

**Learning from the Past: Analyzing Structural Inefficiencies in the
Great Barrier Reef's Management and Imagining a Better Future**

John DiPierri & Caleb Richmond

Professor Alan Tidwell

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In the 1975 Great Barrier Reef Marine Park Act, the Australian government took an extraordinary step to delineate marine conservation efforts in the Coral Sea, while consolidating local, state, and federal agencies into uniform management structures, fondly referred to by academics as “the regime.”¹ As a result, efforts to protect wildlife species and reef health became highly streamlined, safeguarding this sensitive natural treasure as a global reckoning regarding climate change emerged. Nearly fifty years after this political triumph, including a rezoning of the Marine Park in 2004, true authority over the Great Barrier Reef has shifted to nested government authorities, or institutions operating in a collective framework on a similar political issue albeit with varying responsibilities. While the number of institutions and policy areas maintaining the Reef have increased dramatically since 1975, these frameworks are profoundly competitive and redundant, contributing to a polycentric governance structure plagued by managerial blindspots and other inefficiencies. These efforts are further complicated by active bureaucratic politicking, in which local, state, federal, and intergovernmental agencies and interest groups utilize public policy and opinion to individually benefit. By scrutinizing the Marine Park’s management structure, it reveals that the Reef can become more adaptable to future natural threats through a change to its bureaucracy. The goal of a rationalized, sustainability-first Reef can be achieved through a numerical reduction in “regime” agencies and decision-making hierarchies, limits on the dissemination of commercial repatriation packages, and the inclusion of Aboriginal voices in Marine Park administration.

The management framework of the Marine Park is extraordinarily vast, contributing to confusion over authority and effective preservation efforts. After the passage of the Great Barrier Reef Marine Park Act of 1975, the federal government at first took a pragmatic approach toward reef management. Initially, the Marine Park was jointly supervised by the Australian and

¹ Morrison, “Polycentric,” 1

Queensland state governments in a relationship known as “co-trusteeship,” where state and federal authorities shared decision-making responsibilities and shared public resources.²

Responding to international pressure and the Reef’s status as a UNESCO World Heritage Site, the government passed the Environment Protection and Biodiversity Act of 1999, which added

international interest groups to the relatively

crowded arena of Reef conservation and heritage protection efforts. Additionally, the

Marine Park is firmly a multi-use property,

in which wide-ranging activities such as tourism, fishing, shipping, research, and

aquaculture occur.³ Thus, the Marine Park

has a variety of applications and unique

shareholders, whose political, cultural, and/or economic considerations impact

decision-making processes.

Management of the Reef, according to social science professor Tiffany Morrison,

is categorized as “polycentric governance,”

in which numerous (and often unrelated)

government agencies pool resources and

decision-making power to achieve shared goals and processes of social learning.⁴ As **Figure 1**

indicates, the number of decision-making organizations, particularly “key decision makers,” have

