



Sendai: UN conference adopts new, people-centred disaster risk reduction strategy

By United Nations News Centre

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18 March 2015 – Death, destruction and displacement wrought by natural disasters would be significantly reduced by 2030 under a new framework adopted by countries attending the Third United Nations World Conference on Disaster Risk Reduction, in Sendai, Japan, where they also affirmed the “urgent and critical need” to anticipate, plan for and reduce such risk to more effectively protect people, communities and countries, and to build resilience.

Adopting the Sendai Declaration and Framework for Disaster Risk Reduction 2015-2030 after days of discussions and a final 30-hour negotiating session, 187 UN Member States attending the Conference approved seven targets, four priorities and a set of guiding principles, underscoring that substantial reduction of disaster risk requires perseverance and persistence, “with a more explicit focus on people and their health and livelihoods, and regular follow up.”



Students in Matatirtha, Nepal, which is in the process of being redeveloped to make the school more earthquake proof. As part of this process children are taught how to take shelter beneath their desks in case of an earthquake. Photo by Jim Holmes for AusAID.

Recognizing the increasing impact of disasters and their complexity in many parts of the world, the Member States in their Declaration called all stakeholders to action, “aware that the realization of the new Framework depends on our unceasing and tireless efforts to make the world safer from the risks of disasters in the decades to come for the benefit of present and future generations.”

Echoing the views of many speakers throughout the week, the Declaration also noted that Sendai, in the midst of what was hailed as a “vibrant recovery” following a massive 2011 earthquake and tsunami that triggered a nuclear accident at the Fukushima Daiichi Nuclear Power Plant, proved a well-timed location of the Conference, which was devoted to updating the landmark disaster resilience agreement reached in 2005 in Hyogo, Japan.

The Hyogo Framework for Action (HFA), was itself crafted in the wake of the devastation of the Indian Ocean tsunami, which claimed 227,000 lives. The HFA has since produced some important successes, including the reduction in the number of people directly affected by natural disasters in Asia – where most such disasters occur – by almost one billion.

TsuInfo Alert

Prepared and published bimonthly by the Washington State Department of Natural Resources,
Division of Geology and Earth Resources,
on behalf of the National Tsunami Hazard Mitigation Program (NTHMP),
a state/federal partnership funded through the National Oceanic and Atmospheric Administration (NOAA).

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<http://www.dnr.wa.gov/researchscience/topics/geologypublicationslibrary/pages/tsuinfo.aspx>

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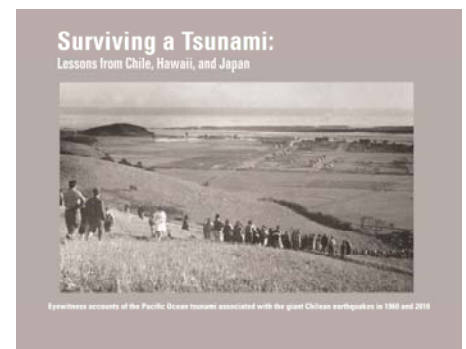
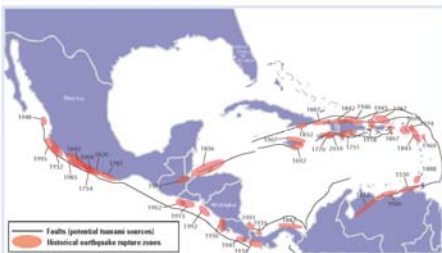
Updated version of *Surviving a Tsunami—Lessons from Chile, Hawaii, and Japan* Intergovernmental Oceanographic Commission Brochure 2014-2 Rev.

By Nicolás Arcos, International Tsunami Information Center

In 1999, the USGS printed the original version of “Surviving a Tsunami—Lessons from Chile, Hawaii, and Japan” (USGS Circular 1187). The booklet documents the actions that saved lives, and actions that cost lives, as recounted by eyewitnesses to the tsunami from the largest earthquake ever measured—the magnitude 9.5 earthquake in Chile on May 22, 1960.

After the 2010 Chile Tsunami, the International Tsunami Information Center (ITIC) was asked to update the booklet to add information on historical and potential tsunami sources off South America, Middle America, and in the Caribbean. In addition, lessons learned from the 2010 tsunami were included in this booklet, published in Spanish by UNESCO IOC in 2012. In 2014, the new version was translated into English and again updated by the ITIC, and the booklet printed with financing from the U.S.

