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QUICK GUIDE SERIES: Navigating risk and uncertainty in marine management

3 Te Ao Māori understanding of tūraru me te haurokuroku (risk and uncertainty)

In Aotearoa New Zealand, we have obligations under Te Tiriti o Waitangi to recognise the unique knowledge and kaitiaki (guardian) role Māori have to care for and protect the environment. This guide introduces a Te Ao Ma-ori lens on risk and uncertainty. It's part of a series of quick guides based on Sustainable Seas National Science Challenge research.

People have different perspectives of risk and uncertainty, and good decisions for the wellbeing of the moana and people connected to it rely on decision-makers understanding these different perspectives. Including multiple understandings of risk and uncertainty in decision-making processes is necessary. And decisions and outcomes are likely to be different depending on people's perceptions of risk and uncertainty.

A Te Ao Māori centred approach has much to offer 'risk and uncertainty thinking' in natural resource management and aligns with current environmental policy directions and the aspirations of ecosystem-based management.

A Te Ao Māori lens on risk and uncertainty

Our research shows that 'invisible' factors like worldviews, previous learning or training (disciplines), and experiences and context (positionalities), influence what people see as risky and uncertain.

Te Ao Māori takes a holistic approach to decisions about natural resource management. A Te Ao Māori centred approach strives to achieve balance in all things — between competing economic, sociocultural, and environmental priorities, and in the relationships between whānau, hapū, iwi, and the environment.

Te Ao Māori perceptions of risk and uncertainty consider first how the mana of a natural resource can be enhanced, rather than thinking about reducing adverse risk. These perceptions of environmental risk and uncertainty are holistic, multi-dimensional, interconnected, and values based.

Te Ao Māori perceptions of risk and uncertainty include:

- mana-enhancing approaches (principles based)
- an understanding that many people see risk and uncertainty as one thing
- a holistic view of risk and uncertainty that includes but goes beyond outcomes, economics, or probabilities
- consideration of long timeframes and future generations.

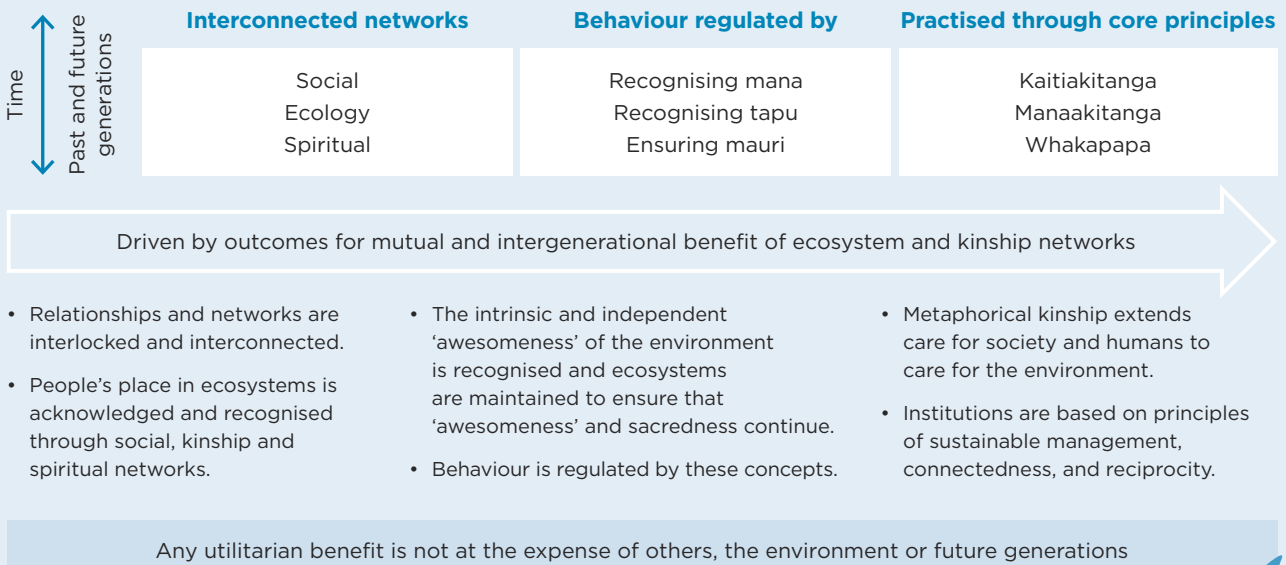
Te Ao Māori values and tools can link to risk and uncertainty practices and processes

These Te Ao Māori values and tools can be helpful in marine management decision-making.

- **Whakapapa** provides a place or whenua baseline for assessing responsibility and environmental risk.
- **Kaitiakitanga** describes the interface between the spiritual and the physical dimensions of natural resource management (NRM). Kaitiakitanga is a process that regulates human activity with te taiao.
- **Mauri** is the form of value that indigenous risk management responds to.
- **Mana** is of fundamental importance of natural resources for well-being of the wider environment, not just for humans.
- **Rāhui** allows hapū to push 'pause' until there is less uncertainty
- **Maramataka** is intimate knowing of environmental processes that helps to predict environmental impacts, reduce uncertainty, and maintain balance.

Ngā pou o Te Ao Māori

Below is an overview of key concepts and pillar of a Te Ao Māori / a Te Ao Māori worldview.



Te Ao Māori-centred approach can help Aotearoa transition to ecosystem-based management

A Te Ao Māori-centred approach enhances the mana and intrinsic value of marine resources and gives an alternative to standard risk assessments in natural resource management decision-making. To complement ecosystem-based management of the moana, we need to transition to decision-making frameworks that support the mana of the environment.

Te Ao Māori perspectives can help with this transition. An 'appetite for change' exists within Aotearoa New Zealand's current natural resource management policymaking, and many policymakers are willing to embrace Māori perspectives and mātauranga into natural resource management policy.

To date, implementing policy that's responsive to mātauranga Māori has been imperfect. Essential steps to ensuring Māori worldviews are included in decision-making about risk and uncertainty include:

- framing environmental issues from a Te Ao Māori perspective
- avoiding gratuitous co-opting of Te Ao Māori in natural resource management
- providing adequate resources for Māori participation in natural resource management.

Enhancing the mana and intrinsic value of natural resources offers an alternative perspective to prevailing risk assessment and mitigation strategies.

Decision-making parameters need to shift to support the mana of te taio rather than just reducing risk in conventional terms.

This shift is a real transformation rather than changing inputs into current frameworks, and the steps are available to do this.

What's next?

To find out about decision-making tools to support you when navigating different perceptions of risk and uncertainty, read [Quick guide 4: Tools to help navigate perceptions of risk and uncertainty](#)



» Read the full research document behind these quick guides on the Sustainable Seas website



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October 2023

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