



 **OUR IMPACT**

2017-2018 Accomplishments

**Better solutions.
Fewer disasters.**

**Safer
world.**



Reduce disaster risk. Step into a safer world.

As the number of people affected by disasters continues to grow worldwide, so does our track record of protecting communities with the most reliable and timely access to life-saving information. Working together with countries throughout the world, Pacific Disaster Center (PDC) utilizes its research, science, and technology to help organizations with disaster risk reduction (DRR), assessment of potential hazard impacts, and the anticipation of emerging threats.

2017

30+
worldwide DRR
partner projects

485+ Million
People living within national DRR
project areas

**475 Million (98%) Ranked
Low Resilience**

 National Early Warning and
Decision Support Projects

 National Disaster Preparedness
Baseline Assessment Projects



10
35+
Disaster Preparedness and
Response Exercises worldwide
Participating Nations



10
Major U.S. Government Technology
and Training Projects Supporting
Preparedness and Response



5
National Disaster
Preparedness Baseline
Assessment (NDPBA) projects



4
National Early Warning and
Decision Support Projects



5
Regional Risk and Vulnerability
Assessment (RVA)

GUATEMALA
17 M

NICARAGUA
6 M

HONDURAS
9 M

DOMINICAN
REPUBLIC
11 M

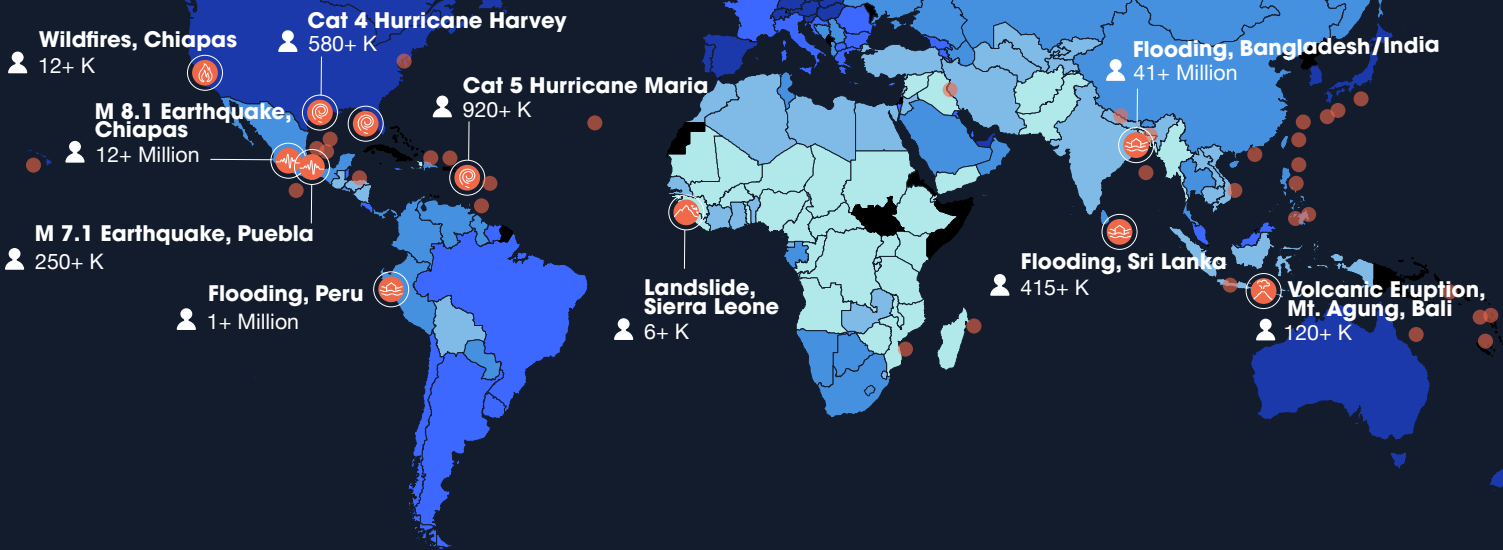
29 M
NEPAL

53 M
MYANMAR

96 M
VIET NAM

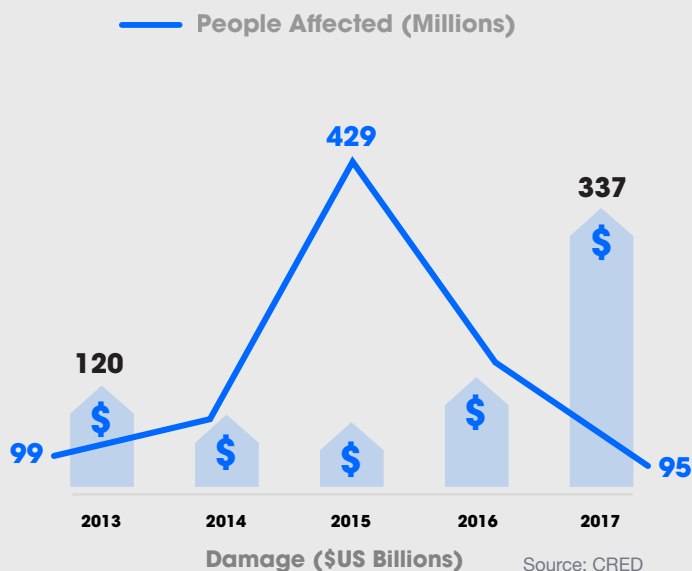
264 M
INDONESIA

PDC Global Response at a Glance



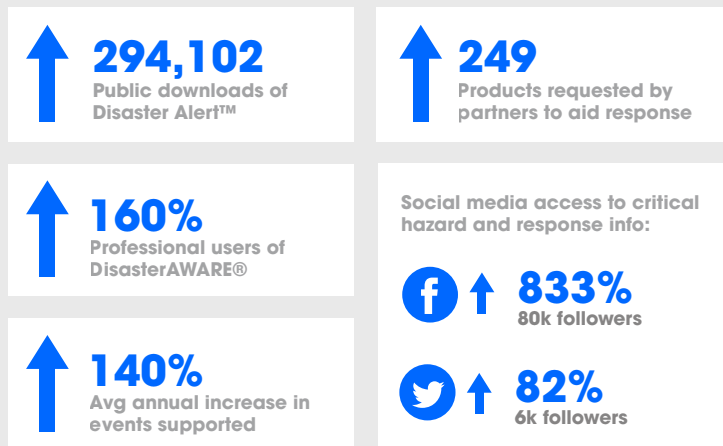
5-Year Trends

Natural Disaster Impacts Worldwide



Information saves lives.

Expanded access to critical information and services:



Record-breaking Triple Hurricane Response

Situation Overview



Hurricane Harvey

\$125 Billion in Damage
Affected: 580,000 Exposed: 17.8 M



Hurricane Irma

\$64.8 Billion in Damage
Affected: 10+ M Exposed: 16.2 M



Hurricane Maria

\$96 Billion in Damage
Affected: 920,000 Exposed: 2.3 M

PDC in Action

PDC joined forces with local, federal, and international authorities to help better prepare and plan for protecting vulnerable populations during the most severe back-to-back hurricane event ever recorded in the Atlantic during a single month. PDC leveraged its DisasterAWARE platform and the largest collection of global, scientifically verified geospatial data and modeling tools to support civil and military agencies with assessing potential risk and hazard impacts. Direct pre- and post-impact situational analysis support was also provided.

