

National Reports will be posted to the ICG/PTWS-XXXI website without TWFP contact details

NATIONAL REPORT
Submitted by Colombia

BASIC INFORMATION

1. ICG/PTWS Tsunami National Contact (TNC)

The person designated by a Member State to an Intergovernmental Coordination Group (ICG) to represent his/her country in the coordination of international tsunami warning and mitigation activities. The person is part of the main stakeholders of the national tsunami warning and mitigation system. The person may be the Tsunami Warning Focal Point, from the national disaster management organization, from a technical or scientific institution, or from another agency with tsunami warning and mitigation responsibilities.

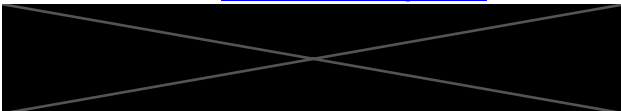
Name: Captain Juan Camilo Forero Hauzeur

Title: Executive Secretary of the Colombian Ocean Commission

Organization: Colombian Ocean Commission

Postal Address: Cra. 86 #51-66, Edificio WBC World Business Center Oficina No. 306 –Bogotá D.C.

E-mail Address: oceano@cco.gov.co



2. ICG/PTWS Tsunami Warning Focal Point (TWFP)

A 24 x 7 point of contact (office, operational unit or position, not a person) officially designated by the NTWC or the government to receive and disseminate tsunami information from an ICG Tsunami Service Provider according to established National Standard Operating Procedures. The TWFP may or not be the NTWC.

TWFP Agency name:

(if different from NTWC agency)

TWFP Agency Contact or Officer in Charge *(if different from NTWC Agency):*

Name:

Position:

Telephone Number:

Email Address:

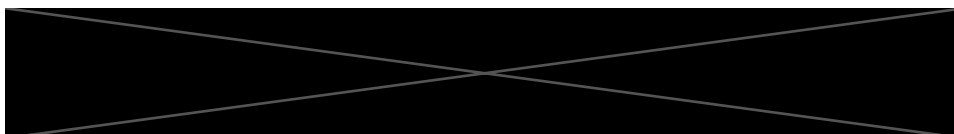
Postal Address:

TWFP 24x7 point of contact (office, operational unit or position, **not a person**):

Name: Vice-Admiral John Fabio Giraldo Gallo

Position: Director General Maritime

Responsible Organization: General Maritime Directorate



National Tsunami Warning Centre (if different from the above)

A centre officially designated by the government to monitor and issue tsunami warnings and other related statements within their country according to established National Standard Operating Procedures.

NTWC Agency Name:

NTWC Agency Contact or Officer in Charge (person):

Name:

Position:

Telephone Number:

Email address:

Postal Address:

3. Tsunami Advisor(s), if applicable

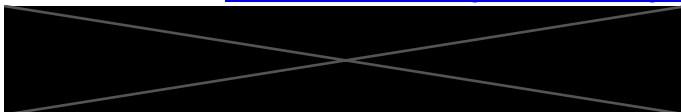
(Person, Committee or Agency managing Tsunami Mitigation in country)

Name: Carlos Alberto Carillo

Title: Director General National Unit for Disaster Risk Management

Postal Address: N/A

E-mail Address: correspondencia@gestiondelriesgo.gov.co



4. Tsunami Standard Operating Procedures for a Local Tsunami (when a local tsunami hazard exists)

In Colombia there is a National Tsunami Detection and Warning System (SNDAT), made up of the Colombian Geological Service (SGC), the National Unit for Disaster Risk Management (UNGRD) and the Directorate General for Maritime Affairs (DIMAR).

The responsibility of these entities is established and articulated in the SNDAT protocol.

The National Tsunami Detection and Warning Protocol (SNDAT), version 2022, aims to provide the National Disaster Risk Management System with an instrument that allows it to coordinate actions, unify information and issue warnings in the event of seismic events, volcanic eruptions in the Pacific, Caribbean or Atlantic basin with the potential to generate a tsunami and reports of disturbances in the sea level in the Pacific or Colombian Caribbean associated with a tsunami of unknown source, which may affect the coastal and insular zones of the Pacific and Caribbean of Colombia.

