

Research Proposal

A. PROJECT TITLE	2.4 Growing eco-tourism in a blue economy
"SHORT" TITLE	Growing marine ecotourism
B. THEME / PROGRAMME	Theme 2: Blue economy

C. PROJECT KEY RESEARCHERS			
Role	Name	Institution / company	Email
Project Leader	Simon Milne	Auckland University of Technology	Simon.milne@aut.ac.nz
Project Co-leader	Chris Rosin	Lincoln University	Christopher.rosin@lincoln.ac.nz
Researcher	Keri-Anne Wikitera	Auckland University of Technology	
Researcher	Carolyn Deuchar	Auckland University of Technology	
Researcher	Joanna Fountain	Lincoln University	
Researcher	Helen Fitt	Lincoln University	
Researcher & Project Management	Eilidh Thorburn	Auckland University of Technology	

*Due to Covid-19 lockdowns during proposal development all discussions with partners were conducted via email followed by Zoom meetings (30 to 90 minutes).
. Co-development feedback is incorporated throughout the proposal.

The project was codeveloped with 15 people representing a mixture government (tourism policy, conservation, trade and investment), independent policy advisors (environmental), tourism industry associations, marine ecotourism operator, iwi fisheries and aquaculture, local destination management and non-government organisations as well as relevant NSC Sustainable Seas workstream researchers. Individuals who gratefully provided their time and inputs include:

Chris Insley – Te Arawa Fisheries Group
Jeroen Jongejans – Dive Tutukaka
Kareem Ismail – Department of Conservation
Susanne Becken - Department of Conservation
Richard Davies – Ministry of Business Innovation and Employment
Bruce Bassett – Tourism Industry Aotearoa

D. ABSTRACT
<p>Our extensive coastline and unique marine environment places Aotearoa in an excellent position to develop marine ecotourism that embraces regenerative principles and supports a blue economy. Covid-19 is a catalyst to develop these types of activities but our understanding of marine ecotourism and how it connects to the blue economy is lacking. Marine ecotourism is an area often overlooked by policy makers and the connections to the spiritual, cultural, social, environmental, and economic well-being of communities is largely unexplored. To develop marine ecotourism activity that embraces regeneration and supports a blue economy we need to understand where we are now, where we want to go, and how we will get there. Drawing on Mātauranga Māori this project aims to develop marine ecotourism from low impact eco-system-based management (EBM) principles. Innovative approaches will be adopted to identify, investigate, and achieve the desired outcomes. Key to this is forming a network that enables cross-sectoral learning and can drive and enact change. Working in partnership with iwi, industry, government, and community the research will: establish a baseline of marine ecotourism activity; co-create an actionable definition; construct collaborative measures for 'success' and test this in North and South Island case studies. This will include wānanga with case communities and mātauranga experts in factors that contribute to te Taiao, and participation in existing marine ecotourism activities. An iterative process of adaption and collaboration across sectors and cultures will enable knowledge exchange and learning to develop tools and frameworks that support the development of marine ecotourism.</p>

E. RELEVANCE TO CHALLENGE OBJECTIVE
<p>Developing marine ecotourism to contribute to a blue economy (BE) supports the challenge objective to utilise marine resources within environmental and biological constraints by:</p> <ul style="list-style-type: none"> Establishing baseline data – the size and direction of Aotearoa New Zealand's current marine ecotourism related activities and how they interact with other sectors of the BE

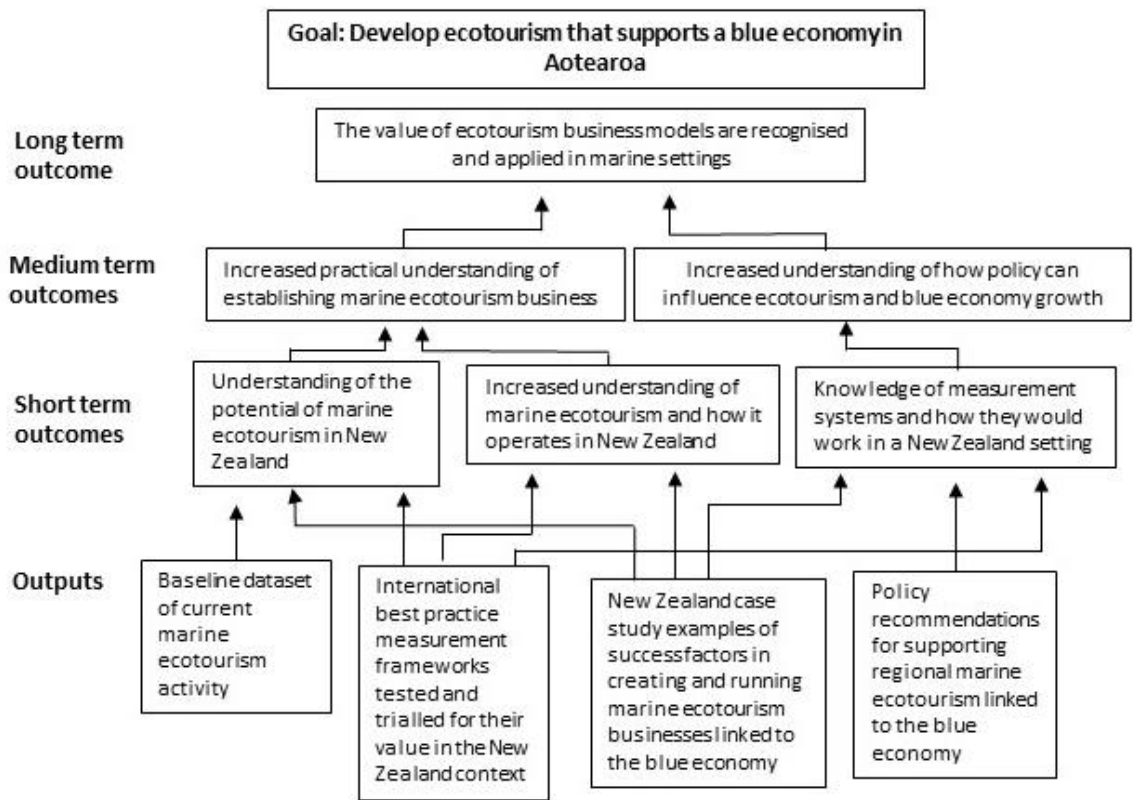
- Developing in conjunction with Māori and other groups an actionable definition of marine ecotourism, discovering what success looks like in the Aotearoa context and developing approaches and tools to monitor performance (social, economic, cultural, spiritual, and environmental wellbeing)
- Interrogating current models of ecotourism and restorative marine ecotourism at the international and New Zealand case study level and understanding if and/or how these can be scaled and replicated in the Aotearoa context
- Co-designing marine ecotourism activity in case study settings and learning how to create scalable models for policy that encourage the adoption of regenerative principles that support the BE

