TIDES OF MEMORY: CULTURAL STORYTELLING AND DISASTER RESILIENCE IN THE INDO-PACIFIC

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Minamisanriku 3.11 Memorial © Rebekah Baynard-Smith

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The views expressed in this report are those of the author and do not necessarily represent the views of the organisations involved.

The author disclaims all liability that may result from the application of policy recommendations in this report.

INTRODUCTION

The most tragic thing for a nation is to have no memory
-Wang Peng (artist)

Everywhere we look, it seems disasters are happening all the time. It can be easy for us to tune out of the news when they show yet more footage of fires, floods, cyclones, terrorist attacks and health tragedies. Fed with a constant stream of news and current affairs, society can easily suffer from 'information overload' and forget major events of the last year, decade or century.

Forgetting these major events can lead us to forget those who were affected (dead or alive) and can stop us from appreciating the immense recovery efforts made to rebuild a city, landscape or community. We become complacent, losing sight of how these disasters will probably happen again and the valuable lessons they can teach us.

Memorialising disasters is one way to stop us from forgetting. Storytelling has a similar affect in its ability to keep memories alive and transmit disaster stories and lessons to future generations. Stories, music, dance, art, anniversaries, technology, physical monuments and structures are all ways to capture the experiences of disasters and create long-lasting legacies. While each disaster may last as little as a few days or weeks, we need mechanisms to sustain the memories and lessons in the long-term.

Memorialisation is a key pillar of an individual and a community's healing process. This process allows those affected to grieve, and those less affected to empathise and support others in their recovery journey. By focusing on building a culture that acknowledges hardship, much like many cultures already do for remembering those lost to war, memorialisation embeds a collective memory of significant events and tangible acts of honouring those who suffered, while giving meaning to their suffering. For individuals and organisations alike, these practices remind us of what has happened and what could happen again. Ultimately, memorialisation should ground truth our approach to disaster prevention, preparedness, response and recovery. By tapping into our existing coping mechanisms, social structures and norms, we can engage in more sustainable disaster risk reduction (DRR).

This piece aims to explore different shapes and forms of memorialising and storytelling disasters, using case studies from around the Indo-Pacific. The common theme throughout demonstrates how these practices contribute to disaster preparedness at the individual, community and organisational levels, outlining lessons learned and policy recommendations.

CASE STUDIES FROM THE INDO-PACIFIC

JAPAN: DISASTER MUSEUMS AND MEMORIALS

In Japan it is common to stumble across disaster museums. From Tokyo to Kobe, Minamisanriku to Sendai, there are dedicated places and spaces for commemorating disasters and showcasing the strength and resilience of that community. They serve as a reminder of the risk-filled world we live in and of the recovery efforts that have made that community what it is today. Efforts like this are an important component of Japan's "Bosai" ethos, attempting to mainstream disaster risk reduction into policies, societies and cultures around the world.[1]

Japanese disaster museums and memorials assert that these spaces exist to honour those who lost their lives in disasters and give meaning to their suffering. For example, in Tokyo the entrance sign to the Great Kanto Earthquake Memorial Museum reads:

The Yokoami Open Gallery was constructed in the hope that such a disaster should never be repeated and to make future generations aware of this tragedy by displaying fragments and remains of the damage.

By drawing together a community's disaster experiences into a central place, it allows others, especially those with less experience of disasters, to gain a greater understanding of what happened, build empathy towards those affected, and be challenged in their own response to similar hypothetical situations. It facilitates important conversations and encourages resilience building in a more contextualised and impactful way.

These museums and memorial centres feature exhibitions, dioramas and even have survivors volunteering to share their story with interested groups. Collating the firsthand experiences from Japan's range of disasters, such as earthquakes, tsunamis and 'fire tornadoes', is an effective way of educating patrons (locals and tourists) about the history of the area, the ongoing risks and hazards, and practical disaster preparedness steps people can take. Importantly, these museums and sites are regionalised and represent the experience of their communities, which differ across the country. Some examples below highlight the way various regions have chosen to memorialise their disaster experiences.

[1] "Bosai" is a term that refers to efforts at all stages of a disaster, including disaster preparedness, risk mitigation investment, emergency response after a disaster, and recovery and reconstruction stages.

An example is the Minamisanriku 3.11 Memorial that plays recorded videos of survivors recounting their experience trying to evacuate themselves and others from the Great Eastern Japan Tsunami of 2011. These stories were profound and moving, including recounts from carers reflecting on how they tried to do everything in their strength to save those in their duty of care, but ultimately lost them and continue to live with that guilt. Part of hearing their stories was participating in a facilitated reflection activity, where visitors are encouraged to talk about how their stories made you feel and what you would have done in their situation.

