



Great Barrier Reef Marine Park Authority Member's report on activities to ICRI

**Presented by Russell Reichelt, Chairman GBRMPA
 Reporting period 2007/2008**

Please note that the purpose of this report is to help you share information about your activities within the ICRI community to allow discussion at the next ICRI General Meeting. The report will be made available on the ICRIForum prior to the meeting, and a question and answer session will be held at the meeting. The ICRI Secretariat is well aware of your busy schedule, therefore please complete the report to the best of your ability.

1. General Information

Representation to ICRI (Country / Organization):	Great Barrier Reef Marine Park Authority
Focal Point 1:	John Baldwin
Focal point 2:	John Tanzer
Last meeting attended:	Tokyo, April 2007
How do you circulate ICRI information within your country (a) and/or organization (b)?	Formalised intra- and inter-governmental committees (a) and Senior Executive briefings (b)
Budget allocated for coral reef related activities (please mention for year/period):	\$AUD46,000,000 (2007/08 year)

For countries only:

National Action Plan / Initiative	
Do you have a National Coral Reef action plan?	YES ¹ / NO
Is this plan publicly available? If so, please provide location:	http://www.environment.gov.au/coasts/mpa/commonwealth/coord/index.html
Do you have a National Coral Reef Initiative or Task Force?	YES ² / NO
Are you engaged in any regional programs / initiatives relevant to coral reefs:	The Australian Government is engaged in various multi-lateral and bilateral environmental initiatives within the Asia/Pacific region with coral reef implications.
If yes, please indicate which programs/initiatives:	
Marine Protected Areas	
How many MPA(s) with coral reefs?	>100
What is the percentage of coral reef MPA(s) to the (coastal zone / marine area)?	Unknown for Australia at time of writing, however, for GBRMPA please see: http://www.gbrmpa.gov.au/data/assets/pdf_file/0003/7158/area_statement_082004_updated_w3version.pdf
Please provide the appropriate contact name for MPA data holdings	Collaborative Australian Protected Area Database (CAPAD) http://www.environment.gov.au/parks/nrs/capad/index.html
Details for contact (email/fax/telephone)	http://www.environment.gov.au/coasts/comments-md.html

¹ Within the context of the Australian National Representative System of Marine Protected Areas (NRSMPA)

² Within the context of the Australian "Marine Protected Areas Working Group"

2. Member contribution to the ICRI GM: Your responses to the following questions will contribute to the background material provided for the next ICRI General Meeting in Washington, DC. Due to heavy schedules of ICRI members, we have tried to keep the questions to a minimum and value any response you can provide.

A. Questions to inform the break-out discussion groups

Session 1: Economic Valuation of coral reef ecosystems

- a. ***Do you have examples of economic valuation of coral reefs being applied in practice? (e.g., in consideration of coastal land use, coastal/marine spatial planning, for determining compensation, etc.);***

GBR Economic valuations

Access Economics (2005), *Measuring the economic and financial value of the Great Barrier Reef Marine Park 2004-2005*. GBRMPA Research publication No 84.

http://www.gbrmpa.gov.au/corp_site/about_us/documents/economic_values_report.pdf

Access Economics (2007). *Measuring the economic and financial value of the Great Barrier Reef Marine Park 2005-2006*. GBRMPA Research Publication No 87.

http://www.gbrmpa.gov.au/corp_site/info_services/publications/research_publications

Driml, S (1999) *Economic impacts of activities on the Great Barrier Reef*. GBRMPA Research Report No 7.

http://www.gbrmpa.gov.au/corp_site/info_services/publications/research_publications/rp007/index.html

Hand, T (2003) *An economic and social evaluation of implementing the representative areas program by rezoning the Great Barrier Reef Marine Park*. Report on the Revised zoning plan. Delivered to Parliament.

Productivity Commission (2003) *Industries, land use and water quality in the Great Barrier Reef Catchment*. Research Report, Canberra.

- b. ***Do you have established methods for assessing these values? If so, please provide further information.***

Methods for economic evaluation of the GBR

Standard economic evaluation methods can be broadly divided into supply side and demand side measures. Three economic values are generally estimated using the supply side method: gross value of production, added value of production, and employment. Using this standard approach the value of the reef, or region associated with the reef, is achieved through quantification of market transactions for directly associated industries (direct use values).

For the GBR the gross value, added value, and employment generated has been estimated for tourism, commercial fishery, and recreational activities (Access Economics 2005; 2007). Hand (2003) also estimated the value for charter and game fishing and recreational fishing. The gross value and added value of mining and food processing and mineral processing were estimated in a report by the Productivity Commission (2003).

Non-market valuation techniques can be used for estimating non-quantifiable use and non-use values of the GBR. Non-market valuation techniques include Stated Preference (SP)

and Revealed Preference (RP) estimation. One SP technique, called choice modelling was applied by Rolfe et al. (2006). Similarly, existence and option values were estimated by Hundloe et al. (1987) using the Willingness to Pay approach. The travel cost method, a RP technique, was applied by Carr and Mendelsohn (2003) to estimate the value of recreation in the GBR.

