Building regenerative literacy in tourism

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Partnerships and input

▶ A/Prof Alexandra Coghlan and Dr Stefen MacAskill from Griffith University for their early input into the literacy survey instrument.

▶ Prof Graham Miller from Nova School of Business and Economics, Portugal, who conducted the sustainability intervention in Norway and collected data from participants.

▶ Megan Williams and Gisela Purcell from Tourism Industry Aotearoa for sharing background information to the sustainability programme and facilitating the data collection.
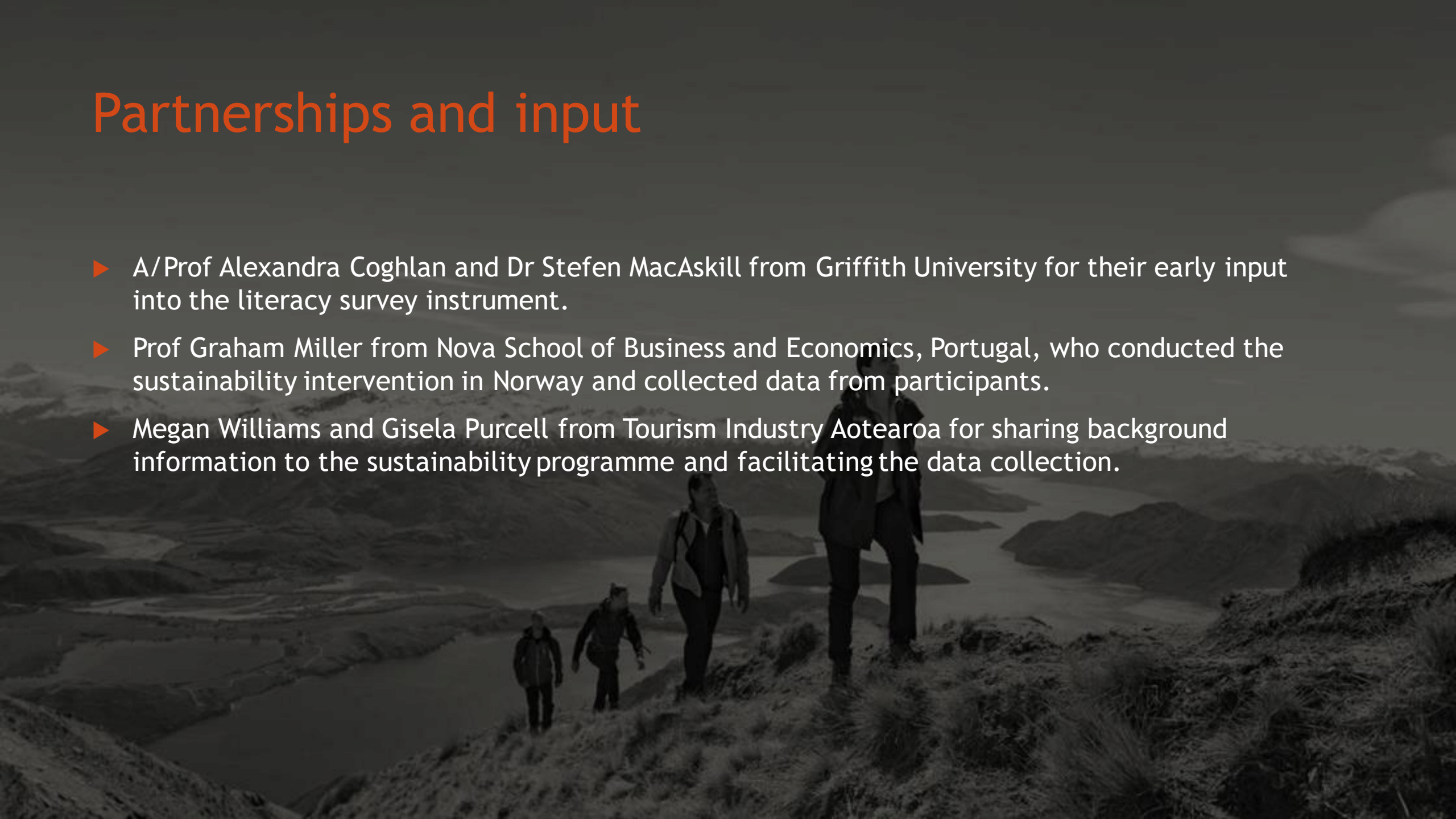
The rationale for this work

▶ Global environmental crises are accelerating, tourism is a major contributor to these crises, including through its high carbon footprint.