155+ Products

Providing pre- and post-impact analysis

24-hour Support

with on-site support for JTF-Bravo JOC and SOUTHCOM CAC

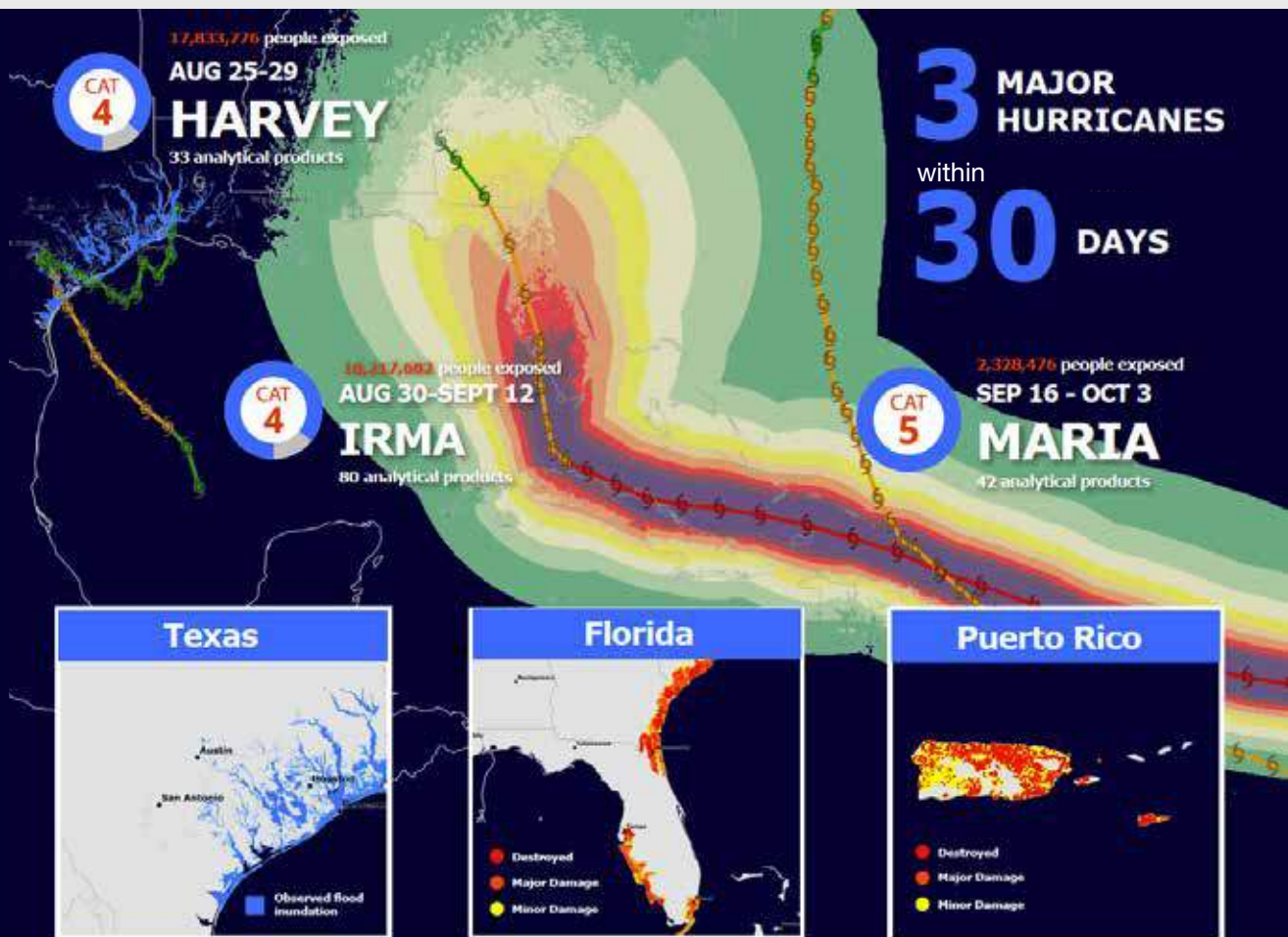


JTF-Bravo sincerely appreciated the HADR [Humanitarian Assistance and Disaster Relief] decision support information provided by the Pacific Disaster Center during Hurricane Irma response. It has been timely and valuable to current operations.



Eric Yarrell, Lt Col, USAF, DCO JTF-Bravo

COMBINED IMPACTS
11.5 Million
People affected
\$286 Billion
in Damage



PDC Supports FEMA

PDC's support with HAZUS modeling and official reports allowed FEMA to be forward-leaning with individual assistance—working with state and local officials to support badly impacted communities and quickly provide financial support to individuals and families.

Some of the organizations supported



FEMA



Joint Staff



JTF-Bravo



Bahamas NEMA



SOUTHCOM



DTRA



Florida Emergency Management



United Nations



Dominican Republic



City of Houston



Disaster AWARE[®]

Custom Early Warning and Decision Support Solutions

We provide out-of-the box and customized disaster management solutions for early warning, hazard monitoring, and decision support built on our industry-leading disaster risk intelligence platform, DisasterAWARE.

