

Local people influencing regional coastal management: decision support tools and experiences through case studies

Project 9.2

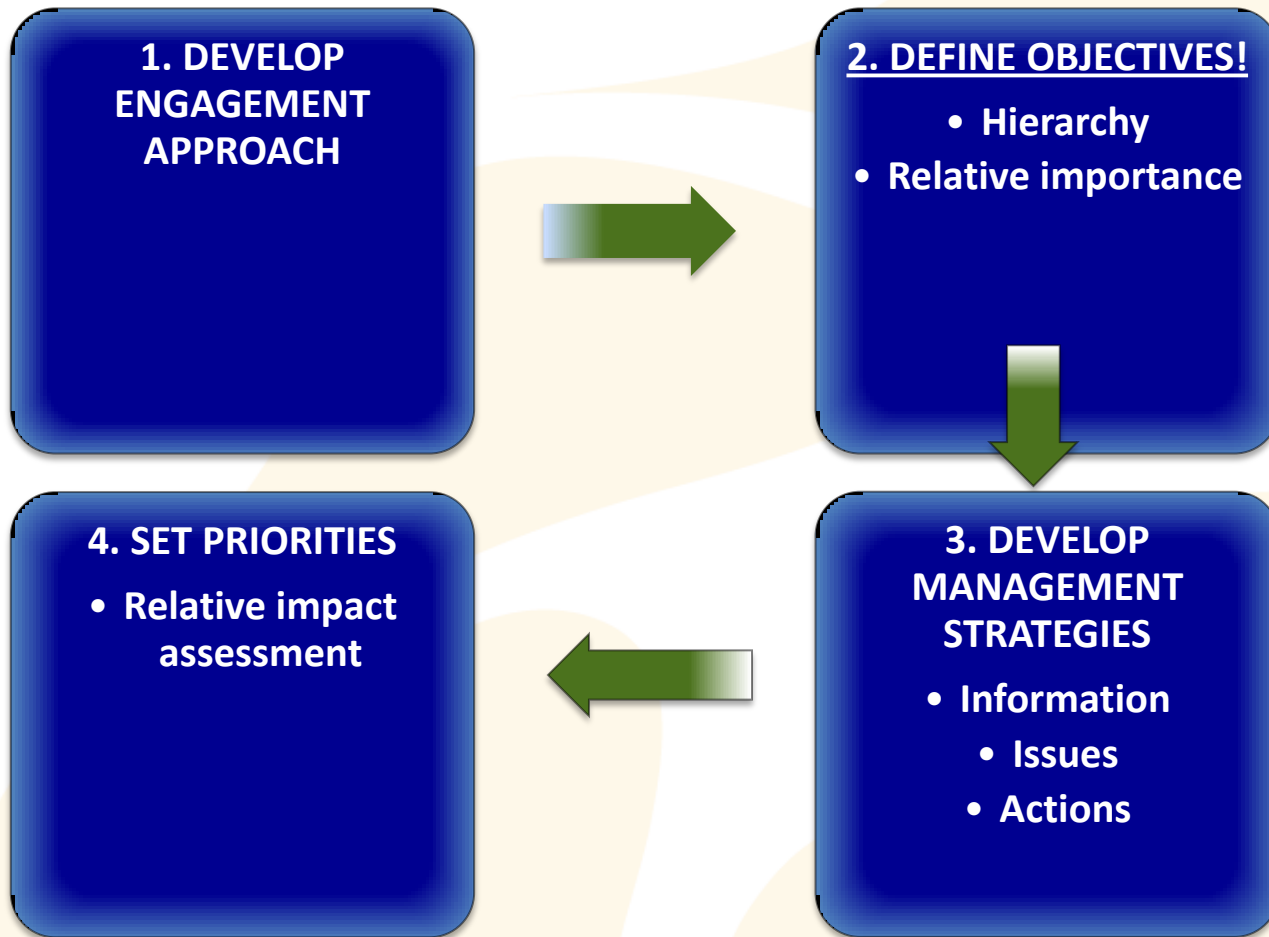
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PROJECT 9.2: DESIGN AND IMPLEMENTATION OF MANAGEMENT STRATEGY EVALUATION FOR THE GREAT BARRIER REEF INSHORE (MSE-GBR)