For felt earthquakes, emphasis is placed on socializing with the community the concept of PERSONAL ALERT, which consists of the fact that upon perception of ANY of the natural signals of a tsunami, the community should evacuate without waiting for an official order, going to the meeting points or areas of less exposure. The community can perceive the natural signs of a tsunami as follows:

ALERTA PERSONAL.



SENTIR

Un sismo fuerte que dificulta a las personas permanecer en pie o caminar.

OBSERVAR

Un aumento o retroceso repentino del nivel del mar.

ESCUCHAR

Un ruido extraño o fuerte que viene del mar.

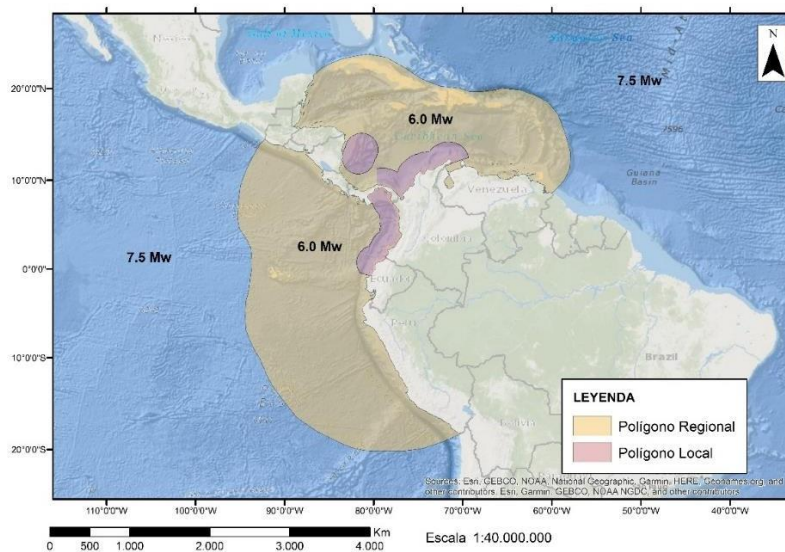


Si se percibe cualquiera de las condiciones anteriores, las personas no deben esperar una orden oficial de evacuación, se deben dirigir de inmediato a los puntos de encuentro o zonas de menor exposición (zonas altas y/o alejadas de la costa).

Residents, visitors and the community in general in coastal areas should be aware of their responsibility for their own safety in the face of the possibility that they may be affected by a tsunami.

For the application of this protocol, the following regions are considered according to the type of tsunami, as well as the seismic magnitude thresholds for the activation and issuance of bulletins by SNDAT:

POLÍGONOS Y UMBRALES DE ACTIVACIÓN DEL SNDAT



Once DIMAR-CNAT receives the seismic information from the official sources, it proceeds with the evaluation of the event, in order to issue a tsunami status, which is described below:

STATUS	GENERAL CHARACTERISTICS	ACTIONS REQUIRED
INFORMATIVE	Event that does not require any preventive action by the SNGRD.	Disseminate information on the non-existence of danger to the SNDAT, SNGRD and the community in general.
MONITORING	Event of regional or distant origin that is being evaluated in order to determine whether or not there is a danger to the Colombian coast.	Disseminate information to SNDAT, SNGRD and the community in general indicating that the assessment of the event is ongoing. A new bulletin should be expected.
WARNING	An event of local, regional or distant origin capable of producing strong currents or tsunami waves that may cause flooding and pose a hazard to people at sea or near the coast.	Disseminate information to SNDAT, SNGRD and the community in general indicating the likelihood of strong currents or tsunami waves that could cause flooding and pose a danger to people at sea or near the coast. ORDER THE TOTAL CLOSURE OF LOW TIDE AREAS, BEACHES, JETTIES, PIERS AND TOURIST JETTIES AND DISPLACEMENT TO LESS EXPOSED AREAS (HIGH AREAS AND/OR AWAY FROM THE COAST). BAN ON ACTIVITIES AT SEA AND SPECIFIC MEASURES FOR MARITIME TRAFFIC, PORTS, DOCKS AND PIERS. Activation of National Crisis Room. The UNGRD will establish the Crisis Room communication link with the SNDAT entities.
ALERT	It is declared when there is a high probability of a tsunami accompanied by strong and widespread flooding along the Colombian coast.	Disseminate information to SNDAT, SNGRD and the community in general indicating the high probability of a tsunami accompanied by strong and widespread flooding on the Colombian coasts ORDER THE EVACUATION OF THE AREAS THAT COULD BE AFFECTED, TO LESS EXPOSED SITES. PROHIBITION OF ACTIVITIES AT SEA, TOTAL CLOSURE OF BEACHES, JETTIES AND LOW TIDE AREAS. SPECIFIC MEASURES FOR MARITIME TRAFFIC, PORTS, HARBOURS, PIERS AND WHARFS. Activation of National Crisis Room. The UNGRD will establish the Crisis Room communication link with the SNDAT entities.

