

## Annex 3 to IOC Circular Letter, 3034

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National Reports will be posted to the ICG/CARIBE-EWS session website.

**NATIONAL REPORT**  
**Submitted by**  
**TNC of COSTA RICA**  
Dr. Silvia Chacon Barrantes, SINAMOT

### **BASIC INFORMATION**

#### **1. Tsunami Standard Operating Procedures for a Local Tsunami (when a local tsunami hazard exists)**

- *What organization identifies and characterizes tsunamigenic events?*

SINAMOT obtains seismic data from OVSICORI, RSN and/or LIS (the three seismic networks in Costa Rica). These data include: Mw, depth, location, and source (local fault, subduction, etc.)

- *What is the threshold or criteria for declaring a potential tsunami emergency?*

A coastal earthquake  $M_w \geq 6.5$

- *What organization acts on the information provided by the agency responsible for characterizing the potential tsunami threat?*

CNE

- *How is the tsunami information (warning, public safety action, etc.) disseminated within country? Who is it disseminated to?*

If time is enough, it is sent to Municipal Emergency Committees through radio and telephone. They should communicate to coastal communities.

- *How is the emergency situation terminated?*

When SINAMOT recommends and CNE decides. If there are no tsunami reports near the source region within two hours.

#### **2. Tsunami Standard Operating Procedures for a Distant Tsunami (when a distant tsunami hazard exists)**

- *What organization identifies and characterizes tsunamigenic events?*

We receive seismic information from PTWC, USGS and CISN. This information is processed by SINAMOT, which oversees the tsunami threat.

- *What is the threshold or criteria for declaring a potential tsunami emergency?*

There are several criteria. Seismic magnitude, depth, travel time, historical events, etc.

- *What organization acts on the information provided by the agency responsible for characterizing the potential tsunami threat?*

CNE

- *How is the tsunami information (warning, public safety action, etc.) disseminated within country? Who is it disseminated to?*

The CNE communicates the information to radio bases in coastal communities, to the officer in turn and to the link officers of the affected regions. They shall communicate to the Regional, Local and Community Emergency Committees, and those Committees to the public.

- *How is the emergency situation terminated?*

When SINAMOT recommends it to the CNE, the CNE decides and communicates it further.

- *For Distant Tsunami Procedures:  
What actions were taken in response to warnings issued by PTWC and/or US NTWC, during the intersessional period?*

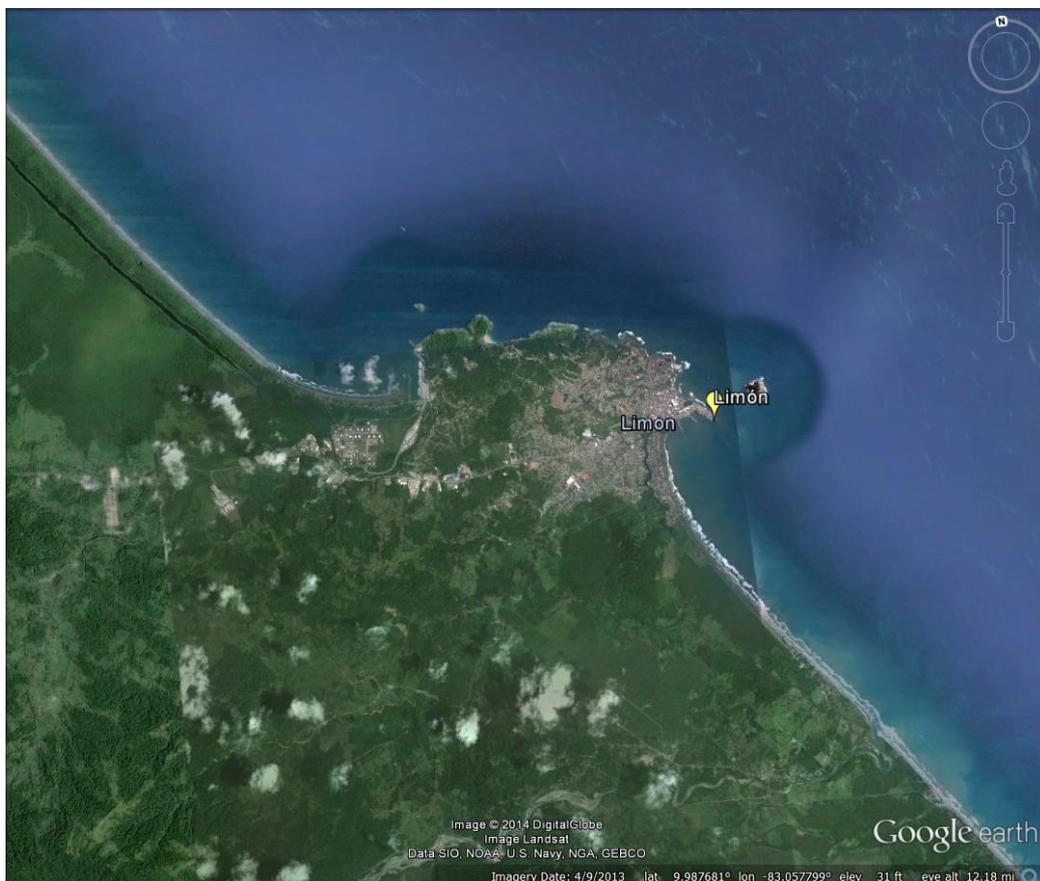
SINAMOT analyzed the information for the Tsunami Bulletins issued for the Caribbean coast during the intersessional period and sent a Report to CNE. In all cases there was no tsunami threat for Costa Rica. In all cases the information was posted at our Facebook and Twitter page.

