

## Project Proposal Template

### A. TITLE OF PROJECT

#### **2.1.2 Mauri Moana, Mauri Tangata, Mauri Ora - Documenting social values**

### B. IDENTIFICATION

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### C. ABSTRACT

Ecosystem services (ES) are increasingly becoming a useful tool in planning, policy, and decision-making. However, the persistent focus on an 'economic worldview' reduces the validity of ecological and social perspectives or non-monetary values. Some non-monetary values like spirituality, metaphysics and morals do not fit naturally into the ecosystem services approach but should not be disregarded due to their "ill-fitting" nature. Rather, there should be an appropriate space to understand and take into account these types of values. This project will **enhance awareness of the diversity of values New Zealanders hold for the marine environment that are integral to ecosystem based decision-making.** This broader world view of values and ecosystems enables a move towards a more unified, integrated management framework (away from fragmented, single-focus frameworks) as required to sustain and manage ecosystems in the future. Furthermore, this project will **explore how non-monetary values can be integrated into an ecosystem based decision-making framework.**

### D. INTRODUCTION

Cultural values were defined by Costanza<sup>[1]</sup> as 'aesthetic, artistic, educational, spiritual, and/or scientific values of ecosystems'. This definition was expanded by the Millennium Ecosystem Assessment<sup>[2]</sup> to include 'the non-material benefits people obtain from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experience, including, e.g. knowledge systems, social relations, and aesthetic values'. These types of cultural non-material or 'non-use' values are included within ecosystem services in all prominent typologies<sup>[1, 2]</sup> but in practice have received very little attention in ecosystem services research.<sup>[3]</sup> In New Zealand, these types of values were defined under the Resource Management Act 1991 (RMA) as 'amenity' or 'character' values<sup>[4]</sup> and are commonly used by planners, with many government agencies compiling information on these values.

Ecosystem services are increasingly becoming a useful tool in planning, policy, and decision-making. However, the persistent focus on an 'economic worldview' may have 'closed the door to other social perspectives.'<sup>[3]</sup> Within the broader ecosystem services approach and

application, Chan et al.<sup>[3]</sup> therefore says, 'some values do not fit naturally into the ES approach', and there should be a broader consideration of 'ill-fitting' values such as; non-use, cultural, intrinsic, and moral so they are not dismissed as 'hidden externalities.' There should be the appropriate space to understand and take into account these types of values<sup>[3]</sup>. This broader world-view of values and ecosystems enables a move towards a more unified, integrated management framework (away from fragmented, single-focus frameworks) as required to sustain and manage ecosystems in the future.<sup>[5]</sup> This view aligns with the growing critique of neoliberalism that is emerging across a wide range of scholarship. In particular, Māori scholars offer several useful frameworks that may help to address these issues. Harmsworth and Awatere<sup>[6]</sup> emphasise that Māori well-being is integrally linked to the well-being of ecosystems and vice versa. They cannot be separated; through whakapapa humans and ecosystems are inter-connected and humans are significant within the ecosystem. Therefore ecosystem based management frameworks need to accommodate different kinds of values for valuation and decision-making, particularly cultural values of Māori and non-Māori.

Mātauranga Māori or Māori knowledge systems encompass the physical through to the meta-physical, including but not limited to empiricism or logic (whakaaroaro), ethical values (tikanga), epistemology (whakaponotanga), resource management (kaitiakitanga), and spirituality (wairuatanga), and is a dynamic and evolving knowledge system.<sup>[7]</sup> If knowledge is categorised in terms of epistemology, mātauranga Māori, like western knowledge, has both qualitative and quantitative aspects. Furthermore, Māori ethical values<sup>[8-13]</sup> are derived from a traditional belief system based on mātauranga Māori. Values can be defined as instruments through which Māori make sense of, experience, and interpret their environment.<sup>[11]</sup> They form the basis for the Māori world view (Te Ao Māori), and provide the concepts, principles, and lore Māori use to varying degrees in everyday life, and often to form ethics and principles. A key issue for the *Mauri Moana*, *Mauri Tangata*, *Mauri Ora* project is to recognise the multifaceted nature of mātauranga Māori.