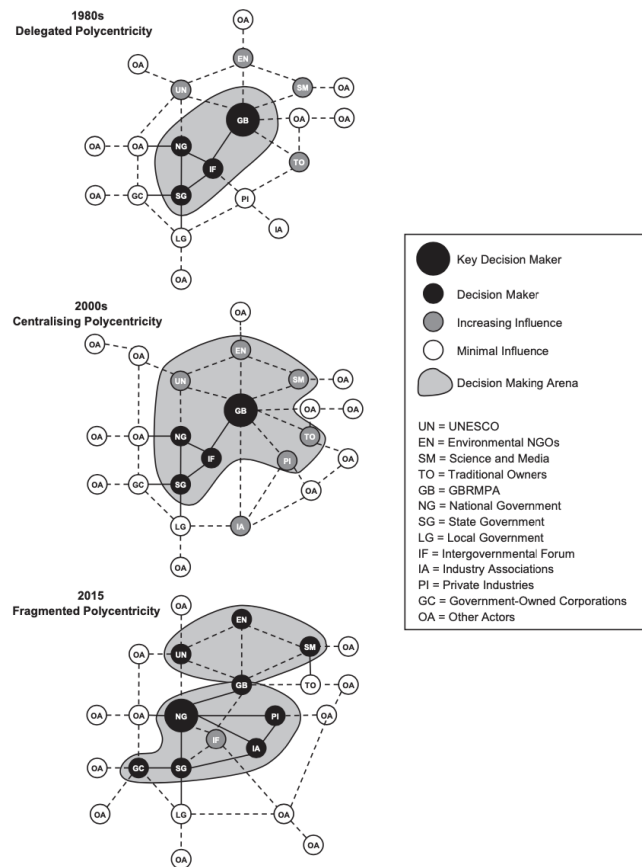


Figure 1: This schematic by Tiffany Morrison shows the composition of the Marine Park’s polycentric governing structure during the 1980’s, in the 2000s, and again in 2015.

² Evans, “Great,” 401

³ Department of Agriculture, Water, and Environment, “Managing”

⁴ Morrison, “Polycentric,” 1

increased since the 1980s, representing agencies at the local, state, federal, and international levels. While the Marine Park Authority was initially at the center of decision-making structures, its position has been superseded by the national government and international organizations, whose partisan influences have a tangible impact on Reef management policies. Morrison argues that “polycentric governance is assumed to be more robust because of the advantages of greater popular support, reduced risk of regulatory capture, local experimentation, multiscale fit, and multiple checks and balances,”⁵ but concedes that the management of the Reef has become gradually more inefficient. Initially, the growth of the “regime” was in tandem with its effectiveness in regulating and managing the Marine Park; however, especially after the 2004 rezoning, effectiveness began to decline as the size of the regime — measured by the number of organizations — increased. As such, more stakeholders within Reef management structures manifested new interest groups, elected officials, and tangentially-related bureaucratic authorities to conservation efforts, blurring lines between organizations, and reducing the system’s effectiveness.

One of the major complaints from Australian academics regarding the Great Barrier Reef’s management are overlapping agencies between the land and the sea. Since the adoption of the Marine Park Act, the Australian government has recognized the importance of coastal ecosystems and land-based processes in the protection of the Reef, including marshlands that filter water. Additionally, with the

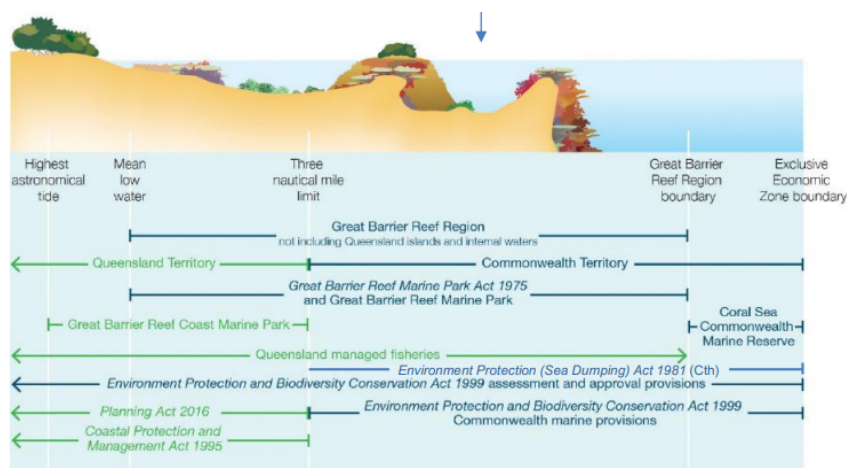


Figure 2: A graphic detailing the jurisdictional boundaries of the Great Barrier Reef.