National Oceanic and Atmospheric Administration Tsunami Program. This 2014 edition is expected to be available in French and Spanish in late 2015.



Please visit ITIC's website to view the updated booklet: www.tsunamiwave.info

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(Continued from page 1)

Yet the Sendai outcome acknowledges that over the past decade, disasters had continued to take a heavy toll, killing more than 700,000 people, injuring 1.4 million, and leaving some 23 million homeless as a result. Overall, more than 1.5 billion people were in some way touched by disaster and worldwide economic losses topped \$1.3 trillion.

With the world facing this stark reality, the new accord – the first intergovernmental agreement of the UN post-2015 sustainable development era – seeks to achieve, over the next 15 years, “the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses communities and countries.”



The realization of this outcome, the Conference agreed, requires strong commitment and involvement of political leadership in every country in the implementation and follow-up of the new framework. As such, the Conference agreed on the need for focused action in four priority areas: understanding disaster risk; strengthening disaster risk governance to manage disaster risk; investing in disaster risk reduction and resilience; and enhancing disaster preparedness for effective response, and to 'build back better' in recovery, rehabilitation and reconstruction.

The seven Framework's global targets to be achieved over the next 15 years: a substantial reduction in global disaster mortality; a substantial reduction in numbers of affected people; a reduction in economic losses in relation to global gross domestic product (GDP); and substantial reduction in disaster damage to critical infrastructure and disruption of basic services, including health and education facilities.

The targets also increase in the number of countries with national and local disaster risk reduction strategies by 2020; enhanced international cooperation; and increased access to multi-hazard early warning systems and disaster risk information and assessments.

Margareta Wahlström, head of the UN Office for Disaster Risk Reduction (UNISDR), said adoption of the new framework “opens a major new chapter in sustainable development” as it outlines clear targets and priorities for action which will lead to a substantial reduction of disaster risk and losses in lives, livelihoods and health.

“Implementation of the Sendai Framework over the next 15 years will require strong commitment and political leadership and will be vital to the achievement of future agreements on sustainable development goals and climate later this year,” she said.

“As the UN Secretary-General Ban Ki moon said here on the opening day, sustainability starts in Sendai,” she said, as the Conference had successfully kicked off a particularly crucial year for the United Nations, with world leaders set to meet in Addis Ababa in July to discuss development financing, then again in New York in September to adopt a new development agenda, and finally in Paris in December to forge a meaningful, binding climate change agreement.

The work of the Conference, which opened on 14 March, began on a somber note, as a powerful cyclone was pummeling Vanuatu and distant neighboring islands in the South Pacific. Mr. Ban has pledged the support of the entire United Nations system as the extent of the devastation to the small island has slowly begun to emerge.

The World Conference was attended by over 6,500 participants including 2,800 government representatives from 187 governments. The Public Forum had 143,000 visitors over the five days of the conference making it one of the largest UN gatherings ever held in Japan.

See original article from UN News Centre: <http://www.un.org/apps/news/story.asp?NewsID=50361#.VSbfEdzF-Sp>

PROJECT UPDATES

Preliminary Post-Event Summary CARIBE WAVE/LANTEX 2015 Regional Tsunami Exercise

By Christa von Hillebrandt-Andrade, Manager US NWS Caribbean Tsunami Warning Program

On March 25, 2015 two regional tsunami exercises took place in the Caribbean and Adjacent Regions: CARIBE WAVE/LANTEX (Panama Scenario) and LANTEX (Florida Scenario). 32 Member States and 16 territories* participated in the fourth regional tsunami exercise. This represents a participation rate of 100% of all the ICG CARIBE EWS members, for the first time in the history of the exercises. Registered participants included designated UNESCO CARIBE EWS Tsunami Warning Focal Points (TWFP) and National Contacts, in addition to more than 1,000 other international, state, territorial, and local Emergency Management Organizations, government agencies, academic institutions, private businesses and organizations, health facilities, media, as well as communities and individuals. A total of almost 133,000 people participated, including over 98,000 in Puerto Rico, 10,000 in Venezuela, 8,600 in Martinique, and 4,700 in the US Virgin Islands.