F. OUTPUTS	This project will produce the following Outputs:	Linked to which Theory of Change Outputs:	Explain briefly your plan to ensure uptake by iwi and stakeholders:
	<p>Output 1: Baseline dataset</p> <ul style="list-style-type: none"> ○ An actionable definition of marine ecotourism: co-developed agreed with criteria established ○ Dataset: where, ownership, the nature of the activity (extractive>regenerative) and linkages to other sectors ○ Google Maps: visual/interactive display of dataset ○ Method: outlining how the dataset can be updated and maintained ○ Public kōrero and accompanying report to disseminate findings at public event 	<p>h. Frameworks for decision making that consider multiple values and blue economy activities developed and evaluated</p>	<p>Engagement with Māori and others through the process of gathering baseline information (short interviews/survey) & co-developing an actionable definition.</p> <p>Co-development partners have expressed interest in the need for baseline data to understand the size & nature of the sub-sector- this is important for the Ocean System Reform project (project timing coincides 2021) and for Tourism Industry Aotearoa (TIA) /NZ Māori Tourism who are looking for data to better understand the move to regenerative tourism – something the industry Tourism Sustainability Commitment (TSC) is aiming to achieve.</p> <p>Department of Conservation (DoC) are interested in having a national view of marine ecotourism activities.</p>
	<p>Output 2: Measurement frameworks.</p> <ul style="list-style-type: none"> • Guidance/framework ○ Guidelines for measures of successful marine ecotourism in Aotearoa/New Zealand, informed by Mātauranga Māori and other international best practice ○ Tools to measure economic, ecological, and socio-cultural impacts associated with marine ecotourism ○ Infographic representing links between marine ecotourism and Blue 	<p>h. Frameworks for decision making that consider multiple values and blue economy activities developed and evaluated.</p> <p>j. Guidelines for participation in EBM management decision making processes evaluated, refined and packaged for targeted iwi, stakeholders and decision makers.</p>	<p>Measures for successful marine ecotourism will be co-developed at case study locations drawing on Mātauranga Māori principles.</p> <p>Co-designed guidelines are integrated into wider blue economy themes via engagement with other Sustainable Seas streams e.g. 2.2 Regenerative Economies.</p> <p>Guidelines will be co-developed based on our learnings from iwi and other partners in Stage 1 and during the case study research.</p>

	<p>Economy activity</p> <ul style="list-style-type: none"> ○ Educational and awareness raising resources for the public and private sector to initiate and encourage marine ecotourism including EBM protocols, practices and regulatory regimes. Including collaborative wānanga and resulting online resources ● Presentation to disseminate findings at public events ● Report on measurement frameworks and marine regenerative tourism examples ● Journal article 		<p>Guidelines will be shared at project hui to discuss the practical implications at the local level.</p> <p>TIA is actively working to help transition businesses to regenerative forms of tourism & this project will help link operators and prospective businesses to a knowledge base of resources.</p> <p>This will align with MBIE initiatives related to sustainable destination frameworks.</p>
	<p>Output 3: Case studies.</p> <ul style="list-style-type: none"> ○ Guidelines developed on how to expand and scale (local>regional / place>place) marine ecotourism activities that link to a blue economy and how other activities relating to the moana could transition to regenerative principles <ul style="list-style-type: none"> ○ Operator knowledge base with resources on how to create a marine ecotourism tourism business and how to leverage local supply linkages ○ Kōrero at local events/Marae hui to link research findings with iwi development plans and local Māori community development organisations ○ Research reports to disseminate knowledge to key stakeholders ● Video/animation & accompanying two-page text/infographic that summarises findings and highlights case study stories to encourage uptake and wide dissemination to key stakeholders ● Referred journal article ● Presentation of findings (with online streaming) at the local level North & South Island locations 	<p>b. Traditional, local and other cultural knowledge that supports EBM is captured/understood/recognised</p> <p>c. Effective partnership models for an EBM approach to decision-making and management developed, evaluated, and demonstrated</p> <p>e. Scales of management and place-based strategies that reduce environmental risks are identified and demonstrated.</p> <p>i. Guidelines developed, opportunities identified and innovations, for transitioning to a blue economy for business operating in the marine sector</p> <p>l. Remaining knowledge gaps that increase environmental risk for decision making are identified for iwi and stakeholders</p>	<p>Research (Stage 2) at case study locations will be in partnership with existing marine ecotourism operators, local iwi, community, local government agencies and public agencies e.g. DoC, MPI etc.</p> <p>Case studies will be co-designed with interested parties (iwi, industry, communities) and will explore collectively how best to transition marine ecotourism activity towards regenerative tourism activities that can be framed by mātauranga Māori concepts such as kaitiakitanga practices, rahui prohibition, customary fisheries management and other culturally affirming approaches. The process will be iterative, coming together to test and refine ideas. We will engage with cross theme/challenge projects and have had discussions during proposal co-development of where locations overlap. Where we are in the same case study location, we will work together to make sure engagement is coordinated & learnings shared.</p> <p>The aim is for cross cultural and sectoral networks at case study locations to form and continue to carry forward EBM based management.</p> <p>Case study findings and learnings discussed, and final outputs reviewed by participants before</p>

