



THE ESCAP TRUST FUND FOR TSUNAMI, DISASTER AND CLIMATE PREPAREDNESS



DISASTER RISK IN ASIA AND THE PACIFIC

Asia and the Pacific continues to be hit by a relentless sequence of disasters: cyclones, earthquakes, tsunamis, floods, droughts, dust storms and heatwaves. These disasters can strike anyone, anywhere, but they do their greatest damage in the poorest communities which are often those of minority groups, or of people living in remote areas, and fragile marginal zones of the region's rapidly expanding cities.

A person living in Asia and the Pacific is 5 times more likely to be affected by natural disasters than a person living outside the region. Between 1970 and 2020, natural hazards in Asia and the Pacific affected 6.9 billion people and killed more than 2 million, that is 41,373 lives per year, one life every 13 minutes.

ESCAP estimates the current average annual losses from natural and biological hazards at \$780 billion. Under moderate climate change scenario (RCP 4.5), these losses will increase to \$1.1 trillion, and under the worst case scenario (RCP 8.5), to around \$1.4 trillion.

The Sustainable Development Goals (SDGs) cannot be achieved without protecting lives and livelihoods at risk from disasters.

HISTORY

The Multi-Donor Trust Fund for Tsunami, Disaster and Climate Preparedness was set up in response to the 2004 Indian Ocean tsunami which resulted in more than 225,000 deaths and widespread economic losses across the Indian Ocean Rim countries. At that time, a multi-country tsunami early warning system was not in place.

In 2005, a groundbreaking grant of US\$ 10 million from the Government of Thailand established the Trust Fund under the aegis of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). Since then, other donor countries contributed, for a total of US\$ 16.1 million.

These contributions from Bangladesh, Germany, India, Japan, Nepal, the Philippines, Sweden, Italy, the Netherlands, Turkey and Switzerland, in addition to Thailand is evidence of how South-South cooperation and triangular cooperation can be mutually supportive.

The Trust Fund works with governments, inter-governmental organizations, NGOs, media and civil society to build resilience to natural disasters in Asia and the Pacific.



2015

Expansion of geographic scope to cover Small Island Developing States (SIDS) in the Southwestern Pacific

2011

Establishment of the Indian Ocean Tsunami Warning System

2010

Expanded mandate and renaming to Trust Fund for Tsunami, Disaster and Climate Preparedness

2009

Establishment of the Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES)

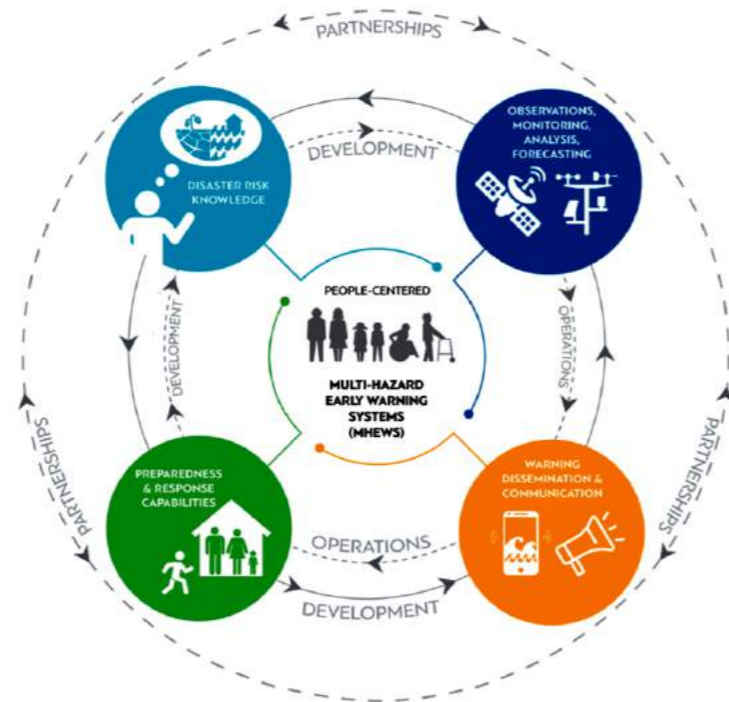
2005

Establishment of Tsunami Trust Fund

EARLY WARNING FOR ALL

"One out of three persons globally, primarily in Small Island Developing States and Least Developed Countries... lack access to effective early warning systems."