In neighbouring Ishinomaki (Tohoku), the ruins of Okawa Elementary School remain open for guided tours and as a disaster management training facility for teachers around Japan.

In Kobe, the Great Hanshin-Awaji Earthquake Memorial Disaster Reduction and Education Centre brings to life the destruction and havoc caused by the 1995 disaster, with simulations and short films recounting the tragic morning the magnitude 7.3 earthquake struck the port city, killing more than 6,000 people.

According to commentary at the Centre, the current gap in Kobe's resilience is the aging demographic and a younger generation that is less engaged in resilience building. To address this, they draw on the elderly members of the community and encourage them to use the Centre as a dedicated space to share their story and learnings, as a way to capture the wisdom and lived experience of an aging demographic.

The Centre also utilises modern technology to offer interactive activities and scenario-based games, such as a wave machine and age-appropriate video games to offer patrons practical disaster preparedness education.

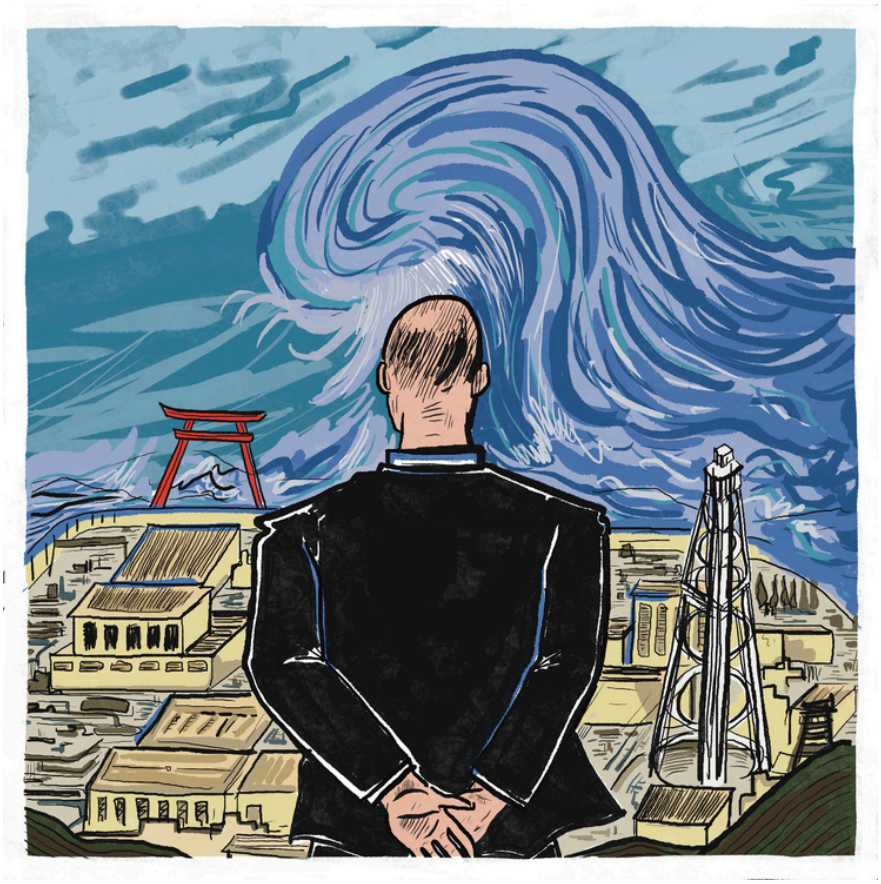
Memorials like these not only serve to build community resilience among the general public, but they provide crucial ground truthing for disaster risk reduction policies and management. By providing concrete reminders of how disasters have affected previous populations, these interactive and dynamic sorts of memorials have strong potential to guide the work of the DRR sector, ensuring policies and programs are aligned with the realties and needs of the community.

