09/21/1989	Puerto Rico	HURRICANE HUGO
805	12/17/1987	Puerto Rico	SEVERE STORMS, FLOODING



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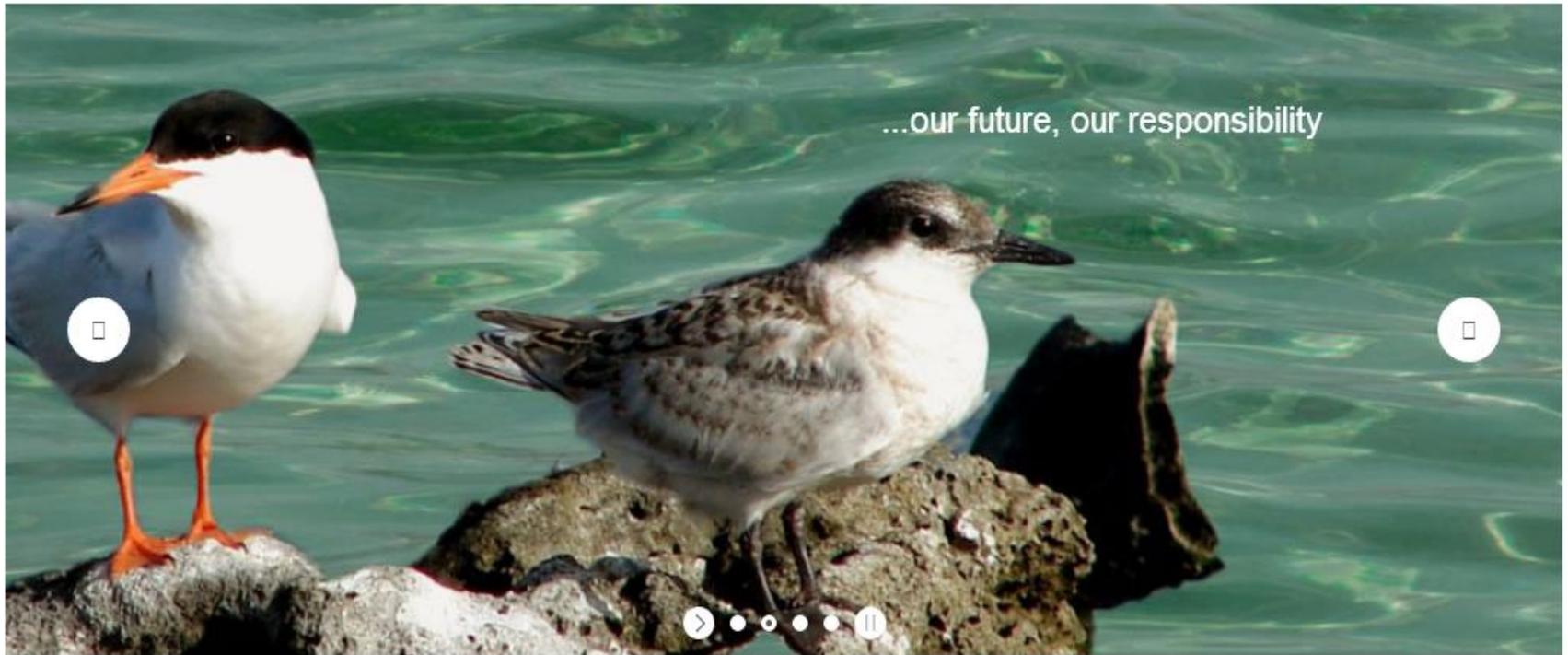
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[Publications](#)

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1 meter Sea Level Rise

- Flooded Area
- Low-lying Area

Coastal Zone Land Boundary



Map navigation controls: + (Zoom In), Home, - (Zoom Out), Search (Magnifying Glass)





