Issues in Australian Protected Area Management

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Background

THE NATIONAL RESERVE SYSTEM OF AUSTRALIA is one of the great land- and sea-use successes of this country. It is an inspiring story of dedicated and visionary individuals, community leaders, conservation organizations, bureaucrats, and outstanding politicians who, from the reservation of Australia's first national park, the Royal National Park near Sydney 128 years ago, have helped establish more than 7,700 protected areas up to 2007. As a concept, protected areas have stood the test of time despite diverse and pervasive human pressures from surrounding lands and seas. Australia has invested in the active care and management of these lands to achieve this outcome. The Royal, for example, originally established in bushland adjacent to early Sydney settlements, is now surrounded by suburbs. Thanks to sustained management, its coastal scenery, heathlands, rainforests, beaches, headlands, and native animals continue to provide enjoyment and inspiration, regional economic benefits, and protection of these natural systems for their own sake.

In the 1960s, grand parks such as Lamington, Wilson's Promontory, Kosciuszko, Cradle Mountain, Belair, Katherine Gorge (now Nitmiluk), and Rottnest Island were prominent, but there were relatively few others. Most of Australia's protected areas were established after the 1970s. Driven by community-based pro-conservation campaigns, and in some cases guided by landuse planning processes such as those adopted by Land Conservation Council in the state of Victoria, many protected areas have been established Australia-wide. From their beginnings as an obscure land and sea use, protected areas of various kinds have risen to become a major feature on the Australian landscape.

Protected area management is thus in the direct eye of the community. By the 1980s, every state and territory had established a professional protected management organization, but park staff often needed to

play catch-up in dealing with a formidable array of threats, such as weeds, pest animals, inappropriate fire regimes, pollution, and illegal hunting, fishing, and taking of water and timber. This protection work and clean-up still continues in 2007, and many areas will require major investments for the long term. A lack of resources, inadequate knowledge and suboptimal systems are also hampering the achievement of effective management outcomes. Working with communities and building capacity through partnerships, participatory planning, and sharing successes, such as species conserved and tourism destinations opened, has been a wise investment. The system as a whole, as well as the professionalism and diligence of park staff, are generally valued and respected by the community. For example, a survey of Tasmanians showed that 70% agree that Tasmania has about the right amount of reserve area, while 27%

think that more areas need to be protected; 45% place "very high," and 33% "fairly high," value on Tasmania's protected areas; 80% were satisfied with the performance of Tasmania's Parks and Wildlife Service; and 98% think that having the parks and wildlife system in Tasmania is a valuable part of the Tasmanian community (Roy Morgan Research 2005).

The community has also expressed concern about the environment. A targeted 2007 Galaxy Research poll revealed that 95% of voters were concerned about climate change impacts on wildlife and natural areas (WWF Australia 2007). Commissioned by the national affiliate of the World Wide Fund for Nature for some marginal electorates in Australia, the survey also identified that voters were willing to invest higher-than-recommended funds in new protected areas to protect wildlife and natural areas (WWF Australia 2007). This conclusion is reinforced by a 2006 community survey which found that 88% of Australians believe that if we don't act now we will never control our environmental problems (Roy Morgan Research 2006). In a global context of significant climate change effects by 2100, a projected 9.3 billion people on Earth by 2050, and post-peak oil impacts by 2020, these concerns are very real.

Protected area managers need to be responsive to community issues and concerns. They need to build on the good work of those who have helped establish protected areas and the professional way in which they are managed. We have identified three key issues as being of particular significance as we move forward into the 21st century: (1) establishing an effective reserve system, (2) sustaining community support, and (3) targeting the effective management of protected areas.

