

The Social and Economic Long-Term Monitoring Program for the Great Barrier Reef 2017

2017 Final Report to the Great Barrier Reef Marine Park
Authority

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EXECUTIVE SUMMARY

The aim of the Social and Economic Long-Term Monitoring Program (SELTMP) 2017 report is to provide a status update on the human dimension of the Great Barrier Reef (GBR). SELTMP has undertaken its second major data collection period. It includes 1,933 local residents, 1,804 domestic and international tourists, 94 tourism operators, 91 commercial fishers, and 1,028 Australians (total of 3,922 surveys). Residents and tourists were surveyed using face-to-face techniques in 14 townships within the region, marine tourism operators and commercial fishers were surveyed by telephone, and Australians were surveyed online. Given that there were not any problems with data collection or entry, we suggest that the second critical data point for the SELTMP is solid and provides a representative insight into current social and economic conditions within the Great Barrier Reef region.

Results are presented within this report and also via dashboards, where end-users, including the public and other researchers, may access the data. The dashboards can be found at <https://research.csiro.au/seltmp/>.

Results are organised for the Reef 2050 Integrated Monitoring and Reporting Program (RIMReP), according to the Human Dimension Clusters identified by Gooch et al. (2017). These clusters are: (i) community aspirations, capacity, and stewardship, (ii) community vitality, (iii) cultural and heritage, (iv) economic viability, and (v) governance.

Community Aspirations, Capacity and Stewardship

Residents

Residents had high aspirations around the Great Barrier Reef. Residents aspired to doing, “more to help protect the GBR” (84.5%). They also aspired to learning, “more about the condition of the GBR” (77.6%), and would, “like to do more to improve water quality in [their] waterways” (80.6%). However, residents suggested that their capacity to be a steward of the GBR was low to moderate, where, for example, only 44.3% felt that they, “have the necessary knowledge and skills to reduce any impact that [they] have on the GBR”, and 30.5% felt that they, “do not have the time or opportunity required to reduce any impact that [they] might have on the GBR”. Stewardship levels were relatively high. For example, 83.7% of residents, “make every effort to use energy efficiently in [their] home and workplace”. Only 16.1% felt that, “it is not [their] responsibility to protect the GBR”.

Tourists

Tourists also had relatively high aspirations around the Great Barrier Reef. For example, nearly 82% of all tourists in the study aspired to doing, “more to help protect the GBR”. Capacity was variable. Some 62.7% of tourists felt that they, “can make a personal difference in improving the health of the GBR”, whilst only 29.9% felt that they, “have the necessary knowledge and skills”. Tourists were strong stewards where, for example, 82.5%, “make every effort to use energy efficiently in [their] home and workplace”, and 79.3% “re-use or recycle most goods and waste”. Some 19% of tourists felt that, “it is not [their] responsibility to protect the GBR”.

Tourism Operators

Tourism operators within the GBR aspired to doing, “more to help protect the GBR” (85.1%), and had high capacity to do so, where 85.1% suggested that they, “feel like [they] can contribute to GBR management”, and only 10.8% felt that they, “cannot make a personal difference in improving the health of the GBR”. Some 68% thought that climate change was an immediate threat requiring urgent attention”. Stewardship levels were also high where, for example, 91.1% of tourism operators, “make every effort to use energy efficiently in [their] home and workplace”. Only 1.1% felt that, “it is not [their] responsibility to protect the GBR”. Some 86.2% had fuel efficient engines and 52.1% participated in GBRMPAs Reef Guardian Fisher program.

Commercial Fishers

A moderate proportion of the commercial fishing industry aspired to doing, “more to help protect the GBR” (66.7%), or learning (65.9%). Capacity was also moderate, where, for example, 28.7% felt that they, “cannot make a personal difference in improving the health of the GBR”. However, over 88% felt that they had, “the necessary knowledge and skills to reduce any impact that [they] have on the GBR”. Some 67% were, “not worried about climate change impacts”, where 42.5% required further evidence that climate change was a threat. Some 91.2% of commercial fishers, “make every effort to use energy efficiently in [their] home and workplace”, but only 68.2%, “re-use or recycle most goods and waste”. Only 10.2% felt that, “it is not [their] responsibility to protect the GBR”. Some 80.2% of commercial fishers participate in industry best practices via a code of practice or MOU.

National Residents

Australians remain proud of the GBR and feel a sense of responsibility to protect it (85%), but they are less optimistic about its future (54%) than in 2013. There is also movement away from individual responsibility (38%) around the GBR (2013-2017) towards collective responsibility of the nation to protect the Reef. Results also suggest that GBR visitation has decreased since 2013, but the intent to visit has increased across the last 18 months, particularly among younger people.

Community Vitality

Residents

Residents had a very positive association with the GBR, given that the first words that came to mind when they thought of the GBR were; beautiful (15%), coral (12.5%), and fish (6.2%). Health and wellbeing were very much intertwined with that of the GBR. Some 79.7%, “value the GBR because it makes [them] feel better physically and/or mentally”. Only 20.6%, “would not be personally affected if the health of the GBR declined”, and 71.8% suggested that, “thinking about coral bleaching makes [them] feel depressed”. Residents were particularly worried about coral condition, freshwater ways, and rubbish on the beaches in their region, and worried about mangrove health, and estuarine and marine fish. For example, only 40.5% of residents stated that, “the coral reefs in [their] region are in good condition”.

Tourists

Tourists had a very strong positive association with the GBR, where the first words that came to mind when thinking of the GBR were; 'beautiful' (16.5%), 'coral' (15.8%) and 'fish' (8.2%). Some 64.0% of tourists, "value the GBR because it makes [them] feel better physically and/or mentally", and 50.9% suggested that, "the GBR contributes to [their] quality of life and wellbeing". Some 59.5% suggested that, "thinking about coral bleaching makes [them] feel depressed". Around 58% of tourists paid to go on an organised tour.

Tourism operators

Tourism operators' first words that came to mind were coral (13.8%), beautiful (6.3%), and fishing (4%), suggesting a strong positive association. Only 4.4% reported that they, "would not be personally affected if the health of the GBR declined", and 89.2% stated that, "the GBR contributes to [their] quality of life and wellbeing", where 61.1% suggested that, "thinking about coral bleaching makes [them] feel depressed". Only 59.1% stated that they, "feel optimistic about the future of the GBR". Tourism operators were moderately satisfied with the condition of the environment in their region. For example, 56.0% stated that, "the coral reefs in [their] region are in good condition". Only 20.2% were, "not worried about climate change impacts on the GBR". Tourism operators have been working within the region for a mean of 24.0 years.

Commercial fishers

Commercial fishers had a strong positive association with the GBR given that the first words that came to mind when they thought of the GBR were beautiful (15%), coral (13.9%) and fish (7.1%). In terms of health, only 3.3% of commercial fishers reported that they, "would not be personally affected if the health of the GBR declined", but only 37.9% suggested that, "thinking about coral bleaching makes [them] feel depressed". Some 82.0% stated that, "the GBR contributes to [their] quality of life and wellbeing". Some 77.9% stated that, "the coral reefs in [their] region are in good condition", and 79.8% thought that the, "estuarine and marine fish in [their] region are in good condition".

National Residents

The relationship that Australians have with the GBR is still mostly positive as the first words that came to mind were fish, beautiful and coral, however since 2013, words such as dying, deterioration, endangered, and bleaching have increased significantly. Australians see that climate change, pollution and agricultural run-off are the biggest threats to the GBR. Since 2013, almost all perceived threats have increased in mentions, particularly littering and crown of thorns starfish. The perceived threat of cyclones and tropical storms has almost doubled since March 2016. The GBR is still considered Australia's most inspiring landmark (30%), however, people are finding the GBR less inspiring since 2013, but this decline is consistent across all landmarks.

Culture and Heritage

Residents

The contemporary cultural and heritage value of the GBR was high for residents on all 18 cultural services examined. In order of importance, 96% valued the GBR because it is, "a great asset for the

economy”, 95.9%, “value[d] the GBR because it supports a variety of life”, and 95.1% that the, “the aesthetic beauty of the GBR is outstanding”. Some 95.2% of residents felt, “proud that the GBR is a World Heritage Area” (WHA), and 90.0% of residents, “value the GBR because it attracts people from all over the world”.

Tourists

Domestic and International tourists derived significant cultural services from the GBR. Some 95.5% said, “I value the GBR because it supports a variety of life, such as fish and corals”, and 93.7% valued the GBR because, “the GBR is a great asset for the economy “. Some 92.5% of tourists felt, “proud that the GBR is a [WHA]”, and 90.9% said that they, “value the GBR because we can learn about the environment through scientific discoveries”.

Tourism operators

All tourism operators valued the GBR because, “the GBR is a great asset for the economy of the region”. Additionally, 98.9%, “value the GBR because it supports a variety of life” and 97.9%, “value the GBR because it attracts people from all over the world”. Nearly 95% stated that, “the aesthetic beauty of the GBR is outstanding”. The GBR was valued by 95.7%, “because it supports a desirable and active way of life”. Also 93.6% felt, “proud that the GBR is a WHA”, where 91.1% reported that they, “value the GBR because it exists, even if [they] don’t benefit from it”.

Commercial fishers

Most (97.8%) commercial fishers valued, “the GBR for the fresh seafood it provides”, and 96.7%, “because it supports a variety of life”. Some 90.0% valued the, “aesthetic beauty”. Only 85.6% valued the GBR because it, “is a great asset for the economy of the region’.

National Residents

National residents valued the GBR mostly for its biodiversity (86%), outstanding beauty (85%), and for the pride that they have in its World Heritage Area status (85%).

Economic Value

Marine tourism

The viability of marine tourism businesses was moderate. For example, we found that 54.3% of tourism operators suggested that their, “business [had] not performed this year as well as last year”. However, 75.5% of tourism operators in the GBR stated that they are, “optimistic about the future of [their] business in the GBR”. Most (95.7%) had insurance for their business assets. Most (60.6%) had a business turnover of less than \$100,000. Most derived only part of their household income from tourism. Most businesses employed less than five employees.

Commercial fishing

Only 50.6% of commercial fishers said that they were, “optimistic about the future of [their] business in the GBR”. And 46.2% suggested that their, “business [had] not performed this year as well as last year.” We also found that only 59.3% had insurance for their assets. Many fishers (35%) had a revenue of over \$500,000 during the previous 12 months.

Governance

Residents

Local residents were moderately confident in, and supportive of, GBR management. Some 48% felt, “confident that the GBR is well managed”, whilst only 23.8% thought that, “enough is being done to effectively manage the GBR”. Some 66% of residents were supportive of the rules and regulations, and 26.8% felt that they, “do not have fair access to the GBR”. There were moderate to high levels of trust in government and GBR management, with word of mouth (51.8%) being the most relied upon source of information.

Tourists

Tourists did not have strong confidence in GBR management. For example, only 16.3% thought that, “enough is being done to effectively manage the GBR”. Tourists tended to trust scientists the most (83.4%) and the most important sources of information were local radio (48.4%), national/regional radio (48.2%), and free to air television (46.7%).

Tourism operators

The marine tourism industry was moderately confident in, and supportive of, GBR management. Only 23.3% thought that, “enough is being done”, however 60.6% felt, “confident that the GBR is well managed”. Nearly 80% felt that they had, “fair access to the GBR compared to other user groups”, where 36.1% felt, “that future generations have been adequately considered”. They mostly trusted friends, family and work colleagues, (74.4%) as well as scientists (74.4%), and relied on word of mouth (48.9%) for information, local radio (35.6%), and news media websites (35.6%).

Commercial fishers

Results suggest that only 38.8% of commercial fishers thought that, “enough is being done to effectively manage the GBR”, where 52.8% felt, “confident that the GBR is well managed”. Some 40.7% suggested that they, “support the current rules and regulations that affect access and use of the GBR”, where only 34.4% of commercial fishers felt that they did, “not have fair access to the GBR compared to other user groups”. Commercial fishers were less trusting of typical sources of information about environmental issues than other stakeholders. Word of mouth (52.9%), local radio (38.6%), and national/regional radio (37.5%) were most important.

National residents

Results suggest that government (state and federal) have low trust with the Australian public (<20%). The most trusted organisation to report on environmental issues is the CSIRO (53%). CSIRO has been the most trusted organisation in reporting environmental issue over the past seven years.

INTRODUCTION

In 2011 the Social and Economic Long Term Monitoring Program (SELTMP) for the Great Barrier Reef (GBR) was initiated through funding from the National Environment Research Program. The SELTMP was a novel attempt to monitor the social and economic dimensions of social-ecological change in a globally and nationally important region. It was set up to represent the current status and condition of the major user groups of the Reef with the potential to simultaneously consider trends, interconnections, conflicts, dependencies and vulnerabilities. The baseline dataset was collected in 2013 (SELTMP 2013), and data were collected through secondary datasets where existing and new datasets were created where not, using standard survey techniques. Baseline results from SELTMP surveys were obtained from 210 commercial-fishers and 119 marine-based tourism operators using telephone techniques; 2,877 tourists and 3,181 local residents using face-to-face techniques; and 2,002 other Australians using online facilities.

In 2017 the SELTMP was commissioned by the Great Barrier Reef Marine Park Authority (GBRMPA) to collect and interpret a second data point. In this instance, data were to be integrated into the Reef 2050 Integrated Monitoring and Reporting Program (RIMReP). The RIMReP was conceptualised to meet the requirements of the GBRMPA's 'Reef 2050 Long Term Sustainability Plan' (Reef 2050 Plan) that outlines how the Outstanding Universal Value of the World Heritage Area are to be monitored and managed. The Reef 2050 Plan has an Outcomes Framework with seven overarching themes each with their own outcomes, objectives, targets, values and attributes that reflect the priority areas identified by government and partners. Four of the themes describe the human dimensions of the system; (i) governance, (ii) community benefits, (iii) economic benefits, and (iv) heritage. The monitoring and modelling program for the Reef and its adjacent catchment (RIMReP) is expected to track the progress towards targets and objectives of the Reef 2050 Plan, and the current purpose of the SELTMP is to provide data to directly address each of these four themes.

The aim of this report is to provide a status update on the SELTMP 2017 and to show how results will be accessible and linked to identified objectives, targets and actions in the Reef 2050 Plan. The formal monitoring framework of the SELTMP is based on the DPSIR model (Drivers – Pressures – State- Impact – Response) that founded the Millennium Ecosystem Assessment. Indicator groups in the SELTMP were categorised as; (i) resource use and dependency, (ii) ecosystem benefits and well-being, and (iii) drivers of change (indirect and direct drivers), each of which are described below (Figure 1). The adapted SELTMP framework enabled data needs and gaps to be identified, and guided the process to decide which indicators would be most informative and feasible to monitor (Marshall et al. 2016).

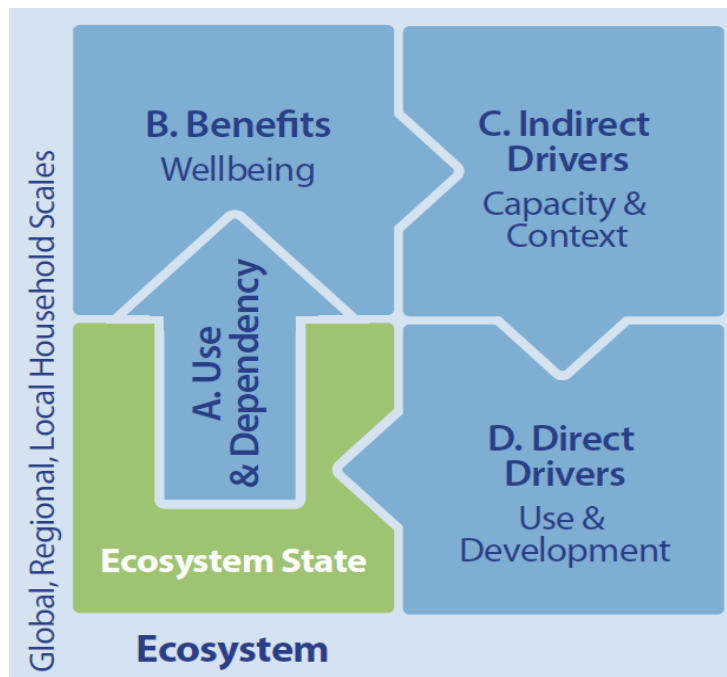


Figure 1. The SELTMP conceptual framework based on the DPSIR framework and Millennium Ecosystem Assessment Framework. The human dimension of the Great Barrier Reef is represented by the four components (in light blue): A. Use and Dependency, B. Human Wellbeing, C. Capacity and Context, and D. Use and Development. It suggests that the level of human and community wellbeing is determined, in part, by how people use and depend on the Reef (“A”). Human and community wellbeing (“B”) influences the Reef (Ecosystem State) by influencing the social and economic context or indirect drivers within the system (“C”), within which direct drivers are allowed or not allowed to occur (“D”). Opportunities for strategies and interventions that can halt, reverse, or change a process exist at several points within the cycle (Assessment 2005). From Marshall et al. 2016.

A brief summary of the changes made to SELTMP 2017

Our aim was to produce a SELTMP that was robust through time whilst also adaptive to changing needs and new insights. There are three main changes that occurred in the development of the SELTMP 2017. The first change is around the governance of the Program. The Great Barrier Reef Marine Park remains the key client, and thus driver, of the work, and has been closely involved in the key developments within the SELTMP. However, there are no longer working groups formally involved in the direction and planning of the SELTMP. Instead, and given that planning processes are no longer necessary, linkages with end users, government, industry and community have become informal and more about communicating about SELTMP processes, activities and data. The SELTMP 2017 is closely linked with the NESP project on human dimensions lead by Professor Allan Dale based at the Cairns Institute, James Cook University. The human dimension clusters are reported in Gooch et al. (2017) and will be used within the RIMReP.

The second main change is that an additional framework was used to check whether the indicators directly fed into RIMReP requirements. The human dimensions framework for the RIMReP was constructed by Gooch et al. (2017), based on the Reef 2050 Plan themes. The framework is based on five clusters representing the human dimensions of the Great Barrier Reef. The indicator clusters were initially based on work by Vella et al. (2015) and have been refined through various processes. In particular, the Intergovernmental Panel on Biodiversity and Ecosystem Services

(IPBES), which recognises that healthy human systems depend (either directly or indirectly) on a healthy ecosystem (Diaz et al. 2018), have influenced the clusters.

The third main difference between SELTMP 2017 and SELTMP 2013 is that some modifications were made to the SELTMP 2017 survey on the basis of gaps identified through the Gooch et al. (2017) framework. Some questions became redundant in the SELTMP 2013 survey, and some new survey questions were identified and included. The survey changes were developed in collaboration with GBRMPA, industry and each of the NRM groups. The 2017 survey is certainly longer than that in 2013, and more thorough in many instances. However, it is anticipated that it will provide more in depth information about (i) resource use and resource user profiles, (ii) sources of environmental information and levels of trust associated with each potential sources, (iii) perceptions of management of creeks and other freshwater systems entering the lagoon, and (iv) a broader range of held values associated with the Great Barrier Reef. The final surveys used in 2017 are presented in Appendices 1-4.

We highlight that there have not been any major differences in the methodological approach between 2013 and 2017, and state that the majority of data across the years should be comparable where survey questions have remained the same through time.

METHODS

Survey Design

The Social and Economic Long Term Monitoring Program (SELTMP) for the Great Barrier Reef was designed in 2011 to ensure both policy relevance and science credibility. To ensure policy relevance we established working groups with each of the major sectors; commercial fishing, marine tourism, coastal communities, recreation, and ports and shipping. We also instituted a group for cross-cutting issues of drivers of change and wellbeing. The working groups comprised representatives and technical experts from community, government, research and industry. To increase policy relevance, minimise redundancy and maximize end-user engagement, we also facilitated a high level steering committee and a scientific and stakeholder advisory panel. Each of these groups were instrumental in selecting and prioritising the variables and indicators included in the program.

To ensure science credibility, we modified the DPSIR framework used in the Millennium Ecosystem Assessment (MA) to guide the process of indicator choice. As an established conceptual scientific model that focused on drivers, pressures, states, impacts on and responses of systems, the MA framework helped ensure the program results would align with other data sets of similar intent and helped establish program credibility in the eyes of stakeholders. The framework enabled data needs and gaps to be identified, and guided the process to decide which indicators from the advisory panels would endure. The framework is presented in Marshall et al. (2016).

Once information gaps were identified and indicators established, a master survey, or survey template, was designed that included all the data needs in a generic survey form. The template survey was then used to develop five separate surveys that targeted each of the main user groups of the Great Barrier Reef: national residents (i.e. Australians living outside of the Reef region), coastal residents (i.e. residents living along the coast adjacent to the Reef), tourists, tourism operators and commercial fishers. The first question in the survey remains as asking participants to list the first words that come to mind when they think of the Great Barrier Reef. Most survey questions were presented as a statement and were based on other studies where possible (Marshall et al. 2017). Respondents were asked to rate how strongly they agreed with each statement using a ten-point rating scale. A ten-point rating scale was considered appropriately sensitive to detect subtle changes through time. Ten-point scales are also widely recognisable within the community and easy to 'teach'. The lack of a mid-point allowed for better interpretation rather than; undecided, unknown, depends, sometimes, not sure, neutral, cannot be bothered, etc. (38). If respondents were unsure of their views about a statement, they were able to leave their response as blank. An initial version of the 2017 survey was pilot-tested with around 5-20 people within each user group to ensure that the questions were readable and unambiguous. The final versions of each survey can be viewed in Appendices 1-5.

