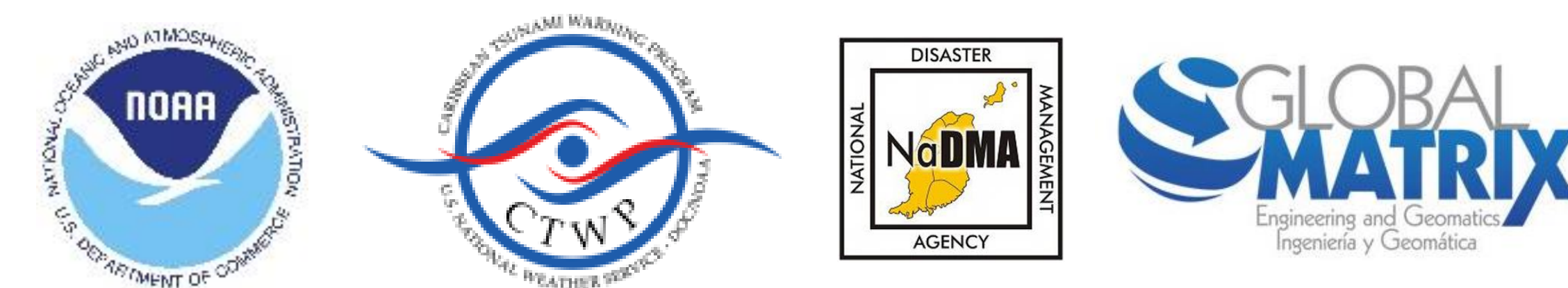


# Implementation of the Tsunami Ready Pilot Project in Grenada



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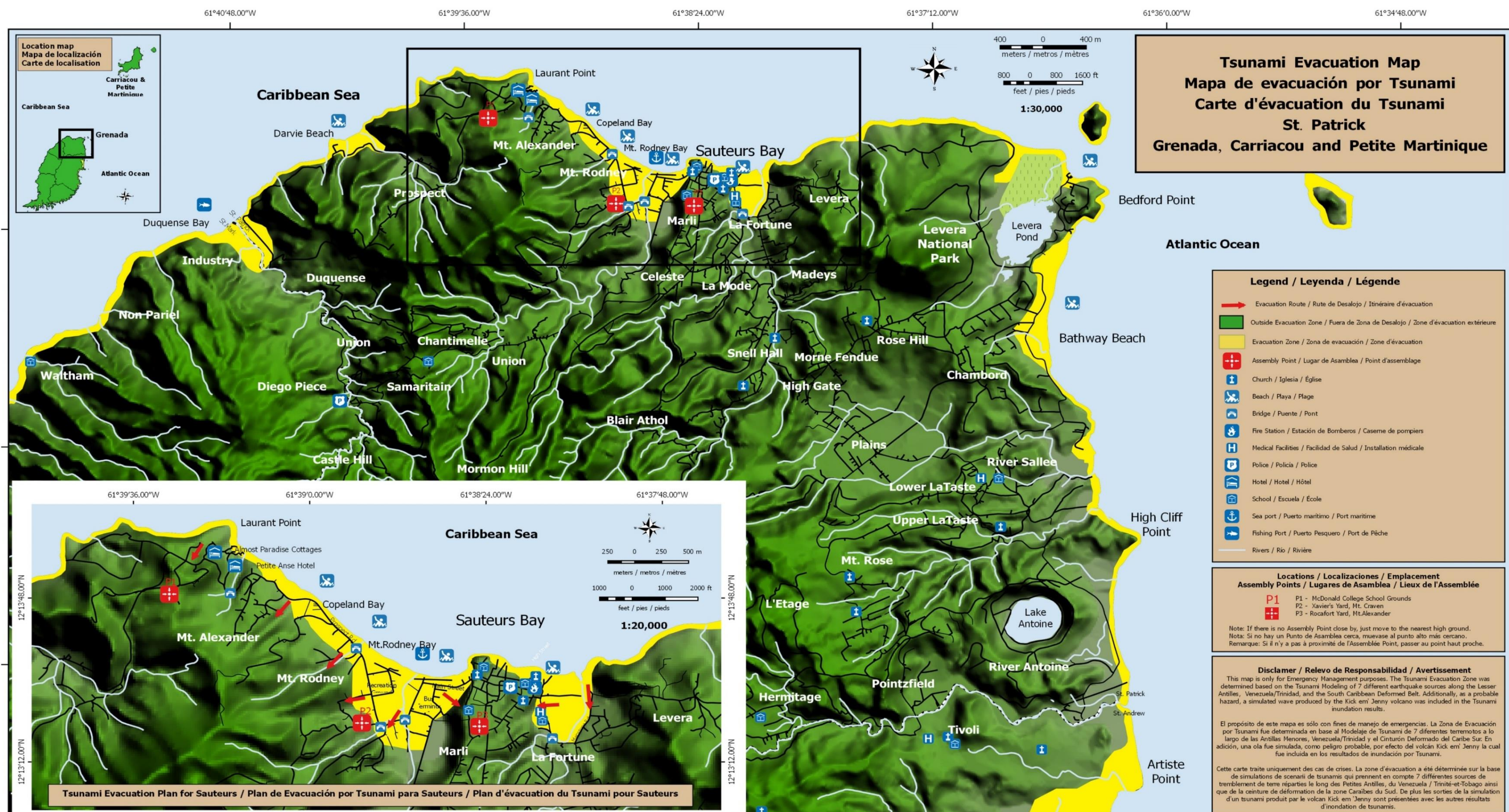
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The **Tsunami Ready Pilot Project** is a community performance based program approved by the UNESCO IOC General Assembly in 2015. It has been implemented by the Caribbean Tsunami Warning Program (NOAA/NWS CTWP) in coordination with the Member States and Territories of the UNESCO IOC Intergovernmental Coordination Group for Tsunami and other Coastal Hazards for the Caribbean and Adjacent regions (CARIBE-EWS) and supported by regional organizations as the Caribbean Tsunami Information Center (CTIC). For the past two years, USAID/OFDA has provided funding to pilot the **Tsunami Ready guidelines**. **Ten (10) elements from three (3) categories for tsunami readiness: mitigation, preparedness and response**, should be met by communities seeking the UNESCO recognition. **Grenada** is currently one of the IOC Member States piloting these guidelines. This country is a tri-island state (Grenada, Carriacou and Petite Martinique), has a total estimated population of 108,339 people and is located in the southern Caribbean. In 1867, a violent earthquake of magnitude 7.5 originating in the Anegada Trough, US Virgin Islands produced a tsunami that reached Gouyave, Grenada with a registered wave height of 3.1 m (10.2 ft). In 1902 pyroclastic flows reaching the sea from the eruption of the Soufriere Volcano of St. Vincent and the Grenadines, could have generated the waves of up to 1 m (3.3 ft) that were observed in harbors of Grenada, Barbados and Saint Lucia (NCEI).

