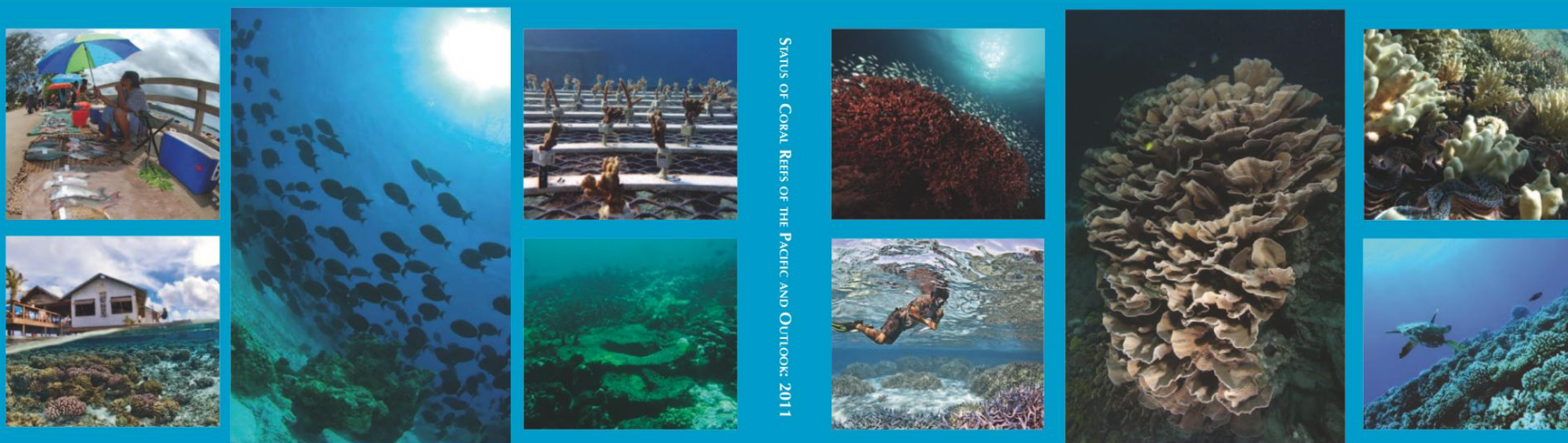




STATUS OF CORAL REEFS OF THE PACIFIC AND OUTLOOK: 2011

ANDREW CHIN, THIERRY LISON DE LOMA, KATIE REYTAR, SERGE PLANES,
KARIN GERHARDT, ERIC CLUA, LAURETTA BURKE, CLIVE WILKINSON










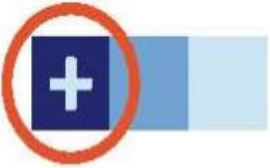
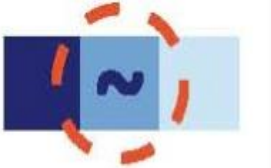
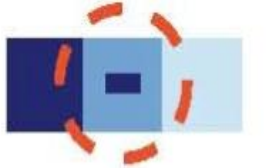
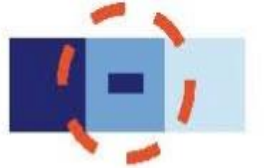
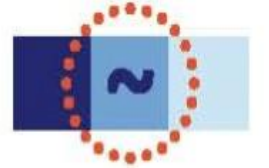


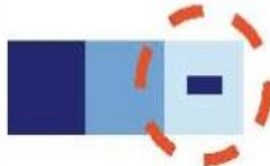
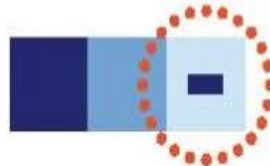
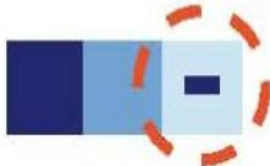


STATUS OF CORAL REEFS OF THE PACIFIC AND OUTLOOK: 2011



ANDREW CHIN ET AL.



<div> <div>  Stable  Evidence of change  Altered </div> <div>  High confidence  Medium confidence  Low confidence </div> <div>    Directions of current trend </div> </div> <div>Situation over long term time scales</div>					
Country	Reef Condition	Reef Health and Resilience	Reef Resource Use	Factors Affecting Reef Health	Management and Governance
Fiji					
	<p>“The reliable and consistent monitoring data for Fiji indicates that most coral reefs are in good condition and currently recovering from previous disturbances (coral bleaching, COTS and cyclones). There is little evidence of persistent declines in reef condition and health, and recovery rates indicate good resilience. However, other reefs show signs of chronic stress and impacts from fishing, sedimentation and pollution from land-based sources, coastal development and population growth. Climate change, through coral bleaching and sea level rise could have serious ramifications. The 2011 Reefs at Risk Revisited report estimates that all Fijian reefs will be threatened by 2030, with more than 65% at high, very high or critical threat levels. Fiji has the legislative base for effective management, but most coral reef management is at the community level; more information is needed to assess effectiveness of management efforts.”</p>				
Nauru					
	<p>“The few survey data from Nauru suggest some differences in reefs around the island, but the information is insufficient to describe status or trends. Long-term monitoring started in 2004 and should be continued. Social and economic data show intensive use of reef resources, with increasing effort coupled with decreasing resources; there are anecdotal reports of over-exploitation. Nauru’s reefs have been damaged from previous phosphate mining and coastal development. Risk assessments identify Nauru as vulnerable to damage from climate change and population growth. Few management tools and logistic resources exist to address these issues; thus management needs to improve to ensure sustainable use of Nauru’s reefs.”</p>				