Survey Administration

A mixed methods approach was used to better target each stakeholder group, and ethics approval was obtained through CSIRO for all stakeholder groups (CSSHREC 050/17). National residents will be surveyed in September 2017 via an online research panel provided by an external marketing company (Pollinate). Pollinate has access to a geographically and demographically representative sample of Australians who are prepared to complete surveys in exchange for online credit points that could be converted into gifts or goods. We are expecting to achieve 1,000 completed surveys. The number of questions that can be posed to this group however is considerably reduced from the main survey. Only 7-8 key questions will be included in the National survey, and these are yet to be reviewed (and are not included in this report). GBRMPA will have opportunity to review the questions prior to administration.

Coastal residents and tourists were surveyed using face-to-face methods across each of the main population centres along the Great Barrier Reef (Cairns, Mission Beach, Ingham, Townsville, Airlie Beach, Mackay, Gladstone, Yeppoon and Bundaberg; see Figure 2). Residents were defined as people who live within the Reef catchment (east of Great Dividing Range, from Bundaberg to Cape York), while tourists lived anywhere outside of that area, whether that be elsewhere in Australia or internationally. We employed and trained 46 casual staff and deployed them to public places such as parks, shopping centres, market places, airports, marinas, sporting areas, festivals, information centres, museums, jetties, caravan parks, lookouts, etc. We randomly approached strangers and aimed to reproduce a sample population representative of people across categories such as age, gender, ethnic background and occupation. A clear and important limitation of our sampling was a bias towards English speaking people. Interviewers were equipped with an Apple mini-iPad loaded with an iSurvey application. Surveys were completed within 1 month (29 May 2017 and 24 July). A total of 1,933 surveys were completed by residents, and 1,804 were completed by tourists, making a total of 3,737 face-to-face surveys.

Marine tourism operators and commercial fishers were interviewed by telephone and were completed on 1st Dec 2017. We were able to access these stakeholders through our own contacts databases, publicly-available data, and personal contacts. We surveyed 94 tourism operators and 92 commercial fishers (fishers were in possession of at least one license with access to the Reef). Tourism operators were contacted by email, and commercial fishers received a letter in the mail to their home address, and invited to participate in the study. They were then called on either their mobile phone or landline and an appointment was made to undertake the survey where permission was granted. We obtained a response rate of 63% (94 completed + 55 declined) for tourism operators able to be contacted. Our fisher contact list only contained landline numbers and home addresses, and given that the database was initiated in 1999, many of the numbers were disconnected. We think that commercial fishers have shifted from using landline numbers to mobile phone numbers. We highlight that if we are to survey commercial fishers in 2019, then the contacts database will be need to be updated. The response rate for commercial fishers was 40% (91 accepted +141 declined). While our 2017 samples are smaller than those collected in 2013 (see Table 1), the absolute sample sizes were sufficiently large to enable robust statistical comparisons between years.

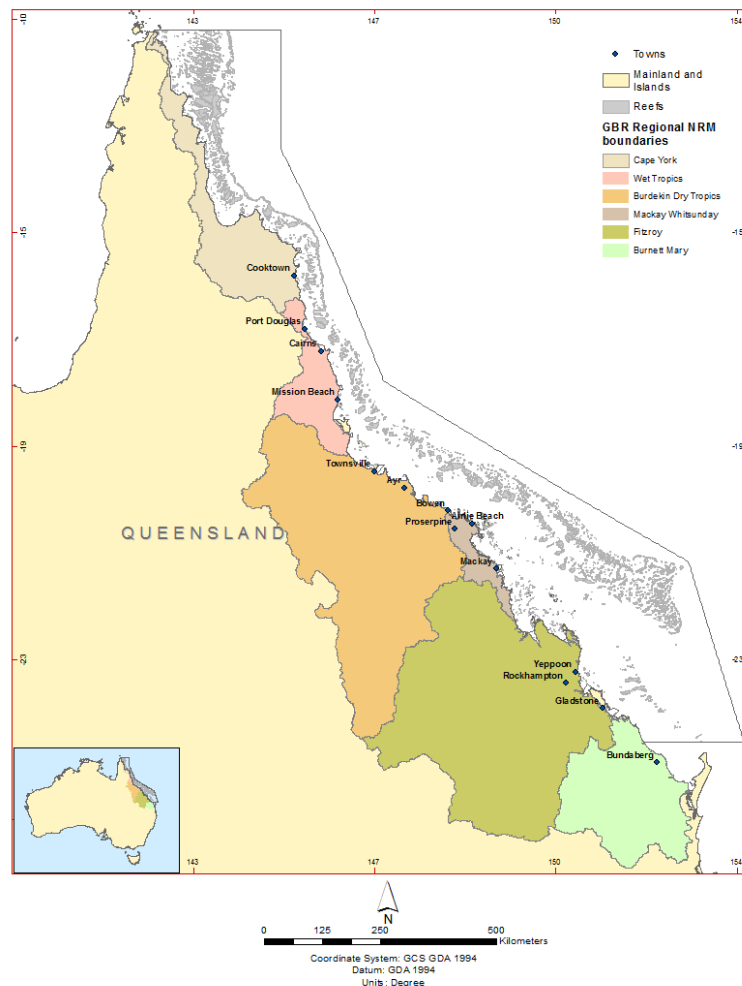


Figure 2. Location of 14 coastal towns in the Great Barrier Reef catchment (shown in NRM regions) sampled by SELTMP in 2013 and 2017

Table 1. Comparison of SELTMP sample sizes in 2013 and 2017

	2013 (n)	2017 (n)
Local residents of the GBR coastal region	3182	1934
Tourists within the GBR coastal region	2877	1804
Marine Park commercial fishers	211	91
Marine Park tourism operators	119	94
National residents (online Australians)	2002	1028
TOTAL	8391	4951

Data Analysis and Presentation

Data are provided as percentages of the sample population, means and standard errors, for each stakeholder group. Analysis by NRM region is also provided in this report. Readers who prefer an analysis by age, gender, NRM, or LGA may access the data and select for each group accordingly.

In depth social analysis of the data is not presented here, as the main purpose of this report is to report on the current condition of the human dimension with the region. It is anticipated that science papers, with in-depth analyses, will emerge from the database and be ready for referencing in time for Outlook reporting in 2019. Details are provided in the discussion section of this report.

The results in this report are presented firstly by each stakeholder group (residents, tourists, tourism operators, commercial fishers and national residents), secondly by human dimension clusters, and thirdly by concepts that map to the human dimension attributes identified by Gooch et al. (2018). The survey questions used as indicators for each concept are presented in Table 2.

Table 2. The five SELTMP dashboards. Concepts are organised according to Gooch et al.'s framework for benchmarking the human dimension, and codes are identified accordingly.

HUMAN DIMENSION CLUSTER	CONCEPTS	SURVEY QUESTIONS
1. Aspirations, capacity and stewardship	Aspirations (ACS1)	<ul style="list-style-type: none"> I would like to do more to help protect the GBR I would like to do more to improve water quality in the waterways in my region
	Capacity and education (ASC2)	<ul style="list-style-type: none"> I feel like I can contribute to GBR management I have the necessary knowledge and skills to reduce any impact that I have on the GBR I cannot make a personal difference in improving the health of the GBR I do not have the time or opportunity required to reduce any impact that I might have on the GBR I am not worried about climate change impacts on the GBR Climate change is an immediate threat requiring urgent attention What do you think are the three (3) most serious threats to the Great Barrier Reef? Do you have university or TAFE education?
	Stewardship (ACS3)	<ul style="list-style-type: none"> I make every effort to use energy efficiently in my home and workplace I re-use or recycle most goods and waste

		<ul style="list-style-type: none"> • I rarely consider the environmental impact of the production process for goods and services that I purchase • I don't usually make any extra effort to reduce the waste that I generate • It is not my responsibility to protect the GBR • I feel a social expectation to reduce any impact that I might have on the GBR • Are you part of a GBR based club or community group such as a spear-fishing club in your region? b. If yes: Name • a. Are you part of an environmental community based group? Name
2. Community vitality	Community health (CV3)	<ul style="list-style-type: none"> • I value the GBR because it makes me feel better physically and/or mentally • I would not be personally affected if the health of the GBR declined • Thinking about coral bleaching makes me feel depressed
	Satisfaction (CV4)	<ul style="list-style-type: none"> • The freshwater areas (e.g. rivers, creeks) in my region are not in good condition • The coral reefs in my region are in good condition • There is too much rubbish (plastics and bottles) on the beaches in my region • I am worried about the status of freshwater fish in region • The mangroves in my region are in good health • The estuarine and marine fish in my region are in good condition • I like the colour clarity of water along the beaches in my region.
	Wellbeing (CV3)	<ul style="list-style-type: none"> • The GBR contributes to my quality of life and wellbeing • I feel optimistic about the future of the GBR • I love that I live beside the GBR • I live in this region because of the GBR.
	Relationship with GBR (CV4)	<ul style="list-style-type: none"> • What are the first words that come to mind when you think of the Great Barrier Reef?
	Resource use and resource user profiles (Different for tourists and residents) (ACS3)	<ul style="list-style-type: none"> • Have you ever visited the Great Barrier Reef? (including all land and water from the beaches on the coast, the bays and creeks, the islands, the shoals and seafloor, the open waters, and of course the coral reefs) • In the previous 12 months, how many days did you visit the Great Barrier Reef for recreation? • Thinking about all of your visits to the Great Barrier Reef in the last 12 months, what proportion of your time was spent at each of the following GBR environments • When visiting the Great Barrier Reef, how far do you normally travel from your home? • When visiting the Great Barrier Reef in the last 12 months, how often did you travel by...own boat etc. • Thinking about all your Great Barrier Reef visits in the past 12 months, please rate the importance of the following activities to your use and enjoyment of the Great Barrier Reef (18 activities listed): • Thinking about the entire Great Barrier Reef area, would you be able to identify your favourite place? What is the name of this favourite place?
3. Culture and Heritage	Values (CH1) (CH3) (CH4)	<ul style="list-style-type: none"> • I feel proud that the GBR is a World Heritage Area • The GBR is part of my identity • The GBR is an important part of my culture • The GBR is a great asset for the economy of the region • I value the GBR because it supports a variety of life, such as fish and corals • The aesthetic beauty of the GBR is outstanding • The GBR supports a desirable and active way of life • I value the GBR for the fresh seafood it provides • I value the GBR because it attracts people from all over the world • I value the GBR because of its rich traditional owner heritage • I value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life

		<ul style="list-style-type: none"> • I value the GBR because we can learn about the environment through scientific discoveries • The GBR inspires me in artistic or thoughtful ways • I value the GBR because it is spiritually important to me • I value the GBR because it exists, even if I don't benefit from it
4. Economic value	Economic viability (EV1) (EV2) (EV3) (EV4) (EV5)	<p>ONLY FOR: commercial fisher and marine tourism operator surveys</p> <ul style="list-style-type: none"> • How long have you been involved in the GBR tourism industry? • How long has your current business been operating? • What proportion of your household income came from tourism in the last financial year? • How many employees (FTE) did your operation employ over the previous 12 months? • Do you have insurance for your business assets? • Could you please indicate (approximately) your business turnover (entire revenue) for the past 12 months, in broad categories?
5. Governance	Confidence in management (G3)	<ul style="list-style-type: none"> • Enough is being done to effectively manage the GBR • I am confident that the GBR is well managed • I feel confident that the freshwater areas in my region are well managed • I can contribute to GBR management
	Equity issues (EV4)	<ul style="list-style-type: none"> • I do not have fair access to the GBR compared to other user groups • Future generations have been adequately considered in the management of the GBR
	Support for management (G3)	<ul style="list-style-type: none"> • I support the rules and regulations that affect access and use of the GBR • I support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks in my region)
	Traditional vs. progressive (G2)	<ul style="list-style-type: none"> • "Progressive" rather than, "traditional" on a ten point scale with traditional at one end, and progressive at the other.
	Trust in networks (G4)	<ul style="list-style-type: none"> • On a scale of 1-10, how much do you trust the information you receive about the GBR from the following groups? (11 listed)
	Sources of Information (G4)	<ul style="list-style-type: none"> • On a scale of 1-10, how much do you rely on each of the following for news about your region and the world? (16 listed)
	Demographic Information (CV1)	<ul style="list-style-type: none"> • In what year were you born? • What is your current home postcode? • Are you currently married or have a partner? • Do you have university or TAFE education?

Secondary Data Collection

In 2013, SELTMP presented data from existing regional datasets where possible to meet data needs and avoid redundancy. This meant reviewing the published literature or developing new liaisons for data sharing. Where existing data did not exist, data were collected through the SELTMP surveys (primary data). The bringing together of the secondary (existing) and primary data sources was an important feature of the program enabling integration across social and economic datasets, accessibility of a range of datasets, interpretation of existing data within a natural resource management context, and a, "one-stop shop" of social and economic data for Reef managers. This function is now being provided by RIMReP, where Gooch et al. (2017) and Williams et al. (2017) provide the existing data.

RESULTS

Results are currently publically accessible at: <https://research.csiro.au/seltmp/> through five dashboards, each representing a Human Dimension Cluster.

A. Resident Results

A1. Resident aspirations, capacities and stewardship (ACS)

Mean resident responses and standard errors for each survey statement describing the section on 'aspirations, capacity and stewardship' are presented in Table 3.

Table 3. Mean resident responses and standard errors for each survey statement describing aspirations, capacity and stewardship

Human Dimension Cluster	Concepts	Survey questions	Mean (SE) 2017
Aspirations, capacity and stewardship	Aspirations (ACS1)	I would like to do more to help protect the GBR	7.75 (.050)
		I would like to do more to improve water quality in the waterways in my region	7.77 (.051)
		I would like to learn more about the condition of the GBR	7.29 (.054)
	Capacity and education (ASC2)	I have the necessary knowledge and skills to reduce any impact that I have on the GBR	5.35 (.061)
		I feel like I can contribute to GBR management	5.99 (.061)
		I am not worried about climate change impacts on the GBR	3.30 (.068)
		I cannot make a personal difference in improving the health of the GBR	4.32 (.062)
		I do not have the time or opportunity required to reduce any impact that I might have on the GBR	4.42 (.058)
		I make every effort to use energy efficiently in my home and workplace	7.75 (.047)
		I re-use or recycle most goods and waste (2013 = how often do you recycle?)	7.43 (.055)
		I rarely consider the environmental impact of the production process for goods and services that I purchase	3.83 (.058)
	Stewardship (ACS3)	I don't usually make any extra effort to reduce the waste that I generate	3.35 (.054)
		It is not my responsibility to protect the GBR	3.23 (.059)
		I feel a social expectation to reduce any impact that I might have on the GBR	6.79 (.060)
		Are you part of a GBR based club or community group such as a spear-fishing club in your region? (1=yes, 2=no)	1.93 (.006)
		a. Are you part of an environmental community based group? Name	1.89 (.007)

1.1 Aspirations (ACS1)

Residents had high aspirations for the Great Barrier Reef. Residents aspired to doing, “more to help protect the GBR” (84.5%). They also aspired to learning, “more about the condition of the GBR” (77.6%), and would, “like to do more to improve water quality in [their] waterways” (80.6%).

An analysis by NRM region suggests that residents within the Wet Tropics NRM region had higher aspirations to, “learn more about the condition of the GBR” than other regions (82%), and, “to do more to help protect the GBR” (88%) than any other NRM region, particularly the Fitzroy NRM region (68%). However, residents from the Mackay-Whitsundays NRM region (89%) ranked the highest for the aspirational statement, “I would like to do more to improve water quality in my waterways (including rivers, creeks)”, especially compared to the Fitzroy NRM region (68%) (Tables 4-6).

Table 4. Proportion of respondents (by NRM region) who indicated agreement with the statement, “I would like to learn more about the condition of the GBR.”

NRM REGION	%
Wet Tropics (n=521):	82
Burdekin (n=659):	78
Mackay-Whitsundays (n=283):	78
Fitzroy (n=244):	68
Burnett-Mary (n=44):	79

Table 5. Proportion of respondents (by NRM region) who indicated agreement with the statement, “I would like to do more to help protect the GBR.”

NRM REGION	%
Wet Tropics (n=521):	88
Burdekin (n=659):	85
Mackay-Whitsundays (n=283):	88
Fitzroy (n=244):	72
Burnett-Mary (n=44):	83

Table 6. Proportion of respondents (by NRM region) who indicated agreement with the statement, “I would like to do more to improve water quality in my waterways (including rivers, creeks)”.

NRM REGION	%
Wet Tropics (n=521):	88
Burdekin (n=659):	85
Mackay-Whitsundays (n=283):	89
Fitzroy (n=244):	68
Burnett-Mary (n=44):	86

1.2 Capacity and education (ACS2)

Residents suggested that their capacity to be a steward of the GBR was low to moderate, where only 44.3% felt that they, “have the necessary knowledge and skills to reduce any impact that [they] have on the GBR”. Some residents (30.5%) felt that they, “do not have the time or opportunity required to reduce any impact that [they] might have on the GBR”. Only 58.3% of residents suggested that they, “feel like [they] can contribute to GBR management”. Similarly, only 30% felt that they, “cannot make a personal difference in improving the health of the GBR”.

Residents’ knowledge of the current ecological predicament of the Great Barrier Reef was variable. For example, 20% were, “not worried about climate change impacts on the GBR”, whilst 68% thought that climate change was an immediate threat requiring urgent attention”. Residents were also asked what they thought the three most serious threats to the GBR were. They prioritised; (i) pollution, (ii) climate change, and (iii) fishing.

An analysis by NRM region suggests that residents within the Mackay-Whitsundays NRM region (53%) were more likely to feel that they have the necessary knowledge and skills to reduce any impact that they might have on the GBR than any other NRM region, particularly the Fitzroy NRM region (37%). Residents within the Burdekin NRM region (93%) were more likely to agree with the statement, “I value the GBR because we can learn about the environment through scientific discoveries”, especially in comparison with those in the Fitzroy NRM region. We also found that residents within the Burdekin region most strongly disagreed with the statement, “I CANNOT make a difference in improving the health of the GBR”, compared with other NRM regions, especially the Fitzroy NRM region. Residents from the Mackay-Whitsundays region (76%) most strongly disagreed with the statement, “I do not have the item or opportunity required to reduce any impact that I might have on the GBR” especially compared with the Fitzroy NRM region. In terms of responsibility, we found that residents from the Wet Tropic NRM region (87%) disagreed the most with the statement, “It is NOT my responsibility to protect the GBR”, especially compared with the Fitzroy NRM (74% disagreed) (Tables 7-11).

Table 7. Proportion of respondents (by NRM region) who indicated agreement with the statement, “I have the necessary knowledge and skills to reduce any impact that I might have on the GBR”

NRM REGION	%
Wet Tropics (n=521):	46%
Burdekin (n=659):	42%
Mackay-Whitsundays (n=283):	53%
Fitzroy (n=244):	37%
Burnett-Mary (n=44):	49%

Table 8. Proportion of respondents (by NRM region) who indicated agreement with the statement, “I value the GBR because we can learn about the environment through scientific discoveries.”

NRM REGION	%
Wet Tropics (n=521):	93
Burdekin (n=659):	93
Mackay-Whitsundays (n=283):	90
Fitzroy (n=244):	76
Burnett-Mary (n=44):	88

Table 9. Proportion of respondents (by NRM region) who indicated agreement with the statement, “I CANNOT make a difference in improving the health of the GBR.”

NRM REGION	% disagreed
Wet Tropics (n=521):	70
Burdekin (n=659):	73
Mackay-Whitsundays (n=283):	72
Fitzroy (n=244):	59
Burnett-Mary (n=44):	60

Table 10. Proportion of respondents (by NRM region) who indicated agreement with the statement, “It is NOT my responsibility to protect the GBR.”

NRM REGION	% disagreed
Wet Tropics (n=521):	87
Burdekin (n=659):	86
Mackay-Whitsundays (n=283):	86
Fitzroy (n=244):	74
Burnett-Mary (n=44):	84

Table 11. Proportion of respondents (by NRM region) who indicated agreement with the statement, “I DO NOT HAVE the time or opportunity required to reduce any impact that I might have on the GBR.”

NRM REGION	% disagreed
Wet Tropics (n=521):	70
Burdekin (n=659):	73
Mackay-Whitsundays (n=283):	76
Fitzroy (n=244):	55
Burnett-Mary (n=44):	69

1.3 Stewardship (ACS3)

Stewardship levels were relatively high within residents. Some 83.7% of residents, “make every effort to use energy efficiently in [their] home and workplace”, and 78.2%, “re-use or recycle most goods and waste”. Only 23.7% of residents, “rarely consider the environmental impact of the production process for goods and services that [they] purchase”, and 16.9%, “don’t usually make any extra effort to reduce the waste that I generate”. Some 16.1% felt that, “it is not [their] responsibility to protect the GBR”. SELTMP 2017 also found that 68.5%, “feel a social expectation to reduce any impact that [they] might have on the GBR”.

Results also suggested that 7.4% of residents were part of a GBR based club or community group such as a spear-fishing club. 11.1% were part of an environmental community based group.

A2. Community Vitality (CV)

Levels of community vitality were moderate to high within the region in terms of community health, wellbeing, and satisfaction. Mean responses and standard errors are presented in Table 12.

