



COSTA RICA

National Tsunami Monitoring System

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Republic of Costa Rica



- Located in Central America.
- It is bordered by Nicaragua to the north and Panama to the south. The Caribbean Sea is to the east and the Pacific Ocean is to the west.

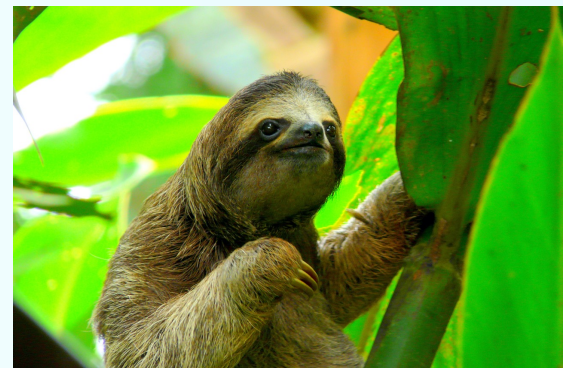
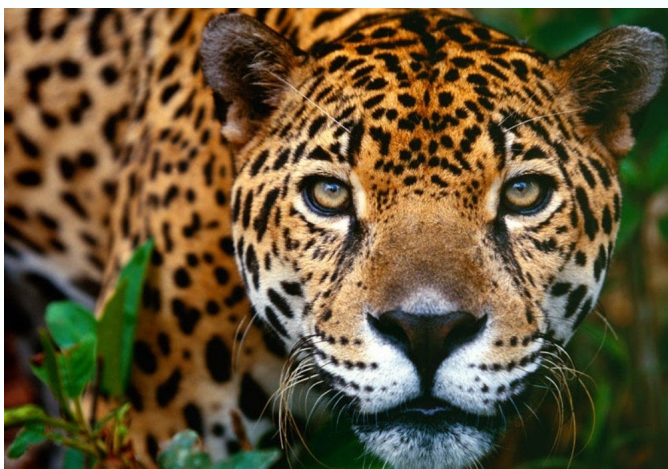
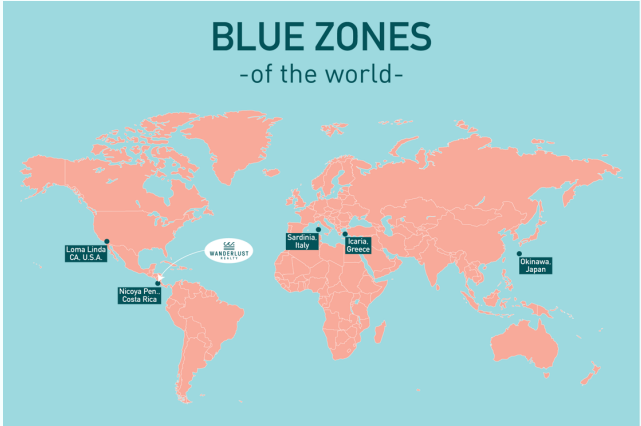


General topics



- Capital: San José
- Language: Spanish
- Money: Colon
- The varied climatic conditions give rise to life zones ranging from dry tropical forest to the wastelan.
- There are two major mountain ranges in the country: the Cordillera Volcanica and the Cordillera de Talamanca.
- Costa Rica has occasional volcanic eruptions and earthquakes.





SINAMOT works in 4 pillars of Early Warning Systems

1

Disaster risk knowledge

- Are key hazards and related threats identified?
- Are exposure, vulnerabilities, capacities and risks assessed?
- Are roles and responsibilities of stakeholders identified?
- Is risk information consolidated?

Detection, monitoring, analysis and forecasting of the hazards and possible consequences

- Are there monitoring systems in place?
- Are there forecasting and warning services in place?
- Are there institutional mechanisms in place?

3

Warning dissemination and communication

- Are organizational and decision-making processes in place and operational?
- Are communication systems and equipment in place and operational?
- Are impact-based early warnings communicated effectively to prompt action by target groups?

Preparedness and response capabilities

- Are disaster preparedness measures, including response plans, developed and operational?
- Are public awareness and education campaigns conducted?
- Are public awareness and response tested and evaluated?