ESTADO	CARACTERÍSTICAS GENERALES	ACCIONES REQUERIDAS
CANCELATION	It is declared when, according to DIMAR-CNAT assessment, it is determined that NO further tsunami waves will arrive. It is generated after the state of WARNING or ALERT.	Inform authorities and the general public that NO further tsunami waves will arrive. Precautionary and evacuation orders that have been issued should be maintained until further notice from local authorities.

From the bulletin generated by DIMAR-CNAT in which the status of the event is issued, the UNGRD issues the information for the operational entities and the population in general, including recommendations and actions according to the status. Based on this information, each municipality takes the corresponding actions.

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

Aplica lo descrito en el numeral 4.

For each situation, please provide the following:

- *What organization identifies and characterizes tsunamigenic events?*

Colombian Geological Survey - SGC

For earthquakes that may generate a tsunami of local origin, its function is to detect the seismic event by determining the parameters (location, magnitude, depth, instrumental intensity and focal mechanism).

For earthquakes that may generate a tsunami of regional and distant origin, its function is to take the information from international sources (location, magnitude and depth) and communicate it to the SNDAT entities.

The SGC activates the SNDAT from the evaluation of the parameters of the earthquake and monitors the event, updating the event information for earthquakes of local or regional origin with a magnitude equal to or greater than 6.0 and for distant earthquakes with a magnitude equal to or greater than 7.5.

Issue bulletins to all SNDAT entities and to the community in general.

General Maritime Directorate, National Tsunami Warning Centre (DIMAR - CNAT)

Receive and analyse seismic information, PTWC (Tsunami Service Provider for the Pacific Ocean Basin and Caribbean Sea) bulletins, sea level information and other inputs necessary to assess the possibility of a tsunami generation or propagation in Colombia.

Receive and analyse seismic information, PTWC bulletins, sea level information and other inputs necessary to assess the potential for the generation or propagation of a tsunami in Colombia.

Declare the status of the tsunami event (Informational, Watch, Warning, Alert) and

recommendations for action within the scope of its competencies.

Issue technical tsunami information bulletins to SNDAT.

Through their Port Captaincies and Traffic Control and Maritime Surveillance Stations - ECTVM, disseminate tsunami information to ports, docks, piers, wharfs and vessels.

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

For earthquakes of local or regional origin, the SNDAT is activated with a magnitude equal to or greater than 6.0 and for distant earthquakes with a magnitude equal to or greater than 7.5.

The criteria for determining a possible emergency are based on the analysis and evaluation carried out by DIMAR-CNAT to declare a state of: Warning or Alert (also defined in numeral 4).

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

Based on the information issued by DIMAR-CNAT as TWFP in the technical bulletins of threat assessment, the National Unit for Disaster Risk Management informs and activates the National Disaster Risk Management System according to the mechanisms established for this purpose. Additionally, the UNGRD issues situational reports and official press releases to all entities of the system and to the community.

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

The National Unit for Disaster Risk Management - UNGRD coordinates the formulation of national instruments for tsunami risk preparedness and response. In this context, the National Tsunami Detection and Warning Protocol was developed and updated, with the aim of providing the National Disaster Risk Management System - SNGRD with an instrument that allows it to coordinate actions, unify information and issue warnings for seismic events, volcanic eruptions in the Pacific, Caribbean or Atlantic basin with the potential to generate a tsunami and report disturbances in the sea level in the Pacific or Colombian Caribbean associated with a tsunami of unknown source.

