


# UN ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness

## *Evaluative Review and Tsunami Preparedness Capacity Assessments*

November 2023 – May 2025

 Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Agency for Development and Cooperation SDC

### Context

As a response to the disastrous Indian Ocean tsunami on 26 December 2004, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) set up a Trust Fund (TF) for tsunami early warning systems in 2005. Since then, the TF conducted 31 projects in 23 countries to reduce disaster risk.

While the initial focus of the TF was on tsunamis in the Indian Ocean, the scope has gradually been widened to cover other hazards and the Pacific Ocean.

In 2020, Switzerland supported the ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness with a contribution of CHF 300,000. In addition, the current Swiss-supported project reviews the advancements made over the past 20 years.

### Expected Outcomes

The analyses under this project examine the effectiveness of investments versus achievements towards tsunami detection, warning and preparedness as well as other hazards that were targeted through the TF since its beginning in 2005. They also identify where there are remaining gaps in the Indian and Pacific Ocean basins to avoid a recurrence of the massive loss of lives that was experienced in the 2004 tsunami.

The results of the assessments will be showcased at the 20-year commemoration events of the Indian Ocean tsunami and also provide insights for the ESCAP-TF regarding its strategy for 2025 to 2030.

### Budget

141'900 USD

### Duration

November 2023 – May 2025

### Location

Indian and Pacific Ocean Basins

### SDC's focal points

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*Strongly impacted area in the coastal province Banda Aceh in Indonesia in Dec 2004, © AFP/J. Sagget*

**Switzerland (through the Swiss Agency for Development and Cooperation, SDC) co-finances three studies in cooperation with the Asian Development Bank (ADB), Italy, the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and UNESCO-IOC (Intergovernmental Oceanographic Commission) to analyze the effectiveness of the actions taken since 2005 and the current coverage of tsunami warning systems in the Indian and in the Pacific oceans.**

### The ESCAP-Trust Fund for Tsunami, Disaster and Climate Preparedness

The Indian Ocean earthquake of 26 December 2004 was the third strongest earthquake ever recorded since the beginning of modern seismography. It triggered tsunamis across the Indian Ocean basin and killed approximately 226,000 people in 13 countries.

In reaction to the devastating Indian Ocean Tsunami of 2004, the ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness was established in 2005 to improve early warning systems for tsunamis in the region. The TF initially focused concretely on tsunamis in the Indian Ocean basin and Southeast Asia. In 2010, it broadened its mandate to include disaster and climate preparedness. In 2015, it expanded its geographic reach to small island development states (SIDS) in the Southwest Pacific.

Since its inception, the Trust Fund has launched innovative pilot initiatives, scaled early warning systems, and promoted regional cooperation in 23 countries. By pooling resources, it aims at increasing disaster resilience in high-risk locations of low-capacity nations and supports global efforts to achieve Early Warning for All (EW4All). Until date, the ESCAP-TF has completed 31 projects in 23 countries.

The trust fund received 16.4 million USD from 12 donors since 2005. Thailand has been the largest donor with 10 million USD followed by Sweden, Germany, India, Switzerland and Japan. The TF is also supported by several donors from the global South such as Bangladesh, Philippines, Nepal and Türkiye. The list of donors also includes Italy and ADB. Both of their contributions co-finance the current Swiss-supported activities.

### The Swiss-supported Evaluative Review and Capacity Assessments

From November 2023 until May 2025, the SDC supports a package of three assessments. The first one focuses on the effectiveness of the utilization of funds and achievements of the ESCAP-TF over the past 20 years. The second and third study determine the current coverage and gaps of tsunami warning systems in the region which are the Indian Ocean Tsunami Warning and Mitigation System (IOTWMS) and the Pacific Tsunami Warning System (PTWS).

