



Assessing environmental research needs across three communities in the Torres Strait

Factsheet, May 2011

Introduction

Having locals identify environmental research needs for their own community is a key step to ensuring that research is relevant, appropriate and desirable for communities. Communities of the Torres Strait are no exception to this and three island communities in particular are the focus of a research project funded by the Australian Government's Marine and Tropical Sciences Research Facility (MTSRF) Transition Program.



This factsheet summarises the results of a study on environmental research needs in a number of Torres Strait communities, which also involved staff of the Torres Strait Regional Authority (TSRA) Land and Sea Management Unit (LSMU). The core aim of this project was to attempt to ensure that knowledge generated from future applied research arrangements is appropriate and useful for end-users throughout the Torres Strait. These end-users for future research include government agencies such as the TSRA, leaders and representatives (such as island councillors, island managers and Prescribed Body Corporate members), elders, and locals living in the communities where research is being conducted.

Methodology

Structured surveys were adopted as the main research technique for this project. A two-page survey was developed in consultation with the TSRA and administered to the most relevant LSMU staff. Surveys were also sent to representatives of five island communities in the Torres Strait, after gaining permission from the Island Councillors, including Boigu, Erub, Mabuiag, Warraber and Yam islands. Despite rangers on each of these islands agreeing to help drive the project by ensuring the surveys were completed on their islands, surveys were only returned from three of the above mentioned islands. Completed surveys were returned for inputting, collating and analysis, using the Statistical Programme for the Social Sciences (SPSS) (v 18.0). A total of 24 surveys were completed and returned for analysis in October 2010.

Both open-ended and closed questions were included in the surveys to enable quantitative data to be supported by unguided qualitative information. The types of questions that were asked in the survey included:

- A number of socio-demographic questions, including age, gender, where participants were born and live, and participants' field of work;
- The level of importance respondents' assigned to various environmental research activities; and
- Respondents' levels of satisfaction with current environmental research initiatives conducted in their community.

From the 24 completed surveys received, eleven surveys stemmed from LSMU staff, eight from Boigu Island, three from Mabuiag Island and two from Warraber Island. From the sample (n = 24), 77.3% of respondents were male and 22.7% were female. The mean year that respondents were born was 1968, making 42 years the average age of respondents. The earliest year that a respondent was born was 1948 while the most recent was 1990.

The most important environmental research activities

A series of 16 environmental research areas which largely reflect past research agendas of the CRC Torres Strait and MTSRF programs were provided in the survey. Respondents were asked to indicate how important these areas of environmental research have been and currently are to their community and island (see Table 1). This level of importance was assessed based on a Likert scale ranging from 1, being 'not at all important' to 4, being 'extremely important'.



Table 1: Respondents' consider how important the following environmental research activities are to their community and/or work, in order of mean value.

Important area of research activities...	Mean value (Scale 1 to 4)
Health of ecosystems	3.68
Traditional environmental knowledge	3.68
Sustainable use of marine species	3.64
Overall traditional knowledge systems	3.64
Sustainable use of fisheries	3.59
Status/trends of marine species (turtle, dugong)	3.55
Develop and implement marine strategies	3.50
Coastal erosion	3.50
Climate change impacts	3.50
Status/trends of fisheries	3.45
Regional marine planning	3.43
Impacts of resource exploitation	3.41
Climate change adaptation	3.38
New aquaculture industries	3.36
Hand-collectable fisheries	3.09
Ecology and economic value of sponges	2.84

Satisfaction with past research

Respondents were asked to indicate their level of satisfaction with previous environmental research in the region (for LSMU staff) and their island communities. This level of satisfaction was gauged on a Likert scale ranging from 1, being 'not at all satisfied' to 4, being 'extremely satisfied'. Just over one fifth of respondents indicated that they were 'extremely satisfied' (21.1%) with past environmental research activities. The majority of respondents indicated they were either 'satisfied' (36.8%) or a 'little satisfied' (36.8%), and only 5.3% of respondents were 'not at all satisfied'.



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Survey participants were also probed about past environmental research activities in the region and/or specific island communities. We explored three key functions of successful research activities, including:

- Appropriateness – how well the study/project met the needs of community;
- Effectiveness – how well the study/project met its objectives; and
- Efficiency – how well inputs such as funds and time were converted into output.

Overall, 62.5% of respondents considered the research to be appropriate, 66.7% found it to be effective and 56.3% denoted past research activities as efficient.

Concluding remarks

The survey provided an opportunity for respondents to reflect on and discuss the types of future environmental research they would like to see across the Torres Strait region and/or in their individual communities. Key themes for LSMU staff included marine and island biodiversity, climate change and coastal erosion, soils research, and coral bleaching and coral reef health. Moreover, the responses from island community participants largely centered on climate change impacts and coastal erosion, soil tests, fisheries and sustainable land use.

While there was a limited surveying sample for this project (N = 24), the findings raise some important and interesting points, as well as some slight concerns about past and current research initiatives in the region. In particular, there was a slight concern that previous research has not met the needs of communities, whereby set objectives and inputs such as funds and time have not been converted into outputs. Suggestions have been made by LSMU staff as to how future research might involve and be better utilised by island communities and these should be incorporated into future research agendas. In particular, research priorities should consider the needs of individual island communities as these priorities differ across the region. Overall however, previous environmental research activities have largely matched those identified by participants. The challenge remains to ensure that the research conducted becomes more appropriate, efficient and effective, especially to the varying and diverse priorities of individual island communities.

This factsheet is available for download from the MTSRF website:

http://www.rrrc.org.au/publications/tmq_factsheets.html

The MTSRF is administered in North Queensland by the Reef & Rainforest Research Centre (RRRC).