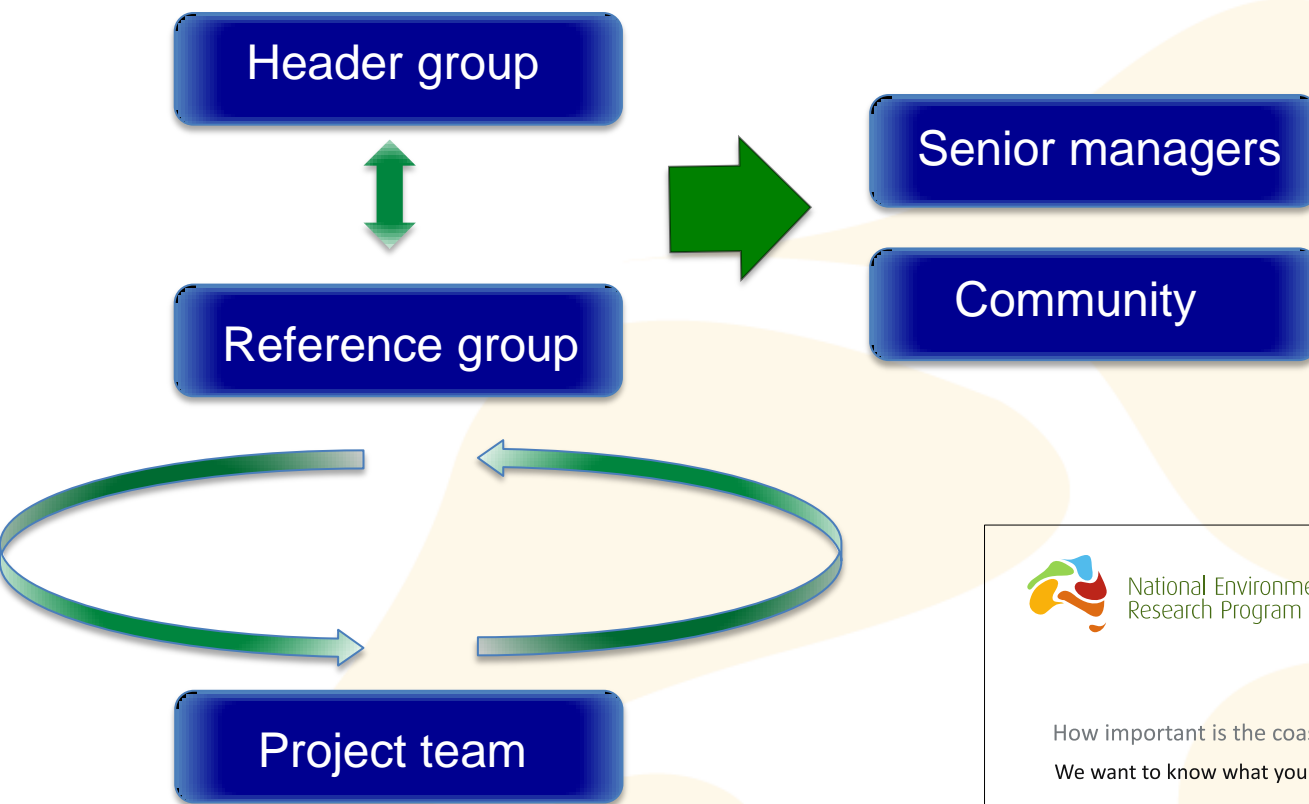
- Developed a Management Strategy Evaluation **framework** using a stakeholder driven approach
 - **Local management options**
 - **Local stakeholders**
- Coastal zone management focusing on:
 - Biodiversity
 - Fisheries
- Two case studies
 - Mackay
 - Bowen-Burdekin

“Local people influencing local management of natural resources for future generations.”

OVERALL FRAMEWORK



1. DEVELOP ENGAGEMENT APPROACH



National Environmental
Research Program

TROPICAL ECOSYSTEMS *hub*

How important is the coast to you?