## E. AIM OF THE RESEARCH AND RELEVANCE TO OBJECTIVE

While the integration of ecological and economic approaches has provided a major advance in terms of recognising non-monetary values for the general populace, extra care should be taken when working with indigenous cultural values, which are unlikely to be well represented by dominant cultural value systems. Harmsworth and Awatere<sup>[6]</sup> recommend that a complete range of cultural values need to be fully comprehended and understood, that is, both non-use (more traditional, customary) and use values (economic, production). An ecosystem based management framework that recognises mātauranga Māori must recognise that 'cultural values' range across material (e.g. provisioning, regulating, supporting) to nonmaterial/non-monetary values (e.g. customary-cultural, spiritual, sacred). In a participatory modelling study of the ecosystem services of Manukau Harbour, Davies<sup>[14]</sup> found that both Māori and non-Māori New Zealanders felt that the ecosystem services framework placed unnecessary constraints on the expression of their cultural values.

**The aim of this project is to enhance awareness of the diversity of values New Zealanders hold for the marine environment that are integral to the ecosystem services framework – and ecosystem based decision-making. A secondary aim is to explore how non-monetary values can be integrated into an ecosystem based decision-making framework.** In particular, the project seeks to answer the following questions:

- How are New Zealander's (including Māori) connected socially, culturally and spiritually to the marine environment?
- Are these values shared or are there variations with discernible drivers?

- How can non-monetary values for the marine environment like spiritual, intrinsic, recreational and aesthetic values along with tikanga Māori values such as kaitiakitanga (sustainable management), manaakitanga (care for the sea, care for people) and whanaungatanga (familial ties) be integrated into an ecosystem based decision-making framework?

This project is integral to the National Science Challenge objective – “Enhance utilisation of our marine resources within environmental and biological constraints.” Through a greater awareness of the diversity of values that are integral to a more robust valuation framework, issues of incommensurability and incomplete information can be better addressed.<sup>[15]</sup> As a result, through our work of developing a more holistic valuation framework, we provide the foundation for motivating meaningful change in representation and analysis of how human well-being may change alongside ecological change.<sup>[16]</sup>

## F. PROPOSED RESEARCH

There are a number of useful sources of information of tikanga (ethics) Māori to guide us by Mead<sup>[7]</sup> and Barlow.<sup>[13]</sup> Māori ethical frameworks have also been developed: Te Awekotuku,<sup>[17]</sup> Puriri<sup>[18]</sup> and Hudson.<sup>[19]</sup> Outcome evaluation methodologies based on Māori values have been explored by Durie,<sup>[20]</sup> Te Whare Wānanga o Raukawa,<sup>[21]</sup> Harmsworth,<sup>[22, 23]</sup> Morgan<sup>[24]</sup> and Jefferies.<sup>[25]</sup> Other methodologies are focused on the Cultural Health Index<sup>[26-28]</sup> and some have been adapted for a marine environment.<sup>[29, 30]</sup> We will build on our experience of developing Mātauranga Māori based frameworks for Māori resource management e.g. our work helping to develop The Māori Plan for Tāmaki Makaurau.<sup>[31]</sup> We will also utilise our experience of helping to integrate Māori values into planning and policy for freshwater<sup>[32-34]</sup> and urban planning including the Auckland Unitary Plan<sup>[35]</sup> and the Christchurch Central Recovery Plan.<sup>[36, 37]</sup> Furthermore we will: identify international literature on non-monetary valuation with relevance for ecosystem services including seminal work by Costanza<sup>[1]</sup> and Chan;<sup>[16]</sup> review international databases identified by the Ecosystem Services Partnership<sup>[38]</sup> and access local government databases on the values communities hold for the marine environment.