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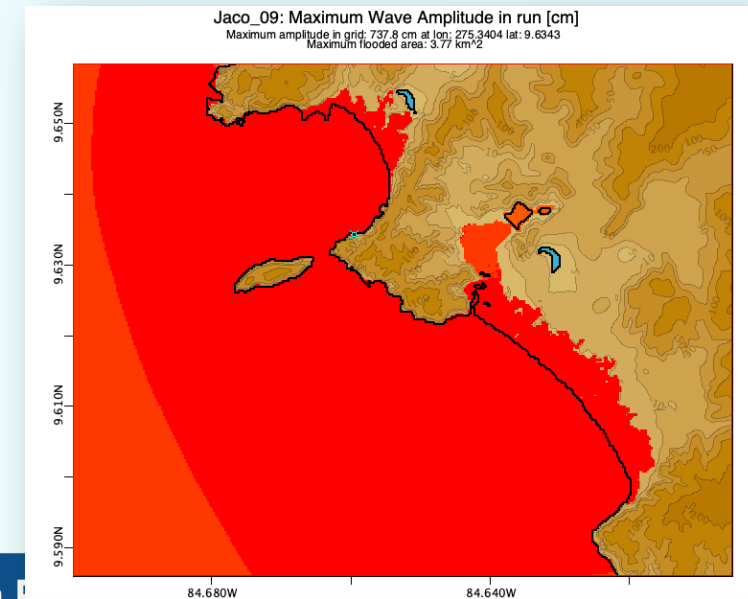
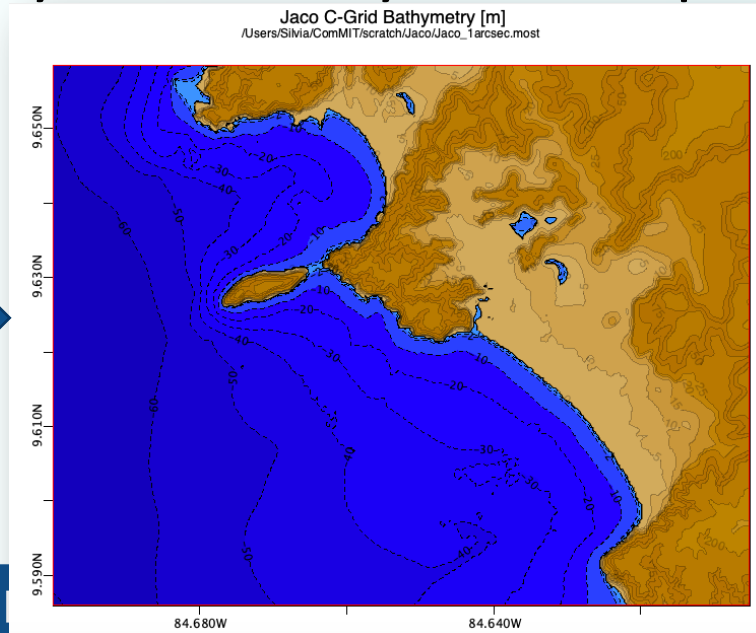
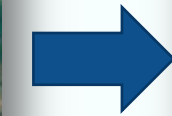
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Tsunami Hazard Assessments

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- Using deterministic approach with multiple scenarios
- Tsunami inundation numerical modeling
- Perform bathymetric surveys when possible and needed
- Results also employed officially for land planning and warnings



Tsunami Monitoring and Warning

1

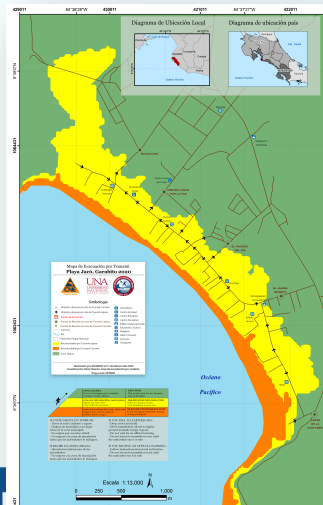
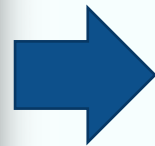
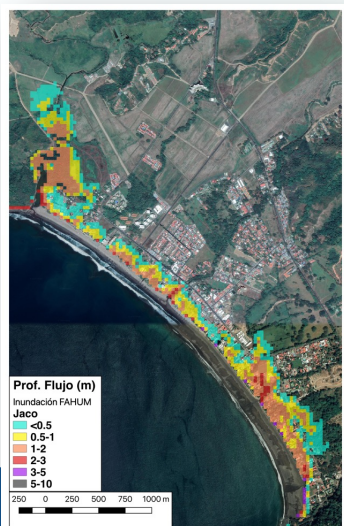
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- We manage the sea level stations network in Costa Rica
- We are National Tsunami Warning Center (NTWC) for Costa Rica (according with UNESCO/IOC standards)



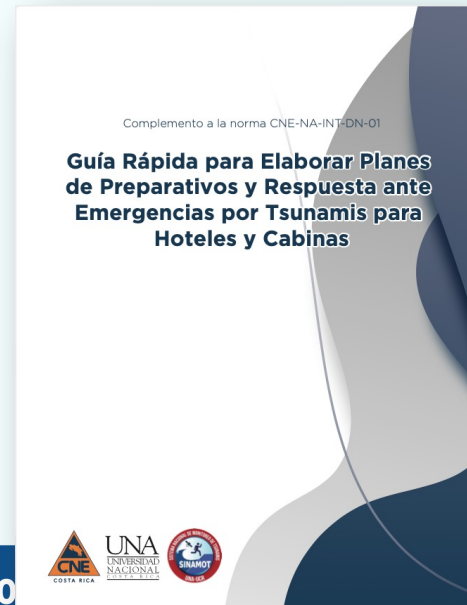
Tsunami Evacuation Maps and Plans Project 1 4

- Funded by National Emergency Commission (CNE) since 2016
- So far have built 51 maps for 62 communities at both shores (of 300+ coastal communities)
- Using GIS and participative cartography ensures communities commitment



Tsunami preparedness: we work with the people 4

- Communities
- Public institutions: 1st responders, kindergartens, schools, Ministries of Education, Transport, Environment, Tourism, etc.
- Private institutions such as hotels, ports, marinas, etc.