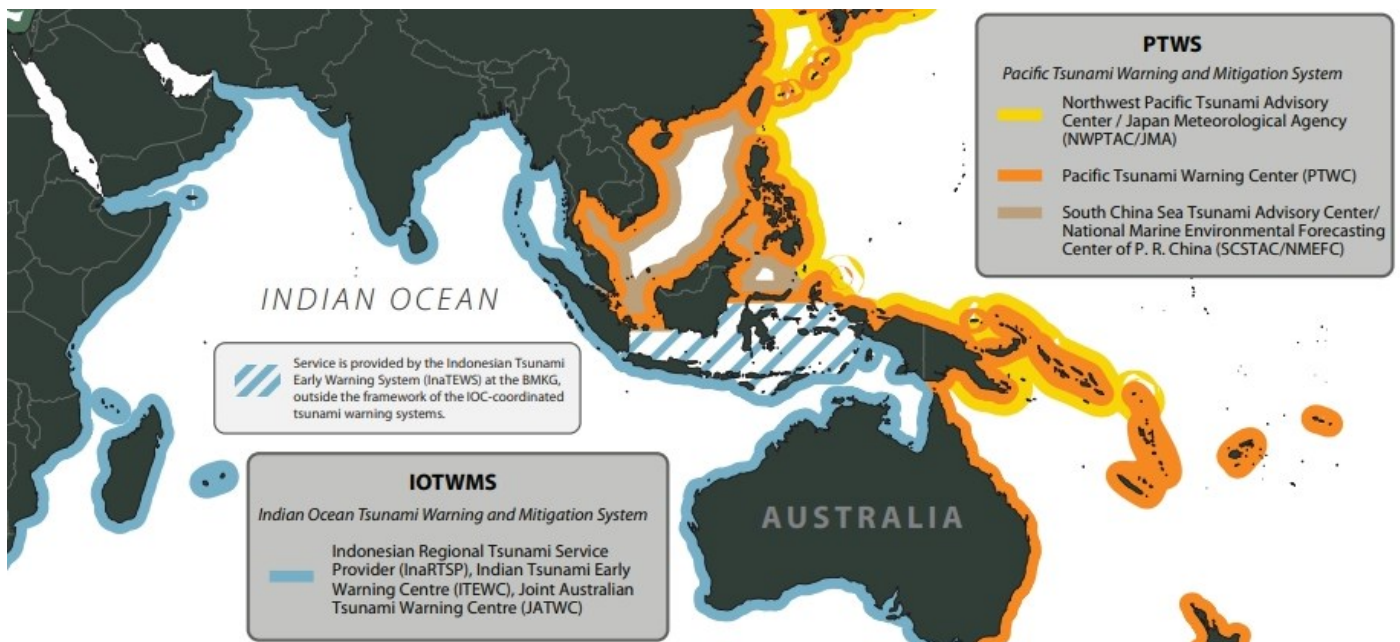


Illustration of the Indian Ocean Tsunami Warning System (IOTWMS) and the Pacific Tsunami Warning Systems (PTWS), © UNESCO-IOC

### 1. Evaluative Review of Trust Fund Achievements

An independent evaluation of the ESCAP Trust Fund will analyze the achievements and effectiveness of its work over the past 20 years. It compares the utilization of available funds with the generated impact on lives saved, mitigated property damage, averted economic losses and protection of sustainable development.

The analysis aims to provide a comprehensive understanding of the costs associated with early warning system interventions and their corresponding socio-economic benefits, enabling the TF to optimize its resource use, enhance effectiveness, and deliver sustainable outcomes. The outcome of the study will serve as a tool for evidence-based decision-making and resource allocation, guiding the TF's strategic planning, investment priorities, and partnerships in the future.

### 2. Indian Ocean Tsunami Preparedness Capacity Assessment

Before the disastrous events of the Indian Ocean tsunami of 26 December 2004, there was no early warning system in place in the Indian Ocean basin. The lack of such a system was an aggravating factor for the impact of the disaster. In 2010, the Indian Ocean Tsunami Warning and Mitigation System (IOTWMS) was operationalised under the coordination of the UNESCO-Intergovernmental Oceanographic Commission.

The capacity assessment will review the IOTWMS-coverage by conducting technical surveys, interviews, data analyses and validation workshops between November 2023 and December 2024. It will show the advancements made in the past 20 years on tsunami detection, warning and preparedness. The study will also identify where there are remaining gaps geographically as well as needs for technical and policy capacity development.

The findings will be presented during a series of 20-year commemoration events for the Indian Ocean tsunami at the end of 2024. The results will inform policymakers on the further needs for tsunami preparedness across the Indian Ocean with the goal to avoid a repeat of the enormous loss of lives and properties that was experienced in the 2004 tsunami.

### 3. Pacific Ocean Tsunami Preparedness Capacity Assessment

The Pacific Tsunami Warning and Mitigation System (PTWS) was launched in 1965 by UNESCO-IOC, following 5 major destructive Pacific tsunamis in the previous 19 years, to help reduce the loss of life and property from this natural hazard.

From November 2024 to September 2025, ESCAP and UNESCO-IOC will follow the same methodology for the PTWS as the assessment of the IOTWMS to identify capacity development needs in tsunami preparedness, with a further focus on their applicability to other coastal hazard preparedness initiatives.

#### Strategic outlook

The evaluative review and Indian Ocean tsunami preparedness capacity assessment will be published and presented in support of various 20-year commemoration events of the Indian Ocean Tsunami around the region in late November and December 2024. This will be an important occasion to showcase the improvements of tsunami protection in the region and to identify geographic, institutional and collaboration gaps for future action.

The two first knowledge products are expected to be finalized in time to feed into the design of the ESCAP-Trust Fund's 2025-2030 strategic framework. As a result, the studies will support the TF in defining relevant interventions for the future.

The output of the Pacific Ocean tsunami preparedness capacity assessment will be disseminated in the second half of 2025 through conference presentations and media releases.

#### Further information

Link for ESCAP-TF website, click [here](#) or by QR:



Link for UNESCO-IOC Tsunami programme, [here](#) or by QR-code:



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