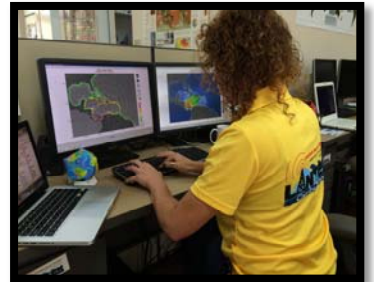


Photo by CTWP, Mayaguez, PR 2015

Exercise messages were disseminated from Tsunami Warning Centres through all official platforms, as well as Twitter for the first time. Communities were alerted through use of local warning systems, including sirens, SMS and EAS, as well as social media outlets such as Facebook, Twitter, and Instagram. Through participation of people throughout the Caribbean, #CaribeWave2015 was the #11 top-trending topic on Twitter for over five hours.

To provide feedback on the exercise, the new PTWC products and state of preparedness, an online questionnaire is available at: www.surveymonkey.com/s/CaribeWave15. Each of the countries and territories are requested to submit one official consolidated response by April 9, 2015. Other participants may also submit their comments through the same survey. The results of CARIBE WAVE/LANTEX 2015 exercise will be presented at the 10th Session of the ICG CARIBE EWS to take place in Sint Maarten on May 19–21, 2015.



Photo from SINAPROC Panama 2015

The framework for these exercises was provided by NOAA and its U.S. National Tsunami Hazard Mitigation Program (NTHMP), together with UNESCO and other regional organizations as a means for emergency responders and the community-at-large throughout the Northwestern Atlantic, Caribbean and Gulf of Mexico to test and update tsunami response plans. International, regional, national, and local planning for this exercise took over one year and included several virtual meetings with over 200 participants. Plans for the 2016 CARIBE WAVE Tsunami Exercise are already underway.

* Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Colombia, Costa Rica, Cuba, Curacao, Dominica, Dominican Republic, France (Martinique, Guadeloupe, French Guyana, St. Barthelemy, St. Martin), Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Netherlands (Bonaire, Saba and Sint Eustatius), Nicaragua, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Sint Maarten, Suriname, Trinidad and Tobago, United Kingdom (Anguilla, British Virgin Islands, Bermuda, Cayman Islands, Montserrat and Turks and Caicos), United States (Puerto Rico and the US Virgin Islands) and Venezuela (Bolivarian Republic of).

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PROJECT UPDATES & TSUNAMI RESEARCH

National Tsunami Warning Center Partners with State Emergency Managers to Increase Tsunami Preparedness

By Audrey Rubel, National Weather Service Alaska Region Public Affairs

On March 28, 2015 the National Tsunami Warning Center in Palmer, Alaska partnered with Alaska's Division of Homeland Security and Emergency Management to increase tsunami preparedness through an open house event at the Center. Over 100 people attended from various communities.

The event is held annually as part of Tsunami Preparedness Week. Guests met the scientists who stand watch and issue warnings, learned about tsunamis and how they propagate, investigated seismic observation equipment, and talked with emergency managers about community risk and preparedness. The state's simulator provided a virtual earthquake experience and Center scientists used a wave tank to demonstrate tsunami generation and behavior.



Alaska Division of Homeland Security and Emergency Management Earthquake Simulator. Photo by Paul Whitmore, Director, National Tsunami Warning Center.

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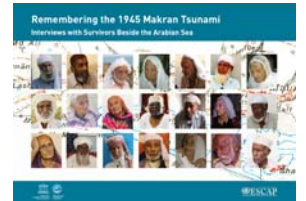
TSUNAMIS - PERSONAL ACCOUNTS

Remembering the 1945 Makran tsunami

Interviews with survivors beside the Arabian Sea

By UN Educational, Scientific and Cultural Organization, IOC Brochure 2015-1

Tsunami waves of local origin, which account for most fatalities due to tsunami worldwide, pose a natural hazard on shores of the Arabian Sea. The main source of this hazard is the Makran subduction zone, an active boundary between converging tectonic plates that slants gently northward beneath the Arabian Sea coasts of Iran and Pakistan. Its seaward edge tracks the foot of the continental slope for a distance of 800 kilometres. Were the zone to break along its entire length, the resulting earthquake might be in a range of magnitude 8.7–9.2, and the ensuing tsunami would likely exceed 10 metres in height along most coasts of northern Oman, southeast Iran, Pakistan, and northwest India.