Okawa Elementary School ruins and museum © Travel to Tohoku

Japan spotlight: the story of Yanosuke Hirai

Onagawa Nuclear Power Station in Japan's Tohuku region was remarkably resilient in the 3.11 disasters, despite being the closest nuclear plant to the earthquake's epicentre. Given the infamous meltdown of its counterpart Fukushima Daiichi, Onawaga's non-failure was investigated. Onagawa's narrow escape is largely owed to **Yanosuke Hirai**, the vice-president of Tohoku Electric Power Company from 1960-1975. As a child, Yanosuke Hirai visited an ancient Shinto shrine that preserved the legend of a destructive earthquake and tsunami in 869 CE (Jogan Tsunami). The shrine, along with the folk talks, old records, books and surveys about past tsunamis in the Onagawa area/Sanriku coast left a large impression on him which he carried into his adult working life, taking an extra cautious approach to safety and risk reduction. With this mindset, he insisted the nuclear unit be built at O.P. (Onahama Peil) + 14.8 m as opposed to the minimum required O.P. + 3 m. Positioning Onagawa NPS at OP + 14.8 m provided sufficient elevation to avoid the worst impacts of the 2011 tsunami.

Folk tales and records of tsunamis dating back as far back as the Jogan Tsunami of 869, the Keicho Sanriku Tsunami of 1611, the Sanriku tsunamis of 1896 (Great Meiji Tsunami) and 1933 (Showa Sanriku Tsunami) have provided decision makers like Yanosuke Hirai with the memory and lessons to inform prevention and preparedness measures, ultimately saving lives and maintaining strong public trust. Yanosuke Hirai's example powerfully illustrates some of the many benefits of storytelling and memorialising disasters.



INDONESIA: *SMONG* STORIES ON SIMEULUE ISLAND, SUMATRA

On the small island of Simeulue off Indonesia's Sumatra coast, storytelling has been the lifesaver for their communities. On 24 December 2004, a magnitude 9.2 earthquake struck off the coast of Aceh, Indonesia, causing a subsequent tsunami with waves 30m high, killing more than 220,000 people in 14 countries across the Indian Ocean. Considered one of the deadliest disasters in recorded human history, it was the worst disaster to affect Indonesia, with the archipelago copping the largest death toll (estimated 163,795), most of those being in Banda Aceh. Despite the significant loss of life on the mainland, on the small island of Simeulue west of Aceh, 50km from the earthquake epicentre, only 7 deaths were reported (in a population of 80,000).

Upon investigation, researchers (Sutton et al 2020) have discovered that there is a strong storytelling culture on Simeulue. In particular, stories about tsunamis which were initiated by survivors of the M7.6 earthquake and the subsequent tsunami which struck the island in 1907. The local language word for tsunami is *smong*, and while it had existed prior to the 1907 event, it was not used in any connection to DRR wisdom.

Since 1907, the *smong* narrative emerged as a way to educate future generations about the signs of an impending disaster. The narrative goes that if there is a huge earthquake followed by recession of the sea – RUN! This 'story of our ancestors' is predominantly transmitted through grandmothers.

Trusted and respected community leaders, grandmothers are the most important DRR informants on the island. For over 100 years, they have been using story and song to embed DRR wisdom across the entire community.

In practice, this looks like telling repetitive stories, singing lullabies to infants as they prepare for bed, and even incorporating it into other rituals such as Thursday afternoon Koranic readings.

So, before they put us to bed, or while sitting and relaxing they tell us that if someday the big earthquake happens usually a big wave will come…

The grandmothers use drums and traditional song to convey to children and adults alike. When telling the story, they often become quite animated, even yelling as they urge the listeners to run if a *smong* occurs. Recounting their own experience or those of their relatives who survived the 1907 tsunami gives children explicit instructions on how to best survive these disasters.

After the earthquake take rice, the water, clothes and check the sea… if the water recedes, RUN FAR! Don't wait, just run.

While oral traditions are common across much of Indonesia and other cultures, the case of Simeulue is unique for the ways in which the 2004 earthquake and tsunami had drastically lesser impact than neighbouring Banda Aceh. Even though Banda Aceh had experienced tsunamis in the past, the knowledge and memories of those events were not passed down over generations, resulting in the 2004 disasters catching many by surprise and leading to many casualties (JICA 2024). In fact, people from Simeulue living in Banda Aceh at the time tried to give the same warnings to their Acehnese counterparts, but these were ignored. Furthermore, given how immediate and unanimous the evacuation of the Simeulue population was, the *smong* stories proved effective in overcoming cognitive barriers for evacuation, a common issue in disaster response.

One of the benefits of oral narratives is their ability to preserve the consistency of risk communication over long periods, passing the same essential messages from generation to generation. People from Simeulue recall receiving the story when they were children, and it was always the same story, building familiarity, memory and a sense of responsibility.

