

The Socio-Economic Implications of Coral Bleaching on North Queensland Coastal Communities

*Presented by
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*“We do not inherit the world from our ancestors
- we borrow it from our children” 1900 anon*

Project Overview



Purpose

To evaluate the social and economic impacts resulting from climate change induced coral bleaching on the Great Barrier Reef.

Research aims and objectives

- **Identify potential reef impacts under predicted climate change scenarios**
- **Develop a socio-economic vulnerability and risk assessment framework under a set of projected reef degradation scenarios**
- **Undertake a socio-economic impact analysis based on these scenarios**

Theoretical foundation/approach for research

- **The impacts of climate change on the reef will be assessed through biophysical analysis and modelling and will provide the base for the socio economic assessment.**
- **A baseline social and economic characterisation of the region will provide a holistic framework for the assessment.**
- **The outcomes will build on information about the population demography, economic activity and other primary variables.**
- **In combination, these will provide spatially-explicit information on patterns of resource dependency, economic value and socio-economic vulnerabilities of GBR industries and regional communities to impacts associated with coral bleaching.**

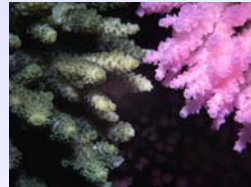
Theoretical foundation/approach for research cont:

- **A detailed analysis of target industries will be undertaken. Flow on or down stream impacts will be calculated using input output analysis supported by standard Treasury economic multipliers for the region.**
- **The use of a risk assessment approach will enable predictive inaccuracies to be accommodated and mapped as probabilities of occurrence and associated vulnerabilities and sensitivity.**
- **Desk top analysis will be supported by quantitative and qualitative assessment undertaken using Community and Industry field surveys**

Key People

- **Research Team** – (In partnership with AIMS, JCU, CSIRO and GRMPA)

**Bob Miles,
Grant ODea**



- **Stakeholder groups /end users**
GBRMPA, NRM and Coastal managers, Local, Qld and Fed Govt, Industry sectors, Community.

Methodology



Through the use of multi-criteria analysis

- Undertake a high level socio-economic and demographic characterisation of the region using ABS, OESR and other statistical sources
- Followed by detailed socio economic analysis of three key industries in the region including input output analysis for three hubs
- Assess the risk and resilience of GBR industries and regional communities (P2c), a staged process based on the risk management process set out in AS/NZS4360 will be followed,

Project Timeframes

- **Year 1**
 - **Conduct a desktop research of socio-economic data for the target areas**
 - **Review existing literature regarding climate change predictions and projected impacts upon the GBR**
 - **Develop a set of scenarios of reef degradation (resulting from coral bleaching)**



Key Research Outcomes

To Date:

- **The coastal communities of Cairns and Townsville and Mackay have been identified as target regions for this research.**
- **Demographic profiles for these regions have been developed.**
- **Tourism, commercial & recreational fishing have been identified as the key industries likely to be impacted by coral bleaching.**
- **An economic profile of these industries has been developed.**