This protocol establishes a framework of action for SNDAT entities, defining responsibilities, procedures for action, information to be disseminated, as well as the channels and means of communication to be used.

The dissemination of information on tsunamis in Colombia, including warnings and safety recommendations, from the national level is carried out through the protocol. The information is disseminated through telephone calls and e-mails to the Departmental Coordinators and Municipal Risk Management Coordinators, and through their social networks and press releases to the general public.

For more information, please visit:
https://pubhtml5.com/pxou/fnbw/Protocolo_Nacional_de_Detecci%C3%B3n_y_Alerta_de_Tsunami/89

On the other hand, the UNGRD provides technical assistance to territorial institutions for the development of their own instruments, including the Specific Tsunami Response Protocols.

In addition, during the year, spaces are created to strengthen emergency response capacity through drills and simulations at the national and territorial levels.

- *How is the emergency situation terminated?*

From the guidelines of the National Tsunami Detection and Warning Protocol, DIMAR-CNAT determines that no more tsunami waves will arrive, a 'cancellation' bulletin is generated informing that the tsunami threat has passed. This bulletin is issued to SNDAT entities.

After the publication of the bulletin, the UNGRD issues a situation report for the territorial entities to initiate actions of Damage Assessment and Needs Analysis - EDAN and decision making regarding the instances that will be used for the response depending on the level of emergency that arises and in coordination with the National Strategy for Emergency Response.

- *For Distant Tsunami Procedures:*
What actions were taken in response to tsunami bulletins issued by PTWC, NWPTAC, and/or SCSTAC during the intersessional period?

During the period September 2023 to January 2025 the SNDAT was activated for the following events and the following actions were executed:

2023-12-02 magnitude 7.7 earthquake Mindanao, Philippines, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

2024-01-01 magnitude 7.5 earthquake Kanazawa Japan, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

2024-02-04 magnitude 7.5 earthquake Taiwan, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

2024-06-16 magnitude 6.0 earthquake off southern coast of Peru, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

2024-06-24 magnitude 7.2 earthquake off the coast of Peru, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

2024-06-29 magnitude 6.1 earthquake off southern coast of Peru, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

2024-08-28 magnitude 6.1 earthquake off the south coast of La Libertad, El Salvador, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

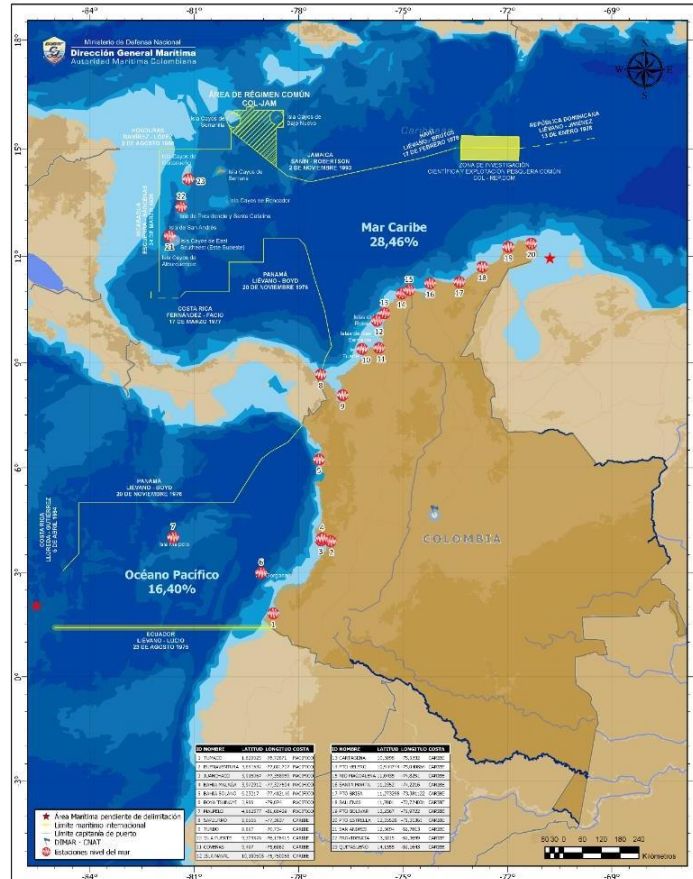
2024-10-12 magnitude 6.2 earthquake off the coast of Tamarindo, Costa Rica, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