▶ Tourism can cause social conflict and degradation of culture, especially when tourism numbers exceed the capacity of local environments and communities to cope.

▶ Many tourism operators/businesses lack the knowledge and skills to address these issues and modify/improve their tourism products and experiences.

▶ In many cases there may also be a lack of interest or commitment to sustainability (or it is not a priority) within the wider context of running a business.

▶ Many tourism businesses are micro or small businesses, meaning that unless sustainability is integrated well, it is seen as an additional task that is difficult to accommodate.

▶ Passive interventions, e.g. the provision of online tools such as carbon calculators, are unlikely to trigger significant change in business practices.

▶ Well-designed programmes may increase knowledge, motivations, and skills (=literacy) and lead to change.

What is literacy

▶ UNESCO defined: "*Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society*"

▶ Literacy inherently focuses on the *use* of knowledge, in conjunction with changing norms and practices.
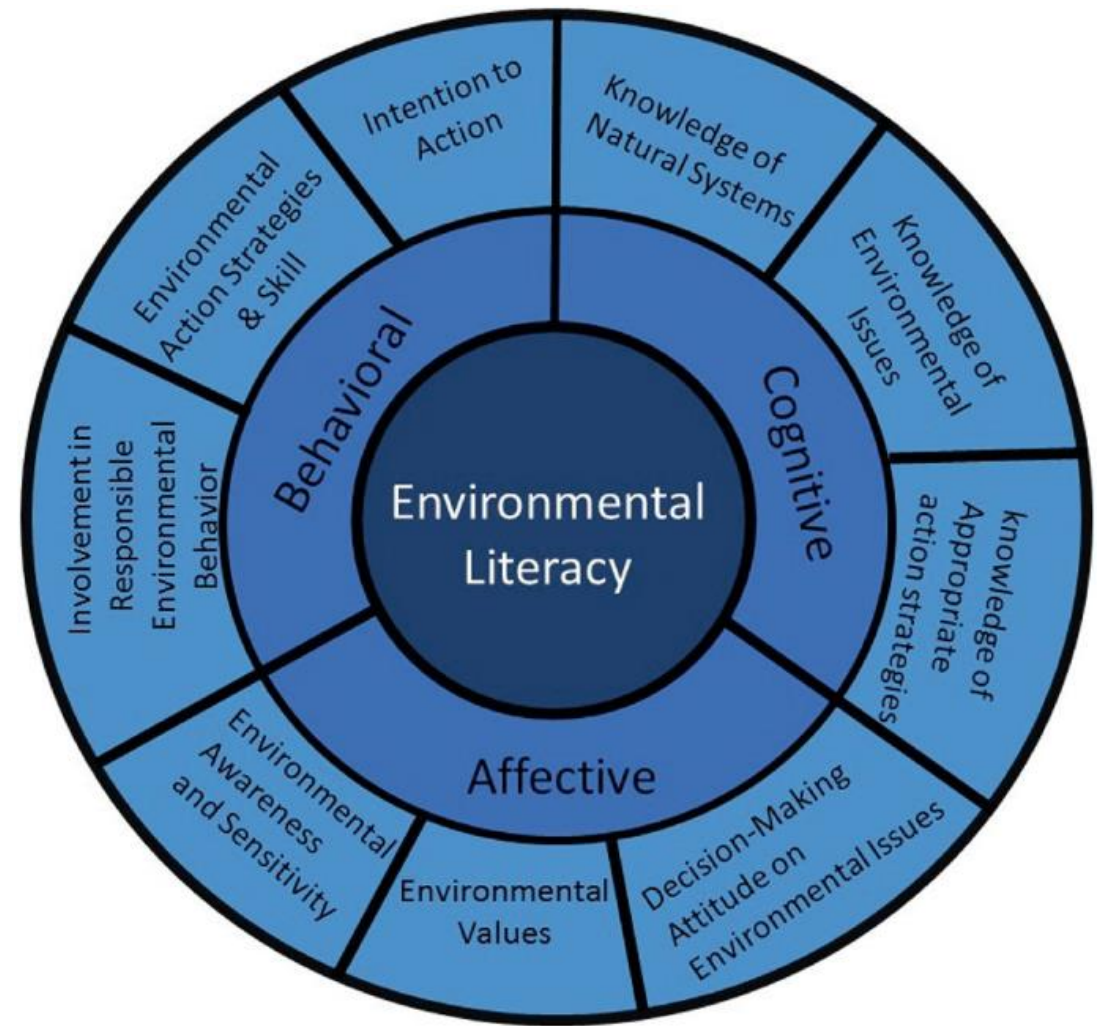
The regenerative literacy framework