			<p>publication or presentation.</p> <p>During the proposal co-development partners gave input into the case study locations.</p> <p>TIA & DoC expressed interest in linking operators to knowledge bases and tools to help them transition to regenerative activity.</p>
	<p>Output 4: Policy recommendations</p> <ul style="list-style-type: none"> • Targeted to support regional marine ecotourism activity linked to the blue economy. <ul style="list-style-type: none"> • Quality assurance recommendations using EBM approaches in marine ecotourism development- how these can link to existing international & existing New Zealand green certification frameworks • Policy implications across the spectrum ‘hard & soft’ (e.g. regulation - Resource Management Act & Department of Conservation concessions frameworks, Health and Safety Act) to ‘softer’ accreditation and incentives. Other national initiatives will be reviewed in this context including tourism Covid-19 recovery stimulus and other government led initiatives such as ‘Jobs for Nature’ as well as regional initiatives. We will link to project 4.2 policy & legislative change to ensure coordination of approach. 	<p>g. Governance and policy practices that support EBM identified, evaluated and packaged for targeted decision makers</p>	<p>Identification of policy levers and incentives and how these affect the growth of marine ecotourism will be important – e.g. for the EDS Ocean System Reform project (2021), the implementation of DoC’s 2020 biodiversity strategy - how to better link marine ecotourism activities into future planning and how TIA can assist marine tourism operators in meeting their sustainability commitments. It will also inform the Parliamentary Commissioner for the Environment’s thinking on how the marine tourism landscape operates. Usefulness of quality assurance and regulatory guidelines will be tested with end-users in the NZ setting and we will work closely with TIA on how these compliment or can be integrated into TSC which will soon be a pre-requisite to Tourism Industry Association Membership.</p> <p>Engagement via workshops and later discussion document will be completed to ensure that policy recommendations are practical and have an implementation pathway.</p>

Figure 1: Output framework



G. OUTCOMES

This project will contribute to the following Theory of Change Outcomes:

- The value of blue economy business models is recognised and adopted by Aotearoa New Zealand businesses.
- Decision-making practices that are more inclusive, multi-sectorial and account for the effects from cumulative and multiple activities are adopted.
- EBM practices are understood and accepted as a viable approach by decision makers, stakeholders and iwi.

H. INTRODUCTION

Te moana is fundamental to New Zealand’s tourism product (Environment & Stats NZ, 2019). Before Covid-19 tourism contributed 9.8% GDP, \$40.9 billion and 14.4% national employment (Stats NZ, 2019). Covid-19 has diminished the country’s most valuable export sector which last year was subject to ‘overtourism’ in key regions, putting pressure on marine environments. Crises offer opportunities to ‘build back better’ but often economic pressures see the pursuit of relentless growth at the expense of social and ecological wellbeing re-enacted (Gössling, Scott & Hall, 2020). Recent analysis found that current policy is not sufficient to decouple tourism growth from environmental impacts (Parliamentary Commissioner for the Environment, 2019). There is limited understanding of the marine tourism sector and few tailored tools to take advantage of opportunities that marine ecotourism brings to the blue economy (Market Economics, 2019).

Aotearoa is branded on Taiao which attracts both international and domestic visitors (Department of Conservation, 2020). Visitors can enjoy almost one third (30%) of conservation estate on land while only 0.4% of territorial waters are protected. Some sense of the importance of marine environments in tourism can be gained from cruise ship expenditure which alone totalled \$570 million in 2019. One in three (33%) international visitors undertook a scenic boat trip while half (50%) visited a beach (Stats NZ, 2019a). Te moana is also important for domestic leisure (Department of Conservation, 2020a).

With three-quarters of New Zealander’s living within 10km of the coast marine ecotourism brings benefits to local areas. Developing marine ecotourism supports government priorities to “enrich Aotearoa, in particular tourism that protects, restores

and Aotearoa’s natural environment and supports thriving and sustainable regions” (Ministry of Business Innovation & Employment & Department of Conservation, 2019).

The understanding of marine tourism is limited in part due to a narrow national definition of ‘marine tourism and recreation’ as “marine equipment retailing” valued at \$94.65 million in 2018 (Stats NZ, 2020). Market Economics (2019) attempted to better assess the value of ‘Coastal Tourism’ estimating it was worth closer to \$3 billion in 2017. Equally important is a lack of understanding of marine ecotourism at the sub-regional level and its role in local community wellbeing and regional revitalisation (New Zealand Tourism Research Institute, 2009). An EMB approach advocates for time and place specific research which is important to test solutions and demonstrate the viability of the blue economy in Aotearoa (Pham, Shahabi & Liu, 2013; Envirostrat, 2019).

A blue economy encompasses activity that not only provides economic value but also contributes to social, cultural, and environmental wellbeing; it must be valued not only in dollars, but by restoration of biodiversity and marine abundance and health on which all sectors of the economy rely. Developing marine ecotourism contributes to a blue economy that prioritises nature and community wellbeing and ultimately provides a long-term return on investment (World Economic Forum, 2020).