We want to know what you think is important for the future of your coast.

Australia's national science agency, CSIRO, is leading a study to find out how people living in Mackay would like to see the coast managed in the future.

We are exploring coastal management choices and priorities from a community perspective. We are aiming to understand the balance between local community needs, conservation and commercial uses, and where they all overlap.

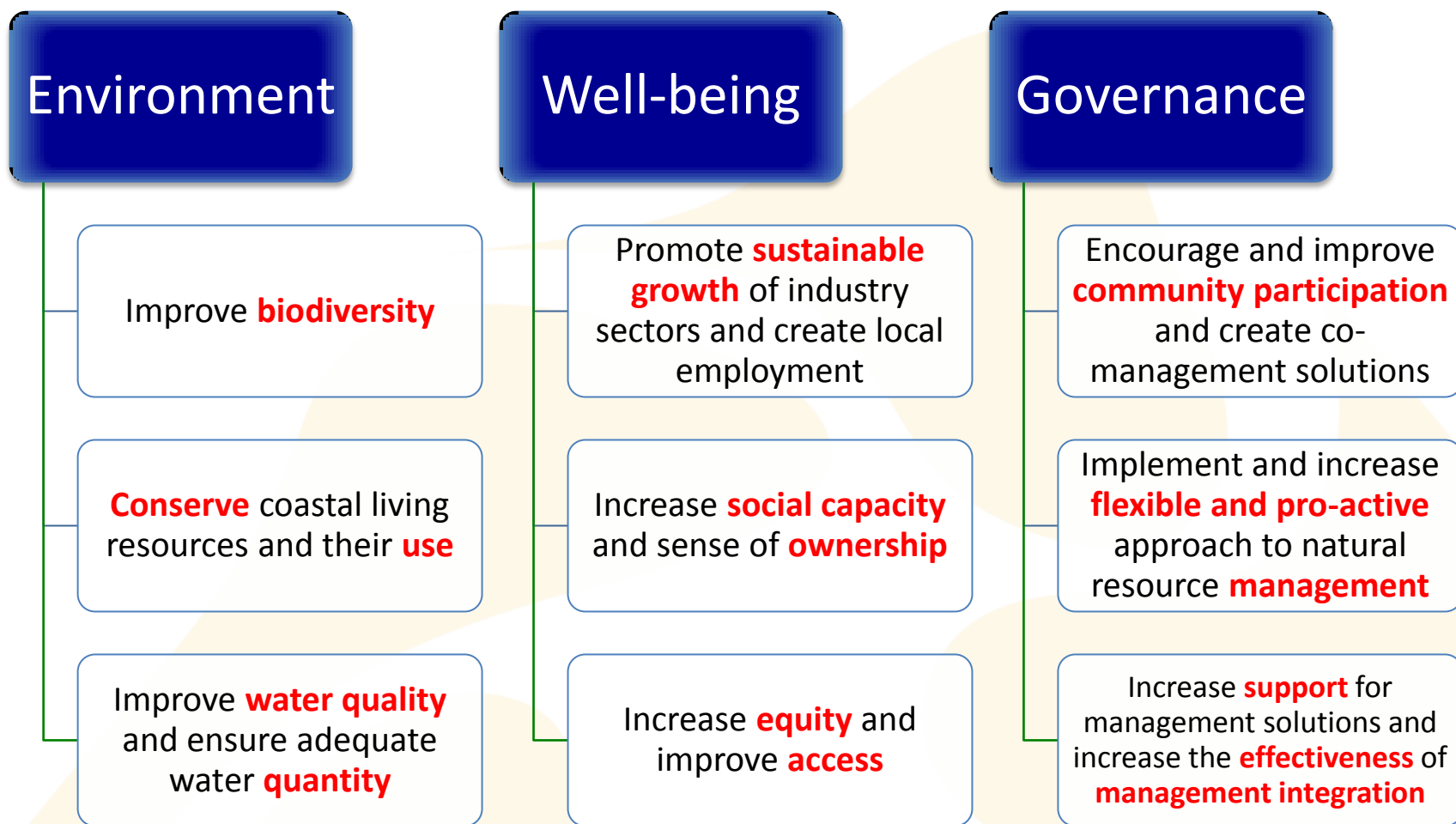
This is your opportunity to have your say and participate in an information session and survey.