- ▶ This spiral model proposes a pathway that moves beyond building domain-specific carbon literacy to growing 'Green Service Literacy' and ultimately 'Regenerative Literacy'.

- ▶ The vision of Regenerative Literacy connects to deep ecology thinking and decade-long efforts (e.g. Earth Charter).

- ▶ Ultimately, it seeks to (re-)align our lifestyles with nature and ensure the human footprint remains within planetary boundaries.

- ▶ The idea of building sustainability/regenerative literacy is to affect long-term change.
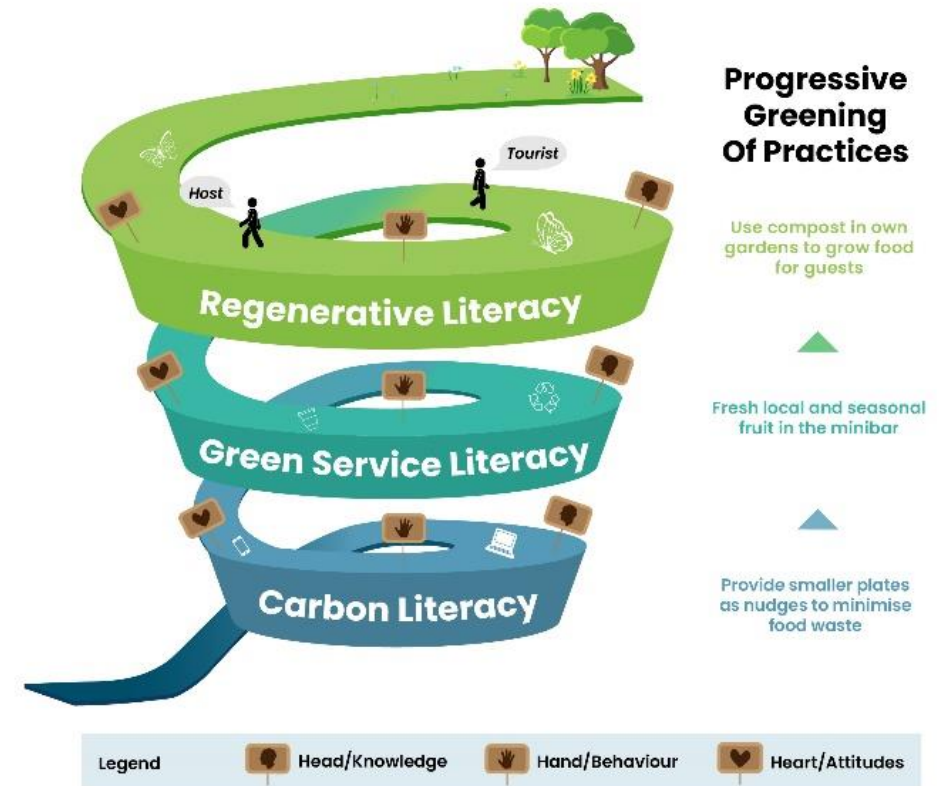
Source:

Becken, S. & Coghlan, A. (2023). Knowledge alone won't "fix it": building regenerative literacy. *Journal of Sustainable Tourism*, 1-17

Affecting change

▶ A training programme/ intervention can increase literacy (comprised of knowledge, behaviour and attitudes) – *reflecting know-what, the know-how and the why or head-hand-heart*

▶ Commitment making can support actual behavioural change. Commitments were found to be more effective when they are made in public.

▶ Construal theory helps understand why interventions that make sustainability 'more real' (i.e. bring it closer) can help change behaviour.