CASE STUDIES:

SUSTAINABLE DEVELOPMENT OF REEF RESOURCES

- Post Larval Capture and Culture (PCC)
- Reef Restoration
- Reef sharks and tourism
- Bio-prospecting



CASE STUDIES: MANAGEMENT OF CORAL REEFS

What is an LMMA?

An LMMA is an area of near-shore waters and coastal resources that is largely or wholly managed at a local level by the coastal communities, land owning groups, partner organisations, and/or collaborative government representatives who reside or are based in the immediate area ⁽¹⁾.

Expanding LMMAs in Fiji

Fiji has shown an impressive rate of expansion of locally managed marine areas known as the FLMMA, supported by a national network of NGOs and government organisations ⁽²⁾. More than 200 villages across the 14 provinces have established some form of community-based management and the numbers have increased steadily every year over the last decade. Part of this increase can be attributed to the community-to-community exchange of knowledge and skills ⁽³⁾.

LOCALLY MANAGED MARINE AREAS (LMMAs) IN THE PACIFIC

LMMAs in Vanuatu and the Cook Island

Many communities in Vanuatu have preserved tradition and in others this tradition has been revived with management organisations and NGOs. About 80 villages manage resources in this manner in Vanuatu. The Cook Islands, known as 'ra'ui' that have been maintained, and Rarotonga in 1998, 6 of which remain at present ⁽⁴⁾. Fisheries closures.

Traditional use of marine resources agreements in the Great Barrier Reef, Australia

While not formally recognised as LMMAs, there are many marine areas in the Great Barrier Reef that have some form of traditional tenure. Traditional Owners of the Great Barrier Reef have been working with the government to formalise a different sort of traditional marine management arrangement in the Great Barrier Reef Marine Park. *Traditional Use of Marine Resources Agreements* (TUMRAs) are developed with Traditional Owners and accredited under State and National legislation. For Traditional Owners, the legislative basis of the TUMRA is an important aspect. Having an accredited and legally recognized agreement in place lets everybody know what 'sea country' means to the relevant Traditional Owners, clearly records their sea country boundaries, and provides information on how they are looking after their sea country both in keeping with traditions and through contemporary co-management with government agencies. A TUMRA implementation plan may describe ways to educate the public about traditional connections to sea country areas, and to inform other members of a Traditional Owner group about the conditions of the TUMRA. From a management perspective, TUMRAs provide an agreed basis for Traditional Owners to manage their sea country.

OUTLOOK REPORTS FOR A PACIFIC CORAL REEF SYSTEM: AUSTRALIA - GREAT BARRIER REEF



Assessment component	Summary	Assessment Grade			
		Very good	Good	Poor	Very poor
Outlook for the Great Barrier Reef ecosystem	Despite the introduction of significant protection and management initiatives, the overall outlook for the Great Barrier Reef is poor. Even with the recent initiatives to improve resilience, catastrophic damage to the Great Barrier Reef ecosystem may not be averted. Building the resilience of the Great Barrier Reef ecosystem will give it the best chance of adapting to and recovering from the serious threats ahead, especially from climate change. Given the strong management of the Great Barrier Reef, it is likely that the ecosystem will survive better than most other reef ecosystems around the world.				
GRADING STATEMENTS	Very good - The Region's ecosystem is likely to remain healthy and resilient for the foreseeable future with strong recovery in threatened species and at damaged locations. Additional management intervention is not required to maintain the ecosystem.				
	Good - With only minor additional management intervention, the Region's ecosystem is likely to remain generally healthy and resilient for the foreseeable future, with only some areas showing signs of significant deterioration.				
	Poor - Without significant additional management intervention, some components of the ecosystem will deteriorate in the next 20 years and only a few areas are likely to be healthy and resilient in 50 years.				
	Very poor - Without massive additional management intervention, the Region's ecosystem is likely to deteriorate rapidly with the loss of most habitats and species over the next 50 years.				