### 3. National Sea Level Network

*Please include a table with position and description of stations/sensors, and a map.*

<b>Name</b>	<b>Code</b>	<b>Lat.</b>	<b>Lon.</b>	<b>Status</b>	<b>Sensors</b>	<b>Rec. Rate</b>	<b>Transm. Rate</b>
Limón (Caribbean coast)	limon, limn	9.9886	-83.0203	Operational	1.Pressure 2.Radar	1min	5min

All stations are administrated by SINAMOT Program from the National University of Costa Rica. Same contact person as TNC.



Despite a donation of four tide gauges was received late 2024, it was not possible to deploy any at the Caribbean coast due to lack of required coastal infrastructure. All the gauges were installed at the Pacific coast.

**4. Information on Tsunami occurrences**

*Please include sea level observations, pictures, wave arrival descriptions, public, media, or other responses to warnings, lessons learned, etc.*

No tsunamis occurred during the intersessional period

**5. Web sites (URLs) of national tsunami-related web sites**

Web sites: <https://www.tsunami.una.ac.cr/>

[www.cne.go.cr](http://www.cne.go.cr)

Facebook: <https://www.facebook.com/sinamot.cr>

<https://www.facebook.com/CNECostaRica>

Twitter: [https://twitter.com/SINAMOT\\_CR](https://twitter.com/SINAMOT_CR)

Instagram: [https://www.instagram.com/sinamot\\_una](https://www.instagram.com/sinamot_una)

YouTube: <https://www.youtube.com/channel/UCtuTFhqaanzDLQfiPDzX7iA>

**6. Summary plans of future tsunami warning and mitigation system improvements.**

We started two new projects in 2025. One is to update Tsunami Hazard Assessment by including stochastic seismic sources and probably also landslides.

The second project is to work with Municipalities rather than with communities to increase coverage.

**NATIONAL PROGRAMMES AND ACTIVITIES INFORMATION**

**7. EXECUTIVE SUMMARY**

*Please provide a brief statement of no more than one page addressing all items discussed in the Narrative section of the National Report (below)*

Costa Rica has its first Tsunami Ready community in the Caribbean coast: Cahuita and strong work is being done with Tortuguero (north Caribbean coast) as part of the UNA funded project on decreasing vulnerability at National Parks and adjacent communities. With a new project, SINAMOT will work in tsunami preparedness and resilience at Municipality level, starting with Talamanca Municipality at the south Caribbean coast. A second project by SINAMOT will update the Tsunami Hazard Assessments at both coasts by including stochastic seismic sources and landslides. SINAMOT received the donation of four tide gauges by the European Commission but none were installed in the Caribbean due to lack of appropriate infrastructure.

**8. NARRATIVE**

*Detailed description of innovations or modifications to National tsunami warnings procedures or operations since last National Report, tsunami research projects, tsunami mitigation activities and best practices (especially in preparedness and emergency management), tsunami exercises, as well as public education programmes or other measures taken to heighten awareness of the tsunami hazard and risk.*

During the intersessional period Costa Rica recognized its first Tsunami Ready community at the Caribbean coast: Cahuita, recognized in June 2024. This was possible due to the project on Reducing tsunami and climate vulnerability in coastal wild protected areas, funded entirely by the National University Costa Rica, which is an endorsed action of the Ocean Decade Tsunami Program (OD 25.4).

We are currently working on a second Caribbean National Park: Tortuguero, however, due to its complex characteristics, it's unlikely that it will achieve the recognition. Tortuguero town is in a sand bar, inside the National Park. There are no high grounds, and it is unlikely that vertical evacuation infrastructure can be built due to soil characteristics. A meeting with the Local Emergency Committee will be held in May to discuss options.

A bathymetric survey was performed in Manzanillo, close to the Panamá border, and a tsunami inundation modeling will be done in the following months to update the existing tsunami evacuation map (done with the fixed-height approach). Then, we will work with the Talamanca Municipality and Emergency Committee using a Municipality approach to increase coverage.

In January 2025, two new tsunami projects started at SINAMOT. One is to update Tsunami Hazard Assessment by including stochastic seismic sources and probably also landslides. The second project is to work with Municipalities rather than with communities to increase coverage and strengthen the involvement of local governments. Costa Rica received a donation of four tide gauges by the European Commission, unfortunately, none of them can be deployed at the Caribbean due to lack of appropriate infrastructure. Two of them were installed already and the other two will be installed in the upcoming months, all at the Pacific coast.

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