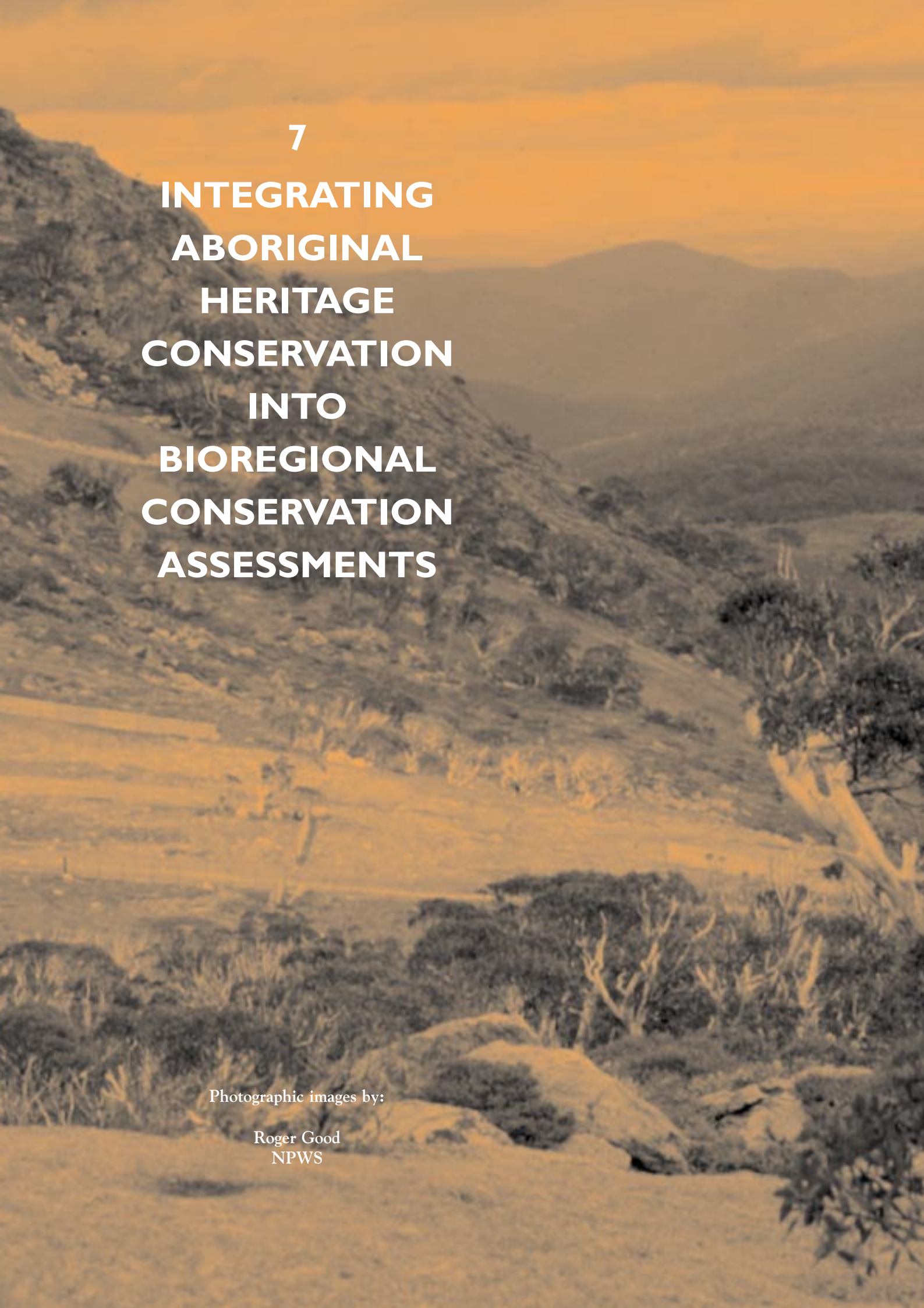
7

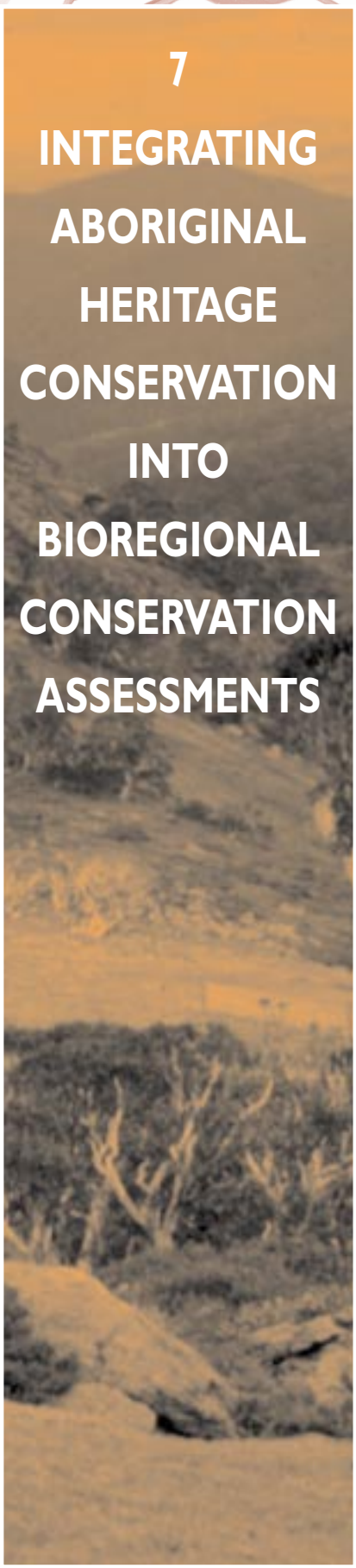
INTEGRATING ABORIGINAL HERITAGE CONSERVATION INTO BIOREGIONAL CONSERVATION ASSESSMENTS



Photographic images by:

Roger Good
NPWS

7 INTEGRATING ABORIGINAL HERITAGE CONSERVATION INTO BIOREGIONAL CONSERVATION ASSESSMENTS



Integrating Aboriginal heritage into bioregional planning processes is predicated on the acceptance that Aboriginal heritage is not confined to sites, relics and other material evidence. A focus on sites and relics will not address people's interests and can lead to decision making that generates unwanted social impacts.

Aboriginal heritage in this context encompasses a range of qualitative information including:

- People's associations with country;
- The values they ascribe to biodiversity and environmental health; and
- Stories, beliefs and family history.

In incorporating this information, these values need to be seen as spanning the pre-contact, post-contact and contemporary periods.

Collection of this type of information, and the processes surrounding that collection, has the potential to act as an important mechanism for incorporating Aboriginal people's concerns and values into regional planning.

7.1 ACHIEVING MEANINGFUL ABORIGINAL COMMUNITY INVOLVEMENT

