



Reef 2050 Plan

INDEPENDENT EXPERT PANEL - MINUTES

Date	Tuesday, 02 August 2016
Venue	Kennedy Room, Pullman King George Square, Brisbane, QLD
Opened	9:00am
Closed	5:00pm

ATTENDEES

Members

Prof Ian Chubb AC, Chair	Dr Russell Reichelt
Assoc Prof Eval Abal	Dr Britta Schaffelke
Dr Andrew Ash	Adj Assoc Prof Stephan Schnierer
Prof Damien Burrows	Dr Roger Shaw
Prof Bill Dennison (<i>teleconference</i>)	Prof Natalie Stoeckl
Prof Helene Marsh	

Other

Ms Kylie Jonasson	First Assistant Secretary, Department of the Environment and Energy
Ms Celeste Powell	A/g Assistant Secretary, Department of the Environment and Energy
Ms Stefanie Lowe	Secretariat, Department of the Environment and Energy
Ms Elisa Nichols	Executive Director, Queensland Office of the Great Barrier Reef
Ms Claire Andersen	Director, Queensland Office of the Great Barrier Reef
Ms Margaret Johnson	General Manager, Great Barrier Reef Marine Park Authority
Mr Jason Vains	Assistant Director, Great Barrier Reef Marine Park Authority
Dr Will Howard	Assistant Director, Office of the Chief Scientist
Dr Tyrone Ridgway	University of Queensland (9.30-10.30am)
Dr Justine Bell-James	University of Queensland (9.30-10.30am)
Mr Kym Whiteoak	Principal Consultant, RMCG (1.30-2.30pm)
Ms Jess Saigar	Consultant, RMCG (1.30-2.30pm)

APOLOGIES

Members

Prof Mike Bell	Prof Ove Hoegh-Guldberg
Dr Stefan Hajkowicz	Prof Terry Hughes



DISCUSSION

1 Acknowledgement of Country

The Chair acknowledged the Turrbal and Yaggera Peoples as the traditional custodians of the area. He acknowledged their continuing culture and the contribution they make to the region and paid respects to Elders both past and present.

2 Welcome to Members

The Chair welcomed members to the meeting and noted apologies. The Chair outlined the focus for the workshop and asked the Panel to ensure clear actionable outcomes are identified from each agenda item.

3 Secretariat Administration

Ms Kylie Jonasson gave a briefing to the Panel on the new Minister for the Environment and Energy, the Hon Josh Frydenberg MP.

The Secretariat outlined relevant housekeeping issues for the day.

The Panel endorsed the minutes from the third meeting on 5 April 2016.

The Panel endorsed changes to minutes from meetings 1 and 2, noting that individuals will only be identified when referring to presentations or action items. The Secretariat will discuss changes with absent Panel members that changes relate to before finalising.

The Chair addressed conflict of interests raised by Panel members. The Panel agreed that in future, the Secretariat will summarise conflict of interests and include in meeting papers.

4 Blue Carbon: opportunities for multiple benefits for the GBR

Dr Justine Bell-James and Dr Tyrone Ridgway from the Global Change Institute, University of Queensland, gave a presentation on behalf of Professor Ove Hoegh-Guldberg on blue carbon and the opportunities for multiple benefits within the Great Barrier Reef. The presentation outlined the issues surrounding blue carbon and identified opportunities for actions and policy development relevant to the Reef 2050 Plan. The Panel discussed the issues raised.

Noting that climate change is the greatest threat facing the Reef, the Panel agreed that sequestering carbon is important for the protection of the Reef, and projects outside the Great Barrier Reef area can benefit the Reef indirectly if there is a good opportunity to sequester to reduce carbon globally. However the Panel noted that their terms of reference are specifically linked to protection of the Reef, and therefore consider direct benefits to the Reef should be the foremost consideration in consideration of projects.

The Panel noted that there is still uncertainty around relative merit of different vegetation types for blue carbon sequestration. There is a need to better understand the relative benefits of terrestrial and marine ecosystem types, including longevity of results (for example, resilience to diebacks), regional variation in ability to sequester, time for the benefit to manifest and long term maintenance cost.