I. AIMS

1. Establish baselines

- Collectively create an actionable definition of marine ecotourism for Aotearoa
- Stocktake of marine ecotourism activities in Aotearoa; their scale, location and connections to the blue economy
- Create an open dataset of marine ecotourism operators that can be easily updated
- Work with other BE workstreams to collate data in a format that can aid decision making at local and national levels

2. Understand marine ecotourism in Aotearoa

- Understand benefits, opportunities, innovations, challenges, and connections to the wider blue economy of marine ecotourism activity
- Identify key values centred Māori ecotourism initiatives and potential scaling, with a view to further Māori economic development, engagement and leadership
- Identify success factors of marine ecotourism initiatives
- Identify and co-create measures of marine ecotourism impacts that meet the needs of Aotearoa
- Identify how to integrate ecotourism activity with EBM

3. Grow ecotourism in a blue economy

- Understand marine ecotourism activities in case study locations (including cross sector linkages), document learnings and create guidelines to enable scale (local>regional)/ (marine tourism>regenerative marine ecotourism)
- Co-create initiatives and policy to support the creation of regulatory frameworks with decision makers that can be implemented to help the tourism sector contribute to a blue economy

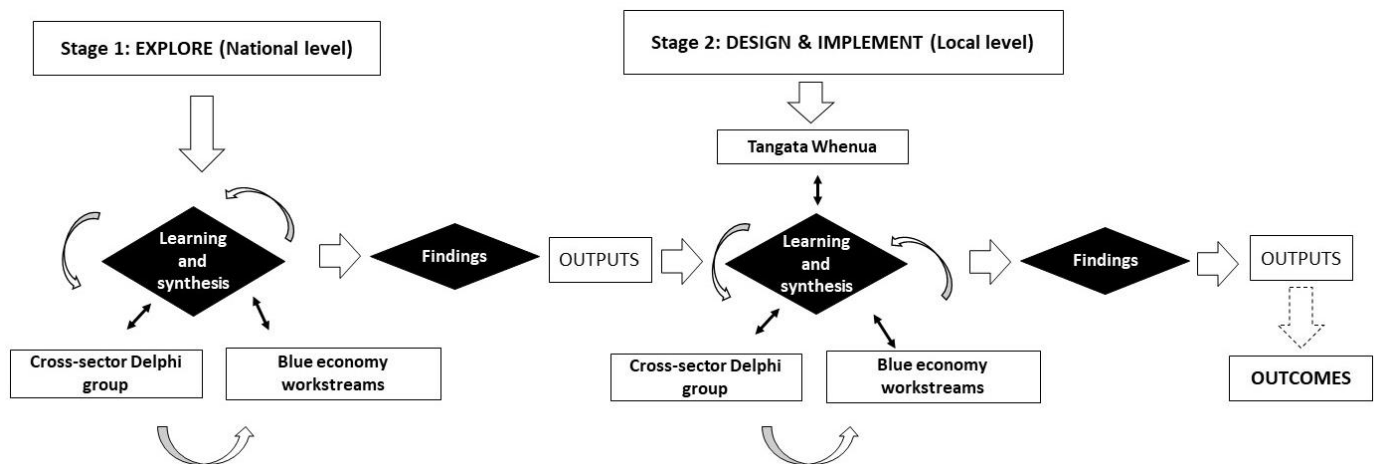
J. PROPOSED RESEARCH

Covid-19 should be a catalyst to boost initiatives that go beyond ‘business as usual’ to create something transformational (Cheer, 2020). A ‘reset’ requires holistic thinking across sectors and cultures that incorporates people and place and takes account of the multifaceted demands on marine environments.

While the problem of unsustainable economic growth is widely acknowledged, complex systems, competing interests, fragmented governance, and a lack of consensus for action has limited tangible change in the sustainable use of natural resources (Department of Conservation, 2020). Change requires fresh thinking, and more than strategy documents are required to overcome the challenges of tourism growth and environmental degradation (Parliamentary Commissioner for the Environment, 2019). Transforming a system requires a diverse group with common interests who will work together to refine and implement solutions (Young et al., 2010). Networks rely on the maintenance of relations, trust, and regular communication (Cohen & Cohen, 2012). Research team members will act as network facilitators - bringing a diverse array of actors together with a point of collaboration (research process), facilitating the alignment of interests for EBM, and maintaining regular communication to encourage mobilisation and ongoing engagement.

The approach is outlined in Figure 2 with network development to enact change playing a pivotal role. Both Stages 1 and 2 involve collaboration and co-design with relevant partners. The focus of Stage 1 is national, and dovetails with Stage 2 which will see intense engagement at the local level. Throughout the project the intention is to learn from one another and ensure that a cross-sector and cross disciplinary approach is achieved in partnership and guided by Mātauranga Māori following correct tikanga. A critical role for the research team is to ensure that any learnings shared by tangata whenua are acknowledged, protected, and only disseminated in ways that are acceptable to those who share it.

Figure 2: Project outline



As the research proceeds, input from iwi and communities at the local level is critical. We will operate using the following principles:

- Respect for Tikanga Māori and commitment to the Treaty of Waitangi
- Outputs that stakeholders need and can use
- Cross sectoral input, analysis and understanding
- Commitment to two-way communication, learning and respect for the wisdom and the mana of others

The project unfolds in two stages. Stage 1 explores baselines, opportunities, measures, and challenges and is focused on the national scale while also understanding the international context. Stage 2 builds on the preceding Stage and takes a case-based approach focussed on designing, testing, and implementing tools and approaches that can support the development of marine eco-tourism to support a blue economy.

Stage 1 – Explore: baselines, opportunities, and challenges

There are gaps in knowledge about the current state of marine ecotourism in New Zealand, and no comprehensive baseline to measure the transition to regenerative ecotourism that supports a blue economy (Envirostat, 2019). The first step is developing a definition and establishing criteria of marine ecotourism in Aotearoa. Using participatory and co-design methods, the research will deliver an understanding of what ‘successful’ marine ecotourism looks like to achieve social, cultural, ecological, and economic value for Aotearoa.