Aboriginal communities need to be brought into the bioregional conservation assessment process collaboratively. In other words, the achievement of meaningful interaction requires the communities to have the opportunity to understand the aims of bioregional planning and assess how this process might affect them.

Involvement should be predicated on the basis that a collaborative approach to planning can be promoted but that Aboriginal people have the right to define the scope of their interests in the work and its outcomes.

There is a danger that those involved in bioregional conservation assessment will either pursue a very limited and ineffective approach to community involvement and/or obtain information from knowledge holders in return for little or no benefit for their communities (for example, information on threatened species, environmental history and landscape change that is used by ecologists and planners).

Community involvement should not be sought with the intention of:

- Creating or supporting a perception that the Aboriginal community has supported the work; and
- Obtaining ecological knowledge to suit only Western conservation agendas.

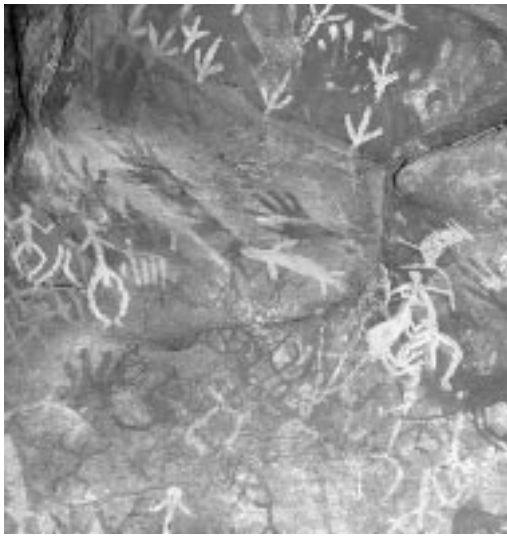
Rather, there must be a commitment to acknowledging that communities will have views about bioregional planning and its potential outcomes that require negotiation and involvement in all aspects of planning and implementation.