Noting that there is greater level of understanding of sequestration by terrestrial ecological communities, the Panel agreed that work should proceed to examine the stocks, flows, opportunities and management of blue carbon, as it relates to the Great Barrier Reef. The Panel

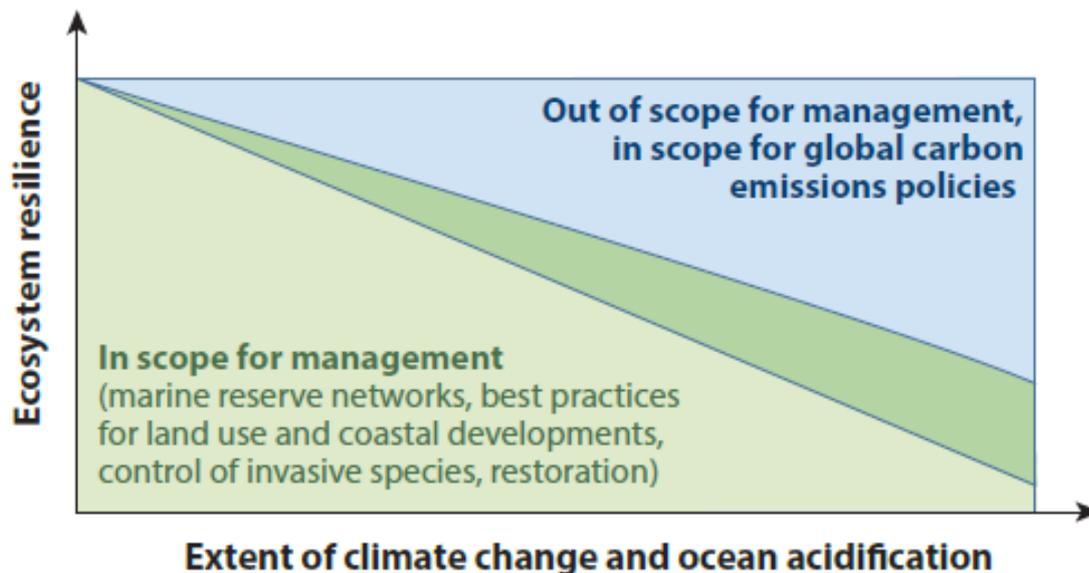
DISCUSSION

noted that there are blue carbon initiatives underway (including through the Australian Government) and agreed that a working group may not be the right mechanism to further this work at this time.

The Panel agreed that outcomes of the work into blue carbon should be actively considered when undertaking the mid-term review of the Reef 2050 Plan in 2018.

5 Ecosystem restoration

Dr Britta Schaffelke gave a presentation on ecosystem restoration and the tools available to help the Reef recover and be more resilient. The discussion explored the need, appropriateness and options to enhance recovery or actively restore degraded ecosystems in the Great Barrier Reef region, particularly in the marine environment (as opposed to the adjacent catchment where the need to intervene through restoration activities has been accepted for the last few decades).



The Panel debated the ethics of intervention agreed that maximizing the resilience of the Reef is the desired outcome, noting that a pristine ecosystem is not necessarily an adequate protection against future challenges.

The Panel agreed that more efforts are required to support reef resilience, particularly in light of the ongoing and increasing climate change impacts over the next few decades.

The Panel noted that a range of methods are likely to be required, ranging from support for passive recovery to full interventions. Different levels of success have been observed in research to date and the longevity of benefits from interventions are still questionable.

The Panel agreed that there are many factors involved in decisions to choose the area and method to rehabilitate. For example:

- Long term natural trends
- Cost (expensive set-up, cheap maintenance)
- State of knowledge
- Success rates
- Desired and expected outcomes
- Scale of desired impact

DISCUSSION

The Panel noted that Australia is obliged to protect the outstanding universal value of the World Heritage Area. Strategic intervention will be required to achieve the best outcome for available investment. It is not possible to intervene everywhere

The Panel noted the need for continued research into methods of rehabilitation and recovery as well as support for the design of a decision-making framework. A decision-making framework could address the following questions:

- do we strategically select habitats/locations for ecosystem recovery, rehabilitation, repair and restoration, linked to specific outcomes?
- do we select techniques for ecosystem recovery, rehabilitation, repair and restoration? And where?
- Are the selected options socially and culturally acceptable?
- What is the desired endpoint?
- What can we achieve/afford (long-term perspective vs quick fix)?
- What are we prepared to trade off (conflicting interests/resource uses)?

6 Cumulative impacts: science to support management and delivery of net benefit actions

Dr Russell Reichelt gave a presentation on the draft cumulative impact policy from the Great Barrier Reef Marine Park Authority. The presentation noted that effective cumulative impact management requires a systems approach to provide an understanding of the cause-and-effect relationships of factors influencing the Great Barrier Reef system and to inform the implementation of appropriate management measures.

Assessing cumulative impacts in large, interconnected systems such as the Great Barrier Reef is complex given the requirement to assess at the farm scale, regional scale and global scale. The Panel noted the work underway to develop guidance on cumulative impact assessment under the Reef 2050 Plan and acknowledged that this is a challenging policy to develop.