Venue: Mercy College, corner of Penn Street and Juliet Street, Mackay

When: Tuesday, Wednesday and Thursday, 9–11 July, 6 to 8pm,
light refreshments provided (participants attend one session only)

For further information or to register your interest contact:

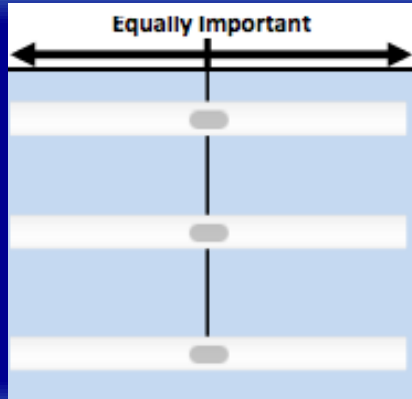
2A. DEFINE OBJECTIVES: HIERARCHY



Local aspects tended to be at the third level in the hierarchy

2B. DEFINE OBJECTIVES: RELATIVE IMPORTANCE

– COMMUNITY SURVEY



“Analytical Hierarchical Process”
At each level in hierarchy



Objective 1

55

Objective 2

15

Objective 3

30

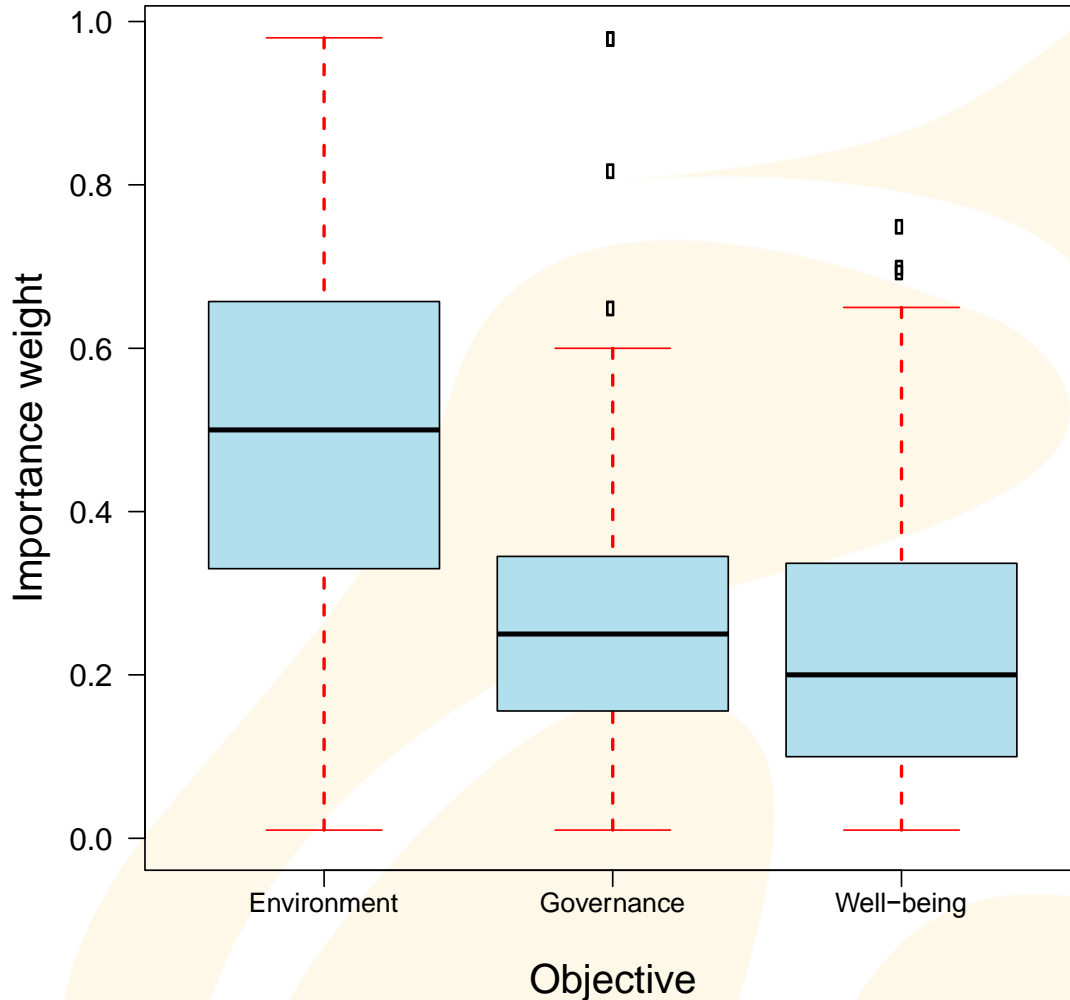
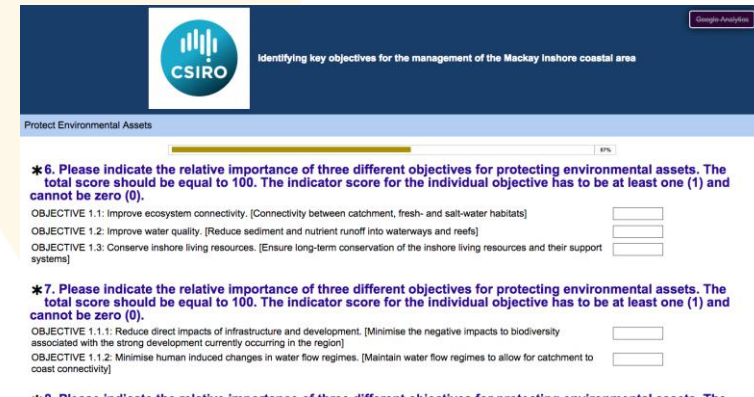
Total