Table 12. Mean resident responses and standard errors for each survey statement describing community vitality

Human Dimension Cluster	Concepts	Survey questions	Mean (SE) 2017 (or percent of sample, where applicable)
Community vitality	Community health (CV3)	I value the GBR because it makes me feel better physically and/or mentally	7.50 (.056)
		I would not be personally affected if the health of the GBR declined	3.43 (.063)
		Thinking about coral bleaching makes me feel depressed	7.16 (.064)
	Satisfaction (CV4)	The coral reefs in my region are in good condition (2013; The place that I most recently visited in the GBR is NOT in good condition)	4.94 (.057)
		I am worried about the status of freshwater fish in region	6.83 (.060)
		The mangroves in my region are in good health	6.02 (.051)
		The estuarine and marine fish in my region are in good condition	5.83 (.051)
		I like the colour clarity of water along the beaches in my region.	5.82 (.065)
		There is too much rubbish (plastics and bottles) on the beaches in my region	7.72 (.059)
		The freshwater areas (e.g. rivers, creeks) in my region are not in good condition	5.49 (.055)
	Wellbeing (CV3)	The GBR contributes to my quality of life and wellbeing	7.73 (.057)
		I feel optimistic about the future of the GBR	5.31 (.065)
		I love that I live beside the GBR (2013; I live here because of the GBR)	8.85 (.045)
	GBR Relationship (CV4)	What are the first words that come to mind when you think of the Great Barrier Reef?	See Fig 3 below
	Resource use and resource user profiles	Have you ever visited the Great Barrier Reef? (including all land and water from the beaches on the coast, the bays and creeks, the islands, the shoals and seafloor, the open waters, and of course the coral reefs)	94% responded “yes”

An analysis by NRM region shows that residents from within the Fitzroy region most agreed with the statement, “I value the GBR because it makes me feel better physically and/or mentally”. However, residents from the Burnett-Mary NRM region (83%) most highly rated their disagreement with the statement, “I WOULD NOT be personally affected if the health of the GBR declined”. Residents from the Wet Tropics NRM region (76%) most highly rated their responses to the statement, “thinking about coral bleaching makes me feel depressed”, especially compared to residents in the Fitzroy region (60%).

2.3 Community satisfaction (CV4)

Local residents were only moderately satisfied with current environmental conditions within the region. They were particularly worried about coral condition, freshwater ways, and rubbish on the beaches in their region, but they were also worried about mangrove health, and estuarine and marine fish. For example, only 40.5% of residents stated that, “the coral reefs in [their] region are in good condition”, and 53.9% thought, “the freshwater areas (e.g. rivers, creeks) in [their] region were in good condition”. Only 55.0% of residents said that they, “like the colour clarity of water along the beaches in [their] region. Some 79.5% of residents highlighted that, “there is too much rubbish (plastics and bottles) on the beaches in [their] region”, and 68.9% were, “worried about the status of freshwater fish in [their] region”. Some 51.4% thought that the, “mangroves in [their] region are in good health”, and 48.8% thought that the, “estuarine and marine fish in [their] region are in good condition”.

An analysis by NRM region suggested that residents within the Burnett-Mary region (71%) rated the perceived condition of coral reefs in their region more highly than in other NRM regions, particularly residents from within the Burdekin NRM region (33%). Residents from the Burdekin and Burnett-Mary NRM regions (82% respectively), were the most worried about the status of freshwater fish in their region. Residents within the Burnett-Mary NRM region rated the colour/clarity of water along the beaches in their region the most highly (95%), and residents within the Burdekin rated water clarity the lowest (44%). Similarly, residents from the Burnett-Mary rated the health of mangroves in their region most highly (74%), and those in the Burdekin rated mangrove health the lowest (49%). Burnett-Mary residents (74%) rated the condition of estuarine and marine fish most highly, and residents in the Burdekin the lowest (45%). However, residents from the Mackay-Whitsundays NRM region (83%) were most likely to agree that there is too much rubbish on their beaches whilst residents in the Burnett-Mary were the least likely (75%). Residents from the Wet Tropics and Burdekin NRMs (49% respectively) agreed that the freshwater areas in their region were not in good condition, whilst residents within the Fitzroy region were more likely to agree (38%) (cf. Table 12).

Table 13. Proportion of respondents (by NRM region) who indicated agreement with the statement, “The coral reefs in my region are in good condition.”

NRM REGION	%
Wet Tropics (n=521):	38
Burdekin (n=659):	33
Mackay-Whitsundays (n=283):	45
Fitzroy (n=244):	56
Burnett-Mary (n=44):	71

2.4 Wellbeing (CV4)

The wellbeing of local residents in this study was closely related to the Great Barrier Reef. Some 81.2% of local residents stated that, “the GBR contributes to [their] quality of life and wellbeing”, where 92.4% of residents stated that they, “love that [they] live beside the GBR”. However, only 47.7% stated that they, “feel optimistic about the future of the GBR”, and 79.7% were, “worried about climate change impacts on the GBR”, suggesting that any declines in GBR health would be interlinked with human wellbeing.

An analysis by NRM shows that residents in the Fitzroy region (87%) reported highest levels of agreements with the statement, “the GBR contributes to my quality of life and wellbeing”, especially compared to those in the Burnett-Mary NRM region (79%), however residents in the Wet Tropics provided more 10/10 responses to the statement. Residents within the Wet Tropics NRM region rated the statement, “I love that I live beside the GBR” most highly, especially compared with residents living within the Burnett –Mary NRM region (80%). Residents from the Fitzroy NRM region (61%) also rated their optimism about the future of the GBR most highly, especially compared with the Burdekin region (43%). Residents from the Burdekin and Burnett-Mary NRM regions were the most worried about climate change impacts on the GBR (Table 14).

Table 14. Proportion of respondents (by NRM region) who indicated agreement with the statement “The GBR contributes to my quality of life and wellbeing”

NRM REGION	%
Wet Tropics (n=521):	83
Burdekin (n=659):	80
Mackay-Whitsundays (n=283):	86
Fitzroy (n=244):	87
Burnett-Mary (n=44):	79

2.5 Resource Use (ACS3)

Results suggest that the Great Barrier Reef is an extremely well-used resource, particularly the beaches within the region. Residents within the region were both relatively new (transient) on the one hand, or well established on the other hand. Eight percent of the survey population had lived within the region for less than a year, whilst 31.9% had lived within the region for more than twenty years. Six percent of residents surveyed in this study had never visited the GBR. Typically, however, local residents spent a lot of recreational time within the GBR boundary. Results suggest that residents will spend anything from one day at the GBR (8%) to more than 100 days (12.25%). Some 39.7% only travel less than 10km to visit the GBR whilst 13% travel more than 100km. Most residents travel by foot or personal vehicle to visit the GBR (38.9%). In, “thinking about all your visits to the GBR in the past 12 months, what proportion of your time was spent at each of the following GBR environments?” we found that residents spent most of their time at beaches (40%), and least of their time at shipwrecks (86%). More information about resident travel can be accessed via the dashboards. Maps suggesting where people’s favourite places are, as well as maps describing where each activity is undertaken within the region, can be found in Appendix 6.

Residents from the Fitzroy NRM (95%) visited the GBR more than any other NRM region, especially the Wet Tropics NRM (88%) (Table 13). Residents within the Wet Tropics, Burdekin and Mackay-Whitsundays NRM regions rated sightseeing/exploration as their most important activity. Those in the Fitzroy region rated sunbathing/relaxing as their most important activity, and residents in the Burnett-Mary NRM region rated wildlife watching as their most important activity (Table 15). The importance of 18 activities within the region is listed in Table 16.

Table 15. Proportion of respondents (by NRM region) who visited the GBR at least once in the last 12 months

NRM REGION	%
Wet Tropics (n=521):	88
Burdekin (n=659):	92
Mackay-Whitsundays (n=283):	94
Fitzroy (n=244):	95
Burnett-Mary (n=44):	90

Table 16. Responses to the survey question, “Thinking about all your GBR visits in the past 12 months, please rate the importance of the following activities to your use and enjoyment of the GBR” (n=1934).

NRM REGION	Top ranked activity (mean rating; 1-10 scale)	2nd ranked activity (% of respondents)	3rd ranked activity (% of respondents)
Wet Tropics (n=521):	Sightseeing/exploration (7.96)	Wildlife watching (7.82)	Viewing coral and reef habitats (7.51)
Burdekin (n=659):	Sightseeing/exploration (7.90)	Wildlife watching (7.41)	Sunbathing/relaxing (7.23)
Mackay-Whitsundays (n=283):	Sightseeing/exploration (8.14)	Wildlife watching (7.66)	Viewing coral and reef habitats (7.61)
Fitzroy (n=244):	Sunbathing/relaxing (7.09)	Sightseeing/exploration (6.29)	Wildlife watching (5.49)
Burnett-Mary (n=44):	Wildlife watching (8.23)	Sightseeing/exploration (7.88)	Viewing coral and reef habitats (7.58)

Table 17. Responses to the survey question, “Thinking about all your visits to the GBR in the past 12 months, what proportion of your time was spent at each of the following GBR environments?” (n=1934).

Habitat / Environment	Not at all	Not very often (1- 25% of my GBR visits)	Less than half of my GBR visits (26- 50%)	More than half of my visits (51-75%)	Most of my time was spent in this environment
Beaches	8%	11%	14%	26%	40%
Creeks and estuaries	32%	33%	20%	10%	5%
Islands and cays	33%	33%	18%	9%	6%
Inshore reefs	53%	26%	12%	6%	4%
Mid shelf and outer reefs	59%	23%	8%	6%	5%
Open water	55%	25%	8%	7%	4%
Shipwrecks	86%	11%	2%	1%	0%

A3. Culture and Heritage (CH)

Mean resident responses to survey questions about culture and heritage are presented in Table 18.

Table 18. Mean resident responses and standard errors for each survey statement describing culture and heritage

Human Dimension Cluster	Concepts	Survey questions	Mean (SE) 2017
Culture and Heritage	Values (CH1) (CH3) (CH4)	I feel proud that the GBR is a World Heritage Area	9.19 (.037)
		The GBR is an important part of my culture	5.92 (.070)
		The GBR is a great asset for the economy of the region	9.25 (.035)
		The GBR is part of my identity	6.64 (.065)
		I value the GBR because it supports a variety of life, such as fish and corals	9.18 (.035)
		The aesthetic beauty of the GBR is outstanding	9.00 (.037)
		The GBR supports a desirable and active way of life	8.23 (.045)
		I value the GBR for the fresh seafood it provides	6.88 (.067)
		I value the GBR because it attracts people from all over the world	8.50 (.048)
		The GBR contributes to my quality of life and wellbeing	7.73 (.057)
		I value the GBR because of its rich traditional owner heritage	6.70 (.069)
		I value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life	7.01(.066)
		I value the GBR because we can learn about the environment through scientific discoveries	8.41 (.046)
		The GBR inspires me in artistic or thoughtful ways	6.47 (.068)
		I value the GBR because it is spiritually important to me	5.72 (.072)
		I value the GBR because it exists, even if I don't benefit from it	8.46 (.048)

3.1 Values of residents (CH1, CH2, CH3)

The contemporary cultural and heritage value of the Great Barrier Reef was high for local residents. SELTMP 2017 found that although only 55.5% of residents valued the GBR because, “it is an important part of [their] culture”, some 96% valued it because, “the GBR is a great asset for the economy of the region”, 95.9%, “value the GBR because it supports a variety of life, such as fish and corals”, and 95.1% reported that the, “the aesthetic beauty of the GBR is outstanding”. We found that 95.2% of residents felt, “proud that the GBR is a World Heritage Area”, and 90.0% of residents, “value the GBR because it attracts people from all over the world. Some 89.8%, “value the GBR because we can learn about the environment through scientific discoveries”. The Great Barrier Reef was valued by 89.5%, “because it supports a desirable and active way of life”, where 89.4% reported that they, “value the GBR because it exists, even if [they] don't benefit from it”. In addition, 71.7%, “value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life”, and 70.0%, “value the GBR for the fresh seafood it provides”. Some 66% felt that, “the GBR is part of [their] identity”, and 65.9% said, they, “value the GBR because of its rich traditional owner heritage”. Similarly, 64.2% reported that it, “inspires

[them] in artistic or thoughtful ways”, and, “53.9% reported that they, “value the GBR because it is spiritually important to [them]”. In sum, the GBR is an integral part of local culture, where local people derive a range of cultural ecosystem services from the GBR.

An analysis by NRM region suggests that residents within the Mackay-Whitsundays region (74%) had the strongest identity around the GBR within the region, whilst those in the Burden had the lowest (63%). Residents within the Fitzroy NRM region (94%) most highly valued the GBR because it supports a desirable and active way of life, especially compared to residents within the Wet Tropics (88%). They also rated the fresh seafood provided by the GBR most highly. Residents from the Burnett Mary NRM region rated the aesthetic beauty of the GBR most highly. Residents in the Burnett-Mary (74%) rated the value of the GBR in terms of its rich Traditional Owner heritage the highest, and residents in the Fitzroy NRM region the lowest (49%). The spiritual values associated with the GBR were most highly valued by residents within the Wet Tropics NRM (64%) and the lowest by those in the Fitzroy NRM (47%). Residents from the Wet Topics and Burdekin NRMs (76% each) valued the GBR as a place to pass down traditions and a way of life, and those in the Fitzroy valued these aspects the lowest (52%). All residents highly valued the GBR because it supported a variety of life, such as fish and corals (>93%). All residents were proud of the world Heritage Area status associated with the GBR (>94%). All residents highly valued the intrinsic value of the GBR (>88%). All residents highly valued the economic values of the GBR (>96%).

A4. Economic value

4.1 Economic viability (EV1-5)

Residents were assumed to not derive income from the Great Barrier Reef. Economic data were only collected for tourism operators and commercial fishers.

A5. Governance (G)

SELTMP 2017 data provides insight into the perceptions of management of the Great Barrier Reef, as well as the levels of connectivity within and between key sectors as well as information sources. Mean resident responses to survey questions about governance are presented in Table 19.

Table 19. Mean resident responses and standard errors for each survey statement describing governance

Human Dimension Cluster	Concepts	Survey questions	Mean (SE) 2017
Governance	Confidence in management (G3)	Enough is being done to effectively manage the GBR	3.85 (.058)
		I feel confident that the GBR is well managed	5.43 (.061)
		I feel confident that the freshwater areas in my region are well managed	5.58 (.058)
		I can contribute to GBR management	5.99 (.061)
	Equity issues (EV4)	I do not have fair access to the GBR compared to other user groups	3.87 (.066)
		Future generations have been adequately considered in the management of the GBR	4.55 (.063)
	Support for management (G3)	I support the rules and regulations that affect access and use of the GBR	6.94 (.063)

		I support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks in my region)	6.95 (.060)
	Traditional vs. progressive (G2)	"Progressive" rather than, "traditional" on a ten point scale with traditional at one end, and progressive at the other.	6.81 (.054)
	Trust in networks (G4)	On a scale of 1-10, how much do you trust the information you receive about the GBR from the following groups? (11 listed)	4.64 (.057)
		The Australian Government	
		The Queensland government	4.84 (.057)
		Friends, family and/or work colleagues	6.55 (.050)
		GBRMPA	7.14 (.050)
		Scientists	7.87 (.048)
		Industry Groups	5.29 (.054)
		Australian based NGOs	6.42 (.054)
		International NGOs	6.35 (.059)
		New media journalists	3.77 (.051)
		Social media bloggers	3.83 (.051)
		Lobby groups	4.57 (.059)
	Sources of Information (G4)	On a scale of 1-10, how much do you rely on each of the following for news about your region and the world? (16 listed)	4.43 (.065)
		Local newspaper	
		State papers	4.07 (.064)
		Magazines	3.04 (.053)
		TV	4.96 (.069)
		Pay tv	3.06 (.060)
		Digital streamlining	3.89 (.065)
		Local radio	5.06 (.066)
		National radio	4.86 (.067)
		Online forums	3.61 (.062)
		Facebook	4.39 (.068)
		Twitter	2.39 (.053)
		Instagram	2.77 (.060)
		Snapchat	2.30 (.053)
		Youtube	3.42 (.066)
		News media websites	4.80 (.071)
		Word of mouth	5.57 (.064)
	Demographic Information (CV1)	In what year were you born?	1978
		For how many years have you lived in the GBR region?	19.78
		Are you currently married or have a partner?	NA
		Do you identify as an Aboriginal Australian (1=yes, 2=no)	1.95 (.005)
		Do you identify as a TS Islander?	1.98 (.003)
		Do you identify as FIFO	1.96 (.004)
		Do you have university of TAFE education?	NA

5.1 Confidence and support in management (G3)

Local residents were moderately confident in, and supportive of, GBR management. Some 23.8% of local residents thought that, “enough is being done to effectively manage the GBR”, whilst 48% felt, “confident that the GBR is well managed”. Residents were generally supportive of the rules and regulations, where 66.3% said, “I support the rules and regulations that affect access and use of the GBR” and 65.2% said that they, “support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks in my region)”. Some 50.4% of residents suggested that they, “feel confident that the freshwater areas in [their] region are well managed”. And 55% felt that they, “can contribute to GBR management”. In addition, 73.1% of residents felt that they were, “progressive” rather than, “traditional” on a ten point scale with traditional at one end, and progressive at the other.

Residents within the Fitzroy NRM region (67%) were more confident in the management of the GBR whilst residents in the Mackay-Whitsundays NRM were the least confident (45%). Fitzroy residents most agreed that enough is being done to effectively manage the GBR (32%), whilst Burdekin residents were the least supportive (19%). Residents within the Fitzroy NRM region (67%) were also the most confident that the freshwater areas in the region were well managed, and those in the Burdekin were the least confident (45%). Residents from the Fitzroy NRM (79%) were also the most supportive of the current rules and regulations that affect use and access, whilst those in the Wet Tropics were the least supportive (66%). Residents from the Burnett-Mary (83%) were most supportive of the rules and regulations that accept access and use of freshwater areas, whilst those in the Wet Tropics, Burden and Mackay-Whitsundays were the least supportive (69% each). Residents within the Wet Tropics and Burdekin (60% each), felt that they could contribute to management the most, which those in the Fitzroy NRM region felt like they could contribute the least (44%).

5.2 Equity Issues (EV4)

Local residents generally felt that the current governance of the GBR was somewhat equitable. Some 26.8% of residents felt that they, “do not have fair access to the GBR compared to other user groups, whilst only about a third of residents (32.3%) felt, “that future generations have been adequately considered in the management of the GBR”.

Residents from within the Burnett-Mary NRM (49%) were more likely to agree that they did not have fair access to the GBR compared to other groups, whilst residents from the Mackay-Whitsundays NRM were less likely to agree (22%).

5.3 Trust in networks (G4)

Overall, SELMTP 2017 found that there were moderate to high levels of trust in government and GBR management. Some 76.2% of local residents trusted GBRMPA, whilst 36.6% trusted the Australian government and 39.9% trusted State government for information about the GBR. SELTMP 2017 found that 84.8% of local residents trusted scientist for information about the GBR, whilst 67.2% trusted friends, family and work colleagues, 46.0% trusted industry groups, 62.9% trusted international NGOs, 64.3% trusted Australian NGOs, 33.0% trusted lobby groups such as Get Up, 20.0% trusted news media journalists, and 20.5% trusted social media.

5.4 Sources of information (G4)

SELTMP 2017 found that the most important sources of information about the GBR were word of mouth (51.8%), local radio (46.1%), news media websites (43.9%), local newspaper (37.3%), state/regional newspapers (31.3%), magazines (15.6%), free to air television (44.7%), pay TV (19.1%), digital streaming services (27.9%), national/regional radio (40.4%), online discussion forums (24.3%), Facebook (34.9%), twitter (11.6%), Instagram (15.9%), snapchat (10.3%), and YouTube (21%).

B. Tourist Results

B1. Tourist aspirations, capacities and stewardship

1.1 Aspirations (ACS1)

In 2017 tourists suggested that they had relatively high aspirations and levels of capacity and stewardship around the Great Barrier Reef. Nearly 82% of all tourists in the study aspired to doing, “more to help protect the GBR” (81.6%), and over 79% aspired to learning, “more about the condition of the GBR” (79.1%).

1.2 Capacity and education (ACS2)

Tourists had a highly variable capacity for stewardship around the GBR. Some 62.7% of tourists sampled in this study felt that they, “can make a personal difference in improving the health of the GBR”. However, only 29.9% of tourists felt that they, “have the necessary knowledge and skills to reduce any impact that [they] have on the GBR”, and 60.0% felt that they, “do not have the time or opportunity required to reduce any impact that [they] might have on the GBR”.

Tourists’ knowledge or education around the current predicament of the Great Barrier Reef was also broad ranging. Some 68% thought that climate change was an immediate threat requiring urgent attention”.

1.3 Stewardship (ACS3)

Stewardship levels were relatively high within tourists visiting the region. Some 82.5% of tourists, “make every effort to use energy efficiently in [their] home and workplace”, and 79.3%, “re-use or recycle most goods and waste”. Some 72.0% said that they, “always consider the environmental impact of the production process for goods and services that I purchase”. Similarly, 27.1% of tourists, “rarely consider the environmental impact of the production process for goods and services that [they] purchase”, and only 16.5%, “don’t usually make any extra effort to reduce the waste that [they] generate”. Some 19% felt that, “it is not [their] responsibility to protect the GBR”. SELTMP 2017 also found that 60.9%, “feel a social expectation to reduce any impact that [they] might have on the GBR”.