The Panel agreed that there is a need to better define cumulative impact assessment and management. The Panel noted that the key opportunity for implementation of the policy is in planning frameworks and suggested that the policy document should describe the tools available for implementation and identify gaps in management.

The Panel suggested that the policy include a clear link to what action is required, once a cumulative impact assessment has been undertaken, and the time scales required to respond.

The Panel agreed that the cumulative impact assessment needs to account for situations where different actions interact and not just considered as purely additive. Desired outcomes are often unrealistic, and an achievable framework is required. The ranking of conditions and trends needs to be clear and consistent.

7 Investment priorities

Celeste Powell gave a presentation on the development of the Reef 2050 Plan Investment Framework. The presentation confirmed that the purpose of the Investment Framework is to establish current investments, determine investment priorities and set out a strategy for boosting investment and diversifying its sources. Ms Powell noted that a consistent and quantitative approach to costing the actions and determining funding gaps for the actions of the Reef 2050 Plan has been difficult, given the variability of the actions, many of which remain broad or difficult to

DISCUSSION

define. However, Ms Powell confirmed that development of the framework is on track and that a consultant, RMCG, has been engaged and has completed an initial draft gap analysis. Data is currently being validated.

Kym Whiteoak from RMCG presented to the committee on the methodology, challenges and outcomes of the gap analysis. The methodology included collecting forecast investment data from a range of sources, including cash and in-kind investment to 2019/20. Data sources included:

- local government
- non-government data (private and philanthropic)
- data from Government lead agencies.

The Panel noted there is parallel work underway to review and prioritise implementation of Reef 2050 Plan actions that relate to:

- The Joint Field Management Program
- The Integrated Monitoring and Reporting Program and
- Traditional Owner actions.

The Panel noted that there are known funding gaps for these groups of actions and the work streams remain high priority. These actions were excluded from detailed examination except where time allowed.

Noting that the principles for investment prioritisation were taken into account in the prioritisation work in 2015, the Panel agreed that its input should focus on actions which will deliver the greatest impact for the reef. Actions for which there is a minor gap (<\$1million over five years) were excluded from detailed examination as lead reporting agencies should be able to address these gaps without Panel input.

The preliminary gap analysis results were used in two break out groups to examine actions that were identified as immediate priorities in the 2015 prioritisation exercise and are not currently fully funded (noting exclusions described above).

Both break out groups rated the following actions highly (ie: an average of >4 out of 5):

WQA3	Pending the outcome of the review of regulation and market-based mechanisms to improve water quality, require farmers to be accredited to best management practice guidelines or to operate under an Environmental Risk Management Plan.	Completed or Fully Funded
WQA7	Finalise and implement plans (Water Quality Improvement Plans - Healthy Waters Management Plans) for Reef catchments and key coastal areas, identifying implementation priorities for protection of the Reef.	Unable to Quantify Gap

The following actions were rated highly by one break out group but were not rated by both groups.

WQA2	Continue improvement in water quality from broadscale land use through implementation of Reef Water Quality Protection Plan 2013 actions.	High
EHA6	Further develop regionally relevant standards for ecosystem health (desired state, critical thresholds and health indicators) that inform and support the Integrated Monitoring and Reporting program.	High

DISCUSSION

EHA11	Maintain the Great Barrier Reef Marine Park and Great Barrier Reef Coast Marine Park Zoning Plans and enhance compliance.	Medium-High
GA15	Develop, implement, and operate an Integrated Monitoring and Reporting program to facilitate adaptive management for the Reef.	Medium-High
EHA19	Develop guidelines for assessing cumulative impacts (including climate change pressures) on Matters of National Environmental Significance including ecosystem and heritage values in the Great Barrier Reef World Heritage Area.	Unable to Quantify Gap
EBA11	Continue to refine and improve guidance and procedural requirements for avoiding, mitigating and offsetting impacts to the Reef from industry activities using standardised policies, procedures and guidelines.	Unable to Quantify Gap
EHA7	Prioritise functional ecosystems critical to Reef health in each region for their protection, restoration and management.	Unable to Quantify Gap

Key:

Completed or Fully Funded	\$0
Low	Less than \$1M
Low-Medium	\$1M to \$5M
Medium	\$5M to \$10M
Medium-High	\$10M to \$20M
High	\$20M to \$100M

8 Providing impactful advice

Prof Helene Marsh gave a presentation to the Panel, reflecting on experiences with other committees where advice has been contested publically or privately. In his book, 'The Honest Broker: Making Sense of Science in Policy and Politics', Roger Pielke identifies four idealised and simplified roles for scientists in policy and politics. Prof Marsh requested that the Panel break into groups and consider the advantages and disadvantages of each role, and to consider when it might be appropriate to provide advice in each role in relation to the terms of references for the Panel.