7.2 COLLABORATION

Given the above, collaboration can be engendered in many different aspects of bioregional planning. It should not be limited to archaeological survey work or other relic-based project components. Rather, Aboriginal people need to be involved in biodiversity survey work and in planning and decision making about conservation options. This would give a practical application to the broad view of Aboriginal heritage discussed above. It would also acknowledge people's sense of custodial interests in the land.

Involvement of Aboriginal communities in the assessment process should encompass:

- Identification of cultural values of flora and fauna to each language group within the bioregion. The focus of this study should be extended beyond the collection of ecological knowledge to consideration of the links between biodiversity, access to land, contemporary lifestyle and cultural practices;
- Assessment of the land and wild resource access or other land management issues facing these communities, so that this may be factored into recommendations or options;
- Identification of native title claimants and rights across the bioregion; and
- Direct involvement in flora and fauna survey work.



7.3 PROTOCOLS

- Respect indigenous decision-making structures, that is, determine who can speak for a group, provide adequate time for decision making by these groups, and so on;
- Plan and establish community involvement at the beginning of a project. Don't add it as an afterthought so that the whole process has been scoped and defined as a fait accompli that communities can have little or no influence over;
- Attempt to ensure that the project design and aims can be shaped by community input. Not only does this engender goodwill, it respects people's interests and knowledge and promotes a collaborative approach early in the work;
- Respect intellectual property rights and the confidentiality of cultural information;
- Ensure face-to-face contact between government, researchers and community. Sending out draft reports, questionnaires and fliers will not be appropriate in the absence of direct contact;
- Do not expect community representatives to be able to express all of their concerns or views in general public meetings. This is inappropriate for a variety of reasons including people's desire to keep cultural knowledge confidential;
- Ensure equal representation of women and men as both groups will have different perspectives on heritage and land management issues as well as responsibility for different places (for example, gendered sites); and

- Produce reports and other products in formats that are suited to community interests and uses. Do not bury people in a mass of jargon and impenetrable documentation so that they have little chance of commenting on outcomes and feeding into decision making.

7.4 AN AWARENESS OF INTERACTION BETWEEN PLANNING AND SOCIAL IMPACTS

Planners need to be conscious of the fact that decision-making which stems from bioregional planning can have broad social impacts on Aboriginal communities. For example, a planning process which proposes a certain design and selection of reserves can lead to areas previously used for cultural purposes being subsumed within NPWS protected areas. This can restrict people's access to wild resources, teaching places and areas used for recreation and can generate a wide range of social impacts.

One way of dealing with this is to build social impact assessment into the bioregional planning. This assessment would explore the potential impacts proposed on community well-being, identity, health and economic status of the different conservation options which come out of the assessment. Importantly, this research should not be restricted to analysis of economic factors.

FURTHER READING AND REFERENCES

This Section was produced by Tony English and Robert Goodman of the NSW National Parks and Wildlife Service 2000.