A range of methods (e.g., collaborative learning, focus groups, wānanga and interviews) will be used in collaboration with our research partners. The research will focus on two case studies: Te Tau Ihu o te Waka a Maui/Te Tau Ihu o te Waka o Aoraki (Tasman/Golden Bay) and Te Moananui a Toi (Bay of Plenty). We will build upon the 6 year MBIE programme – Manaaki Taha Moana Enhancing Coastal Ecosystems for Iwi (MAUX0907) by working with other investigators in the Our Seas programme (1.2.1 Social Licence) to identify points of contact with the iwi/hapū and communities of Te Moananui a Toi (Bay of Plenty) that they have existing relationships with. Likewise for the Te Tau Ihu o te Waka a Maui/Te Tau Ihu o te Waka o Aoraki (Tasman/Golden Bay) case study, we will work with other investigators of the Valuable Seas programme (e.g. 2.1.1 and 2.1.3) to build upon the relationships they have developed with iwi/hapū and communities of that region. Case studies are an important approach for the proposed research to collect and document information showing how Māori and other cultural values are used in a “real-life and practical context”. A multiple-case design will be used in this research comprising “an all-encompassing method – covering the logic of design, data collection techniques, and specific approaches to data analysis.”<sup>[39, p.14]</sup>

The two case studies represent diverse communities and interests with equally diverse ecosystems. These important attributes of scale and motive, allow us to present detailed, micro-scale, community based case studies that often have important differences when compared with other community examples. It also provides the researchers with an

opportunity to present some overall value statements at the macro-scale that may apply to Māori and non-Māori in general. Case studies often have important contrasting differences between iwi/hapū, communities, geographic locations, and constitutional and governance arrangements. In this study we are interested in generalising the results from our case studies with regard to our theory about the diverse values New Zealanders have for the marine environment.

Our research will be carried out using an integrated approach in three key steps:

1. Identify non-monetary values including Māori values with project partners by developing participatory in-depth case studies. The building and maintenance of relationships with iwi/hapū and communities through hui is a key feature of the project (Year 1). This involves:
  - a. Working with the Our Seas, Valuable Seas and Tangaroa projects 2.1.1, 2.1.3, 3.1.1, 3.1.2 and 1.2.1. to develop a process for identifying and engaging with potential participants in each case study;
  - b. Establishing contacts, operating protocols, and intellectual property agreements with each participant group (e.g. iwi/hapū, Regional Councils, interest groups, industry) for each case study;
  - c. Identifying and reviewing literature and New Zealand databases of non-monetary values in an international and New Zealand context;
  - d. Identifying and reviewing mātauranga Māori with a focus on the marine environment;
  - e. Developing case study work plans and a communication plan with case study participants including the appropriate methods for gathering data.
2. In association with 2.1.1 develop an approach for valuation that recognises non-monetary values and acknowledges the validity of Māori ethics and principles (Years 2-3).
  - a) Identify and review non-monetary values for each case study
  - b) Evaluate the effectiveness of these processes in translating iwi/hapū and community priorities into existing practice through interviews with iwi asset managers, iwi trustees and iwi kaitiaki as well as key agents from Regional Councils, industry, and other relevant stakeholder groups;
  - c) Develop draft integrated valuation framework with Valuable Seas projects 2.1.1, and 2.1.3 and our case study participants that considers non-monetary values including Mātauranga Māori
  - d) Finalise integrated valuation framework with Valuable Seas projects 2.1.1, and 2.1.3 and our case study participants.
3. This project will also contribute to a national database of non-monetary values, including Māori values, together with a robust process for collecting such information. The database will be developed and populated in at least two locations during phase 1 and expanded in phase 2, with locations selected for study in phase 2 driving the analysis on commonalities and divergences' of values observed in the first case study areas.

## G. ROLES, RESOURCES

**Shaun Awatere** (Manaaki Whenua, Landcare Research, Ngāti Porou) will provide overall leadership for the project, taking responsibility for overseeing the reviews in the first year, the case studies in the first/second years and the analysis and write up in the final year of the project.

**Kimberley Maxwell** (Victoria University, Te Whānau a Apanui, Te Whakatōhea, Ngai Tai) and **Kelly Ratana** (NIWA, Ngāti Tūwharetoa) will identify and review mātauranga Māori with a focus on the marine environment as well as assist in designing the case studies, engaging with communities, facilitating wānanga/workshops with iwi/hapū and reporting the results.

**Kate Davies** (NIWA) will identify and review literature on non-monetary values in an international and New Zealand context with a focus on the marine environment as well as assist in designing the case studies, engaging with communities, facilitating wānanga/workshops with iwi/hapū and reporting the results.