Achieving an effective reserve system

Australia's national reserve system is unfinished, and there are two imperatives to complete this action. The first is an obligation to Australia's current and future generations that there are sufficient Royal National Park equivalents extant for the long term to help maintain a sample of natural Australia. A benefit of such action is the biodiversity and other heritage that is conserved, as well as the ecosystem services that are sustained. However, the rate of habitat change is very great in many locations, and this action is urgent. The second imperative is to be a responsible party to an international effort by the secretariat of the Convention on Biological Diversity for each nation to achieve a comprehensive and representative terrestrial reserve system by 2010. For marine environments, a similar international target has been established for 2012.

An effective national reserve system must embrace not only those reserves managed by government protected area organizations: indigenous, private, and areas managed by nongovernmental organizations are increasingly important. Securing and supporting such areas and their different governance modes are vital. The percentage of area reserved for each bioregion across all governance types is one method for determining the adequacy of the national reserve system. Other crucial factors are achieving an adequate balance between IUCN categories I-IV and categories V-VI, the strategic nature of some lands and seas (such as refugia and connectivity areas), and the biodiversity conservation quality of reserved terrestrial and marine environments.

Reinforcing the current system is another element of an effective national reserve system. Many existing protected areas

are surrounded by lands and seas that will never be part of the reserve system. A land management ethic guided by stewardship must be fostered by governments and the community. There is no longer any need or justification for the historic and perverse incentives that helped destroy or modify much of Australia's native habitats, particularly when these are increasingly valuable as water catchments and are vital to help buffer the forecasted impacts of climate change. Strategic investments such as the Alps to Atherton (A2A) connectivity conservation initiative are providing leadership for such work. Such initiatives are addressing the "adequacy" part of a comprehensive, adequate, and representative national reserve system. They require protected area managers to think and act at landscape and seascape scales. They demand that protected area managers work in partnership with local and regional communities. They are part of a new future for protected areas.

Sustaining community support for protected areas

Maintaining community support for the long term is critical to the future of protected areas. Building broader support, including from "non-traditional" constituencies in both rural and urban communities, is essential for "mainstreaming" protected areas and securing a higher level of political commitment. Key to this is a wider promulgation of the diverse economic, social, and environmental benefits that protected areas supply. The historical formula of being relevant, supportive, and responsive to community concerns is also important. New challenges and opportunities continue to emerge. Climate change is of course currently at the top of the agenda, and is likely to remain so. In this arena, as

with other issues, protected areas need to be seen to be part of the solution, not part of a perceived problem. Some examples illustrate the point.

- For southern and eastern Australia, including Tasmania, fires are forecast to be more frequent and more intense. Working with communities to help mitigate the risks is imperative. This includes dealing with planning and zoning issues, such as amenity migration to bushland environments adjacent to reserves.
- With increased drying, water supply catchments become even more valuable, and the special efforts being taken to maintain the natural integrity of catchments by protected area organizations need to be known and widely supported.
- With tourism destinations such as the Great Barrier Reef and Snowy Mountains affected by climate change, alternative arrangements will need to be considered and introduced to assist the industry.

Such initiatives will mean new partnerships. Unexpected issues will also need to be dealt with, such as sudden changes in pest animal populations and increases in extreme weather events. Building an enhanced adaptive planning and management capacity, in partnership with governments, communities, and civil society institutions, is critical to ensure an effective response to such contingencies.

Targeting effective management of protected areas

Lack of funding for protected area management is the single greatest factor impacting effective Australian protected area management in the 21st century. At an average investment of AUD\$7.69 per hectare of protected area, Australia is spending only about 50% of the estimated AUD\$14.20 per hectare that has been identified as the necessary investment for a country ranking highly in the United Nations Human Development Index (James et al. 1999; Worboys 2007). Adequate resourcing would positively transform pest animal, fire management, and weed control programs, and could secure improved resilience against threats to water supply catchments in the face of climate change. It would also underpin investment in tourism through upgraded maintenance of vehicle access, walking tracks, waste removal, and other visitor services. This would come at a time when Australian domestic tourism will become more important thanks to very high post-peak oil aviation fuel prices.