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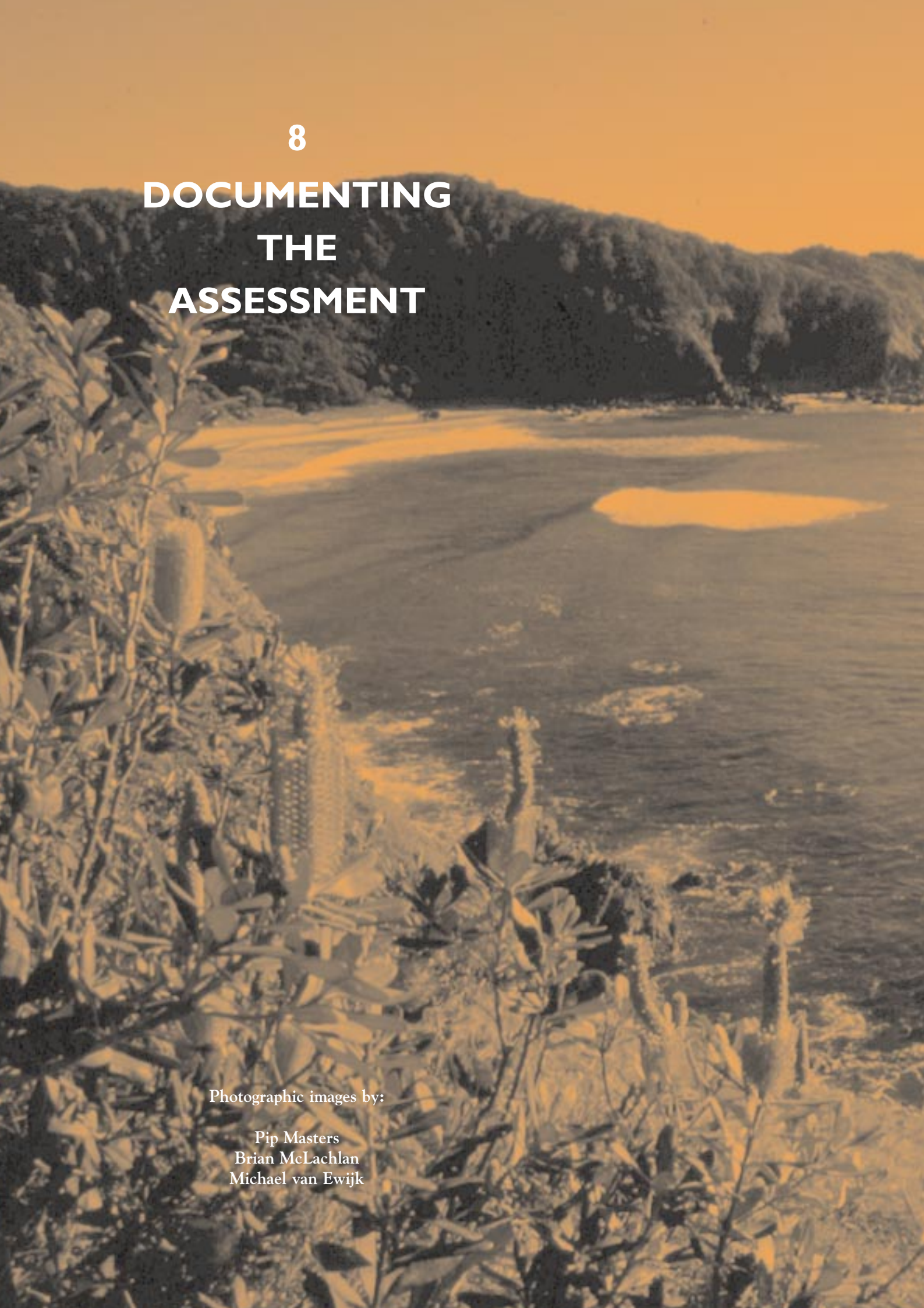
DOCUMENTING THE ASSESSMENT



Photographic images by:

Pip Masters
Brian McLachlan
Michael van Ewijk

8 DOCUMENTING THE ASSESSMENT

Documentation is one, but not the only important product of a bioregional conservation assessment.

8.1 PRODUCTS OF A BIOREGIONAL CONSERVATION ASSESSMENT

The products of a bioregional conservation assessment will include:

- A database which can be used to identify biodiversity and threats to biodiversity in the region at some scale and has the capacity to be updated with new information;
- A process for assessing sites with the data available in the region;
- An understanding of what the conservation targets for the bioregion should be;
- An assessment of how far the bioregional landscapes have moved towards or beyond landscape thresholds;
- Sites identified as necessary for meeting conservation targets;
- Areas where there may be more than one option to meet conservation targets;
- An understanding of what is already appropriately protected within the bioregion; and
- An assessment of future threats to biodiversity across the bioregion.

The products of a bioregional conservation assessment should be a current assessment (accompanied by maps), a database and a process for assessment of that database which can be periodically used as iterations are required. A documentation of the approach for review and future users is just as important. A checklist of basic documentation that should accompany this includes:

- Those involved in the assessment;
- Metadata (see Section 4);
- The measures of biodiversity (surrogate or otherwise), the confidence limits for this measure and consequently how they should be and were used in the assessment;
- Information on the known ecological requirements (for example, population viability, landscape thresholds) of the measures of biodiversity. This will be particularly important for species where species information is used to establish conservation targets (in fragmented and relict landscapes) and where species information is used to refine the biodiversity measure;
- Basic statistics on the distribution and conservation status of biodiversity (based on the biodiversity measure) in the bioregion;
- Catchment based (landscape) levels of habitat destruction;
- Subregional variations in the distribution of communities and their ecological processes (or surrogate);
- Natural patterns of size and distribution of the communities and their ecological processes (or surrogate);
- Key functional areas;

- Measures of the conservation status of communities and their ecological processes;
- The process for developing each stage of the conservation targets for the measures of biodiversity, including application of the precautionary principle where there are gaps in information;
- The basis for the assessment of threats and current conservation management including gaps in information;
- Identification of how priorities were assembled across the bioregion including the basis for decisions with the tools used and the range of choice in sites;
- Maps of final areas identified for conservation action, preferably including a map of relative choice and threat;
- Identification of how the collective assessment with any caveats on use can be used, including:
  - Grouping priorities into those that are unlikely to change;
  - Listing priorities that will change in the short to medium term with anticipated new information;
  - Recommending gaps or inconsistencies that need to be filled and rectified; and
  - Recommending a time scale for use of the bioregional conservation assessment or further actions.
- The final document should be peer reviewed.