The Total Economic Value (TEV), which includes both demand and supply side estimates, is a more complete method of evaluation and was applied by Hand (2003). The TEV was estimated in several international studies, for instance in Hawaii, Florida Keys, Indonesia, Jamaica and the Galapagos Islands. The transfer of estimated benefits from one study site to another region, for instance the GBR, may not always be appropriate. An emerging literature discusses the issue of "benefit transfer" with particular reference to non-market valuation methods.

Purpose of valuation

The economic evaluation by Hand (2003) is an ex-ante assessment of the impact of coastal/marine spatial planning changes. Hand (2003) uses the Total Economic Value (TEV) to determine economic impacts of the rezoning of the GBR.

The reports by Access Economics (2005; 2007) are mainly used as baseline economic information and report only direct use values. Trends can be deduced from reported information.

Both direct effects and flow on effects are described by Driml (1999) in an overview of all activities on the GBR.

Gross value of production and profit figures have been used in the determination of compensation in other areas, such as fisheries when quotas were allocated, but not in the context of the GBR.

Stated preference information in relation to biodiversity losses in the GBR from starfish threat (Hundloe et al. 1987) can be used to evaluate management programs.

The Productivity Commission Report (2003) provides an overview of the importance of industries in the GBR catchment in terms of GVP and employment and identifies policy options to address declining water quality.

New Directions

The Great Barrier Reef Marine Park Authority is currently reviewing economic valuation work undertaken to date and exploring the use of economic mechanisms in Marine Park Management. This will involve identification of trends in management approaches in other areas and sectors and analysis of their potential to improve Marine Park management. Future work will also involve analyses of social and economic systems and their relationship to ecological systems and policy and management options in a spatial context, e.g. Risk and Resilience Atlas.

Session 2: Designing the ICRI Regional Workshop on Sustainable Tourism (to be held in July 2008 directly following ICRS-11)

a. With respect to coral reefs, what does sustainable tourism mean to you?

Sustainable tourism, in its purest sense, is an industry which attempts to make a low impact on the environment and local culture, while helping to generate income, employment, and the conservation of local ecosystems. It is responsible tourism that is both ecologically and culturally sensitive.

"Sustainable tourism" on the Great Barrier Reef (GBR) is a \$AUD6 Billion industry that the Great Barrier Reef Marine Park Authority (GBRMPA) manages in partnership with the tourism sector to ensure a healthy reef, therefore assisting the sustainability of a healthy tourism industry. Many factors that impact on the health of the GBR tourism industry are obviously out of the direct control of the GBRMPA, such as the impact of climate change, fuel costs, global events influencing tourist choices (terrorism, pandemics etc), economic factors etc, although these must all be taken into account to ensure the GBR tourism industry is operating at its peak performance levels.

The GBRMPA can manage the GBR to ensure the reef is as resilient as possible in the current climate.

b. What are the key challenges you face to achieving sustainable tourism?

The key challenges to achieving sustainable tourism in the GBRMP are not necessarily directly related to the tourism industry. They are a result of issues related to a multi-use "global" marine park bordering the coastline of a rapidly developing nation; declining water quality (from coastal development and farming practices); unsustainable fishing practices; illegal use (including illegal fishing); climate change and increasing recreational use.

The tourism industry as a whole has accepted that a healthy tourism industry is reliant on a healthy reef, and as such is dependent on the management regime of the GBRMPA, specifically in areas that might not seem directly related to the MP tourism industry, such as in relation to sustainable fisheries management and the management of the adjacent catchment.

The GBR tourism industry, in partnership with the GBRMPA, takes on the responsibility of adopting best practice across the operational spectrum (including interpretation, waste management, resource use, staffing, social integration etc).

For more, please visit: http://www.gbrmpa.gov.au/corp_site/key_issues/tourism

B. Summary of IYOR 2008 Activities

- Briefly tell us about your activities for IYOR 2008. Information provided will contribute to the discussion during the IYOR 2008 Session on Friday, January 25, 2008.
- Commonwealth Government "Science Meets Parliament" (March '08)
- IYOR 2008 Calendar
- Link the Festival of Chamber Music theme to IYOR for 2008
- Badge media releases with the IYOR banner
- Align our Reef Beat poster series and Reef Video Conferencing with IYOR '08.
- Circulate IYOR information through our Reef Guardian Schools and Reef Guardian Councils networks
- Build in IYOR information into interpretive shows at Reef HQ ie coral tour, dive shows etc
- Link to IYOR and ICRI websites from our website
- Joint arrangements with the GBR Foundation and BP Australia for an interpretive kiosk at a high profile SE Qld BP outlet
- Reef HQ teacher's calendar

C. Emerging Issues

- Please identify any emerging issues relevant to coral reef ecosystems that you believe ICRI should consider.
 - Managing for Climate Change – improving the resilience of coral reefs and related ecosystems to climate change effects.
 - Effectively integrating catchment and coastal management for mutual outcomes

D. ICRI and Other Meetings

Are your ICRI Focal Points considering attending any of the following meetings in 2008?

- 2008 Ocean Sciences Meeting, Florida, 2-7 March
- CBD COP 9, Bonn, 19-30 May
- UNICPOLOS 9, New York, June 2008
- ICRS 11, Fort Lauderdale, 7-11 July **YES**
- IUCN World Conservation Congress, Barcelona, 5-16 October
- Ramsar COP 9, South Korea, 29 October - 4 November
- Other (please specify):
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