

Evaluating a new model for the integrated delivery of Reef water quality outcomes

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Abstract.

In 2016, twelve NRM and industry organisations, known as the Reef Alliance, were successful in applying for a single reef wide integrated project totalling \$45.5 million. In Australia, there are very few examples where collaborative NRM projects have been implemented on this scale, let alone be subject to a robust evaluation. Documenting the path taken to submit and implement the single application as well as evaluating the delivery model to determine if it provides a more cost effective and strategic way of delivering NRM projects is critical.

Managing a single project with twelve organisations requires ownership, commitment and flexibility from all partners. Through the development and implementation of a robust M&E framework, the Reef Alliance will have a much better understanding as to the impact of the collaboration and whether it is a more strategic and cost effective model to generate water quality outcomes.

Keywords: Reef Alliance, Collaborative Governance, M&E Systems

Introduction

The Reef Alliance is a partnership that recognises and works with land managers to protect and maintain the intrinsic values of the Great Barrier Reef (GBR). The Alliance was established in 2007 in direct response to concerns from peak industry and natural resource management (NRM) organisations about the progression of the Reef Water Quality Protection Plan (2003). Reef Alliance members agreed that a partnership approach, building on existing programs and efforts, is the most effective means of delivering on-ground Reef programs.

Since 2008, the Australian and Queensland Governments have invested public funds (provision of extension and incentives) to support farmers within the GBR catchments improve their land management practices. The majority of the funded programs have historically been awarded to regional NRM and/ or industry organisations (in separate contracts) to deliver on-ground works with farmers.

In 2016, the majority of Reef Alliance partners agreed to submit a single bid for the new Reef program, Reef Trust III. This voluntary partnership was successful in securing \$45.5 million over three years to support farmers adopt improved land management practices. This partnership and single approach to delivering an on-ground NRM project to this scale is new for the Reef programs and offers an excellent opportunity to determine if this is a more cost effective and strategic approach.

The purpose of this paper is to describe how the Reef Alliance developed the collaborative model and the measures and indicators being used to evaluate it.

Reef Alliance

The Reef Alliance brings together industry, regional NRM organisations and the conservation sector with the common goal of assisting to secure the long-term health and resilience of the GBR. This is achieved by improving land manager knowledge and understanding of the benefits in the adoption of best management practice and land use for improving farm viability and sustainability.

Reef Alliance partners are:

- AgForce
- Australian Banana Growers' Council
- Burnett Mary Regional Group
- CANEGROWERS
- Cape York NRM
- Fitzroy Basin Association
- Growcom
- NQ Dry Tropics
- Queensland Dairy Farmers' Organisation
- Queensland Farmers' Federation
- Reef Catchments Limited
- Regional NRM Group's Collective
- Terrain NRM
- WWF- Australia

Established in 2007, the Reef Alliance originally collaborated to present a joint approach to the Commonwealth Government concerning progression of the Reef Rescue Package. Over the last 10 years the Reef Alliance has continued to strengthen and influence the delivery of Reef water quality outcomes. The Reef Alliance has the following key purposes:

- Positively influence government and private sector interest and support for its member's aspirations as they relate to sustainable rural production and GBR health.
- Increase total investment to support Reef Alliance member's aspirations as they relate to sustainable rural production and GBR health
- Improve its member's ability to coordinate and facilitate, water quality, production and economic improvements within rural land use.

Reef Alliance Project: Growing a GREAT Barrier Reef

In December 2015, the five Reef Alliance NRM partners initiated the submission of a single, joint project application for the Australian Government's Reef Trust III program. When presented with the proposal, all 14 Reef Alliance partners agreed in principle to be part of a joint application as they believed a collaborative model would result in more cost effective and strategic outcomes to help protect the GBR.

Prior to the submission date, two Reef Alliance members withdrew from the application with one opting to submit their own, separate proposal. Whilst disappointing, it did not impact the collaborative efforts of the remaining 12 partners.

The Reef Alliance: Growing a Great Barrier Reef (GGBR) Project commenced in May 2016 and will invest \$45.6 million to support 1,196 farmers and graziers improve their practices over 1,841,480ha across 33 GBR catchments by June 30, 2019. The GGBR project targets the sugarcane, grazing, horticulture, broad acre cropping and dairy industries.