PUERTO RICO INSURANCE/RE-INSURANCE STUDY

2013

*HOW THE INSURANCE INDUSTRY IN PUERTO RICO IS POSITIONED IN THE EVENTUALITY OF
A CHRONIC NATURAL DISASTER EVENT*

*Dr. Jaime Torres George-CTP
Moreno Santiago & Company
Economic Analysis Division*



COMMONWEALTH OF PUERTO RICO
LA FORTALEZA
SAN JUAN, PUERTO RICO

Administrative Bulletin No.: OE-2013-016

EXECUTIVE ORDER FROM THE GOVERNOR OF THE COMMONWEALTH OF PUERTO RICO, HON. ALEJANDRO J. GARCÍA PADILLA, ORDERING THE DEVELOPMENT OF A STUDY ON THE VULNERABILITY OF THE PUBLIC INFRASTRUCTURE IN THE LIGHT OF CLIMATE CHANGES AND THE ADOPTION OF ADAPTATION PLANS TO ADDRESS THE FINDINGS OF THE STUDY

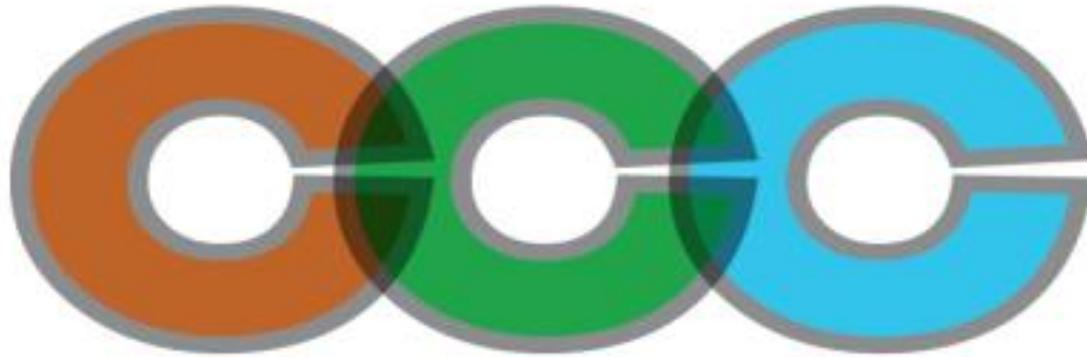
WHEREAS: Article VI, Section 19 of the Constitution of the Commonwealth of Puerto Rico ~~declares~~ that it shall be the public policy of the government to conserve, develop and exploit its natural resources in the most effective manner possible for the general welfare of the community.

WHEREAS: Public Law No. 416-2004, known as the "Environmental Public Policy Act," establishes the following duties and responsibilities of the government of the Commonwealth of Puerto Rico: (1) fulfill the responsibilities of each generation as custodian of the environment and our limited natural resources for the benefit of future generations, as provided in the Constitution of Puerto Rico; (2) secure safe, healthy, productive, and aesthetically and culturally pleasing landscapes for all Puerto Ricans; (3) procure the fullest enjoyment of the beneficial uses of the environment free from degradation, health or safety risks, or other undesirable consequences; (4) preserve major historical, architectural, archeological, cultural and natural aspects of our patrimony and maintain, whenever possible, an environment that affords diversity and variety for individual selection for present and future generations alike; (5) strike a balance between the population and the use of resources so as to allow for high standards of living and wide participation in life's amenities; and (6) improve the quality of renewable resources and ensure the judicious use of resources that can become depleted.

ONGOING PROJECTS AND INITIATIVES

- Adaptation Guide: Road to Resilience ✓
- Sea Level Rise - Coastal inundation modeling ✓
- Shoreline change analysis ✓
- Municipal Adaptation plans (5 ongoing)
- Regional Sediment Management Pilot Plan (ongoing)
- Right-to-know / Full disclosure bill
- Coastal Construction Line definition
- Building Code Amendments
- Handbook of PR Coastal Hazards and SLR Adaptation Strategies: Non-structural, Natural, Nature-based, and Structural
- Actively engage professional associations, local governments and communities (continuous)

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