Lokhurst et al. (2013). "*The individual needs to change his or her self concept to be in line with the new behavior, and/or the individual needs to change cognitions, values, and attitudes, to be more favorable toward the new behavior*" (p. 21)

The quote supports the use of the three-dimensional construct of literacy.

Research questions

▶ What aspects of regenerative literacy do operators feel most comfortable with (expressed as agreement with statements)?

▶ Does the sustainability intervention have a measurable effect on self-assessed literacy levels?

▶ What changes have tourism operators put in place after receiving a sustainability-oriented intervention to build literacy? Are these related to the commitment that was made immediately after the intervention?
Note: this question did not proceed due to lack of responses to interviews.

In other words, did the intervention have an impact and why so?

Method (inc. data collection)

Pre- and post literacy survey

18 items to cover three components of literacy. Provides baseline and potential for prompt in follow up. Will also help assess non-respondent bias for interviewees.

Commitment made after intervention

Voluntary commitment made by participant at the end of the intervention (verbal or in writing). Shared in public (social norms and peer environment)

Follow up interviews were planned to better understand the impact of the intervention but due to low response rates these had to be abandoned.

Exemplar survey response

▶ Blue: Knowledge items

▶ Green: Behaviour/Action items

▶ Brown: Attitude items

2. Please indicate your response to the following questions.

	Agree	Uncertain	Disagree
I have a good level of knowledge about carbon emissions in my business		✓	
I feel confident in my knowledge of data on energy usage in my business		✓	
I know how to design a visitor experience in order to reduce the amount of natural resources consumed		✓	
I can design a visitor experience that is sensitive to the needs of the local community	✓		
I understand the ways in which my business can help restore the natural environment	✓		
I understand the arguments for and against offsetting carbon emissions			✓
I change my routines if it helps to save resources	✓		
When I notice resources being wasted in our business I speak up and inform the responsible person	✓		
I am helping guests to reduce the resources they consume	✓		
In my business, I put food scraps into compost bins most of the time	✓ (Pig food)		
I reach out to local partners to try and connect the visitor experience to place			✓
I partner with businesses that have invested into new ways of doing things (e.g. circular economy)			✓
I believe that communicating with guests about sustainability creates a deeper guest experience	✓		
I believe that good customer service and resource conservation fit together	✓		
It gives me hope and purpose when I can contribute to a business that improves the local community	✓		
It is important that everyone working in tourism is committed to being as sustainable as possible	✓		
I am grateful for the role I can play in making tourism better	✓		
I deeply reflect about the impacts I have on the environment		✓	

NZ Sustainability programme

New Zealand *Sustainable Tourism* programme for tourism operators (Tourism Industry Aotearoa). Data was available from 4 different cohorts in 3 North Island regions. A total of 55 operators who participated in the programme in 2022/2023 are represented in the results.

Knowledge	Behaviour	Attitudes
•Kick off event with some initial knowledge sharing •Carbon Measurement Workshop •Waste Elimination and Supply Chain Workshop •One-to-one sessions to promote reflection and receive more advice. •Other sessions on demand •Tiaki Promise and Consumer Behaviour Change Workshop •Long-term framing: "steer your business towards a regenerative future." And "a customised and holistic programme"	•Expert facilitators work with each business in an initial 2-hour session to start creating your action plan. •"Share ideas" in the workshop •Helping to progress actions by having regular catch ups with operators •Actions are started during the 6-week programme	•"Get inspiration" •Meet others on their journey •Discover that collaboration can help achieve outcomes •Framing: "it's the right thing to do" •Final Celebration Event to share and celebrate progress. •Continuous process, inspired from others to keep progressing

COMMITTED TO SUSTAINABLE TOURISM

Norway tour operator trip

US-Norway immersive field trip for tour operators and travel agents was undertaken in April 2023 (Tourism Cares, Innovation Norway, United States Tour Operators Association). Data from 26 operators are available for analysis.