The goals of the GGBR project are:

1. By June 2019, 1,196 farmers and graziers covering 1,761,480 ha in 33 GBR catchments have improved farm management practices to contribute to a 5% (169Kt) reduction of sediment load, 10% (345t) reduction of dissolved inorganic nitrogen and a continued reduction in pesticide load generated from broadscale agriculture in priority Reef catchments.
2. By 30 June, 2019, to have assessed if the Reef Alliance model is a cost effective & strategic model for delivering large scale, integrated water quality programs.

The Reef Trust III program guidelines essentially dictated goal one of the GGBR project. The second goal was selected by the project partners as there was a recognition that the Reef Alliance needed to measure and evaluate the impact of the collaborative delivery model.

Key Principles of the GGBR project

Key principles of the GGBR Project include:

- A. The partnership is a true collaboration that implements strategic actions to generate the best water quality outcomes for the available funding.
- B. The experience and skill of partners is fully utilised.
- C. The project streamlines processes and systems and integrates with other Reef initiatives resulting in cost effective outcomes.
- D. The impact of the GGBR project is measured.

A. The partnership is a true collaboration that implements strategic actions to generate the best water quality for the available funding.

There was considerable discussion about the governance of the GGBR program during the application phase and many decisions were made in good faith with the acknowledgement that the detail would be worked out if the proposal was successful. Partners agreed that the Queensland Farmers' Federation (QFF) would hold the head agreement with the Australian Government and sub-contract the on-ground works out to partners. As part of its responsibilities QFF would also manage overarching communication, monitoring, evaluation and reporting for the project.

It was critical that the governance was relatively flat with key decisions being made by those people who are best placed to make them. For the collaboration to work it meant that all partners must agree with a

decision and/ or be willing to be flexible. One implication is that any decision must be acceptable to the least willing/ conservative partner.

To support the collaborative partnership it was determined that a CEO level group would provide the overall project oversight; an operatives group would guide project-wide, on-ground decisions and working groups would lead the delivery of each commodity sub-project. Regional working groups were also established to ensure regional priorities and differences were addressed.

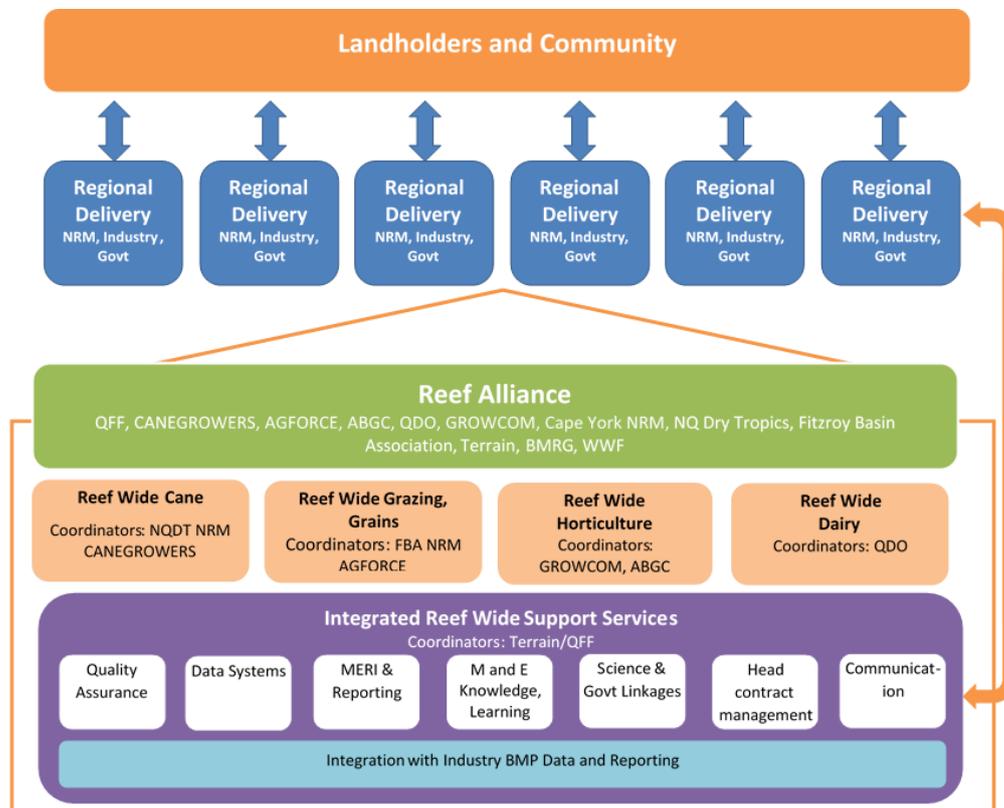


Figure 1: Reef Alliance: Growing a GREAT Barrier Reef Project Governance

All partners understood the need to strategically invest funds and as such several key foundational principles were agreed:

- maintain and increase momentum towards water quality targets through continued practice improvement
- target activities in priority locations based on GBR wide and regional tools such as the Water Quality Improvement Plans
- build on the success of Reef Rescue & Reef Programme and provide a legacy of adaptive industry and community best management practice systems
- deliver flexible commodity programs that consider industry and regional capacity.