100

NEW: “Hierarchy Points Allocation”
At each level in hierarchy

2B. RESULTS: HIGH LEVEL OBJECTIVE WEIGHTS

Repulse Bay to Clairview (Mackay)

CSIRO
Identifying key objectives for the management of the Mackay Inshore coastal area

Protect Environmental Assets

*6. Please indicate the relative importance of three different objectives for protecting environmental assets. The total score should be equal to 100. The indicator score for the individual objective has to be at least one (1) and cannot be zero (0).

OBJECTIVE 1.1: Improve ecosystem connectivity. (Connectivity between catchment, fresh- and salt-water habitats)

OBJECTIVE 1.2: Improve water quality. (Reduce sediment and nutrient runoff into waterways and reefs)

OBJECTIVE 1.3: Conserve inshore living resources. (Ensure long-term conservation of the inshore living resources and their support systems)

*7. Please indicate the relative importance of three different objectives for protecting environmental assets. The total score should be equal to 100. The indicator score for the individual objective has to be at least one (1) and cannot be zero (0).

OBJECTIVE 1.1.1: Reduce direct impacts of infrastructure and development. (Minimise the negative impacts to biodiversity associated with the strong development currently occurring in the region)

OBJECTIVE 1.1.2: Minimise human induced changes in water flow regimes. (Maintain water flow regimes to allow for catchment to coast connectivity)

