

Earth from Space Institute (EfSI), Introduction

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Earth from Space Institute (EfSI)

- A new independent center dedicated to applying knowledge of Earth Science for making decisions with a strong societal impact.
- EfSI brings together an interdisciplinary team of scientists, engineers, and applied practitioners focused on utilizing space-based technologies and data systems to develop and deliver information products of high societal relevance to a variety of stakeholders.



Disaster Risk Reduction

TRANSFORMATION AND INNOVATION IN THE WAKE OF DEVASTATION
AN ECONOMIC AND DISASTER RECOVERY PLAN FOR PUERTO RICO



Capacity Building

Programa de Estados Unidos para la Investigación sobre el Cambio Mundial

Cuarta Evaluación Nacional del Clima



Volumen II
Impactos, Riesgos y Adaptación en los Estados Unidos
Informe Resumido

Planetary Security Conference 2019 #Doable

The Planetary Security Initiative is pleased to announce that the 4th annual Planetary Security Conference will take place on 19 & 20 February 2019 in the Hague.

Climate & Security



Earth from Space Institute

What We Do:

- *Contribute* to the advancement of Earth observation community efforts by serving as a bridge between governments, space agencies, academic institutions, NGOs, and international scientific organizations.
- *Develop* white papers, analyses, and project concepts that can inform policymakers and help to align community consensus on important interdisciplinary Earth system problems and solutions.
- *Facilitate* community interaction, advocacy for Earth system topics, and research team building through symposia, workshops, and study programs.



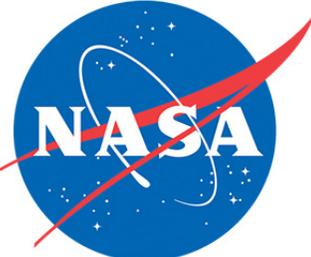
Science Focus Areas

- EfSI's initial scientific foci covers various themes that are aligned to the United Nations (UN) Sustainable Development Goals (SDGs) and the Sendai Framework on Disaster Risk Reduction (SFDRR):
 - Climate and Security
 - Disaster Risk Reduction
 - Energy Access
 - Good Health and Wellbeing



More info: newsroom.usra.edu/miguel-roman-speaks-at-goddard/

Black Marble Alliance



Yale School of Forestry
& Environmental Studies



PADF



The World Bank



HARVARD
HUMANITARIAN
INITIATIVE

Black Marble Alliance: Why us? Why now?

Vulnerability = hazard x exposure x sensitivity x adaptive capacity



**Strengthen
Urban Resilience**

**Optimize Supply-Chain
Risk Management**

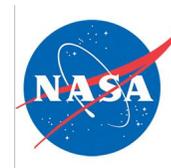
**Improve Disaster Risk
Management across
the Americas**



Achieving these goals requires integration of expertise

Black Marble Alliance: Overarching Objectives

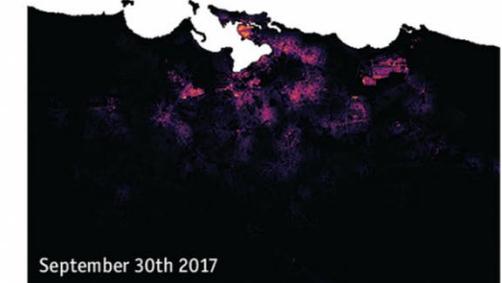
- 1) Improve understanding of the spatial allocation of vulnerability: factors that make societies vulnerable to disasters and their interactions.
- 2) Increase understanding of how vulnerability may change in the future with different scenarios of urbanization and development.
- 3) Develop approaches for improving both the resilience of communities and the effectiveness of disaster response.



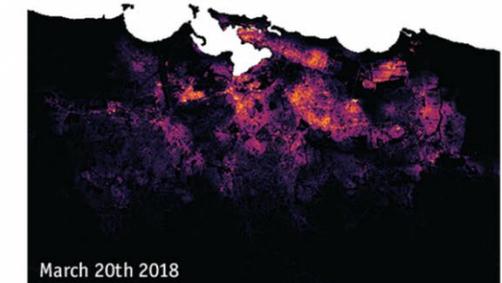
San Juan
Puerto Rico
Illuminating
Night-light intensity
in San Juan
Before Hurricane Maria makes landfall



San Juan, July 20th 2017



Immediate aftermath of Hurricane Maria
September 30th 2017



Six months after Hurricane Maria
March 20th 2018

Source: Suomi NPP VIIRS data from Miguel Román, NASA Disasters Programme
Economist.com