This worst-case scenario scales up the Makran earthquake and tsunami of 1945. The earthquake, of magnitude 8.1, resulted from fault rupture in an eastern part of the subduction zone along what is now the coast of Pakistan⁵. The rupture started offshore of Pasni and extended beneath Ormara. The ensuing tsunami has been ascribed in part to submarine slides, and trapping of its waves on the continental shelf has also been proposed. The shaking and flooding in 1945 occurred early on 28 November local time. Thirteen deaths attributed to the tsunami were confirmed in Bombay (Mumbai).

Access full presentation: http://iotic.ioc-unesco.org/images/xplod/resources/material/1945%20makran%20tsunami_2mb.pdf

Elders recall an earlier tsunami on Indian Ocean shores

By D. M. Kakar; G. Naeem; A. Usman; H. Hasan; H. A. Lohdi; S. Srinivasalu; V. Andrade, C. P. Rajendran; A. Naderi Beni; M. A. Hamzeh; G. Hoffmann; N. Al Balushi; N. Gale, A. M. Kodijat, H. M. Fritz, and B. F. Atwater

Journal: Eos, v. 95, no. 51, p. 485-492

Ten years later, the Indian Ocean tsunami of 26 December 2004 still looms large in efforts to reduce tsunami risk. The disaster has spurred worldwide advances in tsunami detection and warning, risk assessment, and awareness.

Nearly a lifetime has passed since the northwestern Indian Ocean last produced a devastating tsunami. Documentation of this tsunami, which was in November 1945, was hindered by international instability in the wake of World War II and, in British India, by the approach of independence and partition.

The parent earthquake (magnitude 8.1) was centered west of Karachi along the Makran subduction zone. The tsunami registered on tide gauges, but intelligence reports and newspaper articles say little about inundation limits, and the consequences in terms of lives lost differ by an order of magnitude among the estimates in today's geophysical catalogs. What has been established about the 1945 tsunami falls short of what is needed today for ground-truthing inundation models, estimating risk to enlarged populations, and anchoring awareness campaigns in local facts.

Recent efforts to reduce tsunami risk around the Arabian Sea include a project in which eyewitnesses to the 1945 tsunami were found and interviewed and related archives were gathered. Results are being made available through the Indian Ocean Tsunami Information Center (IOTIC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO) in hopes of increasing scientific understanding and public awareness of the region's tsunami hazards.

Access full article: <http://onlinelibrary.wiley.com/doi/10.1002/2014EO510002/pdf>

IN THE NEWS

Guy Carpenter publishes scenario risk report for Asia Pacific region

By Guy Carpenter Press Release

Guy Carpenter today released a new scenario risk report titled Tsunami Risk from Magnitude 9.4 Earthquake in Manila Trench. The report provides an in-depth study of the tsunami risk from a moment magnitude 9.4 earthquake along the Manila Trench, including the Hong Kong area, Taiwan, Kota Kinabalu, Macau, Manila and Vietnam. Among the regions studied in the report, the worst case scenario predicts the highest risks in southwest Taiwan, specifically up to 4 meters at the Port of Kaohsiung, Taiwan's principal port and the sixth largest container port in the world.



For roughly the past four and a half centuries, the Manila Trench has been building up enormous amounts of energy as the Philippine Sea plate and the Eurasian plate continue to push against one another. Therefore, Guy Carpenter performed a study based on the worst case scenario and developed inundation maps for coastal areas that could be at greater risk from tsunami from a magnitude 9.4 earthquake event in the Manila Trench.

Access full article: <http://www.gccapitalideas.com/2015/03/18/guy-carpenter-publishes-scenario-risk-report-for-asia-pacific-region/>

RMS study shows significant tsunami risk in Caribbean, Mediterranean

Source: Insurance Journal

RMS, the catastrophe risk management firm, has released a global tsunami risk study that identifies more than 20 subduction zones worldwide capable of generating a giant earthquake and tsunami—similar in scale to the March 11, 2011 Tohoku, Japan event.

The new study, which uses the newly released RMS Global Tsunami Scenario Catalog, reveals many coastal populations, industrial clusters, ports, and vacation resorts at risk from this underestimated tsunami threat.

