



Reducing Risk and Building Resilience through Community Preparedness: **Tsunami Ready**

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Goals - Sendai Framework for DRR, 2015-2030

Adopt and implement national and local disaster risk reduction strategies and plans...aimed at preventing...[reducing]existing risk...strengthening... resilience

- Prevent new and **reduce existing disaster risk through the implementation of integrated and inclusive** economic, structural, legal, social, health, cultural, educational, environmental, technological, political and institutional **measures that prevent and reduce hazard exposure and vulnerability to disaster, increase preparedness for response and recovery**, and thus strengthen resilience
- The pursuance of this goal requires the **enhancement of the implementation capacity and capability** of developing countries, in particular the least developed countries, small island developing States, landlocked developing countries and African countries, as well as middle-income countries facing specific challenges, including the mobilization of support through international cooperation for the provision of means of implementation in accordance with their national priorities.

TsunamiReady, Tsunami Ready



- **US ‘ TsunamiReady® ’** *(2001, US NWS, NTHMP)*
 - Guidelines for standard level of capability to mitigate, prepare for, and respond to tsunamis.
 - Promote community preparedness – minimize risk through better risk assessment, planning, education, warning communications
 - 16 states, territories, 195 recognized Communities *(29 Mar 2016)*.
Local, tribal govt, or facility with authority to implement

- **Intl ‘ Tsunami Ready ’** *(UNESCO IOC TOWS–IX, Feb 2016)*
 - Modelled after US TsunamiReady
 - Tsunami Ready Programme Guidelines (community performance-based recognition) available for use / adaption by other ICG regions (e.g., Pacific) *(adopted by ICG/CARIBE-EWS-X, May 2015)*
 - Global priority to increase focus on awareness in communities and among authorities through communication, exercises, training, information, preparedness and recognition programmes



US TsunamiReady®

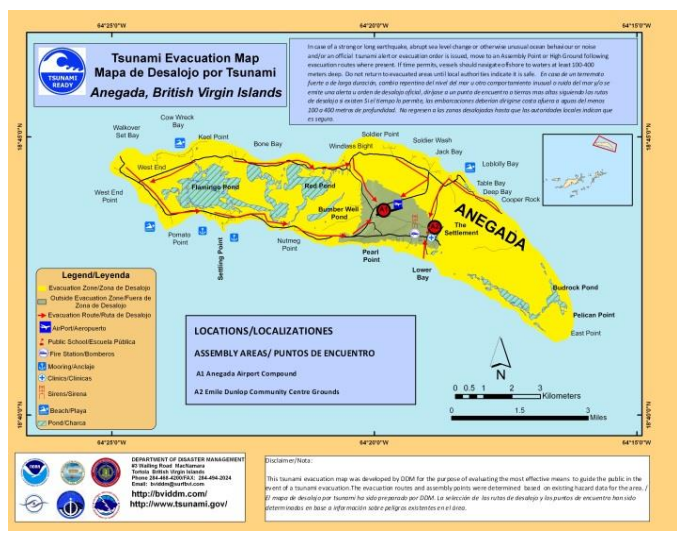
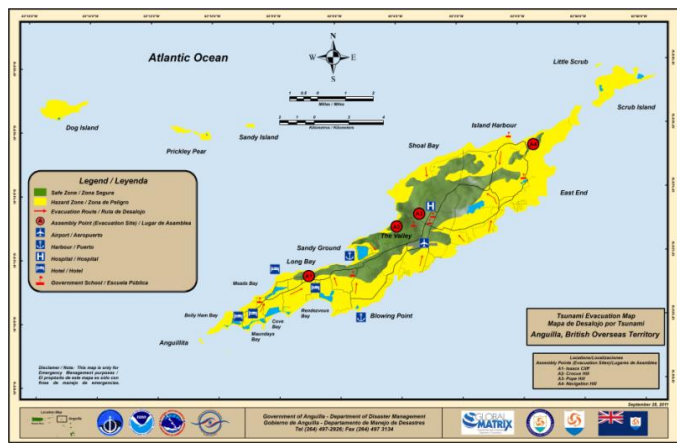
Puerto Rico and US Virgin Islands



- ❑ 43 of 44 coastal municipalities and USVI recognized
- ❑ ~1200 signs
- ❑ ~50 sirens
- ❑ Evacuation maps
- ❑ 24x7 Communications



UNESCO – NOAA PILOT (2013-2015): ANGUILLA, BRITISH VIRGIN ISLANDS 1st International Communities recognized as TsunamiReady