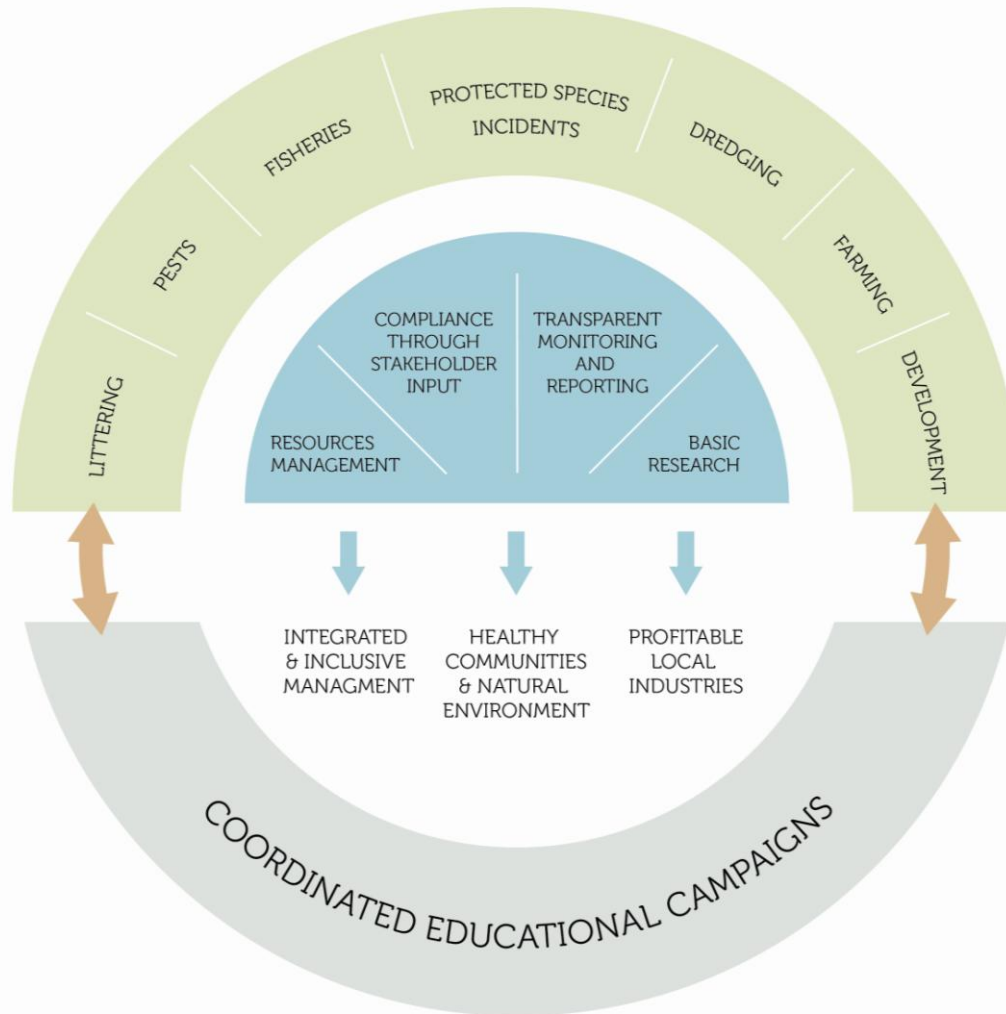
*8. Please indicate the relative importance of three different objectives for protecting environmental assets. The total score should be equal to 100. The indicator score for the individual objective has to be at least one (1) and cannot be zero (0).

3. DEVELOP MANAGEMENT STRATEGIES

1. Using Pressure-State-Response **Framework** as context
2. Divide question into reasonable size **Topics**
3. Provide an **expert** but keep information **local**
4. In groups, **elicit**:
 - Issues related to the topic,
 - Direct Management Response
 - Indirect Management Response
5. Combine into **Management Strategies**



3. GENERIC MANAGEMENT STRATEGY STRUCTURE





WHAT CAN WE DO TOGETHER TO ENCOURAGE TRANSPARENCY?

Promote information and data sharing with public

Facilitate information and data sharing between industries and with the public so as to improve management of the inshore GBR, to influence perceptions related to development and to support a more evidence-based decision making process. Knowledge sharing should be mandatory and independently managed

Make data sharing conditional to approval processes. The big problem involved in accessing and sharing data/information from Environmental Impact Assessments and Consultancies is related to IP and commercial in-confidence contracts

Establish a report card system for water quality

Use a report card system with clear and consistent methods to support more transparent dissemination of information to the public

Understand expectations and public perceptions about coastal issues

Run surveys with the broader community to understand their perceptions and expectations about the coast, for example with regards to the perception of communities in relation to risks of shipping in the GBR

MONITORING & REPORTING

There are several programs collecting data in the inshore coastal zone of Mackay as part of environmental licences (e.g. air quality and marine data for Port activities) and research. Collecting data is expensive and therefore often subject to IP and commercial-in-confidence contracts, which hinders data sharing between organisations and the general public. Developers are cautious in making data publicly available because it can get 'twisted' or misinterpreted depending on who is doing the analysis.