B. The experience and skill of partners is fully utilised.

Utilising the skills and experience of partners is an important component of the collaboration and required all partners to identify and agree to who would complete what actions. The delivery mechanisms and sub-contracting arrangements for the delivery actions were determined (through consensus) via the commodity working groups.

Where partners could demonstrate skills and experience to deliver particular elements, it was accepted by the Alliance and sub-contracts developed. For the first time in the eight years of delivery, Australian Banana Growers Council, Growcom and Queensland Dairyfarmers' Organisation received grants directly to manage all actions that related to their industries. Previously, these groups had been sub-contracted by the individual NRM organisations (which at times meant up to three separate contracts) to only deliver on-ground actions and the NRM group would manage all the administration and project management (including reporting, farmer contracts, data management etc).

It was agreed that NRM organisations would coordinate the delivery of actions for the sugarcane delivery as well as the grazing and grain component (except for grazing and grains innovation which is being delivered by AgForce). It was identified that Canegrowers and AgForce did not have the skills to deliver this project at this scale and the NRM organisations had many years experience.

C. The project streamlines processes and systems and integrates with other Reef initiatives resulting in cost effective outcomes.

To improve cost and project efficiencies, streamlining processes and systems across commodities, regions and other Reef projects is critical. Historically, each contracted organisation developed their own systems with limited cross regional/ commodity alignment. As part of the GGBR project there is a strong commitment to utilise consistent approaches and processes where applicable. This includes the use of a single database; a single monitoring, evaluation, reporting and improvement (MERI) plan; and reef-wide communication.

A single database that captures spatially explicit practice change and extension data has been created and is being used by all partners. The Reef Alliance partners own the database and protocols for its management have been established.

Given the sensitivity that surrounds spatial data and its management, to have a single database is a significant step forward. Storing information in a single location will enable a more complete Reef story to be told, reduced time in managing and reporting the data as well as creating cost savings as groups did not have to develop their own system.

The GGBR project MERI plan facilitates learnings and adaptation within and across commodities and regions for better project outcomes. The single plan has generated cost savings already as only one plan required development compared to a possible nine and consistent approaches could be easily seen and integrated into the program design.

Anecdotally, the Australian Government have also reported savings as there is only one contracted partner to liaise with, one MERI plan to review and one reporting mechanism. Monitoring and evaluation efficiencies will be covered in the following section.

Previously, each NRM/ Industry organisation tells its own impact story but there needed to be a more cohesive cross sectoral approach to ensure that governments and the community understand the broader benefits of these types of investment. There is rarely any public acknowledgement of farmers contributions to protecting the Reef and they feel that they are often made the scapegoat for all negative impacts (Wade, R. 2016). Through the GGBR project and the leverage the partnership is gaining, a much more complete Reef-wide story highlighting the role and achievements of farmers is being publicised.

Delivering large projects within the Reef area requires excellent communication with all stakeholders and integration with all programs. Through the GGBR project, closer integration of activities and effort is needed to ensure the best outcomes are achieved with the available resources. This is being achieved through partners aligning any related on-ground works with the principles of the GGBR project and where appropriate, the same systems and processes are employed. There is also a commitment from the Reef Alliance partners to align new investment with the project. It is hoped that this will minimise duplication of effort, reduce confusion among stakeholders and generate better Reef outcomes.

D. The impact of the GGBR project is measured.

The GGBR project collaboration represents a large shift in the way Reef water quality improvement projects are delivered. The Reef Alliance is unaware of any other voluntary, non-government partnership of this scale that has been implemented in Queensland and possibly within an Australian NRM context. Given the scale of the investment and the scale of the collaborative partnership, it is critical to evaluate the impact of delivery model itself and the project outcomes to assess whether it is a better way to deliver outcomes than the historically more fragmented approach.

The Reef Alliance worked with Natural Decisions to develop a checklist of key evaluation questions as a means of systematically gathering the evidence to support such an assessment. These questions come from a description of the attributes that can be considered to represent 'best practice' in the design and implementation of large-scale environmental programs. Elements that were considered include: program design and institutional arrangements; project/ investment design; ranking projects/ investment; managing influence; and managing transaction costs.