AUSTRALIA: INDIGENOUS WISDOM, ARTS AND TECHNOLOGY

Indigenous Wisdom

In Australia's Arnhem Land, Yolngu communities in Ramingining and Milingimbi use their traditional storytelling methods to prepare for cyclone seasons. 'Wata Burrmalala' or 'Cyclone Culture' has been passed down through generations to teach younger Yolgnu how to predict and respond to cyclones.

Akin to cultural practices in Simeulue, the grandmothers also tell stories to the younger generation of how ancestors predicted cyclones. The story goes along the lines of:

The Lorrpu (white cockatoo) senses the danger approaching... they see birds flying because birds know that something heavy is coming, they know, and sometimes they see water, just breathing, the swell just rising without breaking.

The Yolngu even use traditional song and dance in a special ceremony focusing on the cyclone. With cyclones hitting the community as recently as 2015, the stories are just as relevant today as they were for their ancestors. It's also important emergency managers in the region acknowledge and respect these traditional forms of DRR wisdom. Emergency managers should encourage participation across the community and ensure modern early warning systems are in place and utilized in conjunction with traditional methods.

AUSTRALIA: INDIGENOUS WISDOM, ARTS AND TECHNOLOGY

Arts

Further south in Victoria, storms ravaged large parts of the state in June 2021, with more than 230 properties damaged and over 1500 Requests for Assistance to the State Emergency Service. In one Dandenong Ranges community, local artists thoughtfully memorialised this disaster by using felled trees to paint portraits of key community members affected or involved in the response mission, a project aptly named the Stories of Giants.

Creative recovery has proven benefits for mental health following a disaster, bringing healing to individuals and communities. However, in the long term, this sort of memorialisation and recovery process creates long-lasting legacies of the storm beyond the reconstruction, becoming treasured community artefacts that spark conversation and reflection in generations to come.

Technology

Elsewhere in Victoria, communities have turned to technology to leverage the wide reach that websites and social media platforms can have across large geographies. A few examples include the Social Pinpoint site for the 1965 Gippsland Bushfires and the Community Bushfire Connections site. Both established by State and local governments working with the Gippsland communities, these sites provide a virtual space for victims of numerous bushfire events to upload their experience in the form of text/quotes, newspaper articles, photos, journal entries and more.

This virtual archiving of people's experience is an effective way to collate and preserve the accounts of everyday people living with the memory of the events and those who are no longer with us. While it is less likely to prompt the same level of conversation and preparedness behaviour as a physical memorial, it is an innovative and modern way to include many voices and experiences in a dynamic, accessible and user-friendly way.

Like the museums in Japan, websites like these are helpful sources of intelligence for emergency managers, able to learn the first-hand, lived experience of their community, the realities of the impacts and the local knowledge needed to inform emergency management plans.

NEW ZEALAND: MĀORI ECOLOGICAL KNOWLEDGE

Across the Tasman Sea in Aotearoa New Zealand, Māori ecological knowledge (MEK) has kept stories of disasters alive through the centuries. MEK tells of demigods and dragons that live and move along New Zealand's eastern coastline and beneath the earth.

According to Māori tradition, taniwha – supernatural dragon-like creatures, or demigods – have been the cause of great waves, storms, inundation and other land and marine phenomena. They've been the cause of death, destruction, and danger for people living near water, but also protectors and guides. One story tells of a taniwha that travelled from Porirua, near Wellington, north to Te Aute in Hawke's Bay, and left a trail of destruction:

At Te Aute it battled with the god Tāne, the thrashing of its tail creating a sandbank island in Lake Roto-a-Tara. Although this small lake is now drained, the sandbank remains (McSaveney 2017).

Likewise, Māori beliefs point to Rūaumoko the god of earthquakes and volcanoes as the cause of rumblings and scarring in the earth, the environmental phenomena inspiring the well-known art forms of ta moko and taniko (tattooing and geometric weaving).

Stories of taniwha and Rūaumoko have been told and sung over generations to tell of the impacts of natural hazards. They have been kept alive despite European settlement and framed the worldview through which many Māori make sense of disasters. Through stories, laments, quotations, proverbs and songs about catastrophic events, Māori use these oral traditions to remember what kinds of earthquakes have happened, recounting details such as the ways the earth shakes (plate movements) and secondary impacts such as tsunamis and landslides.

These oral traditions are used to record loss of life and serve as warnings about the nature of parts of New Zealand. Oral traditions about taniwha can also warn of hazardous environmental conditions, such as storms and drought.