Most data and information from existing monitoring programs in the Mackay region is not easily accessible by the general public, which causes perception problems about the actual impacts of development in general.

The public needs transparent and coordinated access to monitoring reporting as a way of understanding what the issues really are and their magnitude. This is important in dealing with issues related to multiple and inconsistent approval processes, public perception and misconception, and cumulative impacts.



DIRECT ACTIONS

INDIRECT RESPONSES

EDUCATIONAL CAMPAIGNS

WHAT CAN WE DO TOGETHER TO ENCOURAGE SUSTAINABLE FISHING?

Deliver consistent communication campaigns

Re-emphasise existing communication campaigns directed towards more inshore and allocation issues using facts about Mackay, the reasons for recreation fishing (enjoyment) and the role of fisheries for the people and the economy.

Link communication strategies between GBRMPA and QDAFF to send consistent and harmonised messages about regulation, management and best behaviour.

Improve targeted advertising on the above fishing messages by getting local support through interviews of local fishers and other community members on local radio programs.

Simplify ID discussions in web sites, etc.

Improve coordination between local fishers and managers

Modify compliance risk assessments

Modify risk assessments so that it includes local knowledge and environmental characteristics (e.g. seasonality of fishing).

Enhance the Fishwatch hotline so that it links to local offices in time and enhances the DAFF compliance risk assessment in order for compliance activities to be better focused within their existing resources.

Revisit bag and size limits

Tighten and simplify bag limits especially slot limits for iconic target species in similar groups (e.g. flathead and grunter).

Apply bag limits to the boat not just individuals; for example having a boat limit that is twice the individual limit.

Reduce upper slot size limits especially for king salmon and barramundi

Promote flexibility in management to incorporate regional changes in permits, legislation, and zoning for trawling

Move the existing seagrass closure within Hillsborough channel to a nearby site as the seagrass bed has relocated.

Allow local input into management systems through clear and transparent communication processes and representation bodies.

Tackle illegal fishing

Increase the recreational fishery use fund (RUF) to enforce good rules (e.g. enforcement of legislation against illegal fishing).

Increase value of fines for illegal fishing so as to create a disincentive to fish illegally.

Promote environmental branding to sell and market commercial products that are sustainably harvested