A frequently cited definition of ecotourism is “responsible travel to natural areas that conserves the environment and improves the wellbeing of local people” (International Ecotourism Society, n.d). Characteristics of ecotourism are learning/interpretation, low impact activity that minimises negative environmental and socio-cultural impacts, prioritises community control, supports conservation, and upholds the rights and beliefs of indigenous people (Seek, C., & Sellier; Global Sustainable Tourism Council, n.d). To inform latest thinking we will complete a literature review of marine ecotourism that supports a blue economy. This will include how ecotourism can maximise benefits to communities and marine environments while minimising negative impacts. We will also collate existing knowledge of marine ecotourism in New Zealand to inform the baseline audit.

In any study investigating Māori perspectives of tourism, kaitiakitanga is paramount (Potter, 2018), and the proposed research will further articulate Māori conceptual understandings alongside international perspectives of ecotourism. Wānanga will include a focus group with moana experts delivering to other stakeholders Māori or non-Māori ecotourism operators using culturally affirming participatory methods to inform the criteria and definition of marine ecotourism in Aotearoa.

Important to Stage 1 is stimulating engagement in the project at the national level and leveraging a network of co-developers. The research is an iterative co-designed process which will be completed via a cross-sectoral Delphi-like group— comprising tangata

whenua, private sector, public sector, and community actors. Co-developers of this proposal have indicated their interest and will form the initial group, which can expand/change as the project evolves. The purpose of the group is to guide the research, elicit feedback and foster collaboration. The group will provide input for analysis, discuss findings from a multi-sector perspective and inform outputs. Feedback from aligned Sustainable Seas workstreams has and will continue to ensure learnings across teams. Tangata whenua (especially those exercising mana moana) will be privileged and prioritised throughout the research and members of the research team will provide a Mātauranga Māori perspective throughout.

Stage 1 includes a comprehensive desktop audit supplemented by primary research (interviews/surveys) to identify and map marine ecotourism activity in New Zealand (location, size, scale, direction). This responds to the call from Market Economics (2019) and co-developers for research to understand the full picture of marine tourism operators and initiatives in Aotearoa.

Key themes to guide the audits:

- What marine and coastal ecotourism activities exist? Where are they and what is their scale and ownership structure?
- On a scale is the activity being considered extractive, sustainable, or regenerative?

The literature review will complement the desktop audit to investigate how marine ecotourism links to the blue economy using EBM. This includes a critical review of literature including Māori and indigenous perspectives. We will review ecotourism business models that support regeneration of marine environments and our communities, such as social enterprise and hybrid models that incorporate a diversity of mindsets and account for cultures, history and place (Amoamo, Ruckstuhl & Ruwhiu, 2018). The review will also incorporate an international best practice audit of the measurement, certification, and quality assurance of marine ecotourism as a sector.

Key themes to guide the best practice review:

- What international standards exist for categorising marine ecotourism using EBM management including certification initiatives, what is the uptake of these standards and their impact?
- What standards are currently operating in New Zealand around the certification of sustainable marine tourism activities and what is their uptake and their impact?
- What policy initiatives have been successful elsewhere and to what extent could they be replicated in New Zealand?
- What sustainable blue economy finance principles have seen successful in generating marine tourism return on investment?
- What examples of Māori and/or indigenous leadership and participation is there in marine ecotourism globally and in New Zealand?
- What indicators, measures and tools have been developed to address the performance of marine ecotourism activities? How could these insights aid a COVID-19 recovery?

The practicality of implementing identified best practice concepts and their potential impact in a New Zealand setting will be explored via the Delphi group.

Semi-structured interviews with marine ecotourism operators will then explore the benefits, opportunities, innovations, challenges, and connections to the wider blue economy and will be used to inform case study design.

Key themes to guide the interviews

- What is your experience of marine and coastal ecotourism in your area?
- What challenges have you experienced with Covid-19?
- What opportunities do you see emerging from a post-Covid-19 environment?
- What opportunities exist to grow and develop marine ecotourism?
- What challenges impede the growth and development of marine ecotourism?
- What opportunities do you see to link marine ecotourism with other sectors?
- How might marine ecotourism create more positive local economic, environmental, and social impacts?

We will conduct a Political, Economic, Sociocultural, Technological, Legal and Environmental (PESTLE) analysis of the marine ecotourism opportunities that have been identified and use this to aid in the broader process of case study location. A significant element of Stage 1 will be the building and strengthening of relationships through the research process to guide further case specific co-design in Stage 2.

Stage 2 – Design, test, implement

Tourism is a complex adaptive system (Strickland-Munro, Allison & Moore, 2010) and case-based approaches can provide a deeper understanding of the nature of the industry and its interaction with other sectors. To understand how to develop ecotourism for a

blue economy within an EBM framework Stage 2 takes a grounded case study approach in alignment with other sustainable seas workstreams. Two case studies (x1 North Island, x1 South Island) will examine the importance of connected marine activities and provide a greater understanding of their interactions with the ecotourism sector. The Delphi group, input from tangata whenua and other workstreams, as well as the audit and PESTLE analysis in Stage 1, will inform the final selection of the case study areas.

A case selection framework has been developed based on background research and co-developer input (Figure 3). The aim is to identify marine / coastal based regenerative ecotourism case studies in Aotearoa that link to a blue economy and study how these could be replicated scaled and expanded on. The initial list is provided below and will evolve further.

Figure 3: Potential Case Study Areas - selection considerations

	Level of Marine tourism eco/tourism activity	Māori owned marine ecotourism activity	High degree of tourism dependence	Existing EBM/BE activity	Existing tourism and related data	Links to other blue economy projects	Existing relationships between community & research team	Iwi aspirations for marine ecotourism development
Hauraki Gulf / Aotea Great Barrier								
Northland / Tutukaka								
Bay of Plenty /Whakatane								
Akaroa/Banks Peninsula								
Kaikōura								
Havelock/Marlborough Sounds								

In Stage 2 our engagement is place based and more intensive. It is critical to understand and consider the cultural elements of eco-systems where identities, sense of place, spiritual experiences, recreation, and tourism are connected and integrated with the eco-system (Jackson, 2011; Food and Agricultural Organisation, n.d). The purpose of the case studies is to understand at a deeper level the interconnections between marine ecotourism and other sectors of the blue economy. The research seeks to understand marine ecotourism impacts on, and linkages to, the surrounding economy and ecosystems. Case studies will involve engagement with iwi, hapu and/or whanau, local communities, tourism, local government, and other sectors.

