



ZooX Fund Update

April 2010

GREAT BARRIER REEF
foundation



Introduction

The first quarter of 2010 has been a busy period for the Foundation for a number of reasons:

- Significant progress has been made by the two expert working groups convened by GBRF to develop its new portfolio of research projects. From past ZooX Fund reports you will be aware that the working groups are identifying the key biodiversity attributes of coral reefs, which climate change puts at risk, and developing a series of adaptation concepts designed to intervene when climate change impacts are felt and enhance attributes ratings. A short update on a recent meeting of these two working groups is attached.
- The Foundation has also successfully funded the pilot of the **eReefs** project in a partnership with the Queensland Government, Telstra, and CSIRO. The pilot will begin work on this state of the art, integrated decision support and communication tool for managing the Great Barrier Reef. The pilot phase will demonstrate the potential for **eReefs** to enhance our understanding of the delicate ecosystem of the Great Barrier Reef and increase the ability to communicate how the Reef will respond to threats such as climate change.
- Existing research investments made by the ZooX Fund also continue to make good progress. These investments include: assisted migration and colonisation initiatives led by Dr Madeleine van Oppen, a coral geneticist from the Australian Institute of Marine Science and Prof. Ove Hoegh-Guldberg's Smart State Fellowship projects which are testing genetic tolerance to climate change and water and light on the Great Barrier Reef. Further updates on these projects will be posted to the Foundation's website in the near future as project milestone reports are received.

Major milestones to come on which the Foundation will report in its next newsletter include the launch of the project portfolio developed by the working groups and the completion of the eReefs pilot.



Joint Meeting 5th March 2010: Attributes and Solutions & Adaptation Working Groups

On Friday 5th March 2010, two working groups established by the Great Barrier Reef Foundation met as one, to integrate their two agendas and continue work begun last year to develop a new portfolio of climate change adaptation projects for the Great Barrier Reef (the Reef). In addition to working group members, others attending the meeting included members of the Foundation's Board, its International Scientific Advisory Committee, representatives of the Queensland Government and other NGO's.

To establish context for the meeting, an introductory session on "Climate Change: the Latest Science" was convened for all delegates.

Prof Will Steffen (Executive Director, ANU Climate Change Institute) led the session with an address on the key findings of his May 2009 Report to the Department of Climate Change. Professor Steffen also summarised the outcomes of the December 2009 conference in Copenhagen and made observations on predicted climate change and climate change science.

The growing gap between the progress of science on climate change and some perceptions about the veracity and significance of that science is disturbing. This is leading to public disillusionment and disengagement about the issue.

The debate about climate change should refocus on the rate at which it is occurring; there is strong evidence of acceleration in several trends identified in IPCC reports.

Meanwhile, the challenge of developing a successful mitigation response continues to grow, alongside the pressing need to consider the options for intermediate and long term adaptation and their costs.

Prof Steffen then joined a panel comprising **Dr Russell Reichelt** (Executive Chairman, GBRMPA), **Dr Andrew Ash** (Director, CSIRO Climate Change Adaptation Flagship), **Prof Ove Hoegh-Guldberg** (Director, University of Queensland Global Change Institute) to discuss climate change challenges and adaptation as they apply to the Reef. The Foundation's primary focus is to develop concepts to facilitate adaptation on the Reef in the face of climate change.

The threats posed by climate change to the Reef are real. Communicating this risk and potential response measures to an increasingly sceptical public presents a challenge which could be addressed using a centralised strategy for media engagement.

Environmental circumstances may also play a role in the success of this communication effort, as evidenced by swings in public opinion during recent drought and bushfire events. The Murray Darling Basin provides a useful analogue for communicating risk to multiple stakeholders, particularly in the form of "let's not make this worse" or "if you keep going down this path you will end up here".

To provide further context to the day's meeting, **Mrs Judy Stewart** (Managing Director, Great Barrier Reef Foundation) followed the panel discussion with a presentation on the Foundation's research framework, on which the working groups' respective terms of reference are based, and the innovative eReefs initiative which underpins the framework's monitoring, evaluation and reporting functions. The Attributes working group is developing, coordinating, measuring and gauging Reef health, while the Solutions & Adaptation (S&A) working group is generating, developing and proving concepts that can be implemented by Reef management for coral reef adaptation.



To be successful, the effectiveness of S&A concepts will need to be measured. Both the attributes work and the eReefs project will play important roles in measurement, monitoring and reporting on outcomes. While the attributes will track various indicators of Reef health, eReefs will evaluate the complex interplay of Reef conditions and use advanced modelling and visualisation technologies to drive transparent decision making and universal communication. eReefs has the potential to become a critical platform for collaboration between Reef focused institutions, government and other stakeholders in the future of the Reef.

In focusing on novel adaptation responses for coral reefs, and deriving them from the unique cohort of problem solvers that it has been able to assemble, the Foundation has identified a research niche which is both timely and provocative. The terms of reference of the two working groups and the work that will flow from them will, in practice, straddle both the threats and challenges to the Reef and the needs of its managers and users.

Foundation Chairman, **Dr John Schubert**, announced a new funding partnership between Telstra, the State of Queensland, CSIRO and the Foundation to underwrite the costs of a four month pilot of **eReefs**.

Professor Ove Hoegh-Guldberg, Dr Andrew Ash, **Mr Peter Meurs** (Managing Director, EcoNomics Worley Parsons), Dr John Schubert and **Prof Jennifer Westacott** (National Partner in Sustainability, Climate Change and Water Practice, KPMG) led simultaneous sessions of smaller groups to examine and progress the concepts developed so far.

The 11 previously identified attributes can be refined in a number of useful ways:

- Reclassified as (fewer) higher order attributes;
- So as to be measurable at multiple scales across the Reef to reflect the health of the whole Reef on one hand, but equally able to be adapted to measure the impact of interventions at local or regional scales;
- To take into account the important co-dependence between socio-economic and bio-physical attributes.

S&A concepts should not be considered as simple or isolated applications. To take them forward in their draft form, critical context will come from linking them to the attributes. Ideally, these interdependencies will be recognised in a circle of influence, joining attributes to the S&A concepts and vice versa. Further links should be drawn to gaps identified in the Great Barrier Reef Marine Park Authority's Outlook Report 2009.

Good governance on the Reef is not an attribute; rather it is the product of a series of well grounded expectations which are met and communicated in a transparent way. Projects like eReefs can be direct facilitators of such governance.

Mr Rob Kella (Chief Risk Officer, Qantas) led the final session of the day, examining the barriers to portfolio success and factors to overcome these.

Delegates explored risk and uncertainty, governance and regulatory frameworks, the need for community engagement, project funding, project feasibility and the capacity to deliver as obstacles to the successful development and eventual adoption of adaptation strategies. Strategies to overcome these barriers were identified by the group and will be incorporated into future agenda setting.

In summary, as a direct result of this meeting, the two working groups are in a better position to integrate and refine their work streams. The Foundation has moved substantially towards the delivery, later this year, of a new portfolio of research projects addressing adaptation options for the Reef. It also received positive endorsement of the importance of eReefs to its project agenda as well as to achieving better outcomes for the Reef.