



Dominant social paradigm

Bountiful world for resource extraction

1. Economic growth and progress are paramount
2. Abundance of resources, resources are to be exploited
3. Limited government interference
4. Support private property rights and 'business as usual'
5. Faith in science and technology (view that science is value free)

New environmental paradigm

Nature as a limited resource

1. Protecting the environment more important than resource use
2. Nature seen as a delicately balanced limited resource
3. Non-materialism favours participatory structures & safety
4. Trusts democracy rather than experts
5. Humans should live in harmony with nature
6. Science and technology are limited (and value-laden)

Te Ao Māori

Relational environmental approach

1. Priority given to outcomes of mutual benefit to kin groups and ecosystems
2. Extracting resources okay if it builds intergenerational benefits
3. Conceptualises ecology as social relations, not separate from people
4. Behaviour regulated by concepts of mana (power, authority), tapu (sacredness) and mauri (lifeforce)
5. Core principles: kaitiakitanga (sustainable management), whakapapa (connectedness) and manaakitanga (reciprocity)



THE SENDAI FRAMEWORK OUTLINES SEVEN GLOBAL TARGETS TO BE ACHIEVED BY 2030:


SUBSTANTIAL REDUCTIONS

- A. Reduce global disaster mortality
- B. Reduce the number of affected people globally
- C. Reduce direct economic loss in relation to GDP
- D. Reduce disaster damage to critical infrastructure and disruption of basic services

SUBSTANTIAL INCREASES

- E. Increase the number of countries with national and local disaster risk reduction strategies
- F. Substantially enhance international cooperation to developing countries
- G. Increase the availability of and access to multi-hazard early warning systems

**Sendai Framework
for Disaster Risk Reduction
2015 - 2030**



United Nations

Noho tahanga a Papatūānuku, kia whakakorowai i a ia
Our Earth-Mother lays bare, let us cloak her in a rich tapestry
of biological diversity to restore her energy and vibrancy

Keita Ngata



Implementation

- Partnership
- Procurement
- Priorities
- People-centric





Acknowledgments

Whakahura - extreme events and the emergence of climate change (MBIE Endeavour)

<https://www.wgtn.ac.nz/nzccri/research/whakahura>

Perceptions of risk and uncertainty (Sustainable Seas NSC)

<https://www.sustainableseaschallenge.co.nz/our-research/perceptions-of-risk-and-uncertainty/>

Video Clip

<https://www.stuff.co.nz/pou-tiaki/132301881/new-documentary-highlights-destruction-on-the-east-coast-and-climate-change-impacts-on-tangata-whenua>



Publications

Hyslop, J., Harcourt, N., Awatere, S., Hikuroa, D., Blackett, P., & Heron, R. L. (2023). Kia aiō ngā ngaru, kia hora te marino: smoothing the waters in natural resource management to mitigate risk and uncertainty. *AlterNative: An International Journal of Indigenous Peoples*, 11771801231174317.

Le Heron, R., Lundquist, C. J., Logie, J., Blackett, P., Heron, E. L., Awatere, S., & Hyslop, J. (2022). A socio-ecological appraisal of perceived risks associated with mangrove (Mānawa) management in Aotearoa New Zealand. *New Zealand Journal of Marine and Freshwater Research*, 56(3), 447-465.

Maxwell, K. H., Ratana, K., Davies, K. K., Taiapa, C., & Awatere, S. (2020). Navigating towards marine co-management with Indigenous communities on-board the Waka-Taurua. *Marine Policy*, 111, 103722.