The cases will provide a place to test frameworks, learn and adapt to place-specific realities and enable locally based Mātauranga Māori knowledge to inform and guide our understanding of the transition to more regenerative forms of tourism. Engaging with local iwi, hapu and/or whanau, and connecting to the Tangaroa Programme and other relevant workstreams we will look to co-develop indicators to guide marine tourism activity and understand the linkages to other sectors of the economy. A key outcome will be to understand what success looks like at a local level and collectively create loosely based EBM guidelines.

Synthesis, test, tools, and outputs

We will synthesise case study findings incorporating input from co-developers. Our thinking will be informed by co-development partners, Mātauranga Māori guided by relevant iwi and Dr Keri-Anne Wikitera, and the cross-sectoral Delphi-like group. In the event that case studies selected in Stage 2 are in locations where other NSC Blue Economy projects exist, we will work with other teams to integrate and synthesize cross sectoral insights and themes.

An analysis of the New Zealand tourism system will be undertaken by working with others to understand linkages and interdependencies and to gain insight into what regulations, accreditation schemes, incentives, and policy levers can be used in the development of regenerative marine ecotourism.

Synthesis will identify common drivers of marine ecotourism and those that support Māori aspirations. Working in partnership to scale place-based lessons, we will identify pathways forward including supportive infrastructure and enabling policies that work at the national level while allowing place-based management of unique places and eco-systems to thrive.

K. LINKS TO PHASE I RESEARCH

The project integrates with and builds on findings from Phase 1 projects, in particular:

- Creating value from a blue economy
- Tangaroa programme – mapping the Māori marine economy
- New blue economy in Kaikōura: participatory process approach.

Phase 1 emphasised that marine tourism was an overlooked aspect of the national marine economy. Phase 1 project ‘Creating value from a blue economy’ placed tourism as having a much greater impact than what was previously understood in the Stats NZ marine economy report. Marine tourism was highlighted as a key element of the Māori Marine Economy, with iwi being significantly active across the marine tourism landscape. The Kaikōura project in Phase 1 is a case in point and set in a small town that is heavily reliant on iwi owned marine tourism activity – Whale Watch Kaikōura. Together these projects underlined the potential for marine eco-tourism to support the growth of a blue economy.

L. LINKS TO & INTERDEPENDENCIES WITH PHASE II RESEARCH PROJECTS

Discussions with Phase II project teams have highlighted a range of important linkages. Within the Blue Economies theme 2, this project links with 2.2: ‘Encouraging restorative economies in New Zealand marine spaces’ - with a focus on innovation happening at the intersection of tourism and restorative activities.

There are strong links with 2.3: ‘Indigenising the blue economy in Aotearoa’, especially work to map the Māori blue economy (marine based tourism). This project addresses the imperative identified in 2.1: ‘Transitioning to a blue economy’ that highlights a gap in knowledge “to identify opportunities for ecotourism to link to natural assets, travel experience and novel clusters”.

Beyond the Blue Economy theme, synthesis of Stage 1 and 2 outcomes from the proposed research will inform elements of 4.2: ‘Options for policy and legislative change to enable EBM across scales’. Discussions with the 4.2 team have highlighted clear opportunities for dovetailing of findings in areas such as regulatory dimensions.

There are also potential links to 3.2 (communication risk and uncertainty to decision makers); 1.1 (assessment of ecological footprints, understanding Cumulative Effects); 1.2 (tools for spatial planning and maintaining systems capacities); and 4.3 (applied example of EBM and Kaitiakitanga).

M. VISION MĀTAURANGA (VM)

Māori have significant investments in marine ecotourism activity. Ecotourism is intrinsically linked to Mātauranga Māori - te pae tawhiti, manaakitanga and kaitiakitanga. We recognise Māori as partners, as kaitiaki of te moana, owners of indigenous knowledge and commercial business.

The project contributes to *indigenous innovation* by designing case studies that respond to indigenous community development. The concept of utu emphasises reciprocity and thus two-way learning will be fundamental to the research approach. Māori values centred marine ecotourism that could lead to innovation will be fostered and guided by Dr Keri-Anne Wikitera and other Māori experts (budgeted). We will ensure case study research supports advancement of *Taiao* goals by exploring how iwi, hapu, whanau relationships with environment apply to te moana and aspirations for the future. *Hauora/Oranga* will be addressed by addressing how the ‘culturalisation of commerce’ (Wikitera & Bremmer, 2017) can link to and support iwi and/or hapu priorities and aspirations. Another focus of the case study research will be on ways Māori culture can thrive via ecotourism activity and linking in place-based stories and whakapapa to the environment. Working alongside iwi and others we will actively look for ways project outputs can be of use to Māori entrepreneurs supporting *Mātauranga* in the VM framework.

We will connect to project 2.1: ‘Indigenising a blue economy’ and continue to seek guidance from the Challenge team Manahautū and link to the Tangaroa programme to ensure VM is optimised.

Vision Mātauranga Deliverables

Partnerships:

VM P1. NZ Māori Tourism have expressed interest in data, Te Arawa are interested in a case study and data, and we have sought initial ideas from a member of Ngāi Tahu. Dr Keri-Anne Wikitera has tribal connections with Te Arawa and Ngapuhi. In the South Island team members are working with local Māori interests in potential case study locations. Hui will be held in case study locations to address specific iwi and/or hapu priorities and co-design case study research.