B2. Community vitality

2.1 Relationship with the GBR (CV4)

The relationship that tourists have with the GBR is predominately positive. The first words that came to mind when tourists thought of the GBR were 'beautiful' (16.5%), 'coral' (15.8%) and 'fish' (8.2%).

2.2 Community (tourist) health

There appears to be a relatively strong link between the GBR and health of tourists visiting the region, and in this study, but not as strong as for residents. We found that 64.0% of tourists, "value the GBR because it makes [them] feel better physically and/or mentally", where 59.5% of them suggested that, "thinking about coral bleaching makes [them] feel depressed". Some 33.5% of tourists reported that they, "would not be personally affected if the health of the GBR declined".

2.3 Community (tourist) satisfaction

Tourists rated their overall satisfaction with their most recent trip to the Great Barrier Reef using a scale of one-to-ten with a mean of 8.07 (standard error 0.05). They rated their satisfaction with the mean overall condition of this site as 7.13 (stand error 0.06). However, only 45.6% of tourists stated that, "the coral reefs that I have seen are in good condition". Some 66.1% of tourists highlighted that, "there is too much rubbish (plastics and bottles) on the beaches". We did find that 68.3% of residents said that they, "like the colour clarity of water along the beaches".

2.4 Wellbeing (tourist)

About half of the tourists surveyed in this study (50.9%) suggested that, "the GBR contributes to [their] quality of life and wellbeing" and 47.2% stated that they, "feel optimistic about the future of the GBR". Some 80.9% of tourists in this study said that they, "love that [they] have visited the GBR".

2.5 Resource Use

Tourists were asked to describe their most recent trip to the Great Barrier Reef. These places are listed in the dashboards. Some 57.9% of tourists said that they paid to go on an organised tour for this trip. Some 24.5% of tourists said that this trip was to a mainland beach. Some 29.6% of tourists said that they had been on trips beyond the beach in the past 12 months, and they got there using a commercial tour (57.7%), ferry (29.3%), someone else's boat (6.2%), own boat (3.7%), or other means (3.2%). Most tourists travelled with more than 10 other people (33.9%), 2-5 other people (26.9%), or one other person (26.4%). Only 6.1% of tourists travelled alone.

Tourists were also asked to describe the activities that they undertook during their most recent trip to the GBR and to rate the quality of each experience on a scale of one to ten. Results will be provided in another document at a later date on 'resource use and resource users'.

B3. Culture and Heritage

3.1 Values to tourists

The Great Barrier Reef was not recognised by tourists in this study as having an important cultural role given that only 37.6% of tourists stated that, "the GBR is an important part of my culture" and only 37.6% felt that, "the GBR is part of [their] identity". However, the GBR was highly valued in very many others ways (that subtly contribute to, or reflect, the culture of tourists). Some 95.5% said, "I value the GBR because it supports a variety of life, such as fish and corals", and 93.7% valued it because, "the GBR is a great asset for the economy of the region". We also found that 92.5% of tourists felt, "proud that the GBR is a World Heritage Area", and 90.9% said that they, "value the GBR because we can learn about the environment through scientific discoveries". 89.7% reported, "the aesthetic beauty of the GBR is outstanding". Some 88.0% of tourists said, "because it supports a desirable and active way of life". 87.6% reported that they, "value the GBR because it exists, even if [they] don't benefit from it", and 83.8% of tourists said that they, "value the GBR because it attracts people from all over the world. A majority of tourists (68.8%) said they, "value the GBR because of its rich traditional owner heritage", and 68.1% said that they, "value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life". Some 57.0%, "value the GBR for the fresh seafood it provides", and 55.9% reported that it, "inspires [them] in artistic or thoughtful ways. We also found that 40.0% reported that they, "value the GBR because it is spiritually important to [them]". In sum the GBR provides a range of important cultural services to tourists.

B4. Economic value

4.1 Economic viability

The economic value of tourists was not assessed.

B5. Governance

5.1 Confidence and support in management (G3)

Tourists surveyed in this study did not have strong confidence in the management of the Great Barrier Reef. For example, only 16.3% of tourists thought that, "enough is being done to effectively manage the GBR". We also found that 69.8% felt that they were, "progressive" rather than, "traditional" on a ten point scale with traditional at one end, and progressive at the other.

5.2 Equity Issues (EV4)

Perceived equity was not surveyed for tourists.

5.3 Trust in networks (G4)

Overall, SELMTP 2017 found that there were moderate to high levels of trust in information received about the GBR across a range of information providers. Tourists tended to trust scientists the most (83.4%) and 74.3% of local residents trusted GBRMPA. We found that 68.1% trusted international NGOs, 62.6% trusted Australian NGOs, and 62.2% trusted friends, family and work colleagues. Some 50.5% trusted the Australian government and 51.7% trusted State government for information about the GBR. SELTMP 2017 also found that 38.7% trusted industry groups, 26.0% trusted lobby groups such as Get Up, 31.0% trusted news media journalists, and 26.7% trusted social media.

5.4 Sources of information (G4)

SELTMP 2017 found that the most important sources of information about the GBR for tourists were: local radio (48.4%), national/regional radio (48.2%), free to air television (46.7%), word of mouth (46.2%), newspaper (44.2%), state/regional newspapers 44.2(%), news media websites (43.6%), digital streaming services (35.7%), Facebook (35.1%), online discussion forums (29.2%), YouTube (25.2%), pay TV (25.3%), local magazines (24.3%), Instagram (20.0%), twitter (16.0%), and snapchat (13.1%).

C. Tourism Operator Results

C1. Tourism operator aspirations, capacities and stewardship

In 2017 tourism operators suggested that they had very high aspirations and levels of capacity and stewardship around the Great Barrier Reef.

1.1 Aspirations (ACS1)

Tourism operators within the GBR aspired to doing, “more to help protect the GBR” (85.1%), learning, “more about the condition of the GBR” (79.1%), and would, “like to do more to improve water quality in [their] waterways” (85.1%).

1.2 Capacity and education (ACS2)

Tourism operators within the GBR region suggested that their capacity for stewardship was high, where 85.1% suggested that they, “feel like [they] can contribute to GBR management”. Nearly 83% (82.8%) felt that they, “have the necessary knowledge and skills to reduce any impact that [they] have on the GBR”, and only 10.8% felt that they, “cannot make a personal difference in improving the health of the GBR”, suggesting that nearly 90% of operators feel that they can make a personal difference. Only some operators (16.3%) felt that they, “do not have the time or opportunity required to reduce any impact that [they] might have on the GBR”.

Tourism operator' knowledge or education around the current predicament of the Great Barrier Reef was variable. For example, nearly 80% were, "worried about climate change impacts on the GBR", and 68% thought that climate change was an immediate threat requiring urgent attention". Over 74% (74.5%) of tourism operators had completed a university or TAFE education.

1.3 Stewardship (ACS3)

Stewardship levels were very high within the marine tourism industry of the Great Barrier Reef. Some 91.1% of tourism operators, "make every effort to use energy efficiently in [their] home and workplace", and 68.1%, "re-use or recycle most goods and waste". Only 16.0% of tourism operators, "rarely consider the environmental impact of the production process for goods and services that [they] purchase", and only 16%, "don't usually make any extra effort to reduce the waste that I generate". Similarly, only 1.1% felt that, "it is not [their] responsibility to protect the GBR". SELTMP 2017 also found that 80.2%, "feel a social expectation to reduce any impact that [they] might have on the GBR".

Results from SELTMP 2017 found that 86.2% of tourism operators within the GBR region have fuel efficient engines, and 24.5% use an emissions calculator to plan their business operations. Some 14.9% of operators use carbon offsets to counter emissions, and 35.1% use green energy such as solar power on their vessels. Only 5.4% use alternative fuels such as biodiesel or ethanol. However, 83.0% of tourism operators participate in industry best practices via a code of practice, or MOU. Over 50% (52.1%) of tourism operators participate in GBRMPAs Reef Guardian Fisher program, and 33% of operators contribute to a scientific monitoring program (other than SELTMP). We also found that 54.3% employ formally trained guides providing interpretation about the Reef.

C2. Community vitality within tourism operators

Levels of community vitality were high to moderate within the region in terms of community health, wellbeing, and satisfaction.

2.1 Relationship with the GBR (CV4)

The relationship that tourism operators have with the GBR suggests that industry vitality is high and positive. Tourism operators were asked for the first words that came to mind when they thought of the Great Barrier Reef and they offered the words, coral (13.8%), beautiful (6.3%), and fishing (4%).

2.2 Community health (CV3)

In terms of health, 74.4% of tourism operators stated that they, "value the GBR because it makes [them] feel better physically and/or mentally". Only 4.4% of tourism operators reported that they, "would not be personally affected if the health of the GBR declined", and 61.1% suggested that, "thinking about coral bleaching makes [they] feel depressed".

2.3 Community satisfaction (CV4)

Tourism operators were moderately to highly satisfied with the condition of the environment in their region. Only 56.0% of tourism operators stated that, “the coral reefs in [their] region are in good condition”. Some 75.5% thought that the, “mangroves in [their] region are in good health”, and 71.3% thought that the, “estuarine and marine fish in [their] region are in good condition”. Some 21.2% of tourism operators thought, “the freshwater areas (e.g. rivers, creeks) in [their] region are not in good condition”. Some 64.5% of tourism operators highlighted that, “there is too much rubbish (plastics and bottles) on the beaches in [their] region”. Only 48.9% of tourism operators said that they, “like the colour clarity of water along the beaches in [their] region

2.4 Wellbeing (CV4)

Tourism operators appeared to derive significant wellbeing from the GBR, where 97.8% stated that they, “love that [they] live beside the GBR”, and 89.2% stated that, “the GBR contributes to [their] quality of life and wellbeing”. Some 62.8% suggested that they, “couldn’t think of being anything other than a tourism operator”, where, “the tourism industry is not just a job, it is my lifestyle’ (85.9%). However, only 20.2% of operators were, “not worried about climate change impacts on the GBR and 59.1% stated that they, “feel optimistic about the future of the GBR”.

Nearly 82% (81.9%) of tourism operators were married or had a partner.

2.5 Resource Use (ACS3)

Tourism operators have been working within the region for a mean of 24.0 years (SE=1.42 years), with most working (58.5%) and living within the region for over twenty years. Businesses have been operating for a mean of 20.0 years (se=1.14 years). Over 21% (21.3%) have been operating between 6-10 years, and 60.6% of all businesses have been operating for less than 20 years (Tables 20-22). We found that 29.8% of tourism operators in the GBR used multiple ports.

Table 20. Responses to the survey question, “How long have you been involved in the GBR tourism industry?”

	Frequency	Percentage
Cat 1 - <1 year	3	3.2
Cat 2 - 1-5 years	4	4.3
Cat 3 - 6-10 years	16	17.0
Cat 4 - 11-20 years	16	17.0
Cat 5 - 20+ years	55	58.5
Total	94	100.0

Table 21. Responses to the survey question, “How long has your current business been operating?”

	Frequency	Percentage
Cat 1 = 1-5 years	6	6.4
Cat 2 = 6-10 years	20	21.3
Cat 3 = 11-15 years	12	12.8
Cat 4 = 16-20 years	15	16.0
Cat 5 = 21-25 years	9	9.6
Cat 6 = 26-30 years	15	16.0
Cat 7 = 31+ years	13	13.8
Total	94	100.0

Table 22. Responses to the survey question, “Where is your home port” (n=94).

	Frequency	Percentage
Airlie Beach	14	14.9
Cairns	20	21.3
Gladstone	2	2.1
Hamilton Island	3	3.2
Innisfail	1	1.1
Lucinda	1	1.1
Mackay	1	1.1
Magnetic Island	2	2.1
Port Douglas	10	10.6
Port Hinchinbrook	2	2.1
Townsville	5	5.3
Yeppoon	3	3.2
Yorkeys Knob	1	1.1

C3. Culture and Heritage of tourism operators

3.1 Values of tourism operators

The contemporary cultural and heritage value of the Great Barrier Reef (GBR) was high for local tourism operators. One-hundred percent (100%) of tourism operators valued the GBR because, “the GBR is a great asset for the economy of the region, “. Similarly, 98.9% said, “I value the GBR because it supports a variety of life, such as fish and corals” and 97.9% of tourism operators said that they, “value the GBR because it attracts people from all over the world. Nearly 95% (94.6%) reported that, “the aesthetic beauty of the GBR is outstanding”. The Great Barrier Reef was valued by 95.7% of tourism operators, “because it supports a desirable and active way of life”. Results also showed that 93.6% of tourism operators felt, “proud that the GBR is a World Heritage Area”, where 91.1% reported that they, “value the GBR because it exists, even if [they] don’t benefit from it”. Some 91.5%, “value the GBR because we can learn about the environment through scientific discoveries”. The GBR was also valued for its contribution to culture, where 81.7% described that, “the GBR is part of [their] identity”, and 53.9% said, “it is an important part of my culture”. Some 55.1% said they, “value the GBR because of its rich traditional owner heritage”, where 70.8% said that they, “value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life”. Some 63.6% reported that the GBR, “inspires [them] in artistic or thoughtful ways”, where 54.4% reported that they, “value the GBR because it is spiritually important to [them]”.

C4. Economic value of tourism operators

4.1 Economic viability (EV1-5)

The viability of marine tourism businesses was variable. For example, we found that 54.3% of tourism operators suggested that their, “business has not performed this year as well as last year”. However, 75.5% of tourism operators in the GBR stated that they are, “optimistic about the future of [their] business in the GBR”. Some Most tourism businesses (95.7%) had insurance for their business assets. Most operators (60.6%) had a business turnover of less than \$100,000 (Table 23).

Tourism operator households tended to derive only part of their household income from tourism. Only 62.8% of households derived most (76-100%) of their household income from the tourism industry, where 20% of industries obtained half of their household income from tourism. Most business only employed less than 5 employees.

Table 23. Responses to the survey question, “Could you please indicate (approximately) your business turnover (entire revenue) for the past 12 months, in broad categories t” (n=94).

	Frequency	Percentage
< \$20,000	4	4.3
\$100,001 to \$500,000	22	23.4
\$20,000 to \$100,000	10	10.6
\$500,000 to \$1M	8	8.5
Between \$1M to \$5M	16	17.0
More than \$5m	13	13.8
Total	94	100.0

C5. Governance of the tourism industry

5.1 Confidence and support in management (G3)

The marine tourism industry is moderately confident in, and supportive of, management within the region. Only 23.3% of marine based tourism operators thought that, “enough is being done to effectively manage the GBR”, however 60.6% felt, “confident that the GBR is well managed”. A large majority of the industry (85.1%) felt that they, “can contribute to GBR management”, where 66.0% said, “I support the rules and regulations that affect access and use of the GBR” and 67.0% said that they, “support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks in my region)”. Some 74.4% marine tourism operators regarded themselves as, “progressive” rather than, “traditional” on a ten point scale with traditional at one end, and progressive at the other.

5.3 Trust in networks (G4)

Results suggested that marine tourism operators mostly trusted friends, family and work colleagues, (74.4%) as well as scientists (74.4%). Some 71.4% of local tourism operators trusted GBRMPA, whilst 56.5% trusted the Australian government and 28.6% trusted the Queensland government for information about the GBR. We also found that 57.4% trusted industry groups, 52.3% trusted Australian NGOs, 46.7% trusted international NGOs, 22.2% trusted lobby groups such as Get Up, 16.7% trusted news media journalists, and 13.2% trusted social media bloggers.

5.4 Sources of information (G4)

Marine tourism operators appeared to mostly rely on word of mouth (48.9%) for information about the GBR. Other important sources of information were local radio (35.6%), news media websites (35.6%), local newspapers (32.2%), state/regional newspapers (27.8%), magazines (18.9%), free to air television (38.5%), pay TV (18%), digital streaming services (30.0%), national/regional radio (35.6%), online discussion forums (24.2%), Facebook (27.0%), twitter (5.6%), Instagram (11.1%), snapchat (4.4%), and YouTube (14.4%).

Commercial Fisher Results

D1. Aspirations, capacities and stewardship

In 2017 commercial fisher suggested that they had relatively high aspirations and levels of capacity and stewardship around the Great Barrier Reef.

1.1 Aspirations (ACS1)

Commercial fishers aspired to doing, “more to help protect the GBR” (66.7%), learning, “more about the condition of the GBR” (65.9%), and would, “like to do more to improve water quality in [their] waterways” (72.6%).

1.2 Capacity and education (ACS2)

They suggested that their capacity was high, where 67.1% suggested that they, “feel like [they] [could] contribute to GBR management”. Over 88% felt that they had, “the necessary knowledge and skills to reduce any impact that [they] have on the GBR”, and only 15.3% of commercial fishers felt that they did, “not have the time or opportunity required to reduce any impact that [they] might have on the GBR”. Similarly, 28.7% felt that they, “cannot make a personal difference in improving the health of the GBR”.

Commercial fisher’ knowledge or education around the current predicament of the Great Barrier Reef was variable. For example, 67% were, “not worried about climate change impacts on the GBR”, where only 27% thought that climate change was an immediate threat requiring urgent attention”). Some 48.4% of commercial fishers had a university or TAFE education (beyond high school).

1.3 Stewardship (ACS3)

Stewardship levels were relatively high within the region. Some 91.2% of commercial fishers, “make every effort to use energy efficiently in [their] home and workplace”, and 68.2%, “re-use or recycle most goods and waste”. Only 11% of commercial fishers, “rarely consider the environmental impact of the production process for goods and services that I purchase”, (whilst 89% frequently consider such impacts), and only 16%, “don’t usually make any extra effort to reduce the waste that I generate”. Only 10.2% felt that, “it is not [their] responsibility to protect the GBR”. SELTMP 2017 also found that 70.2%, “feel a social expectation to reduce any impact that [they] might have on the GBR”.

We found that only 8.8% of commercial fishers use an emissions calculator to plan their business operations, and 3.3% of businesses use carbon offsets to counter emissions. Only 6.6% of businesses used alternative fuels such as biodiesel or ethanol. However 30.8% of businesses use green energy such as solar panels, and 80.2% of commercial fishers participate in industry best practices via a code of practice or MOU. Some 30.8% of fishers participate in GBRMPAs Reef Guardian Fisher program, and 63.7% contribute to a scientific monitoring program.

D2. Community vitality

2.1 Relationship with the GBR (CV4)

Levels of community vitality were high within the commercial fishing industry in terms of community health, wellbeing, and satisfaction. Commercial fishers were asked for the first words that came to mind when they thought of the Great Barrier Reef and they offered (i), beautiful (15%) (ii) coral 13.9% and (iii) fish (7.1%).

2.2 Community health (CV3)

In terms of health, 64.8% of commercial fishers stated that they, “value the GBR because it makes [them] feel better physically and/or mentally, “. Only 3.3% of commercial fishers reported that they, “would not be personally affected if the health of the GBR declined”, and 37.9% suggested that, “thinking about coral bleaching makes [them] feel depressed”.

2.3 Community satisfaction (CV4)

In terms of satisfaction, commercial fishers were mostly satisfied with environmental condition given that 77.9% stated that, “the coral reefs in [their] region are in good condition”, and that 27.5% of commercial fishers thought, “the freshwater areas (e.g. rivers, creeks) in [their] region are not in good condition”. Some 79.2% thought that the, “mangroves in [their] region are in good health”, and 79.8% thought that the, “estuarine and marine fish in [their] region are in good condition”. They were most worried about rubbish on beaches, where 61.4% stated, “there is too much rubbish (plastics and bottles) on the beaches in [their] region”. Some 41.3% were, “worried about the status of freshwater fish in [their] region”. Only 60.2% of commercial fishers said that they, “like the colour clarity of water along the beaches in [their] region”.

2.4 Wellbeing (CV4)

In terms of wellbeing, 82.0% stated that, “the GBR contributes to [their] quality of life and wellbeing” and 72.4% stated that they, “feel optimistic about the future of the GBR”. Some 63.3% stated that, “I couldn’t think of being anything other than a fisher”, and 89% said that, “the fishing industry to me is not just a job, it’s my lifestyle”. Around 98.9% of commercial fishers stated that they, “love that [they] live beside the GBR”, and 67.0% were “worried about climate change impacts on the GBR”. Some 86.8% of commercial fishers were married or had a partner.

2.5 Resource Use (ACS3)

The GBR is a key resource for commercial fishers. Most fishers had lived within the region for 20 years. A map of the home ports of fishers from this study is presented in Figure 4. Some 61.5% of fishers use multiple ports. Fishers (62.7%) tend to roam more than 100km from their home port, where 17.6% fish close to their home port (50-100km), and another 17.6% tend to fish very local to their home port (less than 50km away). Most of the fishers in this study operated in the line fishery (Spanish mackerel and reef species) (Tables 24,25).

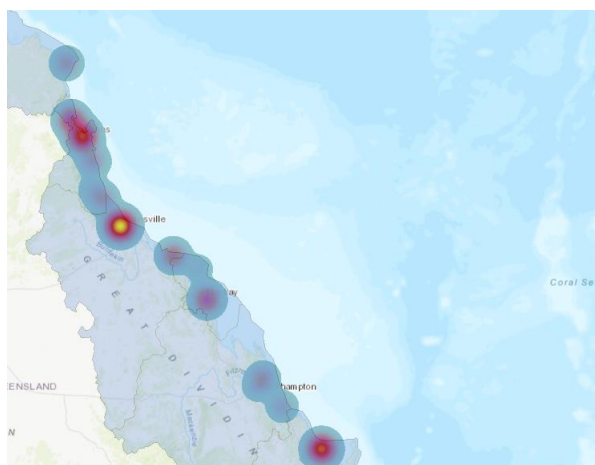


Figure 4. Location of commercial fishers' home ports. Yellow represents highest density of fishers, and blue represents the lowest.