8.2 FORMAL ACCEPTANCE AND ADOPTION OF BIOREGIONAL CONSERVATION ASSESSMENTS

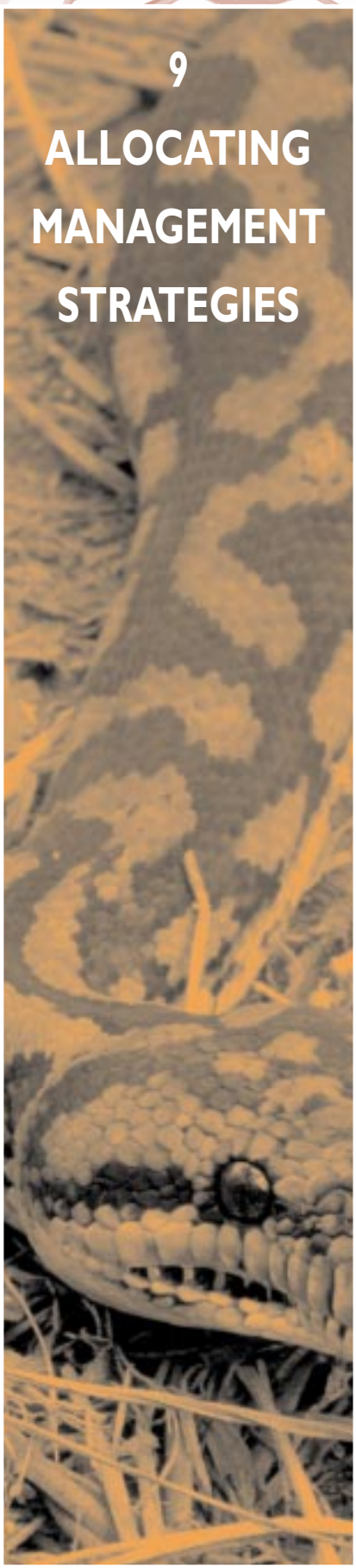
Currently the only formal acceptance of full bioregional conservation assessments in NSW has been via completion of contracts with the funding bodies and/or approval to disseminate documents. There are currently no processes established for accrediting bioregional conservation assessments in NSW such that the:

- Quality is accepted;
- Caveats on use are found to be acceptable;
- Information is documented and is required as a basis for further planning once it has been endorsed;
- Regular updating of the assessment is carried out at phases when substantial new information is anticipated;
- Process ensures all bioregions are assessed appropriately; and
- Process oversees and ensures that intra-bioregional planning deals with cross-border issues and with the integration of bioregional conservation assessments in cross-agency/cross-legislative planning.

9
ALLOCATING MANAGEMENT STRATEGIES

Photographic images by:

Mick Todd
Philip Green



9 ALLOCATING MANAGEMENT STRATEGIES

The most difficult element of conservation targets is their implementation. Many of the fundamental ecological principles upon which conservation assessment is based have been understood since the 1970s. The reasons for their non-application are primarily social. This section of the document can only hope to list and comment on the appropriate use of the management tools available in NSW so that we can engage in informed planning with bioregional stakeholders.

The goal of this Section is to highlight the tools we have available for implementing biodiversity conservation in NSW and to identify how these should ideally be allocated in a dynamic planning environment. We restrict our discussion to the first level allocation of appropriate management for different conservation situations and do not enter into a discussion on detailed site assessment/management nor how to undertake planning with other stakeholders.

9.1 WHAT MANAGEMENT TOOLS ARE AVAILABLE?

Appendices 10 to 13 provide a comparative table of the conservation management tools or mechanisms available in NSW. Appendix 14 provides the definitions and objectives of the International Union for the Conservation of Nature (IUCN) categories which are an internationally recognised classification of the objectives of different conservation mechanisms. It's important to note that many of these mechanisms are not specifically targeted at nature conservation and/or may include protection of, for example, cultural heritage.

The tools available for management are both wider and narrower than those presented in these Appendices. They are narrower in the sense that all mechanisms are not equally achievable, are under the jurisdiction of different organisations and will be resource limited. They are wider because at a local, State, national or international scale, policies, public opinion or conventions may be used to reinforce if not promote a particular type of management.