VMP2. Findings will be informed by Mātauranga Māori and reviewed by Māori.

Distinctive Contribution:

VM D1. Mātauranga Māori knowledge systems will be applied to develop indicators of success

VM D2. Co-development and engagement of how the research can inform strategic iwi priorities (initial exploration with Te Arawa).

Meaningful Outcomes:

VM M1. Research aims to develop networks that can advance the development of future strategic plans via the Delphi group.
 VM M2. Māori researchers participate and develop their research interests in Māori tourism and strengthen Māori tourism research capacity across the team.

N. ENGAGEMENT REQUIRED WITH IWI AND STAKEHOLDERS

The proposal is co-developed at the national level to ensure that research is relevant and useful to Māori at a broad level by engaging with and seeking feedback from Māori tourism stakeholders including New Zealand Māori Tourism, iwi, and other linked Māori owned marine sectors e.g. Te Waiariki Aquaculture.

Co-development was targeted at those who will use the findings and who are able to enact change (Table 1). There was a strong message from the tourism sector and iwi that research-led tourism data is critical to decision making, but is often overlooked, and consequently poorly understood across multiple scales.

Co-development of the research throughout Stage 1 will continue into the case studies (Stage 2) to ensure alignment with local iwi and wider community aspirations for development. Where possible we will coordinate case study engagement with other workstreams. Hui and ongoing kōrero will happen with appropriate iwi members, operators and link interested community groups during Stage 2.

The Delphi group will help to ensure that findings are relevant to end-users - with meetings scheduled at key milestones.

Table 1: Engagement overview

Co-developer	Expressed interest	Could benefit	Needs to be informed	Implement results	Avenues Opportunities to engage (Explored ideas/links)
Tourism policy (central govt)	✓	✓	✓	✓	<ul style="list-style-type: none"> ○ Regional Destination Management ○ Planning tools ○ Sustainable tourism indicators ○ Tourism Policy
Independent Policy (environment)	✓		✓		<ul style="list-style-type: none"> ○ Tourism policy in marine spaces developments
Marine ecotourism operator	✓	✓	✓	✓	<ul style="list-style-type: none"> ○ Advocacy tools (data) for Tourism Futures Taskforce
Tourism industry associations	✓	✓	✓	✓	<ul style="list-style-type: none"> ○ Tourism Sustainability Commitment ○ Tools for businesses ○ Dissemination of results
Tourism industry associations (Māori representatives)	✓	✓	✓	✓	<ul style="list-style-type: none"> ○ Data for decision making. ○ Tools to help new and existing Māori tourism businesses.
Māori / Iwi	✓	✓	✓	✓	<ul style="list-style-type: none"> ○ Smart Māori aquaculture (Bay of Plenty) new revenue streams for investment case. ○ Various iwi aspirational to move into tourism. ○ Linking to tourism schools in Northland/Bay of Plenty.
Trade & investment (central govt)	✓		✓		<ul style="list-style-type: none"> ○ Dissemination of information for business and possible investment pathways.
Conservation (central govt)	✓	✓	✓	✓	<ul style="list-style-type: none"> ○ Biodiversity strategy implementation

					o Marine concession framework.
Not for profit (environment)	✓	✓	✓		o Ocean System Reform project
Regional Economic Development Agency	✓	✓	✓	✓	o Forthcoming Climate resilience and destination management plan including evidence & monitoring

O. PROJECT COMMUNICATIONS

The main audience is decision makers who can enact change at different scales, including: central government, tangata whenua, iwi, the tourism industry, operators, and linked economic sectors. The Delphi group will provide insight into the research communication/dissemination methods preferred by different stakeholder groups (e.g. webinars or in person workshops). The group will also facilitate work with other groups (via wider networks) to ensure research outputs reach a broad range of relevant parties. Findings will be disseminated by webinars, local presentations, collaborative wānanga / hui, accessible reports aimed at target audiences, policy briefings, infographics and online resources including video. We will link to other sustainable seas projects and the Challenge team where relevant to coordinate the dissemination of findings. Through co-development relationships we will work with partners to identify the best formats for dissemination to different audiences.

P. RISK & MITIGATION

Table 2: Risk register

Risk	Mitigation
Intellectual property rights of iwi and hapū – publicly shared knowledge.	Conversations early about what is closed and what is open knowledge. Through a kaupapa Māori approach, cultural ethics will ensure appropriate knowledge is mediated through tikanga prior to publication. Appropriate acknowledgement of knowledge.
Failure to engage / disseminate results to the right audiences	Process of engagement post proposal continues & intensifies during case studies. Researchers on the team have good linkages to proposed case study locations and budget for VM. Engagement with other teams during both proposal development and project implementation to ensure coordination. Engagement with Challenge leadership throughout the project – including in coordinating dissemination.
Timetable slippage	Budget for researcher/project manager to oversee the project and ensure deliverables are met. We also have researchers based in the North and South Island to effectively manage the case studies in both locations.
Covid-19 lockdown	Online methods will be adopted.

Q. CONSENTS & APPROVAL required to undertake research

An ethics application (Stage 1 research) will be submitted to AUT Ethics Committee on the 27th November for the 7th December 2020 meeting covering AUT and Lincoln research activities.

Ethics application will be submitted in 2021 for Stage 2 research by AUT and Lincoln separately.