2025-01-05 magnitude 6.2 earthquake off the coast of El Salvador, Colombia issued a bulletin declaring INFORMATIVE status (No tsunami threat).

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

DIMAR has the following network of sea level monitoring stations for the Pacific.

Localidad	Latitud [GG°MM'SS"]	Longitud [GGG°MM'SS"]	Tipo sensor	Intervalo registro	Intervalo transmisión
Bahía Málaga	3°58'21" N	77°19' 39" W	OTT/ 2 Radar	1 min	2 min
Bahía Solano	06°13'58.36"N	77°24'43.68"W	OTT/ Burbujeo Radar	1 min	2 min
Buenaventura	3°53'31.2"N	77°4'44.4"W	OTT/ Burbujeo Radar	1 min	2 min
Juanchaco	03°54'54.36"N	77°21'32.7"W	OTT/ 2 Radar	1 min	2 min
Malpelo	04°00'33"N	81°36'33"W	OTT/ 2 Radar	1 min	5 min
Tumaco	01°49'12"N	78°43'43.32"W	OTT/ Radar	1 min	2 min
Candelilla de la Mar	1°28'30.93"N	78°50'45.33"W	2 Radar	1 min	2 min



6. Information on Tsunami occurrences

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

There were no tsunamis affecting the Colombian Pacific coast during the period.

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

- General Maritime Directorate (DIMAR):
<https://www.dimar.mil.co/>
<https://www.dimar.mil.co/tsunami>
- Unidad Nacional para la Gestión del Riesgo de Desastres (UNGRD):
<https://portal.gestiondelriesgo.gov.co/>
- Servicio Geológico Colombiano (SGC): <https://www.sgc.gov.co/>

8. Summary plans of future tsunami warning and mitigation system improvements.

This information will be used to aid the development of the PTWS Medium Term Strategy and the PTWS Implementation Plan.

- a. DIMAR will continue with the development of tsunami inundation maps for the remaining 21 municipalities in the Colombian Pacific.
- b. DIMAR will continue with the tsunami hazard awareness and education campaigns aimed at the Pacific coast communities.
- c. UNGRD, DIMAR and CCO will develop the 'Tsunami Resilient Communities' project of the National Disaster Risk Management Plan, for the implementation of the Tsunami Ready programme in the coastal municipalities of the Colombian Pacific.
- d. UNGRD and DIMAR formulate socialization campaigns of tsunami inundation maps in 12 coastal municipalities of the Colombian Pacific in order to develop workshops with territorial authorities for the incorporation of these studies in the Municipal Risk Management Plans and Specific Emergency Response Protocols. In addition, workshops with the community to generate spaces for social appropriation of knowledge of the tsunami hazard and to build prepared and resilient communities.
- e. DIMAR will continue to conduct tsunami exercises in coordination with the Southeast Pacific Tsunami Warning Working Group (SEP WG SEP).
- f. UNGRD will carry out pre-contract processes for the procurement of a DART 4G buoy system in the Pacific to strengthen the DIMAR National Tsunami Warning Centre.
- g. DIMAR will carry out technological renewal of the National Tsunami Warning Centre.
- h. UNGRD will carry out tsunami risk communication activities in the municipality of Tumaco through territory-oriented museology, in compliance with the Public Policy on Social Appropriation of Knowledge (Resolution 0643 of 8 March 2021).
- i. UNGRD will implement a community tsunami Early Warning System in the municipality of Tumaco.
- j. UNGRD will implement the National Strategy for Emergency Response as an instrument of the National Risk Management Policy, for the protection, safeguarding and restoration of people's rights, as well as the protection of private property, collective goods and services, welfare of production, wild and companion animals, ensuring quality of life and sustainable development.
- k. UNGRD will elaborate and implement the National Tsunami Preparedness and Response Plan in order to articulate the actions of the National Disaster Risk Management System - SNGRD in the face of a possible emergency.
- l. The UNGRD will continue to provide support to the territories through technical assistance in relation to knowledge and risk reduction and tsunami disaster management.