To conduct the study, RMS examined all subduction zones worldwide capable of producing magnitude (M) 9.0 earthquakes, including those considered dormant or inactive.

“While the Cyprus Arc subduction zone and Puerto Rico Trench, among others, are dormant, RMS analysis reveals they are capable of generating tsunami waves similar in scale to those produced along the Japan Trench in 2011, and with it unprecedented devastation,” said Dr. Robert Muir-Wood, chief research officer at RMS.

“Future mega-tsunamis should no longer be considered black swan events, as we now know where these events can occur. While these events have very low occurrence rates, communities and businesses on the coastlines at frontline risk of these events should assess the risk accordingly,” he continued.

The RMS study illustrates that a M9.0 earthquake on the Cyprus Arc could trigger a tsunami across the eastern Mediterranean Sea, impacting up to 12 countries including Cyprus, Israel, Lebanon and Turkey.

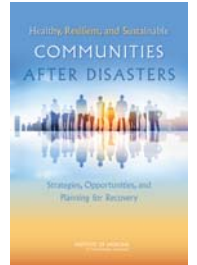
Access full article: <http://www.insurancejournal.com/news/international/2015/03/12/360232.htm>

IN THE NEWS

Healthy, resilient, and sustainable communities after disasters: Strategies, opportunities, and planning for recovery

By Committee on Post-Disaster Recovery of a Community's Public Health, Medical, and Social Services; IOM

In the devastation that follows a major disaster, there is a need for multiple sectors to unite and devote new resources to support the rebuilding of infrastructure, the provision of health and social services, the restoration of care delivery systems, and other critical recovery needs. In some cases, billions of dollars from public, private, and charitable sources are invested to help communities recover. National rhetoric often characterizes these efforts as a "return to normal." But for many American communities, pre-disaster conditions are far from optimal. Large segments of the U.S. population suffer from preventable health problems, experience inequitable access to services, and rely on overburdened health systems. A return to pre-event conditions in such cases may be short-sighted given the high costs—both economic and social—of poor health. Instead, it is important to understand that the disaster recovery process offers a series of unique and valuable opportunities to improve on the status quo. Capitalizing on these opportunities can advance the long-term health, resilience, and sustainability of communities—thereby better preparing them for future challenges.



Access full text for free: http://www.nap.edu/openbook.php?record_id=18996

Tsunami awareness month recognizes 50 years of warning progress

Source: Pacific Disaster Center

The State of Hawaii annually recognizes April as Tsunami Awareness Month to honor the victims and survivors of the April 1, 1946 tsunami generated by an earthquake in the Aleutian Islands. Throughout the month, knowledge-building events and activities will take place across the state in an effort to encourage local residents to become informed, stay vigilant, have a plan, and follow the instructions of officials during evacuation.



As part of the commemorative month, an international tsunami symposium themed "Making the Pacific Ready for the Tsunami Threat," will be held at the National Oceanic and Atmospheric Administration (NOAA) Daniel K. Inouye Regional Center on Ford Island, Honolulu, on April 20–21. The symposium will also honor the 50th anniversary of the Pacific Tsunami Warning and Mitigation System (PTWS), highlighting its achievements over the last 50 years, and identifying the way forward to sustain and evolve the warning system for the future.

Devoting an entire month on tsunami awareness is appropriate for the Hawaiian island chain as its location in the middle of the Pacific, and at the center of the Ring of Fire, is vulnerable to frequent earthquakes and volcanic activity. As a result, at any time, in any season, the state is susceptible to a locally generated, fast-arriving tsunami from an earthquake, landslide, or volcanic eruption; or a distant-source tsunami, generated by an earthquake in Chile, Alaska, Japan, or the South Pacific, for example. With many of Hawaii's residents (and visitors) living, working, and playing in coastal areas, the collaborative effort involving state, county, and local agencies—and including the Pacific Tsunami Warning Center (PTWC), Pacific Disaster Center (PDC), and the media—is invaluable for meeting the requirements of mitigation, preparedness, response, and recovery.

Access full article: <http://www.pdc.org/news-n-media/pdc-updates/Tsunami-Awareness-Month-Recognizes-50-Years-of-Warning-Progress/>