Table 24. Responses to the survey question, "Which fisheries do you operate in?"

	Frequency	Percentage
Crab - mud, sand	10	11.0
Harvest - coral collection, aquarium fish, sea cucumber, rock lobster (crayfish)	9	9.9
Line - Spanish mackerel, reef line	42	46.2
Net - inshore net, offshore net, shark	10	11.0
Trawl - prawn, bugs, scallop, squid	19	20.9
Total	91	100.0

Table 25. Responses to the survey question, "Where is your home port (where you operate from, not necessarily where you live)"

	Frequency	Percentage
Bowen	5	5.5
Bundaberg	16	17.6
Cairns	14	15.4
Cape Flattery	3	3.3
Gladstone	2	2.2
Hamilton Island	1	1.1
Innisfail	2	2.2
Lucinda	3	3.3
Mackay	7	7.7
Mourilyan	1	1.1
Port Douglas	8	8.8
Port Hinchinbrook	1	1.1
Rockhampton	1	1.1
Townsville	12	13.2
Yeppoon	3	3.3
Yorkeys Knob	1	1.1
Total	91	100.0

D3. Culture and Heritage

3.1 Values of commercial fishers

The contemporary cultural and heritage value of the Great Barrier Reef was high for local commercial fishers. The Great Barrier Reef was valued for very many reasons. For example, 97.8%, “value the GBR for the fresh seafood it provides”, and 96.7%, “value the GBR because it supports a variety of life, such as fish and corals”. Even though the GBR is an important economic resource for fishers, where 85.6% valued it because, “the GBR is a great asset for the economy of the region’ we observed that more fishers appreciated the aesthetic values of the GBR, given that 90.0% reported that the, “the aesthetic beauty of the GBR is outstanding”. Some 81.4% of commercial fishers reported that they, “value the GBR because it exists, even if [they] don’t benefit from it”. We also found that 75.8% of commercial fishers felt, “proud that the GBR is a World Heritage Area”, and that 68.5% felt that, “the GBR is part of [their] identity”. Some 75.3%, “value the GBR because we can learn about the environment through scientific discoveries”, and 73.9% of commercial fishers said that they, “value the GBR because it attracts people from all over the world”. Some 67.8% said that they, “value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life”, where 60.9% of commercial fishers valued the GBR because, “it is an important part of my culture”. Some 50.6% reported that it, “inspires [them] in artistic or thoughtful ways, 50% reported that they, “value the GBR because it is spiritually important to [them]”. Only 38.6% said, they, “value the GBR because of its rich traditional owner heritage”.

D4. Economic value

4.1 Economic viability (EV1-5)

Only 50.6% of commercial fishers said that they were, “optimistic about the future of [their] business in the GBR”. And 46.2% suggested that their, “business [had] not performed this year as well as last year.” We also found that 59.3% of commercial fishers in this study had insurance for their business assets. Many fishers (35%) had an entire business revenue of over \$500,000 during the previous 12 months (Table 26).

Results suggest that 61.5% of fishers use multiple ports. Most fishers (64%) travelled ‘quite some distance’ from their home port (> 100km), whilst 17.6% of fishers travelled closer to their home port (50-100km), and another 17.6% travelled less than 50km from their home port.

Table 26. Responses to the survey question, “Could you please indicate (approximately) your business turnover (entire revenue) for the past 12 months, in broad categories?”

Business turnover for previous 12 months	Frequency	Percentage
< \$20,000	2	2.2
\$20,000 to \$60,000	8	8.8
\$60,001 to \$100,000	15	16.5
\$100,001 to \$200,000	13	14.3
\$200,001 to \$300,000	7	7.7
\$300,001 to \$500,000	7	7.7
> \$500,000	32	35.2
Total	91	100.0

D5. Governance

SELTMP 2017 data provides insight into the perceptions of management of the Great Barrier Reef, as well as the levels of connectivity within and between key sectors as well as information sources.

5.1 Confidence and support in management (G3)

Results suggest that only 38.8% of commercial fishers thought that, “enough is being done to effectively manage the GBR”, and 52.8% of commercial fishers felt, “confident that the GBR is well managed”. Even fewer fishers (26.5%) said that they, “feel confident that the freshwater areas in [their] region are well managed”. However, 40.7% suggested that they, “support the current rules and regulations that affect access and use of the GBR”, and that 42.9% stated that they, “support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks) in [their] region.” Overall, we found that 61.8% of commercial fishers saw themselves as progressive rather than traditional.

5.2 Equity Issues (EV4)

Results from SELTMP 2017 found that 34.4% of commercial fishers felt that they, “do not have fair access to the GBR compared to other user groups, “. We also found that around half of the fisher population in this study (49.5%) felt, “that future generations have been adequately considered in the management of the GBR”.

5.3 Trust in networks (G4)

Overall, SELTMP 2017 found that commercial fishers were less trusting of typical sources of information about environmental issues than other stakeholders. We found low to moderate levels of trust in government and GBR management, where fishers tended to trust family/friends, scientists and industry bodies more. Specifically, we found that 67.8% trusted friends, family and work colleagues, 45.3% of local commercial fishers trusted scientists for information about the GBR, 43.7% trusted industry groups, 39.1% of local commercial fishers trusted GBRMPA, and 31.9% trusted Fisheries Queensland, whilst 17.0% trusted the Australian government and 15.9% trusted state government for information about the GBR. SELTMP 2017 also found that 12.8% trusted Australian NGOs, 8% trusted international NGOs, 4.8% trusted lobby groups such as Get

Up, 3.5% trusted news media journalists, and 3.5% trusted social media commentators and bloggers.

5.4 Sources of information (G4)

SELTMP 2017 found that the most important sources of information about the GBR for commercial fishers were word of mouth (52.9%), local radio (38.6%), national/regional radio (37.5%), free to air television (36.4%), local newspaper (23.9%), magazines (21.6%), digital streaming services (17.2%), state/regional newspapers (15.9%), news media websites (14.8%), pay TV (14.9%), YouTube (13.8%). Online discussion forums (10.3%), Facebook (15.1%), twitter (3.4%), Instagram (2.3%), snapchat (1.1%).

National Residents

Using an external service provider, Pollinate, we surveyed 1,028 national residents for this study. Only a subset of SELTMP questions were included in the National Survey due to space and budgetary restrictions. The sample was representative of the general Australian public in terms of gender, age, life stage, location, employment status, education and income).

Results suggest that the relationship that Australians have with the GBR is still mostly positive as the first words that come to mind are fish, beautiful and coral, however, dying has also emerged as a 'first word' (Table 27). Since project inception in 2013, results suggest that while the reef's natural beauty was the primary association for Australians in the past, perceptions of the reef have shifted, where words such as dying, deterioration, endangered, bleaching have increased significantly.

Australians see that climate change, littering and agricultural run-off are the biggest threats to the GBR). Since 2013, almost all perceived threats have increased in mentions, particularly littering and crown of thorns starfish. The perceived threat of cyclones and tropical storms has almost doubled since March 2016.

Results also suggest that GBR visitation has decreased, but the intent to visit has increased across the last 18 months, particularly among younger people.

The Great Barrier Reef is still considered Australia's most inspiring landmark, where 30% of Australians rated the GBR as the most inspiring landmark in the country. However, people are finding the GBR less inspiring over time, but this decline is consistent across all landmarks. Australians remain proud of the GBR and feel a sense of responsibility to protect it, but they are not optimistic about its future. There is also movement away from individual responsibility around the GBR to the perception that it is the collective responsibility of the nation (citizens and management bodies) to protect the Reef.

Results suggest that government (state and federal) have low trust with the Australian public (<20%). The most trusted organisation to report on environmental issues is the CSIRO (53%). CSIRO has been the most trusted organisation in reporting environmental issue over the past seven years.

Table 27. Comparison of coded response themes (% of responses) for “first words” associated with the Great Barrier Reef provided by Australian national residents in SELTMP online surveys in 2013 and 2017 (March 2013 sample n=1002; September 2013 sample n=1000; September 2017 sample n = 1028)

Response theme	Mar 2013 (% of responses)	Sep 2013 (% of responses)	Sep 2017 (% of responses)	Direction of change (if applicable)
Beautiful / beauty / pristine	26	25	22	↓
Coral / reef	23	21	20	↓
Fish / marine life	25	22	18	↓
Dying / deterioration*	4	4	12	↑
Water / ocean	16	12	12	-
Amazing / majestic / inspiring	12	12	11	-
Endangered / under threat*	8	8	10	↑
Natural	10	11	7	↓
Colourful	9	7	6	↓
World wonder / Heritage site / Well known	5	5	6	↑
Good / great	2	3	5	↑
Bleaching*	2	1	5	↑
Big	4	3	4	-
Unique / special	6	6	4	↓
Tourism	4	3	3	-
Should be protected/ more protected*	2	3	3	-
Snorkelling/diving	3	1	3	-
Australian / Queensland	3	2	3	-
Tropical / paradise / beach	0	1	2	↑
Calm / relaxing / peaceful	1	1	2	↑
Global warming / rising sea temp*	0	0	1	↑
Pollution*	1	1	1	-
Fragile / vulnerable	2	2	1	↓
Crown of Thorns Starfish*	1	1	1	-

DISCUSSION

Long-term monitoring offers reef managers, industries and communities the opportunity to understand the current status of marine park users, industries and communities, including those potentially impacting on the ecological components of the system. Long-term monitoring offers the opportunity to assess the future of each industry and community in the face of climate change impacts and other drivers of change such as environmental degradation, regulatory change, cultural change and short-term impacts. It provides the potential to evaluate the effectiveness of management interventions and to assess equity dimensions within the region. However, the success of such a programme can only occur with well-translated cutting-edge social and economic sciences that directly feeds into current management processes. The science must be excellent, collaborative and must itself adapt as learnings from the monitoring datasets are developed. Long-term monitoring offers the best research approach available for refining theory and methods for conceptualizing and assessing how people are prepared for change and adapt.

For these reasons, we propose that SELTMP data collections occur biennially (every two years), with every second year representing an opportunity to develop capacity to maximise the value of the data, within both the science and management communities. To date, several science papers have been written (Table 28), and these will be able to be cited by Outlook 2019. It is anticipated that several additional science papers will emerge from the SELTMP 2017 data. If crises or other event occurs within a capacity-building period, it is possible to undergo an additional data collection period or modify an additional data collection point at specific sites only, or through more intense data collection such as through focus groups, or through adding in extra and more targeted questions. It is still unclear how frequently social indicators should be monitored, as very little evidence exists in the literature to suggest how robust indicators are through time.

We also propose that sample sizes in future need to be similar to those collected in 2013. Data within the SELTMP are collected at the individual scale along the entire length of the GBR. The individual scale is important for understanding behaviour, attitudes, aspirations, values, use, dependency and resilience. The individual scale is critical for whole-of-systems understanding, and for adaptive management. In order for representative statements to be made at higher scales (communities, regions and industries), sample sizes need to be sufficiently large. In 2013, baseline survey data were collected from 210 commercial-fishers, 119 tourism operators, 3181 local residents, 2877 tourists, and 2002 Australians (8,387 in total). In 2017, the second data point, sample sizes were smaller. Statistical power within each industry group depends on the proportion of industry members sampled. However, it is still not clear how many tourism operators and commercial fishers actually operate within the GBR region. Furthermore, it appears that many commercial fishers are no longer using landlines, and have more or less fully converted to mobile phones. The database used to access commercial fishers is based on landlines, and it is proposed that new effort is invested into working with the QDAF to access commercial fisher mobile numbers. It is also proposed to work with tourism industry leaders more closely to ascertain the total number of tourism operators within the region.

With time, the true value of longitudinal data will become apparent. It is anticipated that a list of significant differences between SELTMP 2013 and SELTMP 2017 will be produced by 1 July 2018. It

is also anticipated that the SELTMP team will closely with the RIMReP and Outlook teams to maximise the value of the SELTMP data to the GBRMPA.

Table 28. A list of Science Papers that have been published using SELTMP data

Concepts discussed	Stakeholder	References
Methods and example results	All	Marshall, N. A., E. Bohensky, M. Curnock, J. Goldberg, M. Gooch, B. Nicotra, P. Pert, L. M. Scherl, S. Stone-Jovicich, and R. C. Tobin. 2016. Advances in monitoring the human dimension of natural resource systems: an example from the Great Barrier Reef. <i>Environmental Research Letters</i> 11.
Methods and application	All	Pascoe, S., R. Tobin, J. Windle, T. Cannard, N. Marshall, Z. Kabir, and N. Flint. 2016. Developing a social, cultural and economic report card for a regional industrial harbour. <i>Plos One</i> 11:e0148271.
Marine stewardship	All	Goldberg, A. G., N. Marshall, A. Birtles, P. Case, M. Curnock, and G. G. Gurney. in press. Accepted 19/02/2018. On the relationship between attitudes and environmental behaviours of key Great Barrier Reef user groups. <i>Ecology and Society</i> .
Values of people around the GBR	All	Marshall, N. A., M. Barnes, A. Birtles, K. Brown, J. E. Cinner, M. Curnock, H. Eakin, J. Goldberg, M. Gooch, J. N. Kittinger, M. P.A., D. Manuel-Navarrete, M. Pelling, B. Smit, and R. Tobin. In press. Measuring what Matters in the Great Barrier Reef. <i>Frontiers in Ecology and the Environment</i>
Resource dependency	All	Marshall, N. A., M. I. Curnock, J. Goldberg, M. Gooch, P. A. Marshall, P. L. Pert, and R. C. Tobin. 2017. The Dependency of People on the Great Barrier Reef, Australia. <i>Coastal Management</i> 45:505-518.
Management	All	Gooch, M., M. Curnock, A. Dale, J. Gibson, R. Hill, N. Marshall, F. Molloy, and K. Vella. 2017. Assessment and Promotion of the Great Barrier Reef's Human Dimensions Through Collaboration. <i>Coastal Management</i> 45:519-537.
Trust, confidence and equity	Commercial fishers and marine tourism operators	Turner, R. A., J. Addison, A. Arias, B. J. Bergseth, N. A. Marshall, T. H. Morrison, and R. C. Tobin. 2016. Trust, confidence, and equity affect the legitimacy of natural resource governance. <i>Ecology and Society</i> 21.
Communication	Tourism operators	Goldberg, J., A. Birtles, N. Marshall, M. Curnock, P. Case, and R. Beeden. 2017. The role of Great Barrier Reef tourism operators in addressing climate change through strategic communication and direct action. <i>Journal of Sustainable Tourism</i> : 1-19.
Place attachment	Residents	Gurney, G. G., J. Blythe, H. Adams, W. N. Adger, M. Curnock, L. Faulkner, T. James, and N. A. Marshall. 2017. Redefining community based on place attachment in a connected world. <i>Proceedings of the National Academy of Sciences of the United States of America</i> 114:10077-10082.
Perception of threats	Residents	Lankester, A. J., E. Bohensky, and M. Newlands. 2015. Media representations of risk: The reporting of dredge spoil disposal in the Great Barrier Reef Marine Park at Abbot Point. <i>Marine Policy</i> 60:149-161.

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Appendix One: Resident Survey

Researcher use: _____ **Date:** _____
Location: _____

What are the first words that come to mind when you think of the Great Barrier Reef?
Please list as many words as you like:

Have you ever visited the Great Barrier Reef? (including all land and water from the beaches on the coast, the bays and creeks, the islands, the shoals and seafloor, the open waters, and of course the coral reefs)
Please tick one box: ☐ Yes ☐ No – if no, please go to Q.9.

In the previous 12 months, how many days did you visit the Great Barrier Reef for recreation?
(Please tick one box):

- ☐ 0 days (if 0, please go to Q.4) ☐ 1-2 days (once or twice a year)
☐ 3-6 days (every few months) ☐ 7-12 days (approximately monthly)
☐ 13-24 days (approximately fortnightly) ☐ 25-52 days (approximately weekly)
☐ 53-100 days (several times a week) ☐ more than 100 days (> 3 times a week)

Thinking about all of your visits to the Great Barrier Reef in the last 12 months, what proportion of your time was spent at each of the following GBR environments

GBR Environment	Not at all	Not very often (1-25% of my GBR visits)	Less than half of my GBR visits (26-50%)	More than half of my visits (51-75%)	Most of my GBR time
Beaches on the coast					
Creeks and estuaries					
Islands and cays					
Inshore reefs					
Mid shelf and outer reefs					
Open water					
Shipwrecks					

When visiting the Great Barrier Reef, how far do you normally travel from your home? (tick one box only)
☐ <10km ☐ 10km to <50km ☐ 50km to <100km ☐ 100km or greater

When visiting the Great Barrier Reef in the last 12 months, how often did you travel by...

TRAVEL Mode	Never	Not very often (1-25%)	Less than half (26-50%)	More than half I (51-75%)	Most of my GBR travel
Own boat					
Friend/family boat					
Commercial vessel					
Aircraft					
Ferry to island					
Other powered watercraft (e.g. jetski)					
Other non-powered watercraft (e.g. kayak)					
By vehicle or by foot to mainland beach only					

Thinking about all your Great Barrier Reef visits in the past 12 months, please rate the importance of the following activities to your use and enjoyment of the Great Barrier Reef:

Statement: (GBR = Great Barrier Reef)	NOT important at all	Very Strongly IMPORTANT
--	----------------------	-------------------------

	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Line fishing	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Spearfishing	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Net/trap fishing	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Snorkelling	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Scuba diving	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Motorised watersports (e.g. jetski)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Non-motorised watersports (e.g. kayak, paddleboard, kite surf)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Photography	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Flights (e.g. helicopter, airplane)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Motor boating	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Sailing	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Sightseeing / exploration	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Collecting (e.g. shells)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Sunbathing / relaxing	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Wildlife watching	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Traditional or cultural practices	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Viewing coral and reef habitats	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Viewing coastal habitats (e.g. mangroves, estuaries)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Thinking about the entire Great Barrier Reef area, would you be able to identify your favourite place? What is the name of this favourite place?

Section B.

Please read through the following statements, and then rate your level of agreement or disagreement with each statement, by circling a number on the 10-point scale below.

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel proud that the GBR is a World Heritage Area ..	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is a great asset for the economy of this region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is part of my identity	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR contributes to my quality of life and well-being	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The aesthetic beauty of the GBR is outstanding	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I do not have fair access to the GBR compared to other user groups	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it supports a variety of life, such as fish and corals	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel confident that the GBR is well managed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it supports a desirable and active way of life	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because we can learn about the environment through scientific discoveries	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel confident that the freshwater areas in my region are well managed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it attracts people from all over the world	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR for the fresh seafood it provides	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel optimistic about the future of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I support the current rules and regulations that affect access and use of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

In general, would you consider yourself to be more traditional or progressive? Please rate yourself on the scale below:

1 Traditional	2	3	4	5	6	7	8	9	10 Progressive
------------------	---	---	---	---	---	---	---	---	-------------------

What do you think are the three (3) most serious threats to the Great Barrier Reef?

Again, please read through the following statements, and then rate your level of agreement or disagreement with each statement, by circling a number on the 10-point scale below.

(where 1 = Very Strongly Disagree, and 10 = Very Strongly Agree)

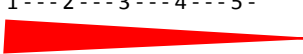

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
I would like to do more to help protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would like to do more to improve water quality in my waterways (including rivers, creeks)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would not be personally affected if the health of the GBR declined	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would like to learn more about the condition of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Thinking about coral bleaching makes me feel depressed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is spiritually important to me	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I cannot make a personal difference in improving the health of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel like I can contribute to GBR management	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
It is not my responsibility to protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel a social expectation to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I think enough is being done to effectively manage the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I have the necessary knowledge and skills to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I do not have the time or opportunity required to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am not worried about climate change impacts on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I love that I live beside the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it inspires me in artistic or thoughtful ways	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel that future generations have been adequately considered in the management of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it makes me feel better physically and/or mentally	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR simply because it exists, even if I don't use or benefit from it.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because of its rich Traditional Owner Heritage	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is an important part of my culture.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks) in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
There is too much rubbish (plastics and bottles) on the beaches in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am worried about the status of freshwater fish in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The coral reefs in my region are in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I like the colour/clarity of water along the beaches in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The mangroves in my region are in good health	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The estuarine and marine fish in my region are in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The freshwater areas (e.g. rivers, creeks) in my region are not in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Which of the following statements best describes your beliefs about climate change? (Please tick one box)

- ☐ Climate change is an immediate threat requiring action.
☐ Climate change is a serious threat, but the impacts are too distant for immediate concern.
☐ I need more evidence to be convinced of the problem
☐ I believe that climate change is not a threat at all
☐ I do not have a view on climate change

In this section, we'd like to understand how you think about and manage your impact on the environment. Please read through the following statements, and then rate your level of agreement or disagreement with each statement, by circling a number on the 10-point scale

Statement:	Very Strongly	Very Strongly
------------	---------------	---------------

(GBR = Great Barrier Reef)	DISAGREE	AGREE
	1 --- 2 --- 3 --- 4 --- 5 - 	- 6 --- 7 --- 8 --- 9 --- 10 
I make every effort to use energy efficiently in my home and workplace	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I rarely consider the environmental impact of the production process for goods and services that I purchase	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I don't usually make any extra effort to reduce the waste I generate	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I re-use or recycle most goods and waste	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Section C. A little about you.

a. Are you part of a GBR based club or community group such as a spear- fishing club in your region?