NATIONAL PROGRAMMES AND ACTIVITIES INFORMATION

11. EXECUTIVE SUMMARY

Several advances have been made in national plans and efforts to improve the Tsunami Warning System, including the implementation of the updated national tsunami detection and warning protocol and the introduction of improvements to the Standard Operating Procedures for Event Response. Several exercises have also been conducted that have contributed to improving tsunami event detection and assessment processes, as well as incorporating lessons learned into national work plans.

12. NARRATIVE

- On 31 October 2023 an evacuation drill was conducted for the staff of the Port Captaincy and the Pacific Oceanographic and Hydrographic Research Centre - CCCP and the staff of the National Tsunami Warning Centre - CNAT present in Tumaco Nariño, promoting the campaign of the United Nations Office for Disaster Risk Reduction (UNDRR) #AZonasAltas, in order to promote the knowledge of strategies to know how to move to high areas and how to be prepared for a tsunami.



- On 01 November 2023, the first day of awareness and training was held through recreational activities at the National Industrial Technical Institute (ITIN) and the Max Seidel National High School, with the participation of six educational institutions in Tumaco with more than 240 students and their teachers, who toured each of the activities presented by the entities: Dirección General Marítima - DIMAR, Unidad Nacional de Gestión del Riesgo - UNGRD, Servicio Geológico Colombiano - SGC, Defensa Civil Colombiana - DCC and La Sociedad Nacional de la Cruz Roja Colombiana (SNCRC).



- At the regional level, on 16 May 2024, the first regional exercise took place within the framework of the Southeast Pacific Tsunami Warning Group (GT-ATPS) integrated by the tsunami warning centres of Chile, Colombia, Ecuador and Peru, which was organised by the Oceanographic and Antarctic Institute of the Navy of Ecuador (INOCAR) and the Directorate of Hydrography and Navigation of the Navy of Peru (DHN).



- In conjunction with the Oceanographic and Antarctic Institute of the Navy (INOCAR), the second regional exercise, which simulated a tsunami generated by an earthquake off the coast of Nicaragua, was organised on 19 June.



- The National Tsunami Warning Centre - CNAT of the General Maritime Directorate - DIMAR participated on behalf of Colombia in the annual meeting of the Southeast Pacific Tsunami Warning Working Group - WG ATPS (WG SEP), held in Valparaíso, Chile on 16 and 17 August this year, with the objective of following up the activities planned by the WG-ATPS in order to establish agreements between the countries of the region to improve and strengthen the actions and functions of the CNATs.



- The National Tsunami Warning Centre - CNAT of the Directorate General of Maritime Affairs - DIMAR participated in the Intergovernmental Oceanographic Commission -IOC Tsunami Early Warning Systems Training Programme, which was held from 19 to 30 August 2024 in Valparaíso, Chile. Participation in this training strengthened the application of standard operating procedures (SOPs) for warning and emergency response as guided by the minimum competency levels for PTWS National Tsunami Warning Centres and response to local source tsunamis, shared best practice experience in assessing and responding to tsunami events internationally, also addressed issues associated with tsunami evacuation preparedness and planning, including inundation and evacuation mapping, response planning and exercise development, as part of the indicators for UNESCO's Tsunami Community Preparedness Recognition Programme. - IOC (Tsunami Ready). This is in line with the objectives of the IOC Decade of Oceans Tsunami Programme 'to make 100% of tsunami-risk

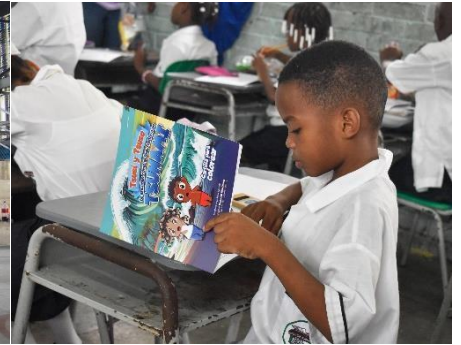
communities' tsunami-ready and resilient by 2030' through initiatives such as the Tsunami Ready Programme.