Knowledge	Behaviour	Attitude
• Opening lecture on Rethinking Sustainable Tourism • Opening lecture includes "including Transformational Experiences" and Regenerative Tourism. • Session on sustainable destinations with leading case studies on meaningful visitor experiences • Session on Tourism in Fragile Environments • Session on Tourism in a Fragile culture • Session on 'Future of Tourism' – holistic approach • Webinar on the business case for sustainable tourism	• Interactive session on 'making it happen' – group sharing of experiences • Community immersion experience • Tour of coal mine transitioned into tourism • Final reflection session and 'commitment to action	• Fireside chat with Hurtigruten (to motivate and inspire) • Variety of 'sustainable experiences' trips from dog-sledding with Sami, to visiting cultural centres. This involves presentations from those companies on why these kinds of experiences make a difference. 'Messaging the consumer' will also come up as a topic of discussion • Experience in ice caves (direct observation of climate change?)

Results from pre-programme survey

▶ A comparison of self-assessed literacy scores reveals higher confidence in Attitude-items compared with Behaviour and Knowledge-items.

▶ Whilst there are differences across the different cohorts, the patterns are similar.

▶ American operators participating in Norway reported highest levels of perceived literacy.

Self-assessed literacy
(1=agree, 2=uncertain, 3= disagree)

Legend: ■ Average Knowledge ■ Average Behaviour ■ Average Attitude

Categories: Whakatane (C4), Waiheke/GB Island, Bay of Plenty (C5), Bay of Plenty (C6), Norway
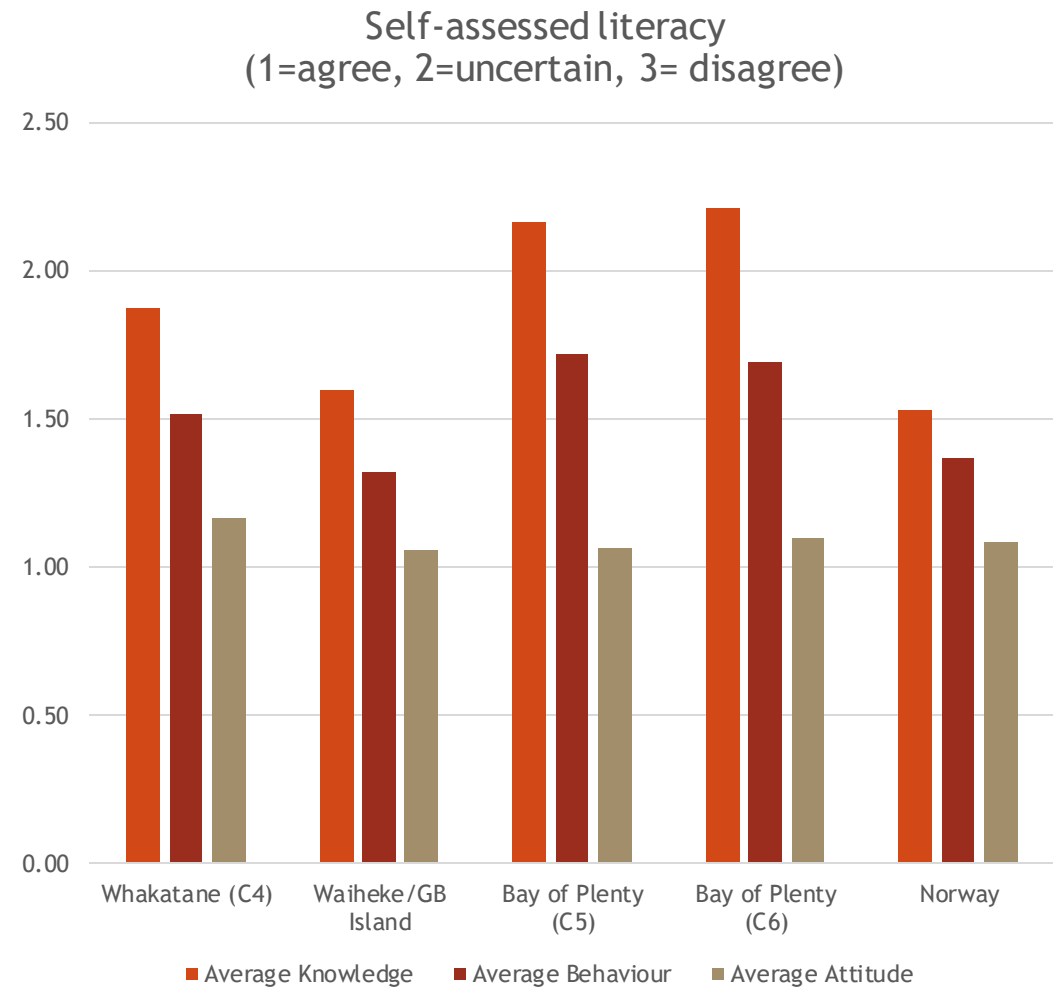
Note: higher average scores reveal lack of literacy

Combining NZ participants

▶ Within the knowledge dimension of literacy, respondents were least sure about their carbon emissions and energy use in the business.