The Panel broke into three groups and discussed the different roles and how each might apply given their terms of reference. The Panel agreed that they are not policy makers, and that their main role is to provide the scientific evidence and input, to allow the policy makers to make the appropriate decision. The Panel agreed on a checklist to be used when they give advice, to keep them honest to their role.

- a) Is our advice informed by up to date science available?
- b) Have uncertainties been identified and their levels described?
- c) Are there scientific disputes about the facts (if so what are they)?

DISCUSSION

- d) Have all the full range of values framing the problem/ information/ decision been made clear?
- e) Does the Panel have the collective expertise required to provide the full range of alternatives, consistent with advice?
- f) If the answer to e is no, what should we do?

The Panel agreed that it is important to bring the community along the scientific discussion, to ensure that there is an understanding of the decisions being made. The Panel agreed that this is a topic that could be discussed in more detail at a future meeting.

9 Consolidation of advice (*Science Implementation Plan*)

The Panel discussed the options available to transmit advice on the day's discussions to the Great Barrier Reef Ministerial Forum. The Panel agreed that a Science Implementation Plan was not necessary at this time and that the outcomes of the workshop sessions should be incorporated into meeting minutes.

The Panel agreed that the workshop sessions were valuable and that future meetings should have a hot topic or workshop item to be lead by a Panel member. The Panel requested the Secretariat recirculate the workshop topics document for discussion at the next meeting.

10 Emerging Scientific matters

The Panel discussed the paper regarding the potential for engagement of the Bureau of Meteorology in work related to the Panel. It is important that the Bureau be engaged on the Reef, as the agency is responsible for climate data, the operation of the Marine Water Quality Dashboard, and forecasting models under eReefs.

The Panel discussed various options to engage with the Bureau to ensure the best outcome for Reef health. The Panel noted that the Bureau is involved in Australian Government meetings on the Reef and Reef 2050 Plan implementation, and is a member of the data management and systems working group of the Integrated Monitoring and Reporting Program Steering Group.

The Panel agreed that a paper be drafted for the next meeting, giving more detail to the technical and strategic gaps in relation to Reef 2050 Plan outcomes that require more input by the Bureau. The Chair recommended that key Panel members meet with senior Bureau officials at the next opportunity to discuss the gaps.

Action 1: Dr Roger Shaw to draft paper on Bureau of Meteorology involvement for the next Panel meeting.

Action 2: Dr Roger Shaw and Dr Russell Reichelt to meet with senior Bureau of Meteorology officials to discuss opportunities to collaborate more effectively on the Reef.

11 Update from Reef Water Quality Protection Plan Independent Science Panel working group

The Panel noted progress of the Reef Water Quality Protection Plan Independent Science Panel working group.

The Panel was updated on the Marine Water Quality metric, and the remote sensing data to be used for the Report Card 2015. The Panel noted that a patch was successfully deployed to allow

DISCUSSION

the data to be used in the Report Card 2015, with a low confidence rating.

The Panel discussed the project proposal that was submitted to the Integrated Monitoring and Reporting Program Steering Group on 29 July for a high priority short-term evaluation to allow a more responsive water quality metric to be included in the next report card (in 2017).

The Panel agreed that report card meets multiple reporting requirements, not just for water quality. However there is a need to revise the application and apply a more strategic consistent method of communication to farmers, landholders and the general public.

The Panel heard that the 'Synthesis workshop – science, management and policy for the Great Barrier Reef and catchments' will be held on 9-11 November 2016.

The Panel endorsed the expansion of the Independent Science Panel's terms of reference to include statistics and analytics, coastal ecosystems and ecotoxicology, and endorsed the recommendation to the Great Barrier Reef Ministerial Forum to increase the membership of the Independent Science Panel from seven to nine through the appointment of Dr Jenny Stauber and Dr Hugh Yorkston.

The Panel endorsed the recommendation to backfill the current vacancy on the Independent Science Panel by appointing Professor Bronwyn Harch, Executive Director of the Institute for Future Environments, Queensland University of Technology for her expertise in statistics and computational informatics.

12 Other business, Communiqué

The Panel drafted a communiqué and agreed to its release on the Department of the Environment and Energy's website.

13 Next meeting

The next meeting will be held on 18 October 2016.