While enhanced government investment will be crucial—indeed, every effort must be made to ensure that governments place sufficient priority in meeting their public-good obligations related to protected areas—sustainable financing of an effective national reserve systems will also require more concerted efforts to broaden the funding base. Protected area managers need to get better at recovering the costs of service provision to particular user groups such as tourists, as well as more effectively accessing private-sector and philanthropic willingness to pay to secure nature conservation outcomes.

Improved funding will help investment in the critical research needed to support adaptive management, and therefore effectively managed parks. Additional finances for parks would increase investments made in regional (local) communities and boost local economies through employment and the purchase of local goods and services. Economic activity generated by protected areas can be a new source of long-term prosperity for areas affected by the declining profitability of agriculture.

A Master's degree in Protected Area Administration (MPAA) is needed by protected area professionals in senior managerial and executive positions. We envisage a time when such a gualification will have a similar stature to a Master's of Business Administration. Its curriculum would be driven by the need for capable professionals who can respond to the complexity, size, and sophistication of running the business of protected area management. This is big business, and we are long past the stage where base-level bachelor degrees are adequate. Protected area executives and senior managers must have content knowledge and experience-as well as the leadership, governance, business, and political skills-to be effective in what is a highly contested and competitive environment. Specialist training is an obvious path to this end.

Knowledge is critical for protected area management. Science, both natural and social, provides an essential base for decision-making. More than ever, knowledgebased decisions in support of new government initiatives, resourcing protected areas, and forecasting risks are needed. With climate change, an understanding of the variation in values from a known baseline is critical information, as is the nature of threats. New science-management partnerships with research organizations will be needed to generate the new knowledge to manage protected areas in the 21st century.

State of the parks reporting is emergent in Australia. This is a significant step, reflecting both the theoretical underpinning of protected area management (such as the

IUCN Management Effectiveness Evaluation Framework) and a degree of sophistication in planning, organizing, and reporting on management achievements by organizations. More of this work is needed, and a goal to create a state of the parks report for Australia is a minimum position. Achieving such a report provides a transparent statement about the condition and threats to our parks nationally, and provides a service to the community, for such information will also track what is happening to our country from threats such as climate change. Importantly, such reports are supporting evidence-based arguments to government treasury departments for increased funding. An Australian state of the parks reporting system will demand collaboration between organizations to establish data collection frameworks and protocols, determine ongoing monitoring regimes, and pursue new research into the core evaluation subjects required for protected areas assessments (Worboys 2007). Effective state of the parks reporting capacity will also require improved information management systems, new partnerships with research organizations, and new staff competencies to design and implement adaptive management regimes. Reporting must become a springboard for learning and improved management effectiveness. Systems that inspire a national state of the parks capacity will also facilitate cooperative management initiatives, such as A2A and the Australian Alps Memorandum of Understanding.

Conclusion

Australian protected area management in this century needs to focus on achieving an effective national reserve system. Managers need to work with the community by participating in a range of partnership and governance initiatives designed to deepen and broaden the support base and management capability for protected areas. A range of measures are needed to secure effective management, including establishing sufficient and sustainable finance, enhancing training for senior managers and policy-makers, and implementing new levels of national accountability and learning.

References

- James, A.N., K.J. Gaston, and A. Balmford. 1999. Balancing the Earth's accounts. *Nature* 40, 323–324.
- Roy Morgan Research. 2005. Use, Knowledge and Value of Tasmanian National Parks by the Tasmanian Community. Hobart: Tasmania Parks and Wildlife Service.
- ———. 2006. Global Survey: Vast Majorities Agree We Must Act Now on Environmental Problems. Poll conducted for the 2006 Future Summit. Sydney: The Australian.
- Worboys, G.L. 2007. Evaluation subjects and methods required for managing protected areas. Ph.D. Thesis, School of Environment, Griffith University, Gold Coast Campus, Gold Coast, Queensland.
- WWF [World Wide Fund for Nature] Australia. 2007. Voter Opinions on Climate Change and Nature Protection. Sydney: Galaxy Research.
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