- A video commemorating World Tsunami Awareness Day was made within the framework of the Southeast Pacific Tsunami Warning Working Group WG-ATPS (WG SEP).
https://www.instagram.com/reel/DB_3RNAqv2/?igsh=MXcwNzZndzNnbHBjMg==



- On 6 November 2024, the General Maritime Directorate, in coordination with the National Unit for Disaster Risk Management, the Colombian Geological Service, the Colombian Civil Defence, the National Society of the Colombian Red Cross and the local support of the District Mayor's Office of Buenaventura, held an event to commemorate World Tsunami Awareness Day. The event consisted of a series of playful activities at the Teófilo Roberto Potes Educational Institute, in which concepts about tsunamis and preparedness to act in case of the materialisation of this threat were socialised through games, painting activities, music and educational talks in which more than 300 children were sensitised. On 7 November, an activity was held with community leaders in Juanchaco, where 10 community leaders exchanged knowledge about the tsunami threat through gastronomy.



- On Thursday 21 November the General Maritime Directorate participated in the execution of the Pacific Wave 24 Tsunami exercise, within the framework of the Tsunami Warning and Mitigation System in the Pacific and the Permanent Commission for the South Pacific. This exercise involved the participation of the Chilean Tsunami Warning Centres of the Hydrographic and Oceanographic Service of the Chilean Navy - SHOA, of Colombia of the General Maritime Directorate, of Ecuador of the Oceanographic and Antarctic Institute of the Ecuadorian Navy - INOCAR and of Peru of the Directorate of Hydrography and Navigation of the Peruvian Navy - DIHIDRONAV, and was coordinated and led by the Chilean and Peruvian Centres, the simulated scenario being two earthquakes off the coast of Peru.



- DIMAR provided the UNGRD with tsunami inundation maps for 12 Colombian Pacific coastal municipalities (Tumaco, Francisco Pizarro, Guapi, Isla Cascajal, Juanchaco, Ladrilleros, La Barra, Bajo Baudó, Nuquí, El Valle, Bahía Solano, Juradó).
- The UNGRD in support of the SNGRD entities, organised the National Emergency Drill in October 2023, which included the tsunami scenario, where 6 Pacific municipalities participated in desktop simulation and the municipality of Tumaco had the participation of communities during the drill.
- The UNGRD, within the framework of CONPES 3990 'Colombia Bioceanic Power' and its competencies defined in Law 1523 of 2012, carried out the respective technical assistance in the formulation and updating of municipal disaster risk management plans in the 47 coastal municipalities of the country, These plans contain actions for effective risk communication in the territories, with emphasis on marine-coastal phenomena (tropical cyclones, coastal erosion and tsunamis), with the aim of guiding development processes in the territories with sustainability criteria, based on proper understanding and formulation. This exercise was carried out with emphasis on the tsunami phenomenon for the following Pacific coastal municipalities: López de Micay, Timbiquí, Guapi, Tumaco, Francisco Pizarro, Mosquera, Santa Barbara Iscuandé and Buenaventura District.
- The UNGRD participated in the workshop organised by the Florida International University's Extreme Events Institute (FIU_EEI) and the United States Agency for International Development's Bureau for Humanitarian Affairs (USAID/BHA). The event has benefited from the collaboration of the Costa Rican National Tsunami Monitoring System (SINAMOT), the International Tsunami Information Center Caribbean Office (ITIC-CARa UNESCO/IOC-NOAA Partnership), and the coordination and financial support of the UNESCO Tsunami Resilience Section IOC/TSR, with the purpose of convening key actors from Latin American countries with a Pacific coastline to exchange advances associated with tsunami evacuation in areas such as technology, modelling, communication, warning systems, community organisation, partnerships/associations, training (different levels).



Date: 27 March 2025
Name: CN (C) Juan Camilo Forero Hauzeur