Please tick one box: ☐ Yes ☐ No

b. If yes: Name

a. Are you part of an environmental community based group?

Please tick one box: ☐ Yes ☐ No

b. If yes: What is it

In what year were you born? 19 _____

What is your current home postcode? _____

For how many years have you lived in the Great Barrier Reef region? _____ (years)

a. Do you identify as an Aboriginal Australian? ☐ No ☐ Yes

b. or a Torres Strait islander? ☐ No ☐ Yes

Are you a, "Fly-In-Fly-Out" worker? ☐ No ☐ Yes

From what industry do you obtain your main household income?

Could you please indicate (approximately) the total pre-tax income for your household?

☐ \$1 to \$20,000

☐ \$60,001 to \$100,000

☐ \$200,001 to \$300,000

☐ \$20,001 to \$60,000

☐ \$100,001 to \$200,000

☐ more than \$300,000

What is your gender? (please tick one): ☐ Female ☐ Male ☐ Other

On a scale of 1-10, how much do you trust the information you receive about the GBR from the following groups?	Do not trust at all	Trust Very strongly
The Australian Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Queensland Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Friends, and family, and/or work colleagues.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Great Barrier Reef Marine Park Authority (GBRMPA)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Scientists from research institutions (e.g. CSIRO, Universities)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Industry groups (e.g. representing tourism, fisheries)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Australian-based conservation NGOs (including NRM groups,.....)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
International conservation NGOs (e.g. Greenpeace, WWF)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
News media journalists	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Social media commentators / bloggers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Lobby groups (e.g. Get Up!)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

On a scale of 1-10, how much do you rely on each of the following for news about your region and the world?	Do not rely on this source at all	Rely on his
Local newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	completely
State/Regional newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Magazine(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Free-to-air television	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Pay TV	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Digital streaming services	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Local radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
National/regional radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Online discussion forums	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Facebook	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Twitter	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Instagram	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

Snapchat	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Youtube	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
News media websites	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Word of mouth	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10

Thank you for your support for this research!

Appendix Two: Tourist Survey

Researcher use: Date: _____
Location: _____
ID if entered: _____

What are the first words that come to mind when you think of the Great Barrier Reef?
Please list as many words as you like:

Section A. In this section, we would like to know how you use the Great Barrier Reef. When we refer to, "the Great Barrier Reef", this includes all land and water from the beaches on the coast, the bays and creeks, the islands, the shoals and seafloor, the open waters, and of course the coral reefs.

the

Considering your most recent trip to the Great Barrier Reef:
Where did you visit? (Please tell us the name of this place):

Did you pay to go on an organised tour on this trip? ☐ Yes ☐ No

Was this trip to a mainland beach? ☐ Yes ☐ No

Have you been on any trips BEYOND the beach in the past 12 months? (E.g. to an island and/or coral reef) ☐ Yes
☐ No (please go to Q4)

Where was your most recent trip beyond the beach? (Please tell us the name of this place):

How did you get there (e.g. ferry, commercial tour, own boat)? _____
Where was your point of departure (i.e. which township/city on the mainland)?

4. How long was this trip to the Great Barrier Reef? (i.e. If you answered NO to Q3e, this is about your most recent trip to the beach. BUT, if you had a trip beyond the beach, please refer to that)

☐ ½ day or less ☐ Full day ☐ Overnight ☐ 2 to 3 nights ☐ 4 nights or more

How many other people went with you in your group? (Please tick one box)

☐ 0 (travelled alone) ☐ 1 other person ☐ 2 to 5 others ☐ 6 to 10 ☐ more than 10

How would you rate your overall satisfaction with this experience of the Great Barrier Reef?
(Please circle one number)

Extremely Dissatisfied 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- 7 ---- 8 ---- 9 ---- 10 Satisfied Extremely

How would you rate the overall condition of this site within the Great Barrier Reef?
(Please circle one number)

Extremely Poor condition 1 ---- 2 ---- 3 ---- 4 ---- 5 ---- 6 ---- 7 ---- 8 ---- 9 ---- 10 condition Excellent

Activities during this visit to the Great Barrier Reef (GBR) region:

From the following list, please indicate which activities you have done during this visit to the Great Barrier Reef region, and then rate the quality of each experience (on a scale of 1-10 where 1 = very low quality and 10 = very high quality)



Activity:	Tick ONLY if done during this visit	Very Low QUALITY 1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	Very High QUALITY
Snorkelling	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
SCUBA diving	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Fishing, crabbing or spear-fishing	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Swimming	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Sailing	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Motorised boating	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

Non-motorised watersports (e.g. Kayaking, kite surfing, paddle boarding)	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Motorised watersports (e.g. jet-skiing, waterskiing, parasailing)	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Sightseeing / exploration	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Photography	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Viewing coral and reef habitats	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Viewing coastal habitats (e.g. mangroves, estuaries)	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Visiting islands / sand cays	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Visiting beaches on the mainland	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Wildlife watching	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Camping / hiking	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Flights (e.g. helicopter / seaplane)	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Eating seafood from the GBR	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Socialising and interacting with friends / family	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Showing the Reef to visitors	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Studying / learning about biology, ecology or history	<input type="checkbox"/>	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10

Section B

Please read through the following statements, and then rate your level of agreement or disagreement with each statement, by circling a number on the 10-point scale below.

(where 1 = Very Strongly Disagree, and 10 = Very Strongly Agree)

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
	1 --- 2 --- 3 --- 4 --- 5 - 	- 6 --- 7 --- 8 --- 9 --- 10 
I feel proud that the GBR is a World Heritage Area ..	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is a great asset for the economy of this region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is part of my identity	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR contributes to my quality of life and well-being	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The aesthetic beauty of the GBR is outstanding	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it supports a variety of life, such as fish and corals	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it supports a desirable and active way of life	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because we can learn about the environment through scientific discoveries	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it attracts people from all over the world	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR for the fresh seafood it provides	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel optimistic about the future of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

In general, would you consider yourself to be more traditional or progressive? Please rate yourself on the scale below:

1 Traditional	2	3	4	5	6	7	8	9	10 Progressive
------------------	---	---	---	---	---	---	---	---	-------------------

What do you think are the three (3) most serious threats to the Great Barrier Reef?

Again, please read through the following statements, and then rate your level of agreement or disagreement with each statement, by circling a number on the 10-point scale below.

(where 1 = Very Strongly Disagree, and 10 = Very Strongly Agree)

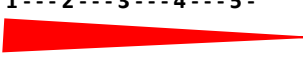
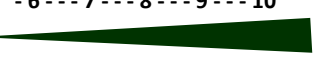
Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
I would like to do more to help protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

I would not be personally affected if the health of the GBR declined	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would like to learn more about the condition of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Thinking about coral bleaching makes me feel depressed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is spiritually important to me	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I cannot make a personal difference in improving the health of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
It is not my responsibility to protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel a social expectation to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I think enough is being done to effectively manage the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I have the necessary knowledge and skills to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I do not have the time or opportunity required to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am not worried about climate change impacts on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I love that I have visited the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it inspires me in artistic or thoughtful ways	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it makes me feel better physically and/or mentally	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR simply because it exists, even if I don't use or benefit from it.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because of its rich Traditional Owner Heritage	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is an important part of my culture.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
There is too much rubbish (plastics and bottles) on the beaches	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The coral reefs that I have seen are in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I like the colour/clarity of water along the beaches	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Which of the following statements best describes your beliefs about climate change? (Please tick one box)

- ☐ Climate change is an immediate threat requiring action.
☐ Climate change is a serious threat, but the impacts are too distant for immediate concern.
☐ I need more evidence to be convinced of the problem
☐ I believe that climate change is not a threat at all
☐ I do not have a view on climate change

In this section, we'd like to understand how you think about and manage your impact on the environment. Please read through the following statements, and then rate your level of agreement or disagreement with each statement, by circling a number on the 10-point scale

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
	1 --- 2 --- 3 --- 4 --- 5 - 	- 6 --- 7 --- 8 --- 9 --- 10 
I make every effort to use energy efficiently in my home and workplace	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I rarely consider the environmental impact of the production process for goods and services that I purchase	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I don't usually make any extra effort to reduce the waste I generate	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I re-use or recycle most goods and waste	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Section C.

Where do you normally live? (please give postcode if within Australia) _____

For how many days will you be in the Great Barrier Reef region (including the coastal towns) during this visit? _____
(days)

What was the main reason you travelled to the Great Barrier Reef region? _____

Are you a backpacker? ☐ Yes ☐ No

Is this your first visit to the Great Barrier Reef region? ☐ No ☐ Yes

In what year were you born? _____

What is your gender? (please tick one box): ☐ Female ☐ Male ☐ Other

Do you identify as an Aboriginal Australian? ☐ No ☐ Yes
or a Torres Strait islander? ☐ No ☐ Yes

On a scale of 1-10, how much do you trust the information you receive about the GBR from the following groups?	Do not trust at all	Trust Very strongly
The Australian Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Queensland Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Friends, and family, and/or work colleagues.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Great Barrier Reef Marine Park Authority (GBRMPA)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Scientists from research institutions (e.g. CSIRO, Universities)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Industry groups (e.g. representing tourism, fisheries)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Australian-based conservation NGOs (including NRM groups),.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
International conservation NGOs (e.g. Greenpeace, WWF)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
News media journalists	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Social media commentators / bloggers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Lobby groups (e.g. Get Up!)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

On a scale of 1-10, how much do you rely on each of the following for news about your region and the world?	Do not rely on this source at all	Rely on this source completely
Local newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
State/Regional newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Magazine(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Free-to-air television	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Pay TV	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Digital streaming services	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Local radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
National/regional radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Online discussion forums	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Facebook	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Twitter	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Instagram	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Snapchat	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Youtube	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
News media websites	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Word of mouth	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

Thank you for your support for this research!

THANK YOU FOR YOUR HELP WITH THIS RESEARCH!

Appendix Three: Tourism Operator Survey

What are the first words that come to mind when you think of the Great Barrier Reef?

Please list as many words as you like:

What is your role in your company? ☐ Owner & Mgr ☐ Manager ☐ Other:
How long have you been involved in the GBR tourism industry? _____ **years**
How long has your current business been operating? (Total number of years)

What are the primary types of tourism activity that your company offers?

(Please choose as many as relevant)

- ☐ Island resort ☐ Ferry ☐ Aircraft / heli tours/charter ☐ Bareboat CHARTER
- ☐ Reef Day trips: SCUBA ONLY ☐ Reef Day trips: SNORKEL ONLY ☐ Reef Day trips: MULTIPLE activities
- ☐ Reef/Island Day trips: CRUISE ☐ Live-aboard: Dive / Snorkel ☐ Live-aboard: Cruise ship
- ☐ Reef/offshore: CHARTER FISHING ☐ Reef/offshore: Multi-purpose CHARTER
- ☐ Inshore/River day trips: CRUISE ☐ Inshore/River trips: CHARTER FISHING
- ☐ Water sport (activity or hire) ☐ Other equipment rental ☐ Guided/specialist tour
- ☐ Other specialist services_ ☐ Other: please list below:

Which tourism activity contributes MOST to the total income for your business?

*(Please choose **one only**)*

- ☐ Island resort ☐ Ferry ☐ Aircraft / heli tours/charter ☐ Bareboat CHARTER
- ☐ Reef Day trips: SCUBA ONLY ☐ Reef Day trips: SNORKEL ONLY ☐ Reef Day trips: MULTIPLE activities
- ☐ Reef/Island Day trips: CRUISE ☐ Live-aboard: Dive / Snorkel ☐ Live-aboard: Cruise ship
- ☐ Reef/offshore: CHARTER FISHING ☐ Reef/offshore: Multi-purpose CHARTER
- ☐ Inshore/River day trips: CRUISE ☐ Inshore/River trips: CHARTER FISHING
- ☐ Water sport (activity or hire) ☐ Other equipment rental ☐ Guided/specialist tour
- ☐ Other specialist services_ ☐ Other: please list below:

About how many days in the previous 12 months were you operating in the GBR? _____

Where is your home port? _____

Do you use multiple ports? ☐ Yes ☐ No

I would like to read out a list of statements to you about the Great Barrier Reef. Please rate your level of agreement or disagreement with each statement on a scale of 1-10-point where 1 = Very Strongly Disagree, and 10 = Very Strongly Agree

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
I feel proud that the GBR is a World Heritage Area ..	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is a great asset for the economy of this region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is part of my identity	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR contributes to my quality of life and well-being	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The aesthetic beauty of the GBR is outstanding	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I do not have fair access to the GBR compared to other user groups	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

I value the GBR because it supports a variety of life, such as fish and corals	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel confident that the GBR is well managed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it supports a desirable and active way of life	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because we can learn about the environment through scientific discoveries	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it attracts people from all over the world	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR for the fresh seafood it provides	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel optimistic about the future of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I support the current rules and regulations that affect access and use of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I couldn't think of being anything other than a tourism operator	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The tourism industry to me is not just a job – it is my lifestyle	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am optimistic about the future of my business in the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
My business has not performed this year as well as last year	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

In general, would you consider yourself to be more traditional or progressive? Please rate yourself on the scale below:

1 Traditional	2	3	4	5	6	7	8	9	10 Progressive
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What do you think are the three (3) most serious threats to the Great Barrier Reef?

Again, please rate your level of agreement or disagreement with each of the following statements on the same 1-10-point scale.
(where 1 = Very Strongly Disagree, and 10 = Very Strongly Agree)

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
I would like to do more to help protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would like to do more to improve water quality in my waterways (including rivers, creeks)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would not be personally affected if the health of the GBR declined	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would like to learn more about the condition of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Thinking about coral bleaching makes me feel depressed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is spiritually important to me	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I cannot make a personal difference in improving the health of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel like I can contribute to GBR management	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
It is not my responsibility to protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel a social expectation to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I think enough is being done to effectively manage the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I have the necessary knowledge and skills to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I do not have the time or opportunity required to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am not worried about climate change impacts on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I love that I live beside the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it inspires me in artistic or thoughtful ways	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel that future generations have been adequately considered in the management of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it makes me feel better physically and/or mentally	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR simply because it exists,	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because of its rich Traditional Owner Heritage	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

I value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is an important part of my culture.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks) in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
There is too much rubbish (e.g. plastics) on the beaches in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The coral reefs in my region are in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I like the colour/clarity of water along the beaches in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The mangroves in my region are in good health	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The estuarine and marine fish in my region are in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The freshwater areas (e.g. rivers, creeks) in my region are not in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Which of the following statements best describes your beliefs about climate change? (*one box*)

- ☐ Climate change is an immediate threat requiring action.
☐ Climate change is a serious threat, but the impacts are too distant for immediate concern.
☐ I need more evidence to be convinced of the problem
☐ I believe that climate change is not a threat at all
☐ I do not have a view on climate change

Section C.

In what year were you born? 19_____

What is your current home postcode? _____

For how many years have you lived in the Great Barrier Reef region? _____ (years)

Gender? (*don't ask if possible*): ☐ Female ☐ Male

Are you currently married or have a partner? ☐ Yes ☐ No

Do you have university or TAFE education (beyond high school)? ☐ Yes ☐ No

What proportion of your household income came from tourism in the last financial year?
 _____ (%)



How many employees (full-time equivalents) did your operation employ over the previous 12 months?

Do you have insurance for your business assets? ☐ Yes ☐ No

Could you please indicate (*approximately*) your business turnover (entire revenue) for the past 12 months, in broad categories?

- ☐ < \$20,000 ☐ \$20,001 to \$100,000 ☐ \$100,001 to \$500,000
☐ \$500,001 to \$1m ☐ Between \$1m and \$5m ☐ more than \$5m

In this section, we'd like to understand how you think about and manage your impact on the environment. As before...

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
	1 --- 2 --- 3 --- 4 --- 5 - 	- 6 --- 7 --- 8 --- 9 --- 10 
I make every effort to use energy efficiently in my business	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I rarely consider the environmental impact of the production process for goods and services that my business uses	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I don't usually make any extra effort to reduce the waste my business generates	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
My business re-uses or recycles most goods and waste	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Does your operation (YES/NO)

- have fuel efficient engines ☐ Yes ☐ NO
- use an emissions calculator to plan your business operations ☐ Yes ☐ NO
- use Carbon offsets to counter emissions ☐ Yes ☐ NO
- have green energy, such as solar panels, for your vessel ☐ Yes ☐ NO
- use alternative fuels such as biodiesel and ethanol ☐ Yes ☐ NO
- participate in best practices via a code of practice, or MOU ☐ Yes ☐ NO
- participate in GBRMPA's Eye on the Reef program ☐ Yes ☐ NO
- contribute to Crown of Thorns Starfish control ☐ Yes ☐ NO
- Employ formally trained guides providing interpretation about the Reef ☐ Yes ☐ NO

On a scale of 1-10, how much do you trust the information you receive about the GBR from the following groups?	Do not trust at all	Trust Very strongly
The Australian Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Queensland Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Friends, and family, and/or work colleagues.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Great Barrier Reef Marine Park Authority (GBRMPA)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Scientists from research institutions (e.g. CSIRO, Universities)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Industry groups (e.g. representing tourism, fisheries)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Australian-based conservation NGOs (including NRM groups,.....)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
International conservation NGOs (e.g. Greenpeace, WWF)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
News media journalists	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Social media commentators / bloggers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Lobby groups (e.g. Get Up!)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

On a scale of 1-10, how much do you rely on each of the following for news about your region and the world?	Do not rely on this source at all	Rely on this source completely
Local newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
State/Regional newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Magazine(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Free-to-air television	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Pay TV	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Digital streaming services	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Local radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
National/regional radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Online discussion forums	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Facebook	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Twitter	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Instagram	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Snapchat	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Youtube	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
News media websites	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Word of mouth	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

Thank you for your support for this research!

Appendix Four: Commercial Fisher Survey 2017

Hello! My name is _____

You may remember receiving a note from CSIRO about the Social and Economic Long Term Monitoring Programme currently underway in the Great Barrier Reef? (expand?)

....Do you (or your licence(s)), operate in the GBR region (i.e. on Qld's east coast from Cape York south the Bundaberg, including inshore and offshore areas)? (only continue if yes).

Lets start...

What are the first words that come to mind when you think of the Great Barrier Reef?

Please list as many words as you like:

Are you a: **licence owner – operator**
 licence owner but non-operator; OR
 operator using someone else's licence? (circle one)
 Other _____

How long have you been in the commercial fishing industry? _____ yrs

About how many days in the previous 12 months were you operating in the GBR? _____ days

Where is your home port (where you operate from, not necessarily where you live)? (drop down list of major towns/ports – Cooktown down to Bundaberg please)

How far, on average, do you travel from your home port? That is: do you typically fish very close to your home port or do you tend to roam across the region?

- ☐ very local to home port (i.e. <50km)
☐ close to my home port (50-100km)
☐ I roam quite some distance from my home port (>100km)

Do you use multiple ports? Y/N

Which fisheries do you operate in? (: trawl – prawn, bugs, scallop, squid, Crab – mud, sand, Harvest - coral collection, aquarium fish, sea cucumber, rocklobster (crayfish), Line - Spanish mackerel, reef line; Net - inshore net, offshore net, shark ; other, Can select >1) _____

Which fishery contributes the most to your income? (drop down same: one only) _____

I would like to read out a list of statements about the Great Barrier Reef. Could you please rate your level of agreement or disagreement with each statement on a 10-point scale where 1 = Very Strongly Disagree, and 10 = Very Strongly Agree)

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
I feel proud that the GBR is a World Heritage Area ..	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is a great asset for the economy of this region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR is part of my identity	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The GBR contributes to my quality of life and well-being	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The aesthetic beauty of the GBR is outstanding	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I do not have fair access to the GBR compared to other user groups	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it supports a variety of life, such as fish and corals	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel confident that the GBR is well managed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it supports a desirable and active way of life	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because we can learn about the environment through scientific discoveries	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel confident that the freshwater areas in my region are well managed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it attracts people from all over the world	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR for the fresh seafood it provides	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel optimistic about the future of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I support the current rules and regulations that affect access and use of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I couldn't think of being anything other than a commercial fisher	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The fishing industry to me is not just a job – it is my lifestyle	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am optimistic about the future of my business in the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

My business has not performed this year as well as last year	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
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In general, would you consider yourself to be more traditional or progressive? Please rate yourself on the scale below:

1 Traditional	2	3	4	5	6	7	8	9	10 Progressive
------------------	---	---	---	---	---	---	---	---	-------------------

What do you think are the three (3) most serious threats to the Great Barrier Reef?

Again, please rate your level of agreement or disagreement with each statement on a 10 point scale. How strongly do you agree/disagree with each of the following....