6

Projects to Date (2013-2017)

4

National Projects

1

Regional Project

1

International Project

442+ Million

People living within national project areas

100% Ranked Low Resilience

3-year

Process Overview



*Ongoing project support provided by USAID/OFDA.

Government of Indonesia | InAWARE

Continued national and provincial institutionalization and expansion of the operational use of InAWARE. Expanded monitoring and response capabilities with crowd-sourced hazard and critical lifeline data.

Quick Facts:

- 948 staff trained
- 264+ M citizens served
- Fully Operational System*
- Phase II institutionalization at national level and throughout selected provinces

Government of Viet Nam | VinAWARE

Continued capacity development through VinAWARE training and exercise. Expanded dam and reservoir monitoring as well as flood and storm early warning system capabilities.

Quick Facts:

- 248 staff trained
- 6.7+ M citizens served
- Fully Operational System*
- Institutionalization and support phase

Government of Myanmar | DMRS Expansion

Initiated a new project to increase capacity for effective national early warning and decision making by leveraging the AHA Centre's regional DMRS software. Developed SOPs, provided training, and incorporated national data.

Quick Facts:

- 84 staff trained
- 53+ M citizens served
- Initial System Concept Design*

Government of Nepal | NepalAWARE

Prototyped NepalAWARE and developed concept of operations (CONOPS) for it use within Nepal's disaster management community. Established GIS data committee to expand national data content.

Quick Facts:

- 84 staff trained
- 29.3+ M citizens served
- Fully Operational System
- Phase II begins in 2018

U.S. Government | Global Biosurveillance Portal

PDC and the Joint Program Executive Office expanded earlier BioServ program to field the G-BSP map within the portal. Included new biological / medical data sources and health protection reports.

Quick Facts:

- 84 staff trained
- Global population served
- Final Testing Phase

Disaster AWARE®

Reduce disaster risk. Make better decisions faster.

DisasterAWARE is the only platform that provides early warning, hazard monitoring, and impact estimation for 18 hazard types, all in one system, free to disaster professionals worldwide.

↑ 11,000+ professional users
159% increase (2013-2017)

- Worldwide hazard monitoring and early warning
- Pre-impact analysis with damage and loss estimation, population risk and vulnerability, anticipated needs analysis
- Post-impact decision tools with field observation data, multi-agency response collaboration, damage assessments

What's new

DisasterAWARE Quantum 6.0 Major Release

Includes increased performance and cyber security, simplified SMS messaging and alerts with quick links to hazard details, enhanced monitoring, administration, and an improved user interface.



Compatible with all devices and browsers



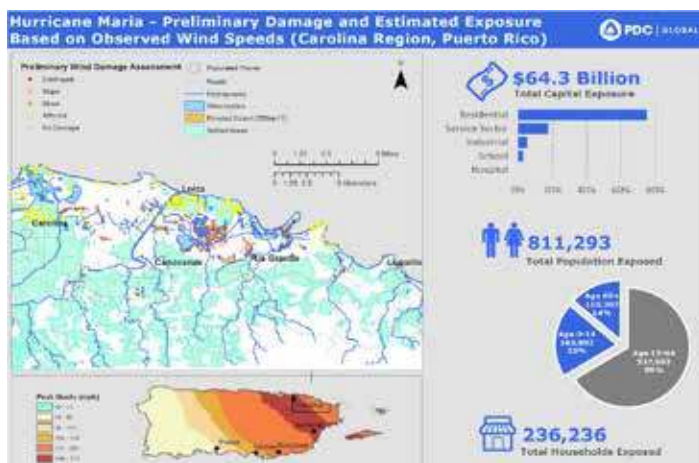
Touch friendly for mobile device users

All Hazard Impact Model (AIM)™

PDC released a brand new automated model to help assess capital exposure and population exposure, including at-risk and vulnerable populations. The model utilizes PDC's proprietary exposure data as well as its risk and global vulnerability data.

Automated Hazard Analysis

PDC developed new hazard analysis capabilities that are automatically performed with each new forecast advisory and released through DisasterAWARE. New products provide timely and accurate analytical insight 24/7.