Performance-based Tsunami Community Recognition Programs

US TsunamiReady®

MIT-1	Have designated and mapped tsunami hazard zones.
MIT-2	Include tsunami hazard and community vulnerability information in the community's FEMA-approved multi-hazard mitigation plan.
MIT-3	Install signage, as needed, that identifies for example: (1) tsunami danger area and/or hazard zone (entering and leaving signs), evacuation routes, and assembly area; and (2) provides tsunami response education (go to high ground).
PREP-1	Produce easily understood tsunami evacuation maps as determined to be appropriate by local authorities
PREP-2	Support an ongoing sustained tsunami public education effort. This effort should include the development and distribution of outreach materials.
PREP-3	Support an ongoing sustained tsunami education effort specific to public schools in coastal community pursuing TsunamiReady® recognition.
PREP-4	Hold at least one community-wide outreach or education activity annually.
PREP-5	Conduct community exercises that reinforce the concepts contained in Prep-1 through Prep-4.
PREP-6	Conduct evacuation drills for all public schools in the mapped tsunami evacuation zone to reinforce the concepts contained in Prep-1 through Prep-4.
RESP-1	Address tsunami hazards in the community's emergency operations plan (EOP)
RESP-2	Address tsunami hazards in the emergency operations plans (EOP) for all public schools in the tsunami hazard zone.
RESP-3	Commit to supporting the emergency operations center (EOC) during tsunami incidents if an EOC is opened and activated.
RESP-4	Have redundant and reliable means for a 24-hour warning point (and EOC if activated) to receive official tsunami watch, advisory, and warning alerts.
RESP-5	Have redundant and reliable means for 24-hour warning point and/or EOC to disseminate official tsunami watch, advisory, and warning alerts to the public.
RESP-6	Have Public Alert-certified NOAA Weather Radio (NWR) receivers in critical facilities and public venues.
RESP-7	Conduct emergency operations plan exercises that test at least one component of the community's EOP or one item from Resp-4 through Resp-6.

(June, 2016)

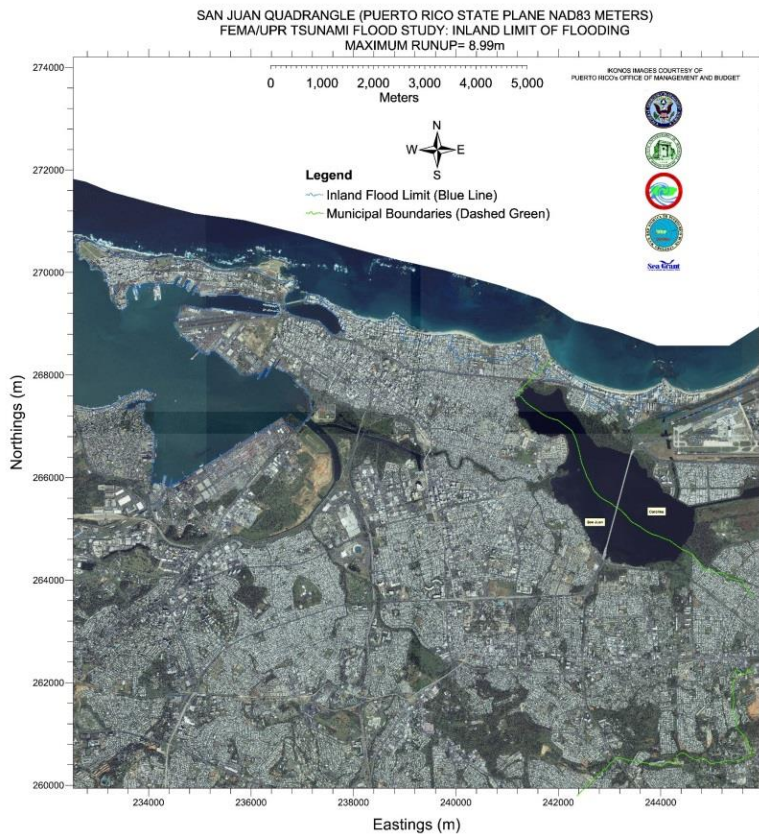
International Tsunami Ready (I-TR)