Today these stories are increasingly recognised as integral worldviews, knowledge and understandings to work with to reduce and manage disaster risk. One of the pillars of New Zealand's National Disaster Resilience Strategy is mātauranga – knowledge, wisdom, or understanding that is deeply interconnected with whakapapa (genealogy), whenua (land), and wairua (spirit). These kinds of stories can be used to reconstruct historical timelines and map past hazard events to compare environmental change, estimate the recurrence of specific hazards events, and support mitigation and preparedness measures (King 2008).

These cultural storytelling practices are also instrumental in land use and infrastructure planning, highlighting taniwha 'hot spots' that could put life and infrastructure at risk. For example, in 2002 the planned location of a highway project in Waikato was altered in response to the Ngāti Naho people's concerns about a taniwha that was said to live in the area.

Though decisions like these have sparked broader conversations about better incorporating Indigenous perspectives in public planning, it has not been applied consistently, with many developments ignoring MEK and building in hazardous locations (Kingsbury 2022).

CONCLUSION

This piece has highlighted the different ways in which countries and communities across the Indo-Pacific have memorialised disasters over time. Table 1 below summarises key examples, lessons learned, and policy recommendations from Japan, Indonesia, Australia, and New Zealand.

Table 1: Summary of lessons learned and policy recommendations

Country	Memorialisation Method	Lesson Learned	Policy Recommendation
Japan	Disaster museums, memorials, survivor storytelling	Centralising memory builds empathy and contextualises preparedness	Integrate memorial spaces and survivor accounts into DRR education strategies
Indonesia	Oral traditions (*smong* stories), songs, rituals	Consistent oral narratives sustain risk awareness and prompt action	Preserve and promote local oral wisdom in formal DRR strategies
Australia	Oral traditions (songs and dances, traditional ecological knowledge), arts and technology	Using a range of tools and technologies that resonate with the culture facilitates diverse reflections and memorialisation	Diversify the ways in which people can share their experiences and knowledge to preserve wisdom and local knowledge
New Zealand	Oral traditions (folklore, traditional ecological knowledge)	Traditional stories can help map out the past and assist with future planning	Embrace traditional ecological knowledge as a disaster worldview to help build resilience across all sectors

As we face a future of more frequent and intense disasters, it is time we embrace the storytelling and memorialisation practices that have saved lives, honoured those lost and that build resilience.

REFERENCES

"1965 Gippsland Bushfires." n.d. Social Pinpoint – 1965 Gippsland Bushfires. https://wbwc.mysocialpinpoint.com.au/1965-gippsland-bushfires/map#/

Community Bushfire Connection. Community Bushfire Connection – A Living with Bushfire Initiative. Accessed February 20, 2026. https://www.communitybushfireconnection.com.au/

Jennings, Emma. 2023. "Stories of Giants Portrait Project." YouTube video, July 16, 2023. https://www.youtube.com/watch?v=YvpVMe6WB_I

JICA. n.d. "20 Years After the Sumatra Earthquake: Indonesia and Tohoku Share Disaster Memories and Lessons for Future Generations." News & Publication.https://www.jica.go.jp/english/information/topics/2024/p20241209_01.html

King, Darren, James Goff, and Apanui Skipper. "Facing Natural Hazards with Māori Environmental Knowledge." Water & Atmosphere 16, no. 2 (June 2008): 24–25. Accessed February 20, 2026. https://niwa.co.nz/sites/default/files/wa_2008_162_24-25.pdf

Kingsbury, Justine. 2022. "Taking Taniwha Seriously." Asian Journal of Philosophy 1 (2). https://doi.org/10.1007/s44204-022-00052-0

McSaveney, Eileen. "Historic Earthquakes – Earthquakes in Māori Tradition." Te Ara – The Encyclopedia of New Zealand. Accessed January 30, 2026. https://teara.govt.nz/en/historic-earthquakes/page-1

"National Disaster Resilience Strategy: Rautaki ā-Motu Manawaroa Aituā." n.d. https://www.civildefence.govt.nz/assets/Uploads/documents/publications/ndrs/National-Disaster-Resilience-Strategy-10-April-2019.pdf

Sutton, Stephen A., Douglas Paton, Petra Buergelt, Saut Sagala, and Ella Meilianda. 2020. "Sustaining a Transformative Disaster Risk Reduction Strategy: Grandmothers' Telling and Singing Tsunami Stories for over 100 Years Saving Lives on Simeulue Island." International Journal of Environmental Research and Public Health 17 (21): 7764. https://doi.org/10.3390/ijerph17217764

World Bosai Forum 2025. "Overview: About the Forum." World Bosai Forum. Accessed February 20, 2026. https://worldbosaiforum.com/2025/en/overview/