SECTION III: SUMMARY AND CONCLUSIONS

CONFIDENCE AND INFORMATION GAPS

Coral reef health and resilience poorly known



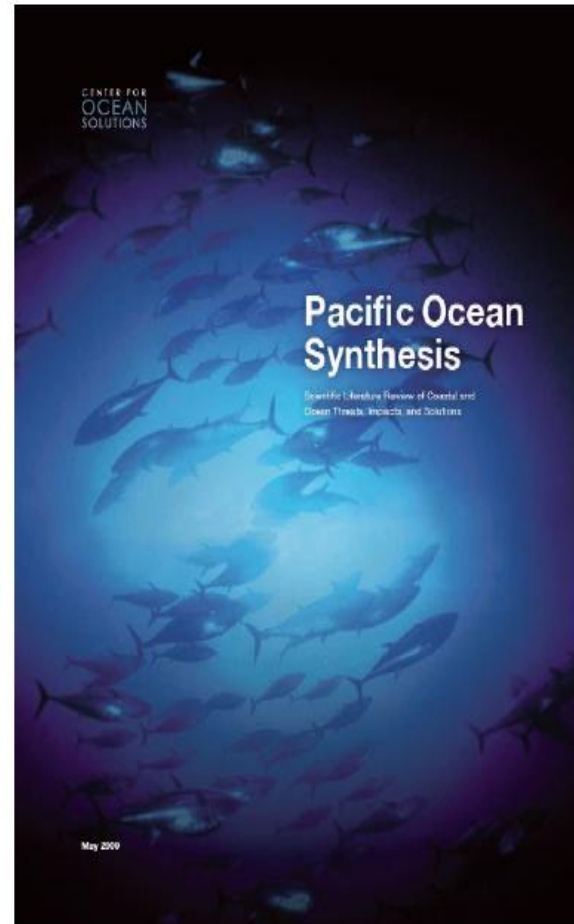
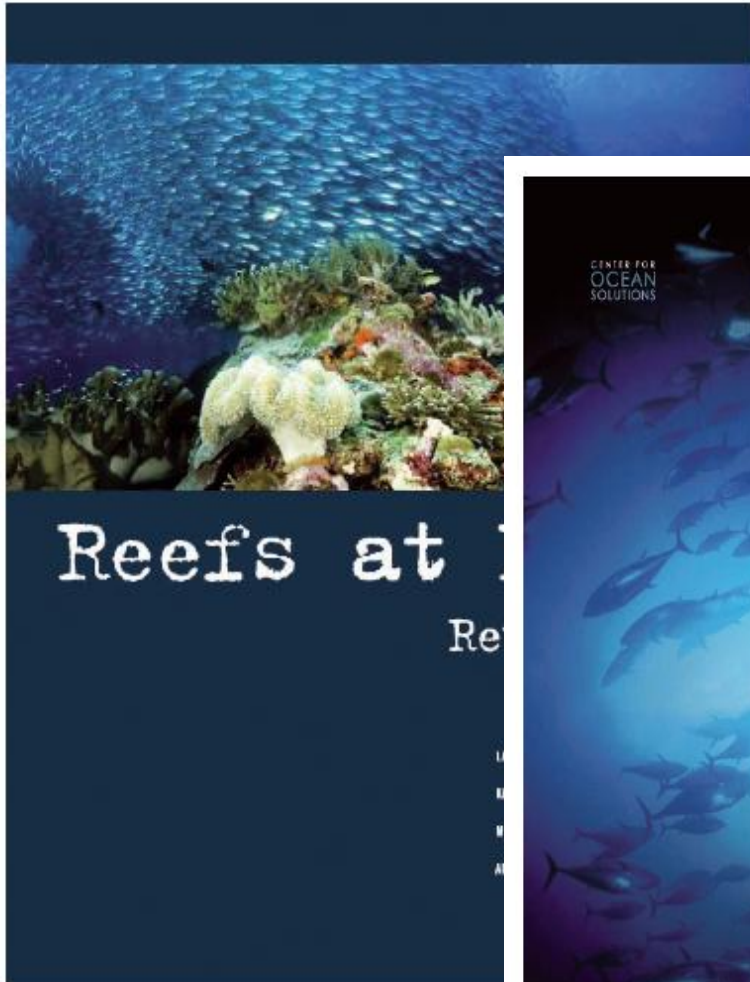
THE STATUS AND HEALTH OF CORAL REEFS IN THE PACIFIC

Generally GOOD – 50% at low risk





THREATS AND CHALLENGES FACING CORAL REEFS IN THE PACIFIC



- ➔ **Overfishing**
- ➔ **Coastal development**
- ➔ **Land-based pollution**
- ➔ **Climate change**



MANAGEMENT OF CORAL REEFS IN THE PACIFIC

Some improvements but still insufficient

THE FUTURE OUTLOOK FOR PACIFIC CORAL REEFS



POOR = CALL FOR ACTION !!!