Statement: (GBR = Great Barrier Reef)	Very Strongly DISAGREE	Very Strongly AGREE
I would like to do more to help protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would like to do more to improve water quality in my waterways (including rivers, creeks)	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would not be personally affected if the health of the GBR declined	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I would like to learn more about the condition of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
Thinking about coral bleaching makes me feel depressed	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is spiritually important to me	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I cannot make a personal difference in improving the health of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel like I can contribute to GBR management	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
It is not my responsibility to protect the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel a social expectation to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I think enough is being done to effectively manage the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I have the necessary knowledge and skills to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I do not have the time or opportunity required to reduce any impact that I might have on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am not worried about climate change impacts on the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I love that I live beside the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it inspires me in artistic or thoughtful ways	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I feel that future generations have been adequately considered in the management of the GBR	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it makes me feel better physically and/or mentally	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR simply because it exists	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because of its rich Traditional Owner Heritage	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it provides a place where people can continue to pass down wisdom, traditions and a way of life.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I value the GBR because it is an important part of my culture.	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I support the current rules and regulations that affect access and use of freshwater areas (rivers and creeks) in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
There is too much rubbish (e.g. plastics) on the beaches in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I am worried about the status of freshwater fish in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The coral reefs in my region are in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I like the colour/clarity of water along the beaches in my region	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The mangroves in my region are in good health	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

The estuarine and marine fish in my region are in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
The freshwater areas (e.g. rivers, creeks) in my region are not in good condition	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Which of the following statements best describes your beliefs about climate change? (Please tick one box)

- ☐ Climate change is an immediate threat requiring action.
☐ Climate change is a serious threat, but the impacts are too distant for immediate concern.
☐ I need more evidence to be convinced of the problem
☐ I believe that climate change is not a threat at all
☐ I do not have a view on climate change

Section C.

In what year were you born? 19 _____

What is your current home postcode? _____

For how many years have you lived in the Great Barrier Reef region? (i.e. all coastal areas between Cape York and Bundaberg) _____ (years)

Are you currently married or have a partner? ☐ Yes ☐ No

Do you have university or TAFE education (beyond high school)? ☐ Yes ☐ No

What proportion of your household income came from commercial fishing in the last financial year?
 _____ (%)

How many employees (full-time equivalents) did your operation employ over the previous 12 months?

Do you have insurance for your business assets? ☐ Yes ☐ No

Could you please indicate (approximately) your business turnover (entire revenue) for the past 12 months, in broad categories?

Do you mind telling me your business turnover (entire revenue), for the past 12 months, in broad categories? (read out)

- ☐ < \$20 000 ☐ \$100 000 to \$200 000
☐ \$20 000 to \$60 000 ☐ \$200 000 to \$300 000
☐ \$60 000 to \$100 000 ☐ \$300 000 to \$500 000
☐ > \$500 000

What is your gender? (try not to ask): ☐ Female ☐ Male ☐ Other

In this section, we'd like to understand how you think about and manage your impact on the environment. Please tell me how strongly you agree or disagreement with each statement using the 10-point scale

I make every effort to use energy efficiently in my business	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I rarely consider the environmental impact of the production process for goods and services that my business uses	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
I don't usually make any extra effort to reduce the waste that my business generates	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10
My business re-uses or recycles most goods and waste	1 --- 2 --- 3 --- 4 --- 5 -	- 6 --- 7 --- 8 --- 9 --- 10

Does your business (YES/NO)

- have fuel efficient engines ☐ Yes ☐ No
 use an emissions calculator to plan your business operations ☐ Yes ☐ No
 use Carbon offsets to counter emissions ☐ Yes ☐ No
 have green energy, such as solar panels, for your vessel ☐ Yes ☐ No
 use alternative fuels such as biodiesel and ethanol ☐ Yes ☐ No
 participate in industry best practices via a code of practice ☐ Yes ☐ No
 participate in GBRMPA's Reef guardian fisher program ☐ Yes ☐ No
 Contribute to any scientific monitoring programs ☐ Yes ☐ No

On a scale of 1-10, how much do you trust the information you receive about the GBR from the following groups?	Do not trust at all	Trust Very strongly
The Australian Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Queensland Government.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Friends, and family, and/or work colleagues.....	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
The Great Barrier Reef Marine Park Authority (GBRMPA)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Fisheries Queensland	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Scientists from research institutions (e.g. CSIRO, Universities)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Industry groups (e.g. representing tourism, fisheries)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

Australian-based conservation NGOs (including NRM groups,.....)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
International conservation NGOs (e.g. Greenpeace, WWF)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
News media journalists	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Social media commentators / bloggers	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10
Lobby groups (e.g. Get Up!)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10

On a scale of 1-10, how much do you rely on each of the following for news about your region and the world?	Do not rely on this source at all this source completely	Rely on
Local newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
State/Regional newspaper(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Magazine(s)	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Free-to-air television	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Pay TV	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Digital streaming services	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Local radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
National/regional radio	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Online discussion forums	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Facebook	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Twitter	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Instagram	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Snapchat	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Youtube	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
News media websites	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	
Word of mouth	1 --- 2 --- 3 --- 4 --- 5 --- 6 --- 7 --- 8 --- 9 --- 10	

Thank you for your support for this research!

Appendix Five: National Survey 2017

ASK ALL

GBR1	RANDOMISE ORDER OF DESTINATIONS						
SR PER ROW	Uluru						
	Bondi Beach						
	The Wet Tropics, Far North QLD						
	Sydney Opera House						
	Melbourne Cricket Ground						
	The Kimberley Region						
	Great Barrier Reef						
	Outback Australia						
	Blue Mountains						
	Great Ocean Road						
	Margaret River						
	The Gold Coast						
	Kakadu						

ASK ALL

GBR2	Please list the first words that come to mind when you think of the Great Barrier Reef.
OE	

ASK ALL

GBR5	RANDOMISE ORDER OF STATEMENTS											
SR PER ROW	Land-based mining											
	Cyclones and tropical storms											
	Floods											
	Coastal development (i.e. increased buildings and people living along the coastline)											
	Tourism activities (e.g. SCUBA diving, snorkelling, etc.)											
	Crown of Thorns Starfish											

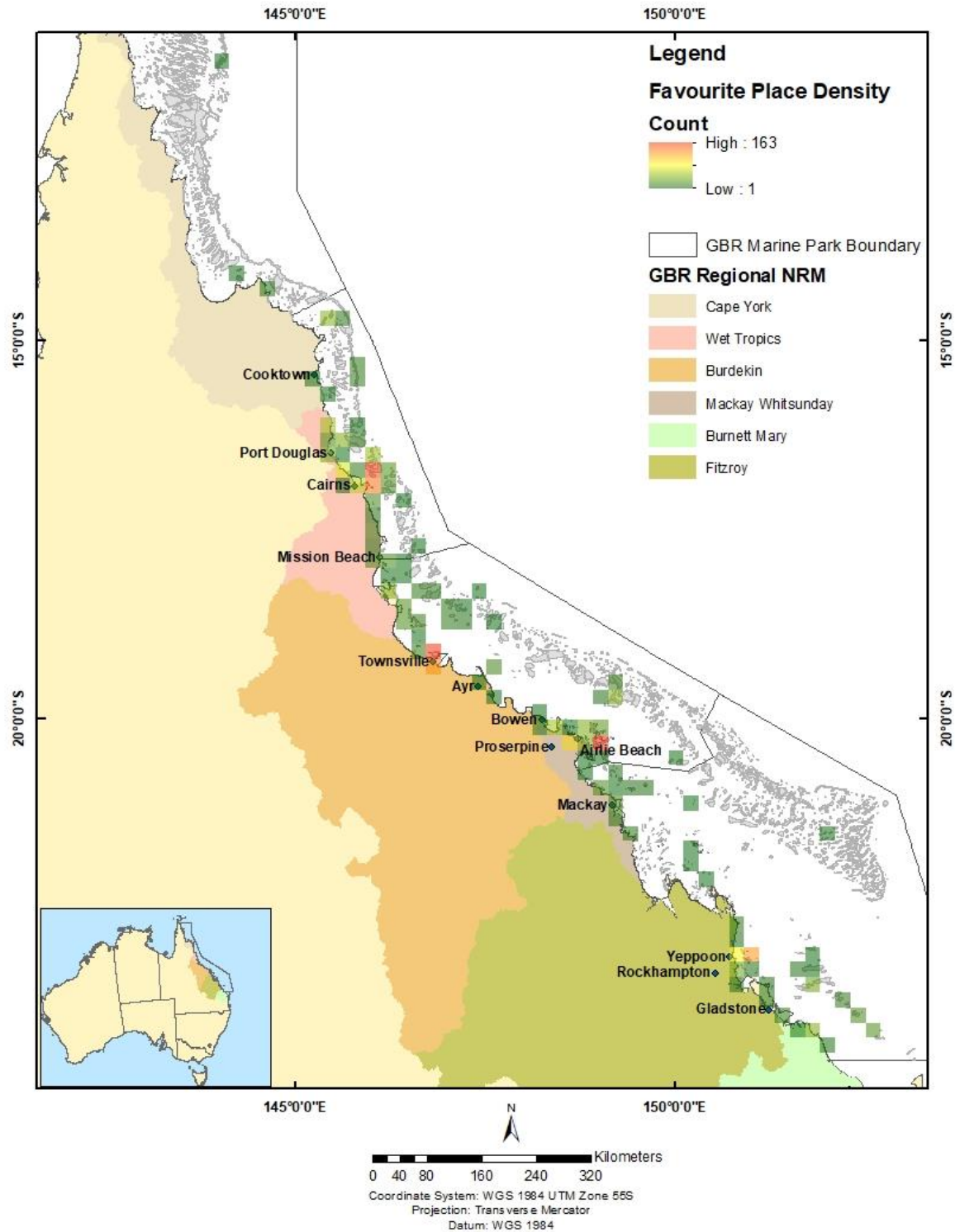
	Port activities and port expansions											
	Marine debris and beach littering (e.g. rubbish, discarded fishing gear, etc.)											
	Commercial fishing											
	Recreational fishing											
	Climate change (i.e. leading to increased ocean temperatures, coral bleaching etc.)											
	Shipping (i.e. very large cargo container type ships)											
	Agricultural run-off (i.e. pesticides and fertilisers)											
	Fishing and hunting by Indigenous Traditional Owners											
	Defence activities											

ASK ALL

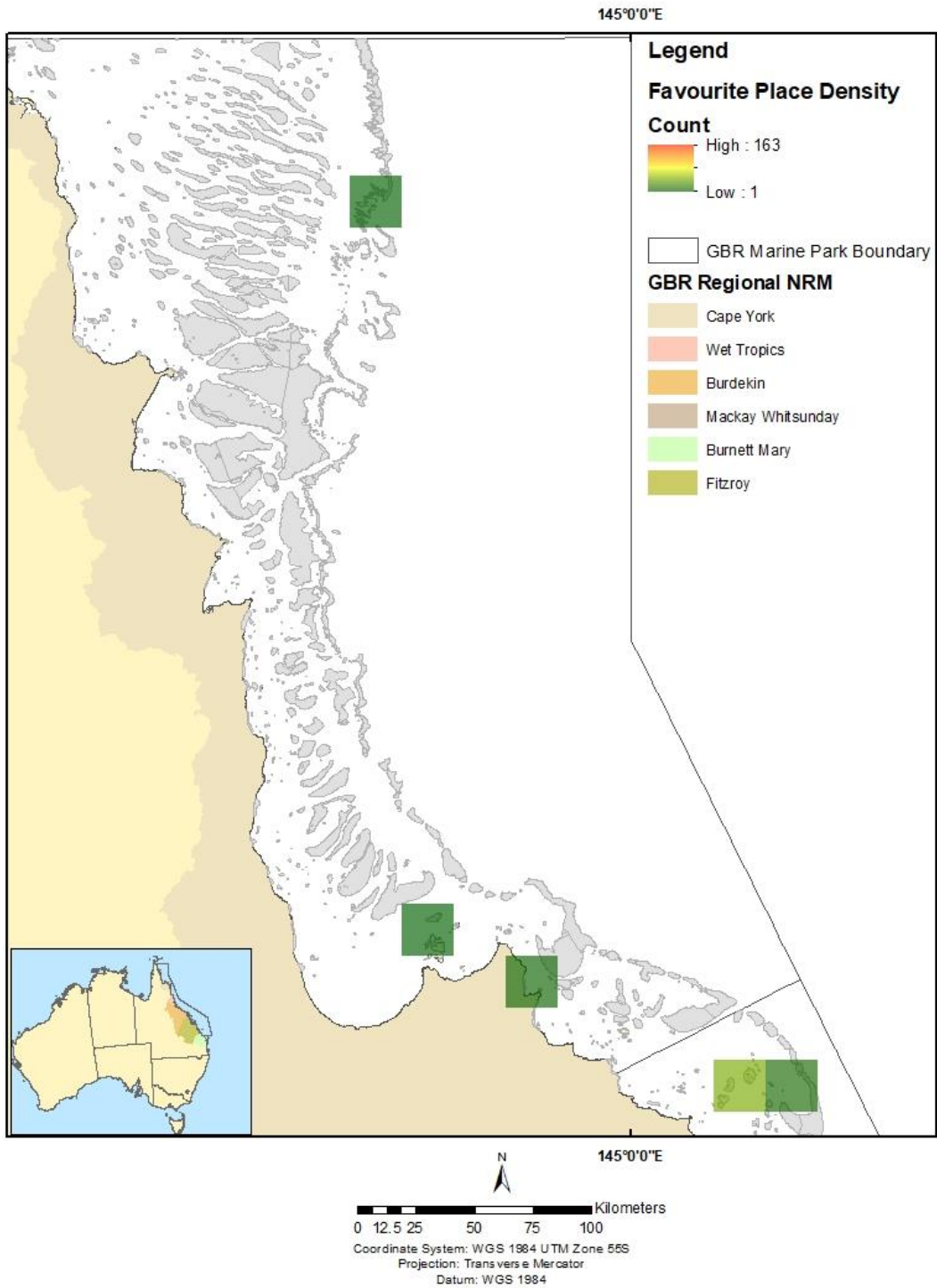
GBR6	RANDOMISE ORDER OF STATEMENTS											
SR PER ROW	I feel optimistic about the future of the Great Barrier Reef											
	I would not be personally affected if the health of the Great Barrier Reef declined											
	The Great Barrier Reef is part of my Australian identity											
	I am concerned about the impacts of climate change on the Great Barrier Reef											
	It is not my responsibility to protect the Great Barrier Reef											
	I feel proud that the Great Barrier Reef is a World Heritage Area											
	It is the responsibly of all Australians to protect the Great Barrier Reef											
	I feel confident that the Great Barrier Reef is well managed											
	I value the GBR simply because it exists, even if I don't use or benefit from it.											
	I value the GBR because it is an important part of my culture.											
	I value the GBR because it supports a variety of life, such as fish and corals											
	The aesthetic beauty of the GBR is outstanding											
	The GBR is a great asset for Australia's economy											
	I value the GBR because of its rich Traditional Owner heritage											

Appendix Six: Maps 2017

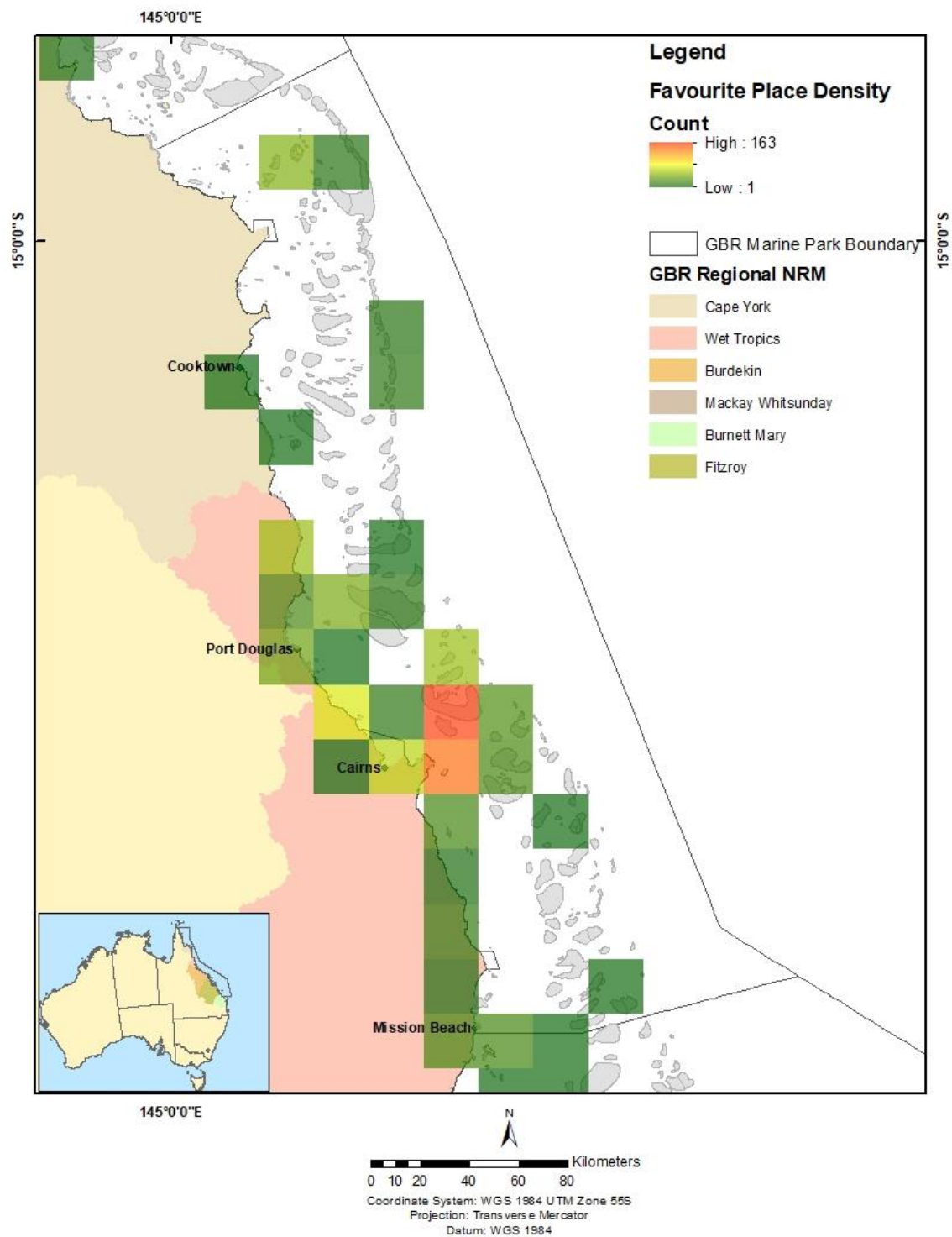
Appendix 6a. Residents response to the question “Think about the Great Barrier Reef area, would you be able to identify your favourite place” across the Great Barrier Reef and catchment area.



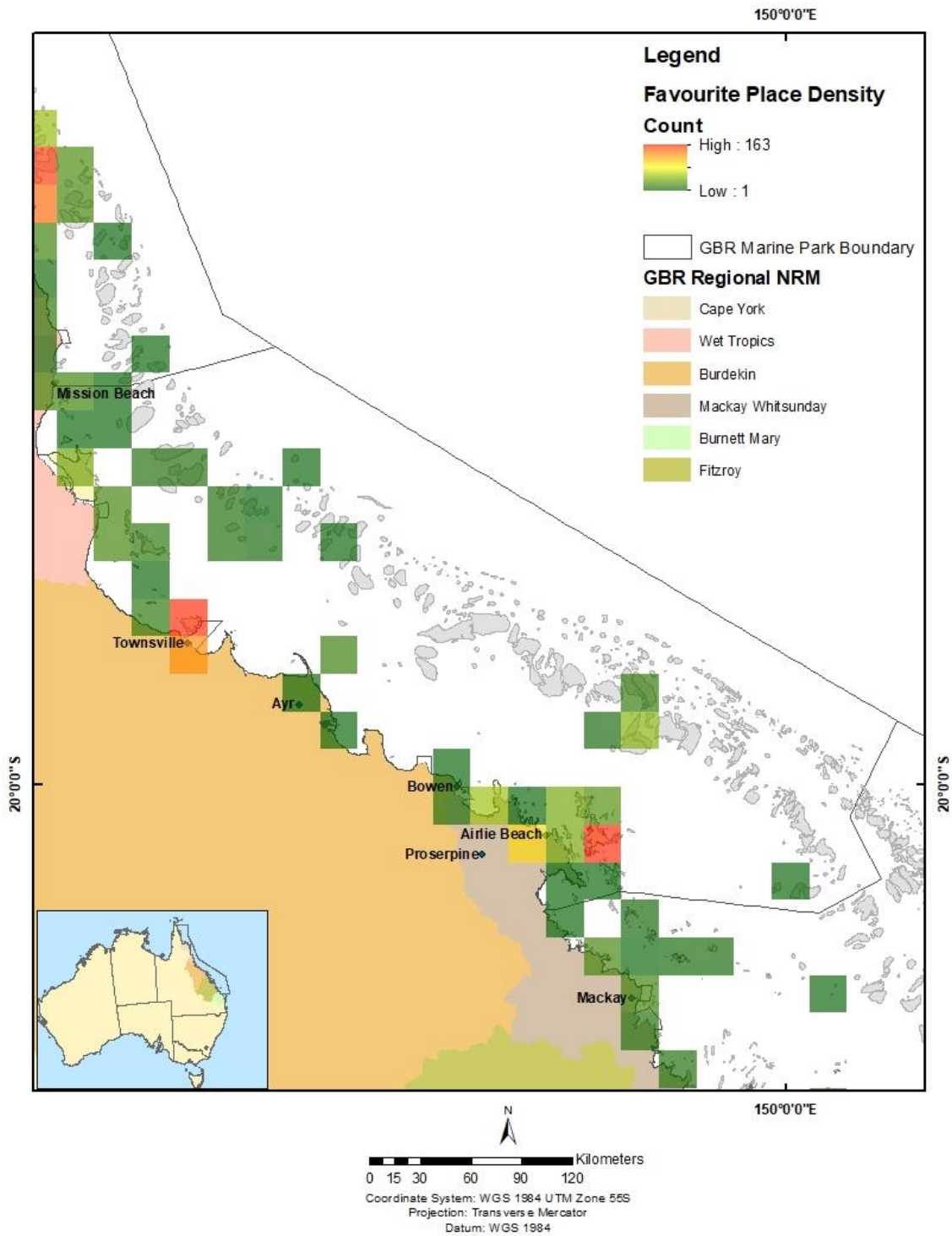
Appendix 6b. Residents response to the question “Thinking about the Great Barrier Reef area, would you be able to identify your favourite place”. Map shows the important places to residents in the Great Barrier Reef Marine Park Far Northern Management Area.