▶ Carbon offsetting was also a topic that respondents felt less sure about.

▶ Within the behavioural items two aspects were less commonly put in practice, namely engaging with guests or other businesses around sustainability.

▶ Within the 'heart' (attitude) items, respondents were less likely to 'reflect deeply' about their impacts

Scores across all NZ participants

I have a good level of knowledge…	2.16
I feel confident in my knowledge…	2.11
I know how to design a visitor…	1.93
I can design a visitor experience…	1.76
I understand the ways that my…	1.82
I understand the arguments for…	1.87
I change my routines if it helps t…	1.20
When I notice resources being…	1.31
I am helping guests to reduce th…	1.73
In my business, I try to put food…	1.61
I reach out to local partners to tr…	1.62
I partner with businesses that…	1.80
I believe that communicating wit…	1.13
I believe that good customer…	1.04
It gives me hope and purpose…	1.02
It is important that everyone…	1.02
I am grateful for the role I can…	1.00
I deeply reflect about the impac…	1.33

Differences between the pre and post surveys in NZ

▶ Whilst attitude did not differ on average, both knowledge and behaviour items changed to a lower score, which means that respondents were in greater agreement that they were displaying the related literacy aspects.

Self-assessed literacy
(1=agree, 2=uncertain, 3= disagree)

Note: post-surveys were completed by N= 22

Individual changes

- ▶ N= 14 businesses completed both the pre and post surveys (not named here to remain anonymous; each colour in the chart is one business).

- ▶ The chart adds up the improvement points for each of the 18 survey items.

- ▶ For the first item, for example, (good knowledge about carbon emissions), most businesses improved by 1 point, two businesses improved by 2 points. One business felt less sure after the training.

- ▶ Two items in the Attitude part of the survey showed no change; all participants had agreed before the intervention (score =1) and agreed again after the intervention.

Improvement score

Survey item	
I have a good level of knowledge about carbon emissions	
I feel confident in my knowledge of data on energy usage	
I know how to design a visitor experience to reduce natural resources consumed	
I can design a visitor experience that is sensitive to the needs of the local community	
I understand the ways that my business has to restore the natural environment	
I understand the arguments for and against offsetting carbon emissions	
I change my routines if it helps to save resources	
When I notice resources being wasted in our business I speak up	
I am helping guests to reduce the resources they consume	
In my business, I try to put food scraps into compost bins	
I reach out to local partners to try and connect the visitor experience to place	
I partner with businesses that have invested into new ways of doing things	
Communicating with guests about sustainability	
I believe that good customer service and resource conservation fit together	
It gives me hope and purpose when I can contribute	
It is important that everyone working in tourism is committed	
I am grateful for the role I can play in making tourism better	
I deeply reflect about the impacts I have on the environment	

Commitments

▶ At the final 'celebration event' of the NZ sustainability programme, businesses presented progress and further commitments.

▶ Since these were to be discussed in the follow up interviews they are not analysed further here.

▶ Key summary points from businesses presentations included, however:

  ▶ Main themes for sustainability action were waste management, carbon emissions, supporting community groups and environmental initiatives, improving cultural aspects (including use of Te Reo Māori)

  ▶ Improved customer communication of existing and future initiatives, and better use of the Tiaki Promise concept.

  ▶ Some presented concrete plans for investment into new equipment, including solar panels, worm farms, recycling bins etc.

Commitments from US group in Norway

Wide range of commitments, but key themes were;

- Getting started

- Partnering and sharing with others to increase learning progress

- Building engagement with others – internally and externally

- Developing and sharing stories of success – internally and externally

- Technical challenges such as making progress on measurement; understanding regenerative tourism; increasing number of sustainable products; and developing and revising policies on offsets, indigenous tourism and reducing internal flights

Concluding thoughts

▶ The concept of literacy allows integration of knowledge about sustainability, with practice (outing knowledge to good use) and commitments (having the heart in the right place)

▶ Operators who participate in sustainability programmes are typically already committed, hence showing high agreement with attitude statements. The exception is to 'reflect deeply' about sustainability questions and the impact of their operation.