9.2 WHAT ROLE SHOULD A BIOREGIONAL CONSERVATION ASSESSMENT PLAY IN THE ALLOCATION OF LAND MANAGEMENT?

A bioregional conservation assessment will, on the basis of the best available information and application of ecological principles, recommend the management required to maintain and restore biological diversity within a bioregion. The assessment will not usually be able to make each recommendation with the same level of confidence and will therefore usually prioritise its recommendations on the basis of this level of confidence and identify actions which would improve the confidence levels. The assessment will not usually identify the necessary and often complex processes (that is environmental or natural resource planning activities) required to implement that conservation management.

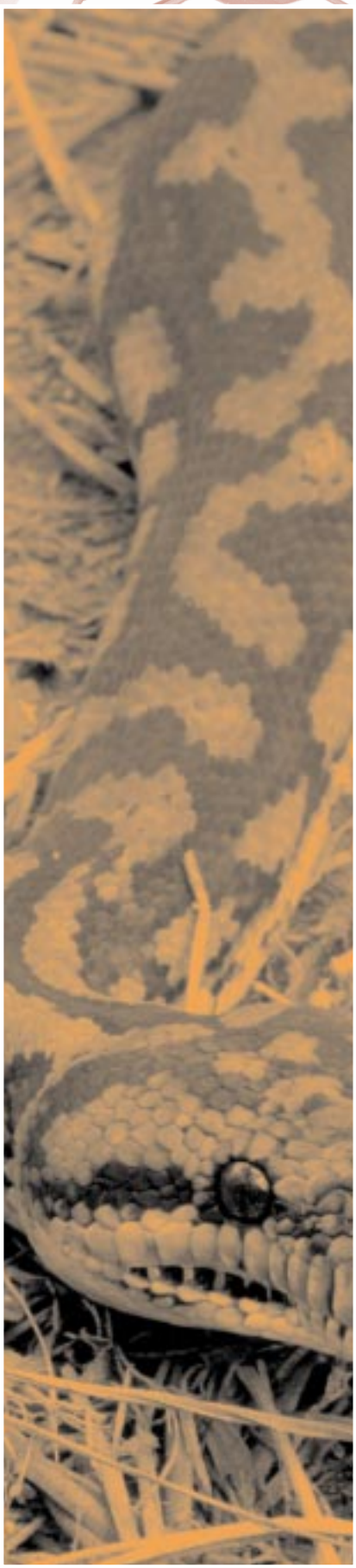
The role of a bioregional conservation assessment in promoting the application of a mix of management types within the bioregion will be to:

- Identify the current management practices in the bioregion usually by using land tenure as a surrogate for effectiveness of conservation of management;
- Identify the conservation status of each community and its ecological processes;
- Identify the levels of restoration or maintenance required at a landscape level within the bioregion; and
- Categorise the most appropriate management for each site including:
  - The level of confidence that the recommendation will not change with new information (Groves *et al.* 2000);
  - An assessment of the level of choice (irreplaceability) available for conserving each site;
  - An assessment of the vulnerability of each site to threats; and
  - Where possible the ideal management strategy for the communities occurring within the bioregion on the basis of documented ecological information, or ecological principles.

Sites are generally ranked from areas with lowest choice but higher threats and where data is of high confidence to areas with more choice, less threats and where there is less confidence in the data. That is the ranking is a merger based on the opportunity or lack of it to achieve conservation and the confidence in the data or risk of not acting on the available data

- High irreplaceability (low choice), high to medium vulnerability and high to medium confidence;
- Medium irreplaceability, high to medium vulnerability and high to medium confidence;
- High to medium irreplaceability, high to medium vulnerability, low confidence;
- High to medium irreplaceability, high to medium vulnerability, medium to high confidence;
- Low irreplaceability, low vulnerability, low to medium confidence; and
- Low irreplaceability, low vulnerability, high confidence.

Where high confidence information includes both ecological data at the community scale (supported by ecological studies) and coarse scale information where an improvement in the level of detail or gaps will not alter the result.



9.3 WORKING WITH OTHER REGIONAL ASSESSMENTS, REGIONAL PLANS AND BIOREGIONAL CONSERVATION ASSESSMENTS

Other regional assessments and plans will often be in place or may be happening concurrently. The most likely situations are where you will need to consider another assessment or think about how results are used in a different planning region or where:

- A bioregion crosses into an adjacent State;
- A regional plan crosses two bioregions which, because of data or other reasons, have been assessed differently; and
- Goals have already been legislated for the conservation or management of elements of biodiversity within the bioregion but which have not accounted for the full range of biodiversity. This latter cannot be dealt with here except to restate that because goals are difficult to achieve, the goals or targets should not be changed.