⁵ Morrison, “Polycentric,” 3

natural changes in tide and overall sea level rise, the physical area in which the Marine Park is located frequently shifts. As demonstrated in **Figure 2**, there are a myriad of governmental organizations that operate in between the highest astronomical tide and the boundary of Australia's exclusive economic zone, with many of those same agencies either overlapping each other or entirely disconnected from certain areas, exposing issues with the effective division of responsibilities. Dr. Morrison writes that "there was reluctance, shared by the GBRMPA [Marine Park Authority] and the national environment department, to use relevant tools (e.g. Special Management Areas, Section 662e of the GBMP Act 1975) to manage activities that fell outside the bounds of the Marine Park."⁶ Due to the diminishing decision-making power held directly by the GBRMPA relative to the plethora of other decision-making bodies in the governance structure, the agency was hesitant to take actions that it saw as beneficial to preservation. Unsurprisingly, the inefficiencies of the contemporary Reef management regime are holding back the very agencies in the regime's arsenal from unleashing their maximum conservation efforts.

At the same time, the "highly streamlined" polycentric governance structure currently lacks adaptability beyond the land-sea interface. As Louisa Evans describes, numerous conservation initiatives have been limited due to the needs of differing actors: "Efforts to manage external impacts on the Reef through more extensive nested enterprises are yet to demonstrate substantial improvements."⁷ For example, the federal and Queensland governments had to scrap and replace assessments on port development in 2012, due to a potential ruling by UNESCO that could change the Reef's status to "in-danger." Additionally, agencies' actions on climate change relied on unintegrated, non-regulatory practices such as "education and voluntary stewardship

⁶ Morrison, "Polycentric," 6

⁷ Evans, "Great," 413

activities” which have since prevented meaningful local action. Subsequently, coral cover for example continuously declined during the early 2010s, something Evans connects directly back to this mismanagement.⁸ By being unable to adequately address changing conditions on the Reef, as well as looming decisions by other actors, marine life suffered.

Limits on funding policies for Reef-based decisions are an important extension of repairing the Reef’s maintenance structure, as described by the federal government’s 2004 “Structural Adjustment Package,” or SAP. Over twenty five years after the initial adoption of the Great Barrier Reef Marine Park Act, the Australian government and the Marine Park Authority rezoned the Reef area in order to delineate natural features and permissible commercial activities. Most notably, the rezone increased no-take ‘Green Zones’ from 4% to 33% of the Marine Park’s (GBRMP) total area, or places where extractive fishing practices were prohibited.⁹ While this action was lauded by environmental organizations, it drew the ire of commercial fishing companies for the perceived loss in revenue. To placate these concerns, the federal government enacted the SAP to repatriate fishermen for their displacement. From 2004 to 2010, “SAP was initially budgeted at A\$10 million...but over time its cost ballooned to at least A\$214 million... in part to curry political favor among affected communities, according to one review.”¹⁰ Since the SAP operated outside of the scope of the Marine Park Authority, the program was exposed to political pressure from government-aligned fishing interests, who desired further funding for themselves. Government-backed eligibility criteria was deliberately and continuously loosened for new interest groups, while funding caps were entirely removed. According to Andrew Macintosh, an Australian academic who was the lead author of the SAP review, the government under Prime Minister John Howard feared that by not appeasing

⁸ Evans, “Great,” 416

⁹ Ban “Interplay” 2

¹⁰ MPA News, “Structural Adjustment Package,” 1

commercial fishers, their reelection prospects in the 2004 federal election would be put in jeopardy, justifying the twenty-one-fold expansion in the program's budget.¹¹ Despite the relative success of rezoning for the ecological health of the Reef, the failures of efficient funding allocation set a negative precedent for further adjustment packages, as well as further Reef rezoning efforts. Overall, the transition of the SAP's noble attempt to assist struggling businesses to a mere cash grab by political interest groups is representative of the Reef's politicization. By relinquishing responsibility of the process from the Australian federal government and giving control to the Marine Park Authority, the inefficiencies of the situation may have been reduced. Instead, due to the litany of organizations responsible for maintaining Reef activities, the SAP quickly grew out of control.