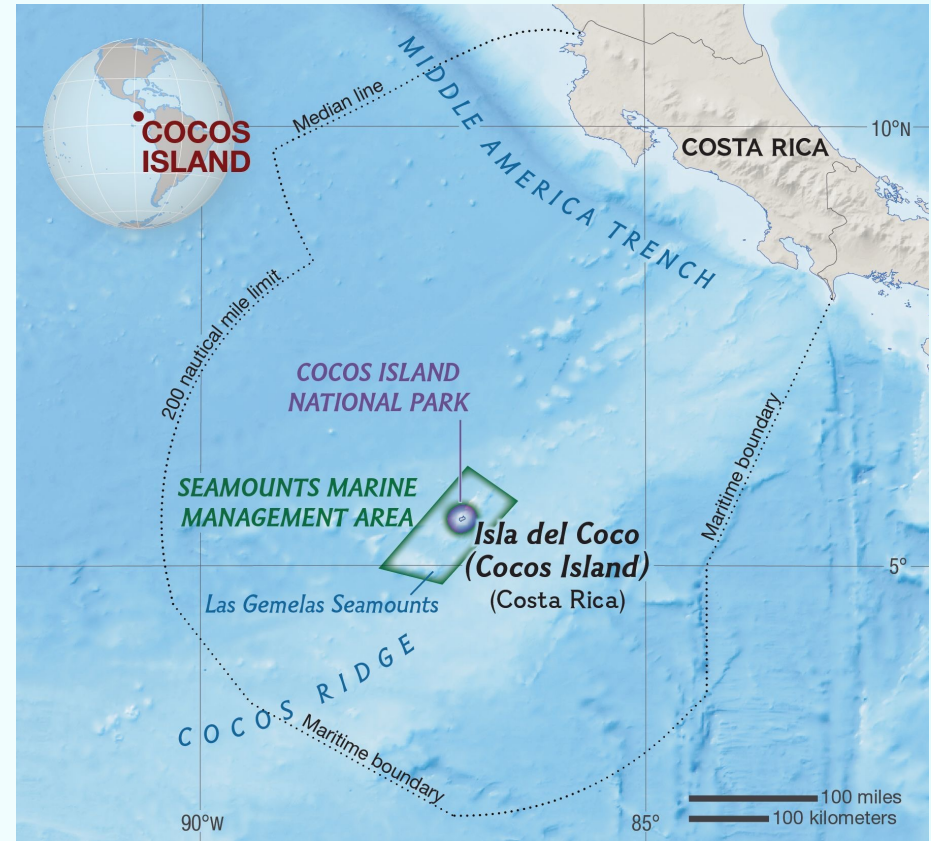


Project with National Parks

- To increase tsunami preparedness and reduce climatic vulnerability
- National Parks are a main touristic attraction
- Work with rangers, touristic guides and neighboring communities
- Linked with pilot project from MAB & TSU programs from UNESCO in Manuel Antonio
- Submitted as Decade Action



Just now: Cocos Island



Tsunami Ready

- We have recognized 10 communities
- Many more to come!



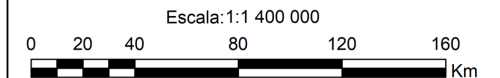
Costa Rica, Comunidades Tsunami Ready, 2023 Simbología

Comunidades Tsunami Ready

Categoría

- Vigente
- En Proceso
- Vencido

Diagrama de Ubicación



Fuentes:
 Sistema Nacional de Información Territorial (SNIT)
 Sistema Nacional de Monitoreo de Tsunamis (SINAMOT)
 Proyección: Sistema Geodésico Mundial de 1984
 Datum: WGS-84
 Elipsoide: WGS-84
 Diseño Cartográfico: Elester Cubero Campos
 Fecha: Abril del 2023



TSUNAMI READY INDICATORS	
I	ASSESSMENT (ASSESS)
1	ASSESS-1. Tsunami hazard zones are mapped and designated.
2	ASSESS-2. The number of people at risk in the tsunami hazard zone is estimated.
3	ASSESS-3. Economic, infrastructural, political, and social resources are identified.
II	PREPAREDNESS (PREP)
4	PREP-1. Easily understood tsunami evacuation maps are approved.
5	PREP-2. Tsunami information including signage is publicly displayed.
6	PREP-3. Outreach and public awareness and education resources are available and distributed.
7	PREP-4. Outreach or educational activities are conducted.
8	PREP-5: A community tsunami exercise is conducted at least every two years.
III	RESPONSE (RESP)
9	RESP-1. A community tsunami emergency response plan is approved.
10	RESP-2. The capacity to manage emergency response operations during a tsunami is in place.
11	RESP-3. Redundant and reliable means to timely receive 24-hour official tsunami alerts are in place.
12	RESP-4. Redundant and reliable means to timely disseminate 24-hour official tsunami alerts to the public are in place.

UNESCO/IOC TR Indicators



Thank you!

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