António Guterres
Secretary-General of the United Nations



For such a high-risk region as Asia and the Pacific, investing in building resilience is not a choice, but a necessity. Investment in disaster risk reduction and preparedness measures are economically sustainable. Research has shown that every dollar invested in risk reduction can save up to US\$15 in post-disaster recovery (UNDRR).

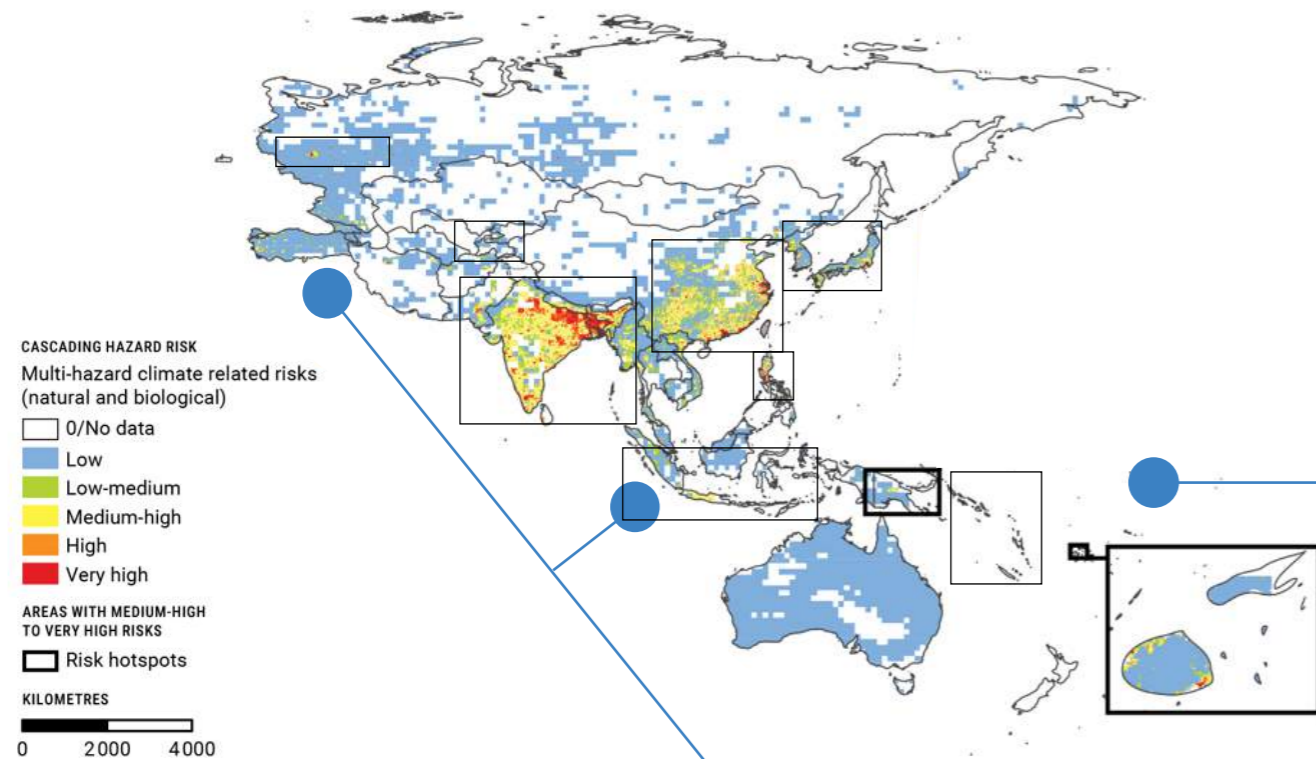
The integration of early warnings for different individual hazards into a multi-hazard system brings economies of scale making investments more efficient and sustainable.

The overall success of people-centred multi-hazard early warning systems have been proven through their ability to translate relevant and timely warnings, and particularly impact-based forecasts, into prevention and mitigation measures for all exposed people.

Early warning leading to early action, saves lives.



PRIORITIZING THE INTENSIFYING AND EMERGING RISK HOTSPOTS OF ASIA AND THE PACIFIC



NEAR-FIELD TSUNAMI

The Sulawesi and Sunda Strait tsunamis in Indonesia, in 2018, presented the complexity of near-field tsunami risks and the need to improve detection and predictions of tsunamis, especially where communities are at a heightened risk due to the shorter evacuation lead time available.

Since 2009, the Trust Fund has been raising awareness on the near-field tsunami risk posed by the Makran subduction zone to countries in the North-Western Indian Ocean (NWIO). Here, effective early warning systems are vital for emergency preparedness. Due to the proximity of the Makran fault line to the coast, early warning systems for the NWIO need to account for potential tsunami travels times of less than 30 minutes.