3 New Products



Tropical Cyclone



Volcanic Ash Cloud



Tsunami Travel Time

Disaster Alert™



Public App Usage
↑ **21%** (2013-2017)
1.7 million users

**Disasters happen fast.
We alert you faster.**

National Disaster Preparedness Baseline Assessment (NDPBA) Program

✔ Completed (2016)
 ✔ In progress (2017)
 ✔ Planned (2018-2019)

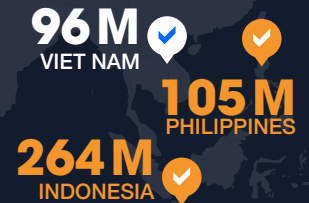
LATIN AMERICA / CARIBBEAN



AFRICA



SOUTHEAST ASIA



Prevention and preparation pay off.

Because PDC's National Disaster Preparedness Baseline Assessment program provides more than just an assessment, it is growing in popularity among some of the world's most disaster-prone countries. Through the program, countries are provided with a sustainable system for accessing, updating, understanding, and applying critical risk information in decision making at the national, subnational, and local level. As an NDPBA partner, countries also receive ongoing PDC support for mapping, modeling, response, and other subject matter expertise.



74% (480+ Million)
Ranked Low Resilience

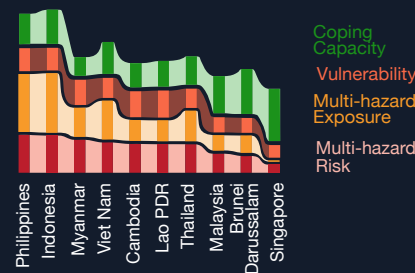




ASEAN and AHA Centre Collaboration

Following more than a decade of collaboration to enhance disaster management capacities in the Southeast Asia region, PDC and AHA Centre signed an official Memorandum of Intent in 2017. Intended to strengthen the two centers' ongoing partnership in advancing Disaster Risk Reduction and regional cooperation, the memorandum has already resulted in the achievement of new milestones—most notably, a regional risk assessment encompassing ASEAN's 10 member states.

ASEAN Risk Assessment



Earthquake Exposure



37% (234 M people)
\$2.4 trillion (US dollars)

A special thanks to our many other partners

We partner with so many outstanding organizations—too many to list—all of whom contribute greatly to the success of PDC and for whom we are grateful.

- ➔ Caribbean Disaster Emergency Management Agency (CDEMA)
- ➔ United Nations Office for the Coordination of Humanitarian Affairs
- ➔ U.S. Department of Defense (PACOM, NORTHCOM, SOUTHCOM, AFRICOM)
- ➔ Federal Emergency Management Agency (FEMA)
- ➔ Joint Program Executive Office (JPEO-CBD)
- ➔ United States Agency for International Development (USAID)

Exercises and Exchanges Supported in 2017



1. **Guatemala:** Fuerzas Aliadas Humanitarias (FA-HUM) | Catastrophic / Complex Disaster
2. **Hawaii:** Makani Pahili Statewide Exercise | Hurricane
3. **Poland:** NATO Coalition Warrior Interoperability Exercise
4. **Bangladesh:** Pacific Resilience Disaster Response Exercise and Exchange | Earthquake / Tsunami
5. **Oregon:** U.S.-China Disaster Management Exchange | Earthquake
6. **Viet Nam:** Lower Mekong Initiative (LMI) Disaster Response Exercise and Exchange
7. **Indonesia:** Pacific Partnership Exercise Planning

2017 Select Conferences and Workshops

- APEC Emergency Preparedness Working Group
- ASEAN Strategic Policy Dialogue
- PACOM Humanitarian Assistance and Disaster Relief Geospatial Intelligence
- NATO Crisis Disaster Response Center of Excellence
- INFORM Annual Global Partners Meeting
- OpenStreetMap GeoWeek
- CDEMA 10th Caribbean Conference on Comprehensive Disaster Management
- SOUTHCOM DEIC Food Security and Climate Change Conference
- NASA Summit: Strengthening Disaster Risk Reduction Across the Americas

