

Reef Rescue

IMPACT STATEMENT

2011

Message from the Reef Alliance

In 2007, the Australian Government announced a \$200 million Reef Rescue Program to improve water quality entering the Great Barrier Reef. Four years later, Reef Rescue has become a flagship of the Australian Government's Caring for Our Country program, and is arguably one of its most successful initiatives, with a high level of stakeholder engagement and support.

This impact statement substantiates and celebrates these Reef Rescue achievements. This includes an unprecedented uptake of new farm management practices. These practices have reduced sediment, nutrient and pesticide run-off into waterways and have indirectly spurred unexpected social and economic benefits, technological innovations and vibrant and innovative partnerships.

Reef Rescue's key achievements include:

- Reaching over 90% of the five-year farmer engagement target and 70% of the grazing industry target after only three years.
- Improved soil, water, nutrient and pesticide management practices in geographical areas where it matters most.
- Technological innovations across all industries and reef regions.
- The sharing of telecommunication infrastructure and spatial imagery between private companies and regional groups for intensive and broadacre industries.
- Ground-breaking data and cost sharing agreements between government, industry and regions to provide higher accountability and efficiencies.
- Award-winning partnerships that are now expanding across several regions.
- The facilitation of new scientific knowledge, through new water monitoring/modelling networks and trial sites, joint scientific seminars, and collaborations with marine science agencies.

- New online benchmarking tools in the grain, grazing, horticulture, dairy and cane industries, enabling landholders to appraise their practices against the rest of the industry, year after year. Some of these benchmarking initiatives are attracting nationwide interest.
- A cultural shift in attitude of land managers and communities towards environmental issues and the partnerships required to address them.

The success of the first three years of Reef Rescue is a direct result of the determination and leadership of the Reef Alliance partnership, which is a consortium of six Regional Natural Resource Management groups and five Industry peak bodies. Together, these partners share information, resources and ideas, and mix their respective skills sets and expertise to deliver the program. One of the main legacies of Reef Rescue is that partnerships such as the Reef Alliance are now seen as the benchmark for NRM delivery in Australia. World Wildlife Fund were also involved in the establishment of Reef Rescue.

We are proud of the the Reef Alliance and its achievements to date and we're confident the final two years of the Program will see continued high levels of land manager engagement and enhanced water quality outcomes for the Great Barrier Reef.

It goes without saying that these outcomes would not be possible without committed land managers and the financial support of the Australian Government.





WE DELIVERED ON-GROUND

Reef Rescue has given land managers the incentive and skills needed to act now. More than 1700 individual landholders have been engaged in 2755 different on-ground projects.

In some cases change was achieved with cash – through co-investment with land managers - giving people the incentive to update their machinery, infrastructure or management techniques. In many cases projects were already on the drawing board, but the availability of a grant made them a reality much sooner.

Risk assessments, farm plans and training enabled people to expand their skills and knowledge. Developing technical skills, gaining expert advice, understanding scientific knowledge and chatting with peers at field days have all been vital to achieving on ground change. Many landholders now have a clearer picture of how to run their business in a sustainable and profitable way.

Whether they were achieved through grants or training, the resulting changes in land management are having a tangible and immediate impact in reducing runoff at farm level. These benefits have a long-term impact on the health of the Reef.

WE'VE COMBINED OUR POWERS

Targets are being achieved with speed, meaning Reef Rescue is having an immediate and effective impact on reducing runoff at the farm level.

An essential element in this success has been Reef Alliance partners working together. Collaboration not only streamlines delivery and reduces administration; it means that ideas are shared more readily, and expert delivery mechanisms are used. This has allowed the Reef Alliance to achieve results at a greater pace.

One size does not fit all – and delivery partners have worked together to ensure success irrespective of industry, location or farming history.

WE'VE CHANGED *hearts and minds*

Reef Alliance members have been on the phone, on the road, in the paddock and at the kitchen table - meeting with people, previously unaware of Reef Rescue and now engaged. We've listened to their plans, we've provided unbiased advice, and we've offered a truly voluntary and mutually beneficial option for land managers to improve their stewardship of the environment.

We've worked hard to build trust with a swathe of land managers that we'd never worked with before. Of the number of new landholders we aimed to reach by 2013, we've already developed projects with more than 90 percent of farmers and 70 percent of graziers.

Achieved by 2011


1200 farmers

Target by 2013


100 more farmers



Substantiating Our Impact

WATER QUALITY OUTCOMES

Reef Rescue's five-year outcomes are to:

- Reduce the discharge of dissolved nutrients and chemicals from agricultural lands to the Great Barrier Reef lagoon by 25%; and
- Reduce the discharge of sediment and particulate nutrients from agricultural lands to the Great Barrier Reef lagoon by 10%.

Due to extreme weather events in 2011, Paddock to Reef modelling results Reef Rescue will not be available until February 2012.

However, regions are actively contributing to Paddock to Reef modelling processes and industries are observing voluntary uptake of best management practice outside of Reef Rescue. Some regions have also modelled estimated water quality outcomes.