Where a bioregion crosses into an adjacent State it is recommended that contact be made with the appropriate adjoining State agencies in an endeavour to undertake a whole of bioregional conservation assessment. This may be as simple as obtaining access to data held for the bioregion in the other State or more complicated when a joint assessment is undertaken.

Where a regional plan crosses two bioregions which have been assessed slightly differently, you will need to consider how easily the results can be adapted. This should be done after contacting and preferably gaining the involvement of those undertaking the respective bioregional conservation assessments. It may be a matter of:

- Rescaling the assessment to similar size;
- Understanding that as long as the principles identified in this document have been followed using the best available data in each bioregion, the management priorities may still be recommended for the relevant section of each bioregion (along with any caveats on the use of each section of information); and
- Updating one or both bioregional conservation assessments in the unlikely event that information has substantially altered such that an improved layer of data (or reclassification of both bioregional data sets to a common layer) could be used for both bioregions, and resources and time are available.

9.4 RECOMMENDING MANAGEMENT STRATEGIES AND MECHANISMS

The application of an appropriate management regime to a site or at a landscape level will depend on the type/s of management required:

- To reduce the impact of exogenous disturbances (that is, disturbances a community has not been exposed to throughout evolutionary time);
- To retain or improve the spatial integrity of the community;
- To retain or increase species and habitat diversity; and

- To maintain or reinstate endogenous disturbance (that is, disturbances which a community has been repeatedly exposed through evolutionary time) regimes.

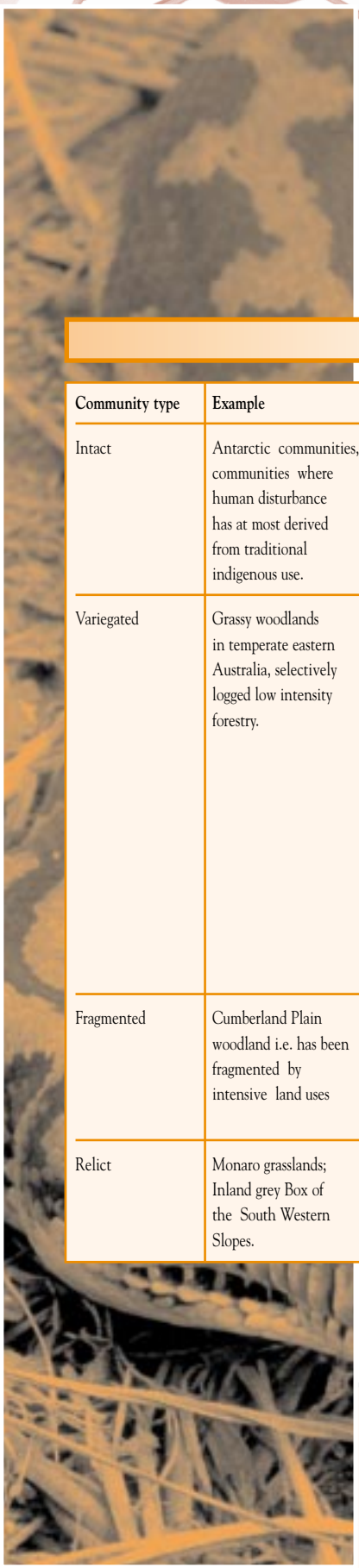
Matching the ideal management strategy to a site or across the bioregion entails examining the capacity of the management mechanisms to address these issues at the appropriate scale.

The following factors and principles guide the development of potential strategies and mechanisms at a landscape and site level:

- Always seek to improve the level of conservation of the entire bioregion and of individual sites (this can occur even though the need for land use other than conservation oriented management is self evident); Less secure mechanisms should be used not only when they are the most appropriate mechanisms (that is, targeted) but also when other forms of management cannot be achieved in the short term. They may start to reduce threats or restore environments and can build capacity for long term conservation within communities;.
- Low conservation security land management mechanisms are usually more dependent on the management style of individual landholders. As such, conservation land management under these mechanisms is more variable rather than necessarily less effective. The only difference may be that the management cannot be guaranteed in the long term;
- Land management mechanisms which require a plan of management have a greater chance of attracting more detailed site specific management;
- More than one strategy will usually be required to achieve implementation of conservation at a site and even regional level. These have been referred to as primary and secondary management strategies in Table 1 below; and
- Principles already outlined in Sections 2 and 7 for appropriate stakeholder involvement will be required to implement management. The recommendations and processes described in a bioregional conservation assessment form an information base for all stakeholders within the bioregion and may be a first step for discussions on regional plans in many areas.