The debacle regarding the SAP is not the only incident of economic mismanagement relating to the Great Barrier Reef. In the Australian political sphere, the major parties advertise large funding packages to demonstrate the political utility of preserving the Reef. The Liberal Party for example, touts its recent \$1 billion investment into the Reef economy and the 64,000 jobs they have preserved through these efforts.¹² Ironically, the Morrison government drew controversy in 2019 for its approval of a \$443 million grant to the Great Barrier Reef Foundation, a non-profit organization that partners with the Marine Park Authority on Reef maintenance efforts. A Senate report found that hundreds of millions of dollars in the grant were unspent, calling the grant's award "a highly irresponsible decision, hastily concocted by relevant ministers," implying that political considerations played an integral factor in the grant's dissemination.¹³ Thus, the initial goals of the Marine Park were actively replaced with bureaucratic politicking, as organizations both within and outside the federal government used

¹¹ MPA News, "Structural Adjustment Package," 2

¹² Liberal Party of Australia, "Our Plan"

¹³ Cox, "Irresponsible"

the Marine Park to further their political or economic interests. With hundreds of millions of dollars unspent, and millions more going to outside organizations and contractors, less emphasis was placed on Reef preservation to its own detriment.

Finally, the Reef's management structure is plagued by a glaring lack of inclusion of Aboriginal and Torres Strait Islanders. A report from the 2050 Traditional Owner Aspirations Project states that “[f]or over 25 years, Traditional Owners from across the Marine Park have been coming together to explore and call for... involvement in the governance and management of sea country.”¹⁴ Even after the expansion of indigenous land claims since the *Mabo* decision of 1992, indigenous voices remain missing from the polycentric governance structure of the Reef despite having formal ownership of over half of the Reef's catchment area.¹⁵ Aboriginal groups, unlike bureaucracies, institutions, or interest groups, lack a certain organizational structure and political power to allow them to impact Reef management, despite being stewards of the area for thousands of years. Furthermore, interviews of Traditional Owners from the report describe “significant distress” concerning the degradation of the ecosystems of both the Reef and its catchment.¹⁶ As the degeneration of these ecosystems affect Aboriginal and Torres Strait Islander peoples equally (and often significantly more than) non-indigenous Australians, their voices are critically deserving of being heard. Unfortunately, as stakeholders, their perspectives have all too often been ignored when it comes to environmental conservation. Focusing on issues related to the equitable incorporation of indigenous Reef management, the Aspirations Project report recommended the normalization of agreement-making in the Marine Park catchment area. The creation of a tripartite agreement between the Queensland, federal, and Aboriginal communities to lead Reef management, replaced the bilateral state-federal agreement in which the current

¹⁴ Australian Government, “Traditional Owner,” 1.

¹⁵ Ibid.

¹⁶ Ibid, 45.

administrative bureaucracy is rooted.¹⁷ While one may argue that the inclusion of Aboriginal voices in Reef management represents a new interest group that may further paralyze conservation efforts, these groups simply wish to preserve the land on which they live. Traditional Owners were the first decision-makers on Reef management, and while their rights throughout Australia were not nearly as recognized in 1975 as they are in the modern day, an expansion of their consultation in the governance of the Marine Park and its catchment, can enhance the maintenance of the ecological health of the region. The creation of a tripartite forum based on consent of all three parties would allow steps toward the righting of historical injustices.

The intricacies of the Great Barrier Reef Marine Park's organizational structure somewhat ironically mirrors the complexity of the biological area it aims to govern, which despite its downfalls, one must concede has maintained relative success in the Reef's preservation. Despite the aforementioned issues with the Marine Park's governing hierarchy, it remains one of the best managed natural areas in the world and is more secure and healthy than it was fifty years ago. Nevertheless, bureaucratic webs of responsibility and communication between various decision-makers has formed a rigid lattice that has created an overly diffused and unadaptable polycentric structure. Existing methods of management will be futile in stemming the impacts of climate change and other environmental factors. While a complete overhaul of the Marine Park's governance structure is not likely nor necessary, incremental reform such as funding limits, proper delineation of responsibilities, and the further inclusion of Traditional Owners can streamline governance, and make management of the Marine Park and its catchment more efficient and equitable.

¹⁷ Ibid, 10.

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