Due to the proximity of the submarine Kick em' Jenny volcano to the northern coast of Grenada, the **St. Patrick parish** was selected for **piloting the project**. Seven different earthquake sources, identified as **tsunami hazards**, along the Lesser Antilles, Venezuela/Trinidad, and the South Caribbean Deformed Belt as well as simulated wave produced by a KeJ volcano were **modeled using COMMIT** by experts of the NOAA/PMEL. The National Disaster Management Agency, NaDMA, with the technical guidance of Global Matrix developed the **evacuation map based on the inundation maps**. In addition to the map, support was provided for guideline Mit-2 (**tsunami signage for evacuation routes, assembly points and informative billboards**). All these elements were **validated during a community meeting**. Grenada has had many **educational activities** and good participation in the **Caribe Wave exercises 2017/18** with around 20% and 8% of total population registered, respectively. The most critical elements that still need to be addressed are related to the response category. A governmental **tsunami plan/SOPs** is in the process of being updated, the **systems 24/7 to receive and disseminate** the tsunami alert levels to the community also need to be validated. Once all guidelines are verified, Grenada and the Caribbean Region will celebrate its **first Tsunami Ready community** where a volcano is being considered as a tsunami source.

Categories	Completed
<b>MITIGATION</b>	
Mit-1. Have designated and mapped tsunami hazard zones.	✓
Mit-2. Have a public display of tsunami information	✓
<b>PREPAREDNESS</b>	
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.	✓
<b>RESPONSE</b>	
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.	



**Tsunami Alert Levels for Grenada, Carriacou and Petite Martinique**  
 Niveaux d'Alerte de Tsunami pour Grenada, Carriacou et Petite Martinique  
 Niveaux d'Alerte aux tsunamis pour Grenada, Carriacou et Petite Martinique

**WARNING AVISO ATTENTION**  
 \*Emergent currents possible  
 Posibles courants pélagiques  
 Courants dangereux possibles  
 \*Move out of the water, off the beaches and out of harbors and marinas  
 Salir del agua, playas, puertos y marinas  
 Sortir de l'eau, de la plage, des ports et marinas  
 \*Follow emergency instructions  
 Suivre les instructions d'urgence

**ADVISORY ADVERTENCIA ADVERTISSEMENT**  
 \*Distant Event  
 Eventos Lejanos  
 Origine lointaine  
 \*Local threat under evaluation  
 Peligro local bajo evaluación  
 Menace locale en cours d'évaluation  
 \*Stay tuned for further official information  
 Atención para más información oficial  
 Restez à l'écoute pour plus d'informations officielles

**WATCH VIGILANCIA VEILLE**  
 \*All small or distant event with no local threat  
 Eventos pequeños o distantes sin peligro local  
 Evénement mineur ou lointain sans danger local  
 \*No warning, advisory or watch issued  
 No se ha emitido Alerta, Advertencia o Vigilancia  
 Pas d'Alerte, d'avisement ou Veille émise  
 Information only  
 Seule information  
 Pour information seulement

**BULLETIN BOLETÍN BULLETIN**

**TSUNAMI SIGNS**

**EVACUATION ROUTE**  
 Move away from the Tsunami Hazard Zone

**EVACUATION ROUTE**  
 Move away from the Tsunami Hazard Zone

**TSUNAMI HAZARD ZONE**  
 IN CASE OF AN EARTHQUAKE OR ANY OFFICIAL MESSAGE, GO TO HIGH GROUND OR INLAND

**TSUNAMI ASSEMBLY POINT**  
 Wait for official all clear



Validation and Consultancy process of the Evacuation Map with locals at Sauteurs, St. Patrick



Public display of Tsunami Info – Sauteurs Bay



Small business, VC process – Sector Levera



Community Meeting – St. Patrick, Grenada



Communications Room - NaDMA