Potential strategies should be listed and evaluated to consider the:

- Benefits accruing from the strategy (The Nature Conservancy 2000) in terms of the urgency for action (vulnerability), how it reduces threats, restores the viability or provides indirect benefits or leverage (The Nature Conservancy 2000) for further conservation effort from other groups in the bioregion;
- Feasibility and probability of success (The Nature Conservancy 2000) including identifying the leading person or team with the greatest chance of succeeding, the resources available, and those strategies which are, other things being equal, less complicated.



9.3.1 Examples of appropriate primary and secondary management strategies

Although each community will have its own specific management issues relating to its own intrinsic qualities (resilience to change and natural patterns of disturbance), it is useful to consider how conservation strategies could be applied to communities and ecosystems generally. These are identified in Table 1, presents an example of how conservation strategies could be applied based on overall patterns of comunities/ ecosystems in the landscape (after McIntyre *et al.* 1996).

Table 1 Adapted from McIntyre et al. 1996

Community type	Example	Priority	Example	Secondary strategies	Example/s
Intact	Antarctic communities, communities where human disturbance has at most derived from traditional indigenous use.	Protection, minimise direct effects of exogenous disturbance	Wilderness, Nature reserves, Reserves managed to protect the integrity of community from fragmentation	Control off-site disturbances (e.g. pollution); control invading species	National quarantine regulations, State pest management strategies, Climate change strategies
Variegated	Grassy woodlands in temperate eastern Australia, selectively logged low intensity forestry.	Maintain the integrity of the communities so that they continue to form the habitat matrix and retain the range of modification states that are adequate to support most (if not all) of the biotic community. Protect significant areas for conservation	National Parks/Nature Reserves, Reserves, conservation protection Voluntary Conservation Agreements etc accompanied by regional planning, forest management, education mechanisms which achieve restriction of clearing, or incorporate ranges of less intensive land use and wildlife protection at the farm or forest level.	Protection of individual species	Climate change strategies
Fragmented	Cumberland Plain woodland i.e. has been fragmented by intensive land uses	Rehabilitation, minimise and treat effects of exogenous disturbance (e.g. control exotic species)	Voluntary conservation agreements, national parks, Council reserves where intensive management is possible.	Buffer existing remnants from disturbances; extend area of remnants; increase connectivity	
Relict	Monaro grasslands; Inland grey Box of the South Western Slopes.	Reconstruction, recreate community around remnant species	Protect from exogenous disturbance; species reintroduction to increase diversity		

CASE STUDY

Developing conservation approaches for an ecoregional portfolio for the Southern Blue Ridge (after The Nature Conservancy and Southern Appalachian Forest Coalition 2000)

This case study follows on from information on the development of the ecoregional portfolio described in Section 3 of this Guide.

Sites in the Southern Blue Ridge ecoregion in the United States were assigned a conservation approach following an assessment of their ecological function and primary land ownership. Of 217 sites encompassing an area of 2,200,000 acres, 57 were functional landscapes and 160 functional sites were identified. 64% of the sites were publicly owned (primarily by the U.S. Forest Service and National Park Service). 36% was privately owned. The sites on public land represented almost half of the total public land and this bias was attributed to both the more natural conditions of the public land areas and administrative interest and accessibility. This ecoregion already had a higher percentage of public land than most other ecoregions in the United States.

Four conservation approaches were recommended:

Private lands functional site Small to medium size sites primarily privately owned where traditional protection tools such as acquisition and easements may be the optimal strategy.

Public lands functional site Small to medium size sites primarily on public lands where working with the public agency is the primary strategy. Ownership of land by a conservation entity may or may not be appropriate.

Community based functional site Large scale sites with a mix of private and public ownership where using the broad tools of community-based conservation may be the optimal strategy. Ownership of land by a conservation entity may or may not be appropriate.

Public lands partnership functional landscape site Large scale sites primarily managed by one or more public agencies with whom partnerships are forged to ensure the conservation of target species and communities. Ownership of land by a conservation entity may or may not be appropriate

A summary of conservation approaches, areas and current conservation involvement in each of these sites is shown in Appendix 15.

FURTHER READING AND REFERENCES

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