SMALL ISLAND DEVELOPING STATES

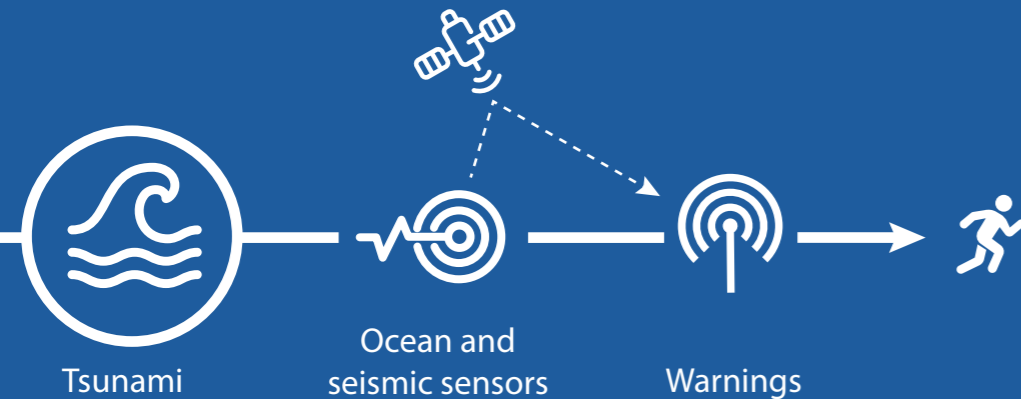
Climate change is reshaping the disaster riskscape of the Pacific SIDS, with the risks from tropical cyclones, floods, droughts and storms increasing significantly. Some hazards have rapidly intensified and the number of people affected by these hazards has been progressively increasing over time. In the past decade (2012–2021), tropical cyclones affected nearly 1.6 million people and caused 176 fatalities in the Pacific SIDS while floods affected nearly 496,000 people and caused 110 fatalities.

In 2015, the Trust Fund expanded its reach to include SIDS of the Southwestern Pacific. Through its projects the Trust Fund has helped strengthen weather and climate resilience by building capacity for impact forecasting and climate applications.

ACHIEVEMENTS

INDIAN OCEAN TSUNAMI WARNING AND MITIGATION SYSTEM

The Trust Fund contributed to the establishment of the Indian Ocean Tsunami Warning System (IOTWS), which entered into operation in October 2011 with Australia, India and Indonesia as the designated regional service providers. The Trust Fund's support for the development of the Indian Ocean Tsunami Warning System included adaptation of standard operating procedures (SOPs) for tsunami warning and emergency response specifically for high-risk and low-capacity countries.



The IOTWS is estimated to save 1000 lives every year over the next 100 years

STRENGTHENED REGIONAL COOPERATION

In 2009, the Regional Integrated Early Warning System for Africa and Asia (RIMES) was established as a result of Trust Fund supported projects. As a collective resource for member countries, it provides a range of cost-effective early warning and climate application services.

Additionally a major contribution of the Trust Fund has been its role in strengthening regional cooperation for hazard data and forecasting, in particular through its continuous support to the ESCAP/WMO Typhoon Committee and the WMO/ESCAP Panel on Tropical Cyclones.

In this area the Trust Fund has taken a programmatic approach investing successively in these institutions over a long-time period. It is the continuity as much as the volume of resources invested that has delivered results.



SYNERGIZED EARLY WARNING SYSTEMS

Standard operating procedures (SOPs) for tsunami early warning have been developed and improved in many countries following the Indian Ocean tsunami of 2004. Because of a lack of understanding of the characteristics, similarities, and differences among diverse coastal hazards, synergies between the SOPs for other coastal hazards such as storm surges, high tides, and floods were missing.

To make early warning systems operational for use in a multi-hazard context, the Trust Fund has supported the development of integrated, effective SOPs to simultaneously address multiple hazards, contributing to strengthening coordination among the multiple stakeholders involved in early warning systems.