For example, in the Fitzroy, modelling has shown that \$1 million spent on the ground has resulted in a reduction of some 8,200 tonnes of sediment flowing to the Reef. That means, for the \$14 million invested on-ground in the Fitzroy Basin over the past three years, more than 100,000 tonnes of sediment has already been prevented from entering Central Queensland waterways and flowing to the Great Barrier Reef lagoon.

In the Mackay Whitsunday Region modelling shows that after three years of implementation, a reduction of more than 75,000 tonnes of suspended sediment load has been achieved.

Water quality outcomes have been achieved through:

- Better pesticide management techniques through the use of more efficient spray equipment and calibration, buffer distances around drains and waterways, and the use of irrigation recycling pits.
- Herbicide management techniques that ensure pesticide application efficacy and less residual chemicals entering waterways.
- Better nutrient management techniques, such as improved nutrient budgeting or replacing synthetic fertilisers with nitrogen-fixing legume crops.
- Reducing fertiliser losses in the environment by sub-surface placement of fertiliser which maximises nutrient uptake.
- Increasing the adoption of minimum tillage, precision agriculture and controlled traffic farming which limits soil compaction, improves soil water infiltration and reduces run-off.
- Grazing management practices that assess paddock conditions to adjust stock numbers. This includes using remote sensing, historical climatic data or long-term weather forecasts to maintain ground cover, minimise erosion and maintain soil fertility.
- Undertaking fencing projects and installing off-stream watering points which keep stock away from riparian areas.
- Improving water-use efficiency through better irrigation and stormwater management, wetland restoration and more efficient use of rainfall.
- Revegetating and minimising weeds in major waterways and remnant areas.



Reef Rescue

IMPROVING WATER QUALITY OF THE GREAT BARRIER REEF LAGOON

SOCIAL OUTCOMES

The Reef Rescue program owes its success to:

- The establishment of a formal alliance of rural industry groups, regional natural resource management bodies and the conservation sector.
- Collaborative delivery methodologies based on sharing roles and responsibilities and building on the synergies and innovations which already exist.
- Engaging with farming communities in meaningful ways that acknowledge land managers as stewards of the environment and bolster their capacity to farm into the future.
- The use of voluntary adoption programs which drive wide scale positive change across the landscape.
- Utilising the resources, business culture and expertise of large, private corporations.
- The incorporation of indigenous projects, which value traditional knowledge and skills, and create employment in remote areas.

Through collaboration, we have:

- Brought together NRM business cultures, networks, resources, expertise and science to work towards a shared goal.
- Enhanced traditional engagement arrangements.
- Broken down barriers and fostered a spirit of goodwill where polarised views previously existed.
- Fostered trust and created new ways to tackle complex problems that have taken years to accumulate and will take years to reverse.
- Equipped regions and industries with new infrastructure, technology and networks that attract landholders and new funding partners to the program and foster champions. This is why the partnerships between conservation groups and industry have been so crucial.
- Increased the amount of cross-regional and cross-industry sharing of resources, products and information.
- Nurtured a culture of innovation across generations of land managers.
- Empowered landholders and promoted their good land stewardship, giving them a new sense of pride and confidence.

ECONOMIC OUTCOMES

Reef Rescue funding has immensely boosted and improved local economies from the Wide Bay Region to Cape York Peninsula. This is illustrated by the fact that for every one dollar of Australian Government investment, an additional investment of \$1.73 has been made locally in cash or in kind. This means that:

- \$41.6 million of tax payer money has been matched with an additional \$71.8 million of landholder private funds and in-kind contributions.
- \$113.5 million of government and landholder funds have been co-invested to protect the Reef.
- \$80 million has been invested locally (through government and landholder funds) via the purchase of new machinery, services and other goods and equipment.

In addition:

- \$3.5 million of corporate, industry and local government funds have been leveraged.
- \$25 million a year for the last three years has been invested by the Queensland Government to support research, planning and technical support.

The economic benefits of Reef Rescue have been achieved through grants that:

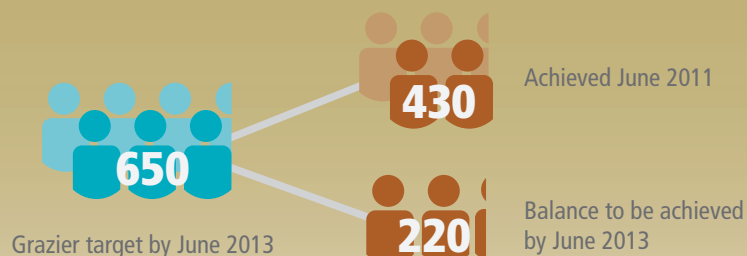
- Result in greater sustainability for land managers as well as water quality outcomes.
- Provide both private and public benefits.
- Co-invest in efficient and up-to-date technology and machinery which minimise fuel usage and labour requirements.
- Reduce on farm costs associated with soil conservation and remediation works.