**Iwi/hapū Researchers** Te Tau Ihu o te Waka a Maui/Te Tau Ihu o te Waka o Aoraki (Tasman/Golden Bay) and Te Moananui a Toi (Bay of Plenty). We will work with projects 2.1.1, 2.1.3 and 1.2.1 to identify a iwi/hapū based researcher to help facilitate wānanga/workshops with iwi/hapū.

## H. LINKAGES AND DEPENDENCIES

This project has strong links with project 3.1.2 in the Tangaroa programme, with funding for the two projects coming mainly from this project. The project will depend in part on collaborations and linkages with local communities built and enhanced by 3.1.1, 3.1.2 and 1.2.1.

The outputs of the project will also be analysed to contribute to:

- project 2.1.1 by considering the process or framework required for non-monetary values and Māori values to work in conjunction with monetary valuation;
- project 2.1.3 by providing information and collaborations to determine how activities may result in perceptions of degraded value; and
- project 2.2.1 by providing information on whether specific values are tradable and fostering connections between multiple societal values, investment and the marine environment.

This project will also utilise the networks research leaders have in the Valuable Seas programme including project 2.1.1 - Te Tau Ihu o te Waka a Maui/Te Tau Ihu o te Waka o Aoraki (Tasman/Golden Bay) and the Our Seas programme, project 1.2.1 - Te Moananui a Toi (Bay of Plenty).

## I. COLLABORATIONS

This project is not dependent on any external projects but will work collaboratively with the project leaders in the Valuable Seas programme.

## J. INTERNATIONAL LINKAGES

This project is not linked to any international projects.

## K. ALIGNED FUNDING AND CO-FUNDING

There is no aligned funding.

## L. VISION MĀTAURANGA (VM)

The research will make a major contribution to indigenous innovation and resource management through distinctive research and development, carried out at the interface of Māori knowledge and science. Distinctive Maori knowledge in the two key focus areas: *Taiao*

– *sustainability through iwi and hapū relationships and Mātauranga – exploring indigenous knowledge for science and innovation* will be explored and developed. It will deliver effective and innovative products, services and outcomes primarily for Māori, with benefits to all New Zealanders, and build Māori/iwi and science capability through mentoring of emerging Māori scientists (Maxwell and Ratana) and actively working with Māori end users (Te Tau Ihu o te Waka a Maui/Te Tau Ihu o te Waka o Aoraki and Te Moananui a Toi).

## M. COMMUNICATION AND OUTREACH

We will communicate our research findings to various audiences using a number of pathways. A range of methods will be utilised to disseminate the findings including: an internet presence (e.g. blog publications and social media), dissemination hui/wānanga, Government and iwi reports and presentations, media publications and interviews, academic journals and conferences. Findings will also be shared at one national conference and one international journal.

## N. CAPACITY BUILDING

A tuākana-teina support and mentoring philosophy will ensure assistance and direction will be provided to the emergent researchers (Ratana and Maxwell) by Dr Awatere in kaupapa Māori based research methodologies. Dr Awatere will also provide mentoring to the emergent researchers in social science methods and provide guidance for engaging with iwi/hapū and communities. The emergent researcher, Kimberley Maxwell (current PhD candidate), will receive coaching on project management from experienced collaborators including Dr Awatere and Dr Davies.

Māori researchers, kaitiaki (iwi/hapū resource managers), and other collaborators will be challenged with articulating their knowledge in relation to non-monetary values and integrating Mātauranga Māori with mainstream economic approaches. The close collegial relationships they will form with other researchers and kaitiaki will build skills in cross-cultural understanding.

## O. ETHICS APPROVAL

The project will follow Landcare Research's Social Ethics Code. This code acknowledges that Landcare Research will comply with the New Zealand-based Association of Social Science Researchers guidelines (ASSR code of ethics). The ASSR code of ethics provides guidelines for ethical behaviour and decision making with respect to the conduct, management, publication and storage of research. These have been adapted for use at Landcare Research. This Standard Operating Procedure applies to all research conducted at or under the auspices of Landcare Research (by Landcare Research staff, contractors, volunteers or visitors) that involves **gathering of data and/or information through interactions about people, community groups and organisations**. It also applies to all research involving Māori (individuals, iwi/hapū, marae, and communities).

## Q. REFERENCES

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