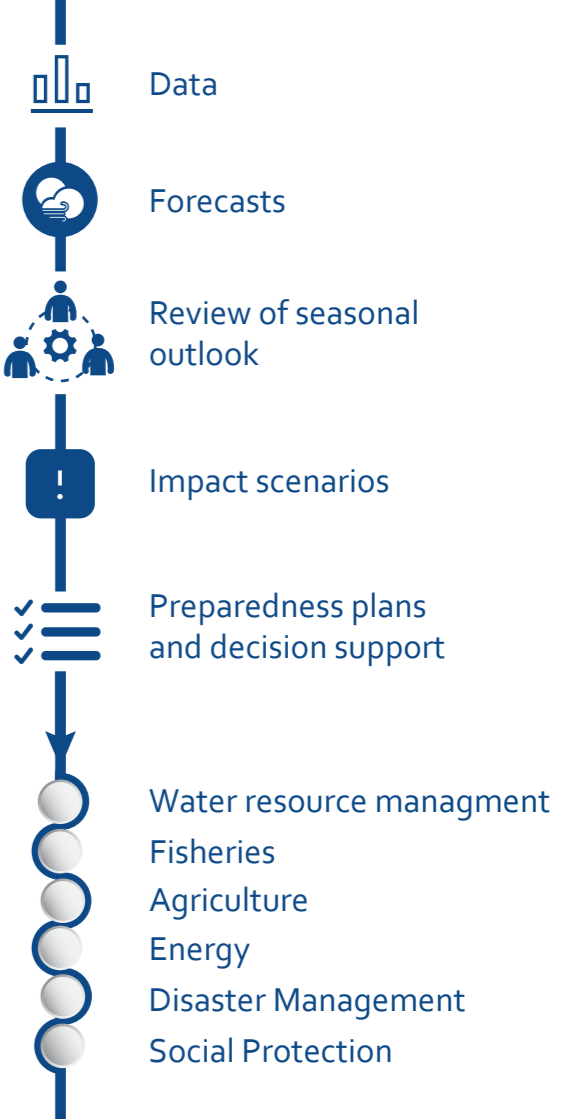


CLIMATE OUTLOOK FORUMS

The Trust Fund has invested in the development of innovative approaches to strengthen early warning systems associated with climate variability.

National climate outlook forums, or monsoon forums as they are popularly known due to their convening around the onset of the monsoon season, have helped augment seasonal forecast information to understand potential impacts.

As a result risks to end-users in the agriculture, water and energy sectors have been substantially reduced. With a reduction in risks, these end-users now also benefit from a reduction in direct and indirect disaster losses.



STRATEGIC FOCUS OF THE TRUST FUND

The Fund continues to evolve in line with changing needs within the Asia and the Pacific region, the capacities of member countries and implementing partners through two themes and two modes of implementation.



**PILLAR I: STRENGTHENING
PEOPLE-CENTRED, MULTI-HAZARD
EARLY WARNING SYSTEMS**



**PILLAR II: STRENGTHENING
SOCIAL AND ECONOMIC
RESILIENCE IN ASIA-PACIFIC**

THEMATIC
FOCUS



**PILLAR III: ENHANCING DISASTER AND CLIMATE RISK MANAGEMENT THROUGH
REGIONAL COOPERATION**

MODES OF
IMPLEMENTATION



PILLAR IV: MAINSTREAMING SCIENCE, TECHNOLOGY AND INNOVATION

*"Early warnings and action save lives...
We must boost the power of prediction
for everyone and build their capacity to
act."*

António Guterres
Secretary-General of the United Nations



*"The transboundary nature of many
disasters makes it clear that regional
cooperation on resilience building is
critical."*

Armida Salsiah Alisjahbana
Under-Secretary-General of the United Nations
and Executive Secretary of the United Nations Economic
and Social Commission for Asia and the Pacific



BUILDING DISASTER AND CLIMATE RESILIENCE IN ASIA AND THE PACIFIC THROUGH REGIONAL COOPERATION FOR END-TO-END EARLY WARNING

The ESCAP Trust Fund for Tsunami, Disaster and Climate Preparedness provides financial and technical support to address unmet needs and gaps in early warning systems in Asia and the Pacific. Since its establishment in 2005, it has promoted innovative pilot initiatives, scaled up successful early warning systems and facilitated regional cooperation, directly benefiting 20 countries. By pooling resources, the Trust Fund facilitates South-South cooperation to strengthen disaster resilience in high-risk, low capacity countries while supporting the improvement of climate preparedness, multi-hazard early warning and disaster response in the region.

The Trust Fund focuses on strengthening regional cooperation on end-to-end early warning for coastal hazards such as tsunamis, cyclones, coastal zone flooding and storm surges, while applying a multi-hazard approach. It contributes to building more resilient coastal communities, and thus ultimately, helps save lives and reduce loss and damage from disasters.



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