This checklist was reviewed by the GGBR project partners and concerns were raised regarding the difficulty, time involved and investment in completing such a robust evaluation. Given the concerns, partners refined the framework to better suit the projects constraints (whilst maintaining the integrity of the evaluation process) and agreed to the following indicators:

1. the project is cost effective and strategic
2. the project is collaborative
3. farm management practices that reduce nutrient, pesticide and sediment pollution from the GBR are implemented
4. contractual obligations are met on time.

Cost effectiveness will be measured for two elements: pollutant load reductions and the delivery model. The consequent pollutant load reduction will be measured using a simple cost benefit calculation. The water quality benefit of all practice changes are standardised across the program through the Water Quality Risk Frameworks (Australian and Queensland Government, 2015) or Industry Best Management Practice frameworks. Whilst it would be beneficial to include all the costs associated with the implementation of the project, much of that data is unknown and it can be a difficult exercise to collect that information consistently across commodities and regions. To take that into account, public investment will be measure used to calculate costs. The cost effectiveness of the delivery model will be measured in terms of administration savings (including the Australian Government) and shared services. Where possible, benchmarks will be used for comparison.

Strategically the Reef Alliance wants to ensure investment is prioritised, targeted and does not duplicate effort. This will be measured through the use of and alignment to the best available science, local expert knowledge and the pollutant load reduction. Ensuring there is no duplication of effort can be challenging, particularly when there are many projects being implemented by several organisations that are not part of the GGBR project. Reef Alliance members are working with as many other stakeholders as possible to maximise alignment with other Reef programs, use of current science and use common systems and processes.

All partners agree that a true collaboration ensures knowledge sharing and learning, partners are committed to the project and will be flexible when required, they have ownership and participate in the decision-making process. Partner surveys and a governance systems analysis (Dale et al. 2013) will be used to measure the success of the collaboration.

Standard data collection will occur across this and other Reef projects where appropriate. Several tools and strategies that measure the effectiveness, impact, efficiency and appropriateness of delivery will be used, including:

- Reef Alliance database to record spatially explicit practice change and extension effort.
- Paddock to Reef Integrated Monitoring Program to identify reductions in nutrient, pesticide and sediment loads.
- Partner surveys to determine the degree of collaboration and satisfaction.
- KASA surveys to measure the difference in landholder knowledge and skills.
- Documenting instances where the GGBR project systems/ processes are integrated into other Reef projects.
- Documenting the number and reach of Reef-wide communication products.

Conclusion

Collaboration with 12 organisations, who have different skills and experience, to deliver a single project is a new way of implementing actions that improve the long-term health and resilience of the GBR. This approach has developed a substantial degree of goodwill and co-operation across all major sectors in the GBR catchments. Already cost efficiencies are being realised, however it is yet to be seen if the collaborative model will have significant savings, efficiencies or increased effectiveness over the life of the project.

The Reef is a very political and complex issue and the agricultural and NRM industries have considerable external pressures that may influence project delivery. Through the implementation of an agreed, realistic and achievable monitoring and evaluation framework, the Reef Alliance is confident the monitoring indicators will be met.

The GGBR project provides a real opportunity to improve the integration of Reef projects, utilise common processes and systems and tell a whole of Reef story highlighting the impact of public investment. If the GGBR project is proven to be successful and meet its goals, funding institutions should consider this as the preferred model to deliver water quality projects in the GBR catchments.

References

Australian and Queensland Government, 2015, Reef Water Quality Protection Plan: Management Practices, Available from: <http://www.reefplan.qld.gov.au/measuring-success/paddock-to-reef/management-practices/> , [Accessed 4 May 2017]

Dale, A.P., Vella, K., Pressey, R., Brodie, J., Gooch, M., Potts, R., Eberhard, R. 2016. *Risk analysis of the governance system affecting outcomes in the Great Barrier Reef*, Journal of Environmental Management, <http://dx.doi.org/10.1016/j.jenvman.2016.09.013>

The State of Queensland and Commonwealth of Australia 2003, *Reef Water Quality Protection Plan; for catchments adjacent to the Great Barrier Reef World Heritage Area*, Queensland Department of Premier and Cabinet, Brisbane

Wade, R. 2016, *Farming alongside the Great Barrier Reef*, presentation to the Rural Press Club 15/9/2016