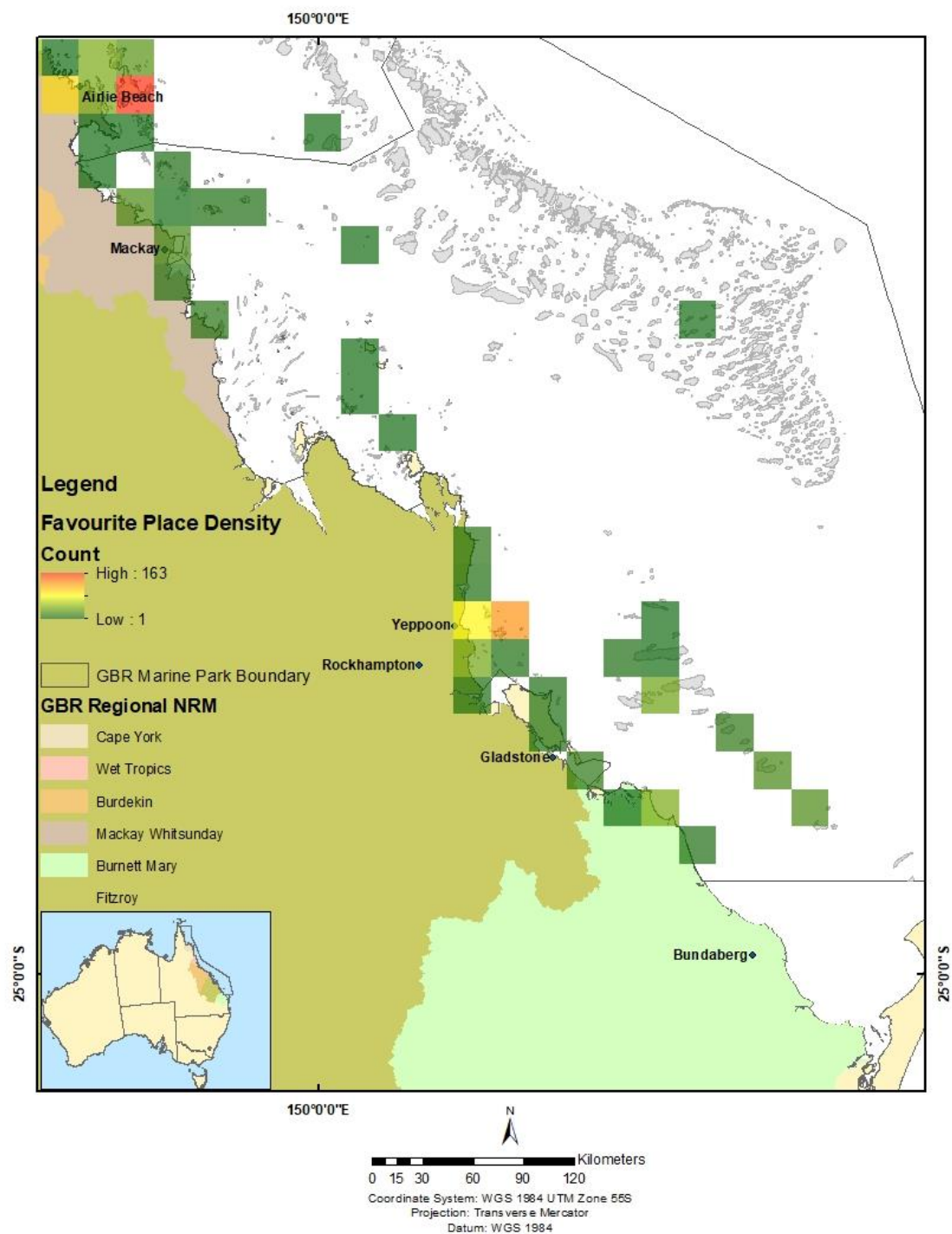
Appendix 6c. Residents response to the question “Think about the Great Barrier Reef area, would you be able to identify your favourite place”. Map shows the important places to residents in the Great Barrier Reef Marine Park Cairns / Cooktown Management Area.



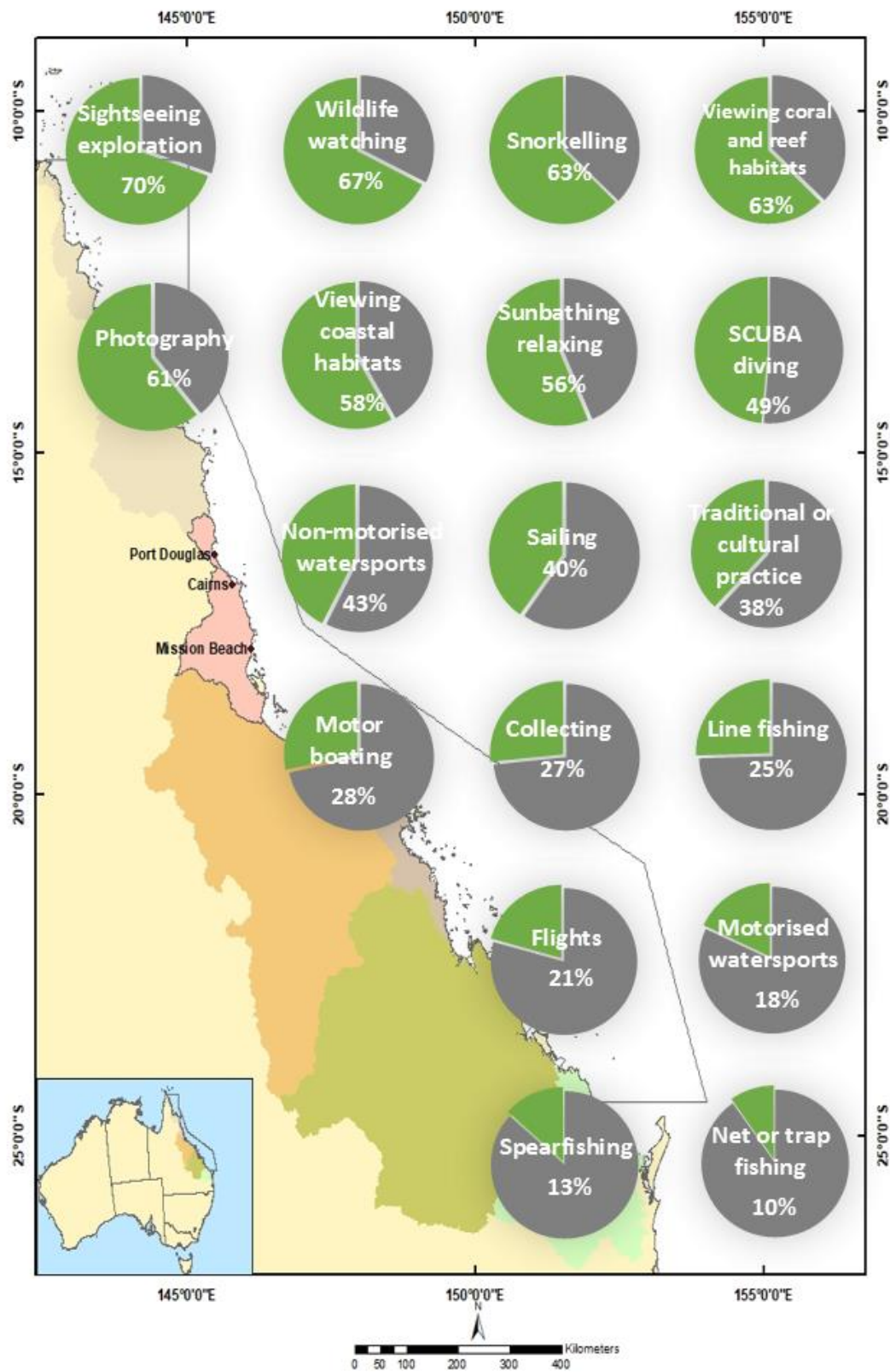
Appendix 6d. Residents response to the question “Think about the Great Barrier Reef area, would you be able to identify your favourite place”. Map shows the important places to residents in the Great Barrier Reef Marine Park Townsville / Whitsundays Management Area.



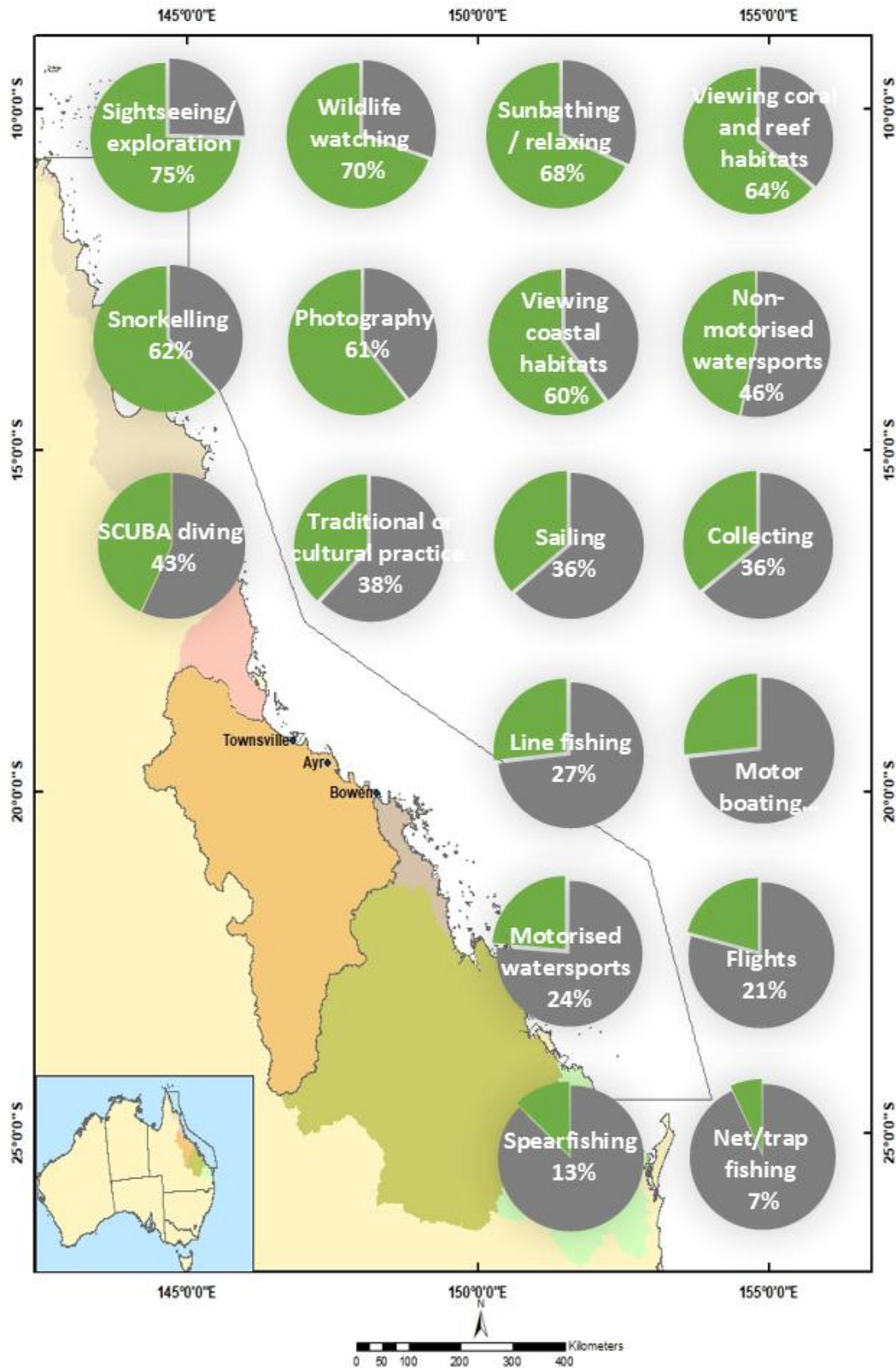
Appendix 6e. Residents response to the question “Think about the Great Barrier Reef area, would you be able to identify your favourite place”. Map shows the important places to residents in the Great Barrier Reef Marine Park Mackay / Capricorn Management Area.



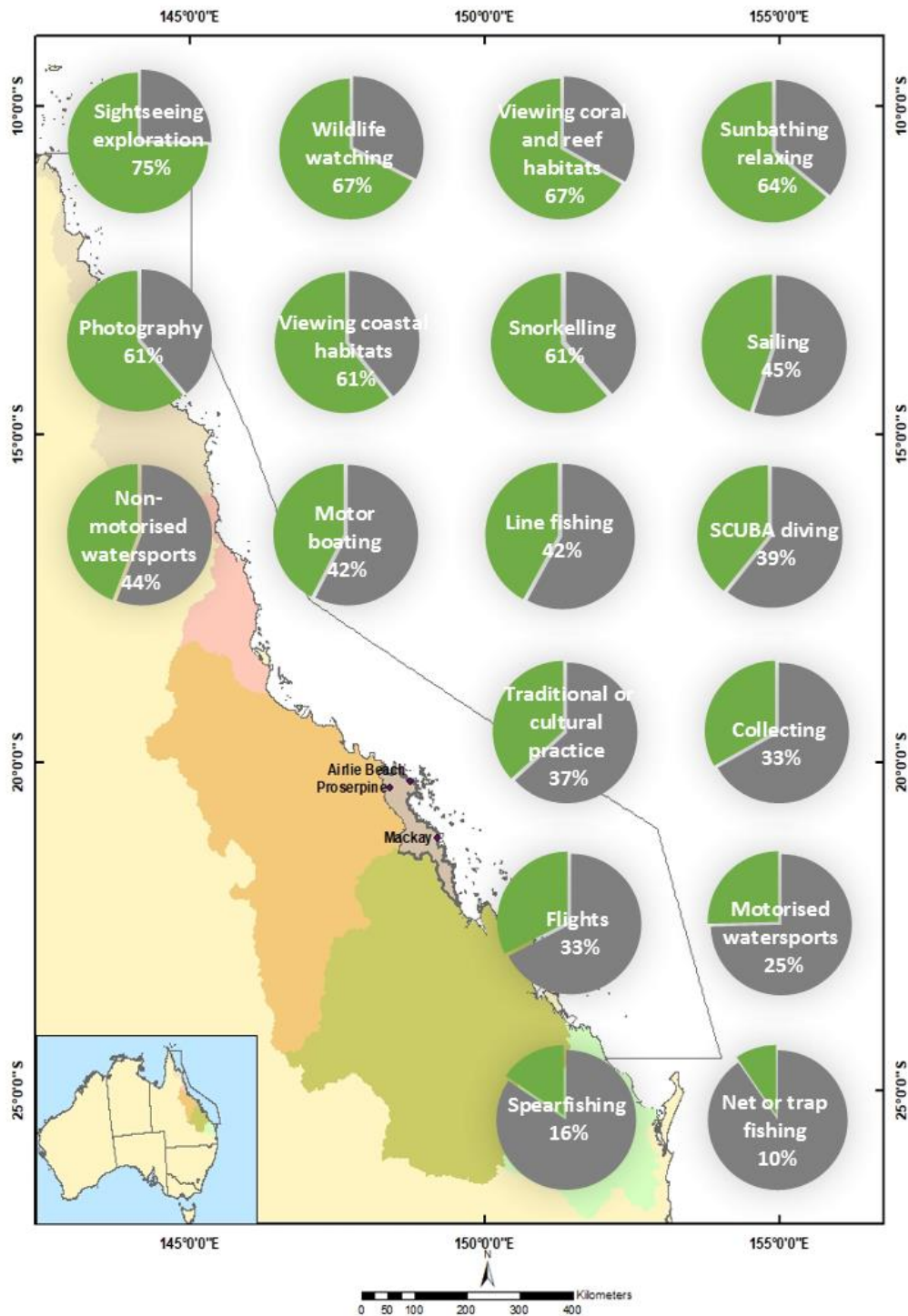
Appendix 6f. Residents response to the question “Think about all your Great Barrier Reef visits in the past 12 months, please rate the importance of the following activities to your use and enjoyment of the Great Barrier Reef”. Map represents the percentage of residents who indicated which activities are important to them in the Wet Tropics NRM region (*n* = 521).



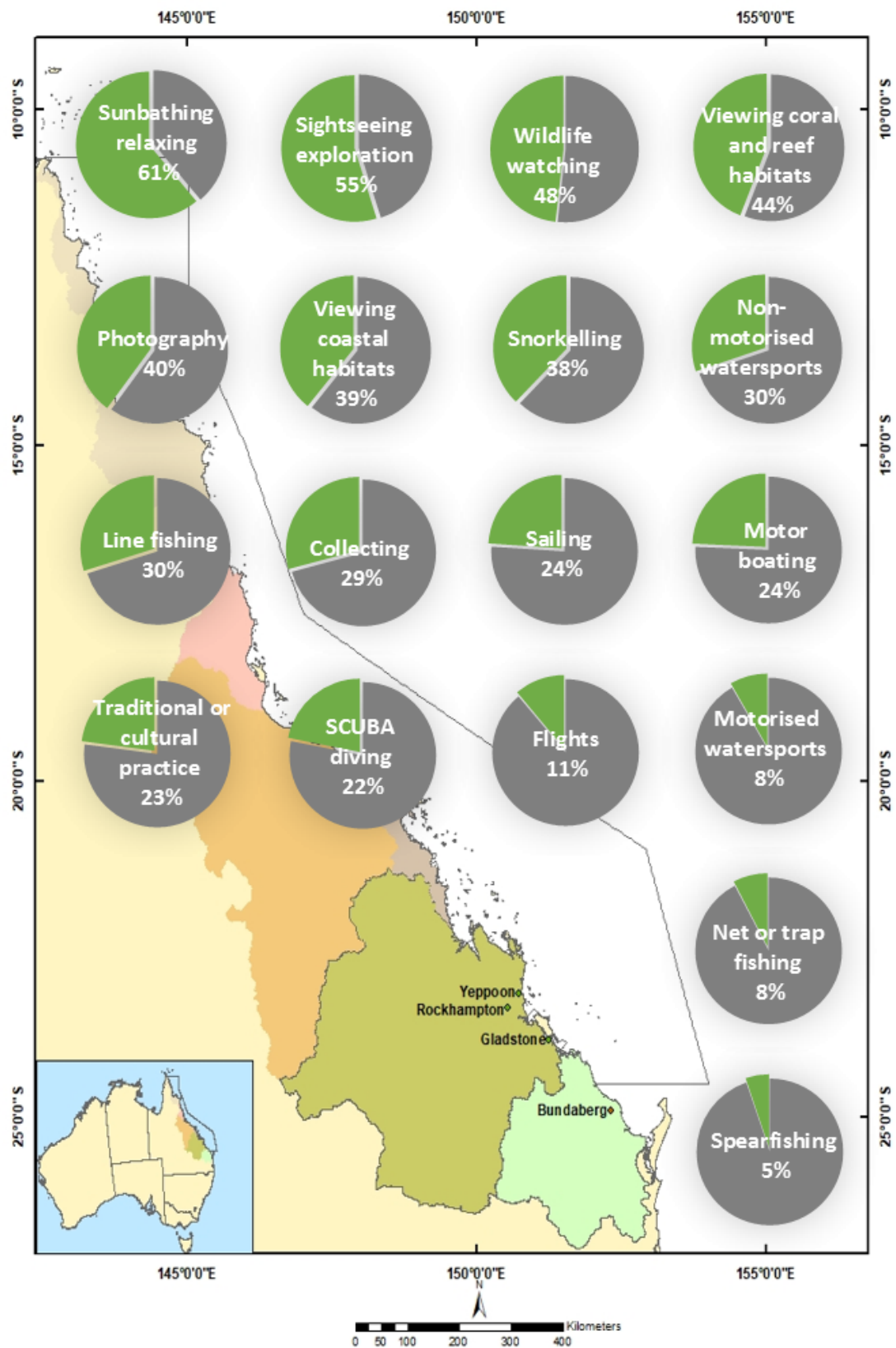
Appendix 6g. Residents response to the question “Thinking about all your Great Barrier Reef visits in the past 12 months, please rate the importance of the following activities to your use and enjoyment of the Great Barrier Reef”. Map represents the percentage of residents who indicated which activities are important to them in the Burdekin NRM region ($n = 659$).



Appendix 6h. Residents response to the question “Think about all your Great Barrier Reef visits in the past 12 months, please rate the importance of the following activities to your use and enjoyment of the Great Barrier Reef”. Map represents the percentage of residents who indicated which activities are important to them in the Mackay Whitsundays NRM region ($n = 283$).



Appendix 6i. Residents response to the question “Think about all your Great Barrier Reef visits in the past 12 months, please rate the importance of the following activities to your use and enjoyment of the Great Barrier Reef”. Map represents the percentage of residents who indicated which activities are important to them in the Fitzroy NRM and Burnett-Mary NRM regions ($n = 470$).



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