Categories	Completed
MITIGATION	
Mit-1. Have designated and mapped tsunami hazard zones	✓
Mit-2. Have a public display of tsunami information	✓
PREPAREDNESS	
Prep-1. Produce easily understood tsunami evacuation maps as determined to be appropriate by local authorities in collaboration with communities	✓
Prep-2. Develop and distribute outreach and public education materials	✓
Prep-3. Hold at least three outreach or educational activities <u>annually</u>	✓
Prep-4: Conduct an annual tsunami community exercise	✓
RESPONSE	
Resp-1. Address tsunami hazards in the community's emergency operations plan (EOP)	✓
Resp-2. Commit to supporting the emergency operations center (EOC) during a tsunami incident if an EOC is opened and activated	✓
Resp-3. Have redundant and reliable means for a 24-hour warning point (and EOC if activated) <u>to receive</u> official tsunami threats	✓
Resp-4. Have redundant and reliable means for 24-hour warning point and/or EOC <u>to disseminate</u> official tsunami alerts to the public	✓

(Caribbean Guidelines, 2015)

I-TR Requirements

MIT-1. Inundation Maps



MIT-2. Information Signage



I-TR Requirements

PREP-3. Education / Awareness Activities (3 / yr)



PREP-4. Annual Community Tsunami Exercise



I-TR Requirements

RESP-1. Tsunami Emergency Response Plan

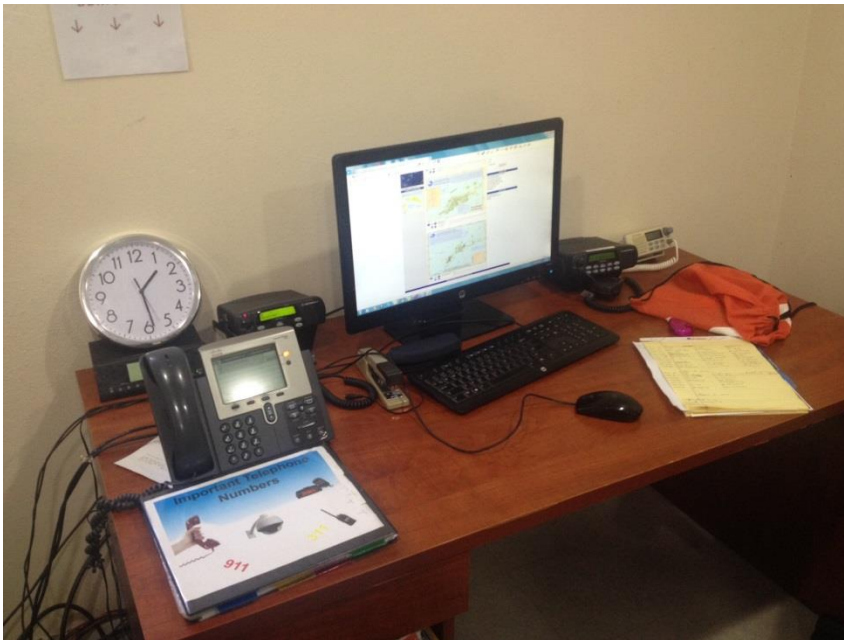
RESP-2. Support EOC during Tsunami



I-TR Requirements

**RESP-3. Redundant,
Reliable Methods to
Receive Intl Threat Info
(24x7 TWFP)**

**RESP-4. Redundant,
Reliable Methods to
Disseminate Alerts to Public**



Additional Comments

- Recognition level is community that has capacity and authority (not too big or too small)
- Recognition every 3 years
- Meets UN Sendai Framework for DRR (2015-30) priorities:
 - Understand Risk
 - Strengthen Governance,
 - Invest in resilience,
 - Enhance Preparedness for effective response.



Pacific, Caribbean:

- Implement International Tsunami Ready (I-TR) ...
- Country adaption needed ...

International Tsunami Ready (I-TR) Recognition Requirements

INTERNATIONAL TSUNAMI READY (I-TR)	DONE
MITIGATION (MIT)	
MIT-1. Have designated and mapped tsunami hazard zones	X
MIT-2. Have a public display of tsunami information	X
PREPAREDNESS (PREP)	
PREP-1. Produce easily understood tsunami evacuation maps as determined to be appropriate by local authorities in collaboration with communities.	X
PREP-2. Develop and distribute outreach and public education materials	X
PREP-3. Hold at least three outreach or educational activities annually	X
PREP-4: Conduct an annual tsunami community exercise.	X
RESPONSE (RESP)	
RESP-1. Address tsunami hazards in the community's emergency operations plan (EOP).	X
RESP-2. Commit to supporting the emergency operations center (EOC) during a tsunami incident if an EOC is opened and activated.	X
RESP-3. Have redundant and reliable means for a 24-hour warning point (and EOC if activated) to receive official tsunami threats.	X
RESP-4. Have redundant and reliable means for 24-hour warning point and/or EOC to disseminate official tsunami alerts to the public.	X





Thank you

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