▶ The biggest gap – and improvement due to the intervention – was in the knowledge dimension of literacy. Understanding one's carbon footprint and the complexities of carbon offsetting were key areas that operators sought to learn more about.

▶ The commitments made, and changes implemented already, indicate that the programme has effectively triggered a change process. Long-term evaluation would be necessary to quantify impact.

▶ The nature of (small) tourism businesses being short of resources and time constrained the opportunity to undertake in-depth interviews. This is understandable but challenging from a research point of view.

▶ Different methods, for example direct participation and participant observation, would be better in the future. Research must not impose additional time demands on the business.

Appendix – theoretical underpinning
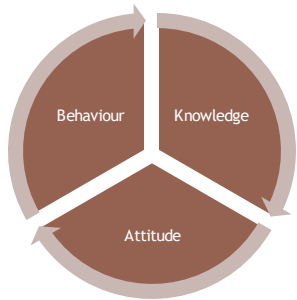
Conceptual framework of this study

Mechanisms for change:

- Making a (public) commitment

- Reducing psychological distance

Interventions
NZ: operator sustainability programme over 12 weeks
Norway: operator intense field trip for 1 week

Both covering aspects of Knowledge, Attitude; and Behaviour

Baseline Regenerative Literacy and associated practices

Post-intervention Regenerative Literacy and associated practices

Commitment Theory

Commitment theory explores the factors and processes that influence an individual's commitment to a particular course of action, goal, relationship, or organization. It examines why people make commitments, how they maintain them, and the consequences of these commitments on their behavior and decision-making.

Factors Influencing Commitment:
- **Investment**: Commitment often grows with the level of investment individuals have made (e.g., time, effort, money) in a particular action or relationship.
- **Satisfaction**: High satisfaction and positive experiences with a commitment tend to strengthen commitment. Dissatisfaction can reduce commitment.
- **Alternative Options**: The availability/attractiveness of alternatives to the existing commitment can influence an individual's level of commitment. When better alternatives are scarce, commitment tends to be higher.
- **Social Pressure and Expectations**: Social norms, peer pressure, and societal expectations can influence commitment, i.e. causing a sense of obligation.

Further reading: Meyer, J. P.; Allen, N. J. (1991). "A three-component conceptualization of organizational commitment". *Human Resource Management Review*. *1*: 61–89. *doi*:10.1016/1053-4822(91)90011-Z.
Grabs, J. (2023). A theory of credible cross-temporal corporate commitments as goal-based private sustainability governance. *Business Strategy and the Environment*.

Construal Level Theory

Construal Level Theory (CLT) explores how individuals mentally represent and process information depending on the psychological distance or "level of construal" between themselves and the information or events they are thinking about. CLT involves:

1. **Psychological Distance**: individuals perceive events, objects, or information as either psychologically distant or psychologically near. Distance can relate to time (future vs. present), space (far vs. near), social relationships (to oneself vs. others), and possibilities (possible vs. impossible).

2. **Levels of Construal**: There are two primary levels for information processing:

   ▶ **High-Level Construal**: When information is psychologically distant, individuals tend to focus on abstract, general, and decontextualized aspects. They view events or objects in terms of their core meaning or essence. High-level construal emphasizes the "why" and "what" questions.

   ▶ **Low-Level Construal**: When information is psychologically near, individuals pay attention to concrete, specific, and context-dependent details. They engage in more detailed and concrete processing. Low-level construal emphasizes the "how" and "with what" questions.

3. **Impacts on Behavior**: Level of construal can influence decision-making, judgment, problem-solving, and behavior. For example, when individuals think about distant future goals at a high level, they may prioritize long-term benefits (e.g., saving for retirement). In contrast, when considering immediate goals at a low level, they may focus on short-term gratification (e.g., spending money now).

Further reading: Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological review, 117*(2), 440.

Kahneman, Daniel; Tversky, Amos (1979). "Intuitive prediction: Biases and corrective procedures". *TIMS Studies in Management Science.* **12**: 313–327.