There are also indirect economic benefits through the employment and training of more than 100 people by regional bodies, industry groups and contracts. These people live and work in the catchments draining to the Great Barrier Reef. Through their passionate approach to Reef Rescue, they are constantly seeking additional funds through government and non-government grants and identifying opportunities to leverage funds through private sector investments.

KEY ACHIEVEMENTS

- 1200 farmers have improved their fertiliser and pesticide applications and soil management techniques. That's 92% of our target of 1300 farmers.
- More than 500,000 hectares of farmland are under improved management.
- More than 430 graziers have received grants to improve water quality.
- Graziers are on their way to improving ground cover and reducing sediment entering our rivers over 2.7 million hectares of grazing land. That's 71% of our target of 3.8 million hectares.

The Government's commitment to the full funding proposal of \$73 million of further funding until June 2013 should enable an additional 1100 new and 800 repeat landholders to undertake on-ground water quality improvement projects.





UNEXPECTED IMPACTS AND LESSONS

A REEF RESCUE TO THE RESCUE

New evidence from monitoring and evaluation efforts show that Reef Rescue helped landholders turn recent devastating floods into an opportunity to improve their enterprise and make it more sustainable.

About 6% of contracted land managers have withdrawn from Reef Rescue projects through financial hardship caused mainly by the exceptional 2010-11 wet season and cyclone Yasi.

However, the availability of grants and the strong Reef Alliance network has meant that many people affected by floods engaged in projects to rebuild lost and damaged infrastructure. This has brought forward management changes, and engaged people who may not have otherwise been involved. In this instance, and in other cases, Reef Rescue grants may have helped landholders accelerate their uptake when cash flow was an issue.

The fact that so few people have withdrawn despite cyclone Yasi and extreme flooding events is testament to the enthusiasm with which landholders have engaged in Reef Rescue.

B ENGAGEMENT VERSUS EVENTS

New data has revealed the importance of following up land managers who have attended training. Data gained from grower self-assessments completing the Grains Best Management Practice program shows that land managers tend to overestimate their performance against industry standards prior to training.

After receiving expert advice and training they often gave themselves a lower score. Rather than reflecting an actual decline in practice, Grains Best Management Practice coordinators believe this is because producers gain a better understanding of what is required to achieve best practice.

It's also believed that during the training process, producers are encouraged to make honest assessments, confident that their data is personal and only aggregated for reporting.

This shows that actively engaging producers in learning and professional development, and providing access to the right technical advice and support, helps to change thinking and therefore management practices.

EVALUATION IS CRITICAL

Regular evaluation of the Reef Alliance partnership and programs has proven invaluable at both a strategic and operational level. It shows the importance of having leaders and staff who:

- foster honest discussions and critical reflection;
- collaborate;
- promote and maintain trust;
- encourage open sharing of experiences, lessons learned, information and resources; and
- look for the most efficient delivery mechanisms and expert delivery agents, to achieve maximum outcomes in a cost effective way.



TAKING IT TO THE NEXT LEVEL

We know that Reef Rescue will make a real difference to the health of the Reef. But there is more work to be done as more producers hear about the program and want to be involved. The Reef Alliance has made substantial gains and will continue to expand the reach and delivery methods for water quality improvements until June 2013. But what comes next?

Based on results and learnings, we can already suggest what a future Reef Rescue might look like after 2013. We have laid the foundations for a comprehensive and sophisticated project delivery and monitoring process that can achieve significant improvements in Reef health.

Given the support, we see Reef Rescue's future including:

- A committed Reef Alliance partnership that is adequately resourced to enable partners to review their progress, maintain a shared vision and communicate effectively. The Alliance is the linchpin of the successful and cohesive delivery of Reef Rescue.
- Increased engagement of land managers in projects to adopt better practices and cutting-edge farming technologies.
- Expansion of integrated, industry-driven training and assessment tools to encourage adoption of best management practices.
- More flexibility and synchronicity of grants which complement the working calendars of farmers rather than financial year cycles.
- Engagement of further landholders based on the promotion of economic benefits of practice change.
- Ensuring that practice changes which come at a prohibitive cost to land managers but provide a large public benefit are subsidised.
- Adequate resources to enable the use of remote sensing and related monitoring and modelling systems.
- Upfront and pre-project reporting and evaluation strategies that link with future biophysical or economic modelling or assessment, and include a comprehensive data management and information system.
- Regular and earlier opportunities for scientists to estimate and measure the water quality benefits of new or existing practices, and present their results to program managers and landholders.



Conclusion

Reef Rescue is delivering and will continue to deliver well above targets in terms of land manager engagement and delivery of on-ground works.

This is thanks to vibrant, valuable and innovative partnerships that deliver social and economic benefits as well as improved water quality outcomes.

Reef Rescue has fostered enormous good will, but post June 2013, further resources from the Australian Government will be required to allow these partnerships to reach their full potential, and deliver further tangible outcomes for the Reef and for regional communities.

Protecting the Reef is bigger than any of us, and needs to be ongoing!



CARING FOR OUR COUNTRY