FISHERIES

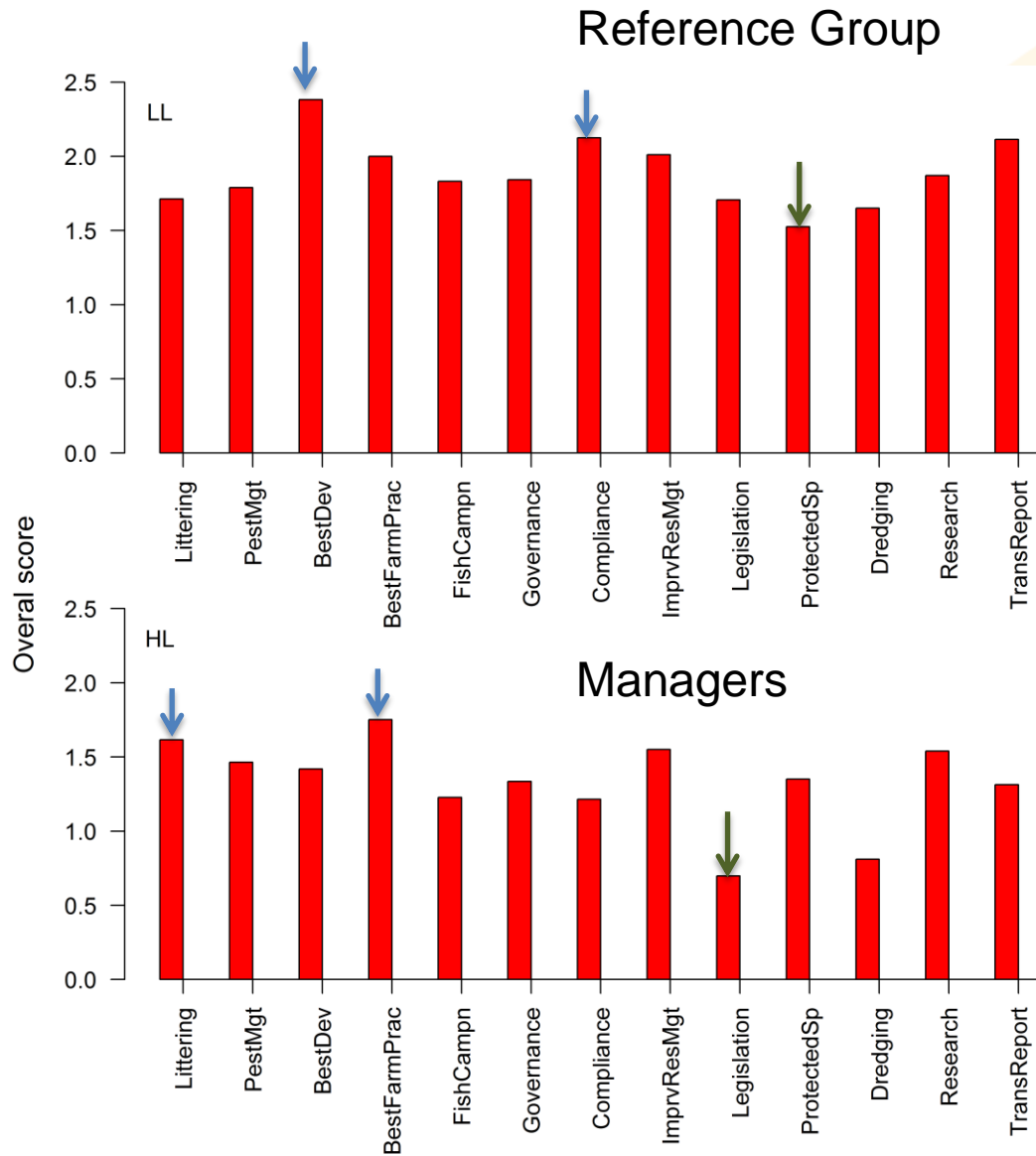
In Mackay, high numbers of recreational fishers, driven by the mining sector, have increased fishing effort. This growth in number of fishers, combined with greed and disrespectful behaviour of some individuals, has led to unnecessary competition and conflicts between commercial and recreational fishers.

Existing behaviour of some fishers toward each other and the environment, in addition to a reduction in compliance presence, have also led to illegal activities by fishers, which affect fishery resources and sustainability in Mackay. In addition, some of the existing legislation is inadequate for the appropriate control of some species and habitats, which in combination with illegal fishing activities, increases effort on fishery resources (with negative long-term consequences on fishery resources and sustainability) and degrades coastal habitats in the Mackay region.

The present situation of narrow research funding focusing on iconic species (rather than the broader suite of species of interest to this sector) is also an important issue that needs to be addressed to maintain long-term sustainability of a range of important fishery resources in the region.



4. SET PRIORITIES: RELATIVE IMPACT ASSESSMENT



Score -3 to +3 in terms of **impact** in next 10 years if **management strategy** is implemented against **goals**



- Developed a generic framework for regional management
- Successfully applied in Mackay

Some rules:

- Undertake version control
- Embedding managers within process is essential
- Interact with senior leaders throughout process
- Use and respect the huge volunteer force
- Experts should keep things local
- Don't neglect the header group
- A local organiser really helps





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Project Leader: Catherine M. Dichmont

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Q-DAFF: Eddie Jebreen, Ross Quinn, Malcolm Dunning, Julia Davies, Anna Garland

DSITIA: Michael Warne, Julia Playford

DEHP: John Bennett

JCU: Catherine Collier

University of Adelaide: Michelle Waycott

Thanks to all those in Mackay and Bowen-Burdekin!

This would not have been possible without them



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