R. REFERENCES

- Amoamo, M., Ruckstuhl, K., & Ruwhiu, D. (2018). Balancing indigenous values through diverse economies: A case study of Māori ecotourism. *Tourism Planning & Development*, 15(5), 478-495.
- Cheer, J. M. (2020). Human flourishing, tourism transformation and COVID-19: a conceptual touchstone. *Tourism Geographies*, 1-11.
- Cohen, E., & Cohen, S. A. (2012). Current sociological theories and issues in tourism. *Annals of Tourism Research*, 39(4), 2177-2202.
- Collins, A. (2020, August 26). *Wellbeing indicators for NZ people and nature* [webinar]. Manaaki Whenua Ministry of Environment.
- Department of Conservation. (2020). *Te Mana o te Taiao – Aotearoa New Zealand Biodiversity Strategy*. Retrieved from: <https://www.doc.govt.nz/nature/biodiversity/aotearoa-new-zealand-biodiversity-strategy/te-mana-o-te-taiao-summary/>
- Department of Conservation. (2020a). *New Zealanders in the outdoors. Domestic customer segmentation research*. Retrieved from: <https://www.doc.govt.nz/globalassets/documents/about-doc/role/visitor-research/new-zealanders-in-the-outdoors.pdf>
- EnviroStrat Ltd. (2019). *Transitioning to a blue economy: scoping and horizon scanning*. Retrieved from: <https://www.sustainableseaschallenge.co.nz/assets/dms/Reports/Transitioning-to-a-blue-economy-Scoping-and-horizon-scanning/Envirostrat20Blue20Economy20Report202C20Dec20201920FINAL.pdf>
- Food and Agricultural Organisation. (n.d). Ecosystem services and biodiversity. Retrieved from: <http://www.fao.org/ecosystem-services-biodiversity/background/cultural-services/en/>.
- Global Sustainable Research Council. (n.d). GTSC criteria. Retrieved from: <https://www.gstcouncil.org/>
- Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 1-20.
- Jackson, M. (2011). Hui Reflections: Research and the consolations of bravery. New Zealand Council for Educational Research. Symposium conducted at the meeting of the Kei tua o te pae Pipitea marae Wellington. Retrieved from: http://www.nzcer.org.nz/system/files/Hui_Proceedings__v3_Web_1.pdf
- Market Economics. (2019). Measuring New Zealand's blue economy. Retrieved from: https://www.sustainableseaschallenge.co.nz/assets/dms/Measuring-New-Zealands-blue-economy/Measuring20New20Zelands20Blue20Economy202019_Final.pdf
- Ministry for the Environment & Stats NZ (2019). *New Zealand's Environmental Reporting Series: Our marine environment*. Retrieved from: www.mfe.govt.nz and www.stats.govt.nz.
- Ministry of Business Innovation and Employment & Department of Conservation. (2019). *New Zealand-Aotearoa Government Tourism Strategy*. Retrieved from: <https://www.mbie.govt.nz/immigration-and-tourism/tourism/new-zealand-aotearoa-government-tourism-strategy/>.
- New Zealand Tourism Research Institute. (2009). Marine tourism, fisheries and community: creating barometers of economic change.
- OECD. (2019). Rethinking Innovation for a Sustainable Ocean Economy, OECD Publishing, Paris, <https://doi.org/10.1787/9789264311053-en>.
- Parliamentary Commission for the Environment. (2019). *Pristine, popular, imperilled? The environmental consequences of projected tourism growth*. Retrieved from: <https://www.pce.parliament.nz/publications/pristine-popular-imperilled-the-environmental-consequences-of-projected-tourism-growth>

- Pham, H., Shahabi, C., & Liu, Y. (2013, June). EBM: an entropy-based model to infer social strength from spatiotemporal data. In Proceedings of the 2013 ACM SIGMOD International Conference on Management of Data (pp. 265-276).
- Potter, H. (2018). *Report for the Parliamentary Commissioner for the Environment on Māori perspectives on the impacts of tourism*.
- Rauika Māngai. (2020). *A Guide to Vision Mātauranga: Lessons from Māori Voices in the New Zealand Science Sector*. Wellington, NZ: Rauika Māngai.
- Seek, C., & Sellier, N. (2019). *Stimulating Sustainable Development Through Tourism Concessions : Case Studies on How Tourism Can Benefit the Environment and Communities Living in and Around Protected Areas*. Washington, D.C.: World Bank Group.
- Stats NZ. (2020). Environmental economic accounts. Marine economy 2007-2018 CVS table. Retrieved from: <https://www.stats.govt.nz/information-releases/environmental-economic-accounts-2020-tables>
- Stats NZ. (2019). *Tourism Satellite Account*. Retrieved from: <https://www.stats.govt.nz/information-releases/tourism-satellite-account-2019>
- Stats NZ. (2019a). International Visitor Survey: Activities June 2019.
- Strickland-Munro, J. K., Allison, H. E., & Moore, S. A. (2010). Using resilience concepts to investigate the impacts of protected area tourism on communities. *Annals of Tourism Research*, 37(2), 499-519.
- Mattelmäki, T., & Visser, F. S. (2011). Lost in Co-X: Interpretations of co-design and cocreation. 4th World Conference on Design Research (IASDR 2011). Delft, The Netherlands.
- New Zealand Tourism Research Institute. (2009). *Marine tourism, fisheries and community: creating barometers of economic change*. Ministry of Fisheries, New Zealand.
- Wikitera, K., & Bremner, H. (2017). *Mana versus Money: An indigenous perspective on the tribal tourism destination of Whakarewarewa*. In A. Carr, L. Ruhanen, & M. Whitford (Eds.), *Indigenous Tourism: Cases from Australia and New Zealand*: Goodfellow Publishers.
- World Economic Forum. (2020). 8 ways to rebuild a stronger ocean economy after COVID-19. Retrieved from: <https://www.weforum.org/agenda/2020/05/how-to-build-a-bluer-ocean-economy-after-covid-19/>.
- Young, D., Borland, R., & Coghill, K. (2010). An actor-network theory analysis of policy innovation for smoke-free places: understanding change in complex systems. *American journal of public health*, 100(7), 1208–1217. <https://doi.org/10.2105/AJPH.2009.184705>