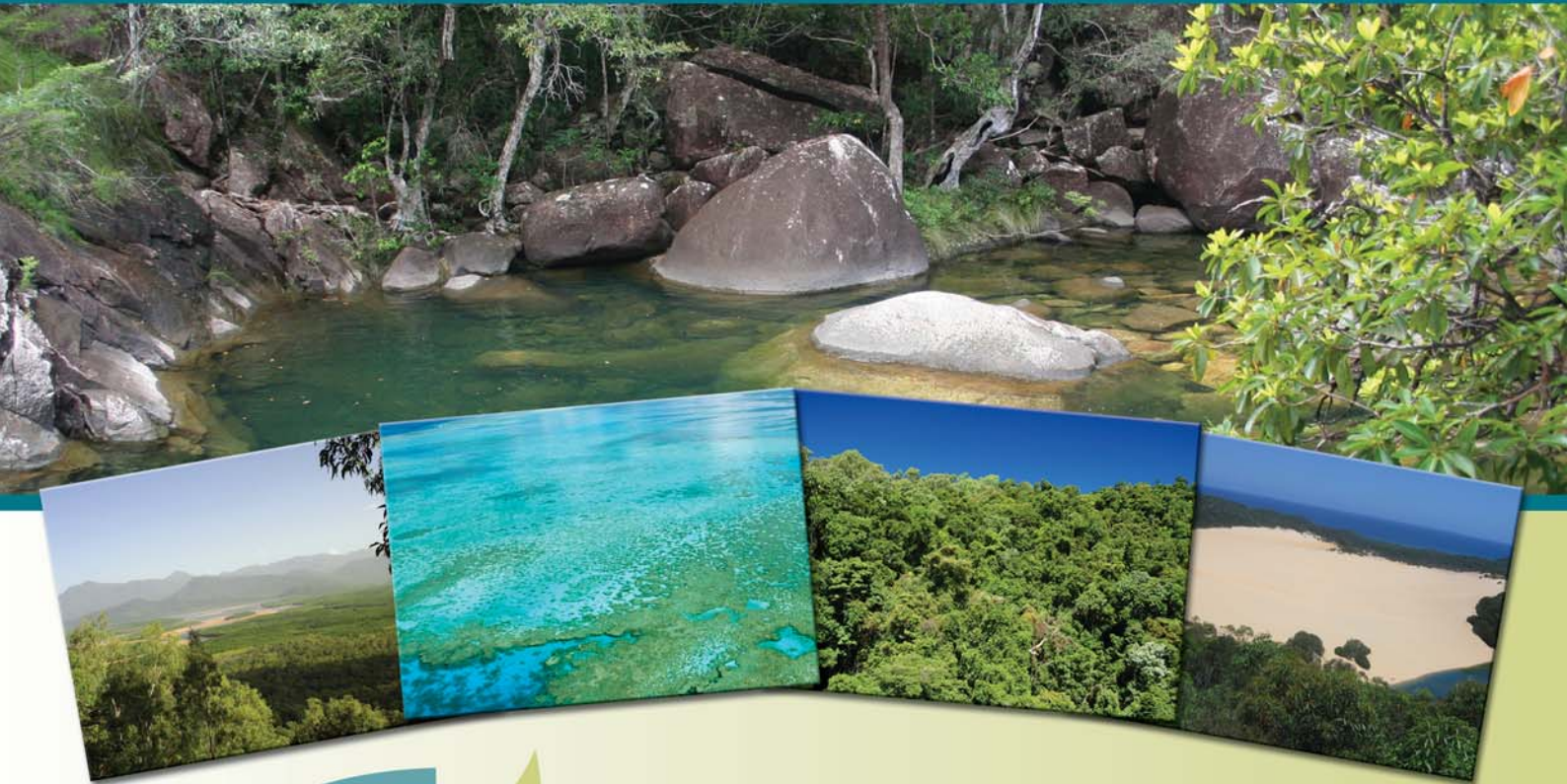




Marine and Tropical Sciences Research Facility

Cooperative Conservation: Beyond the Rhetoric

A report highlighting International Best Practice recommendations for World Heritage Protected Areas and identifying 'best practice' models and practical solutions that could be applied in the Wet Tropics



Jennifer A. Gabriel



Australian Government
Department of the Environment,
Water, Heritage and the Arts



JAMES COOK
UNIVERSITY
AUSTRALIA



Cooperative Conservation: Beyond the Rhetoric

A report highlighting International Best Practice
recommendations for World Heritage Protected Areas:
Identifying 'best practice' models and practical solutions
that could be applied in the Wet Tropics

Jennifer A. Gabriel

School of Anthropology, Archaeology and Sociology,
James Cook University, Cairns



Australian Government

**Department of the Environment
and Water Resources**

Supported by the Australian Government's
Marine and Tropical Sciences Research Facility
Project 4.9.1 Indigenous landscapes of the Wet Tropics World Heritage Area

© James Cook University.

ISBN 9781921359255

This report should be cited as:

Gabriel, J. A. (2007) *Cooperative Conservation: Beyond the Rhetoric. A report highlighting International Best Practice recommendations for World Heritage Protected Areas: Identifying 'best practice' models and practical solutions that could be applied in the Wet Tropics.* Report to the Marine and Tropical Sciences Research Facility. Reef and Rainforest Research Centre, Cairns (144pp.).

Published by the Reef and Rainforest Research Centre on behalf of the Australian Government's Marine and Tropical Sciences Research Facility.

The Australian Government's Marine and Tropical Sciences Research Facility (MTRSF) supports world-class, public good research. The MTRSF is a major initiative of the Australian Government, designed to ensure that Australia's environmental challenges are addressed in an innovative, collaborative and sustainable way. The MTRSF investment is managed by the Department of the Environment, Water, Heritage and the Arts (DEWHA), and is supplemented by substantial cash and in-kind investments from research providers and interested third parties. The Reef and Rainforest Research Centre Limited (RRRC) is contracted by DEWHA to provide program management and communications services for the MTRSF.

This publication is copyright. The Copyright Act 1968 permits fair dealing for study, research, information or educational purposes subject to inclusion of a sufficient acknowledgement of the source.

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Australian Government or the Minister for the Environment, Water, Heritage and The Arts.

While reasonable effort has been made to ensure that the contents of this publication are factually correct, the Commonwealth does not accept responsibility for the accuracy or completeness of the contents, and shall not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on, the contents of this publication.

This report is available for download from the Reef and Rainforest Research Centre Limited website:
http://www.rrrc.org.au/publications/research_reports.html



Report completed February 2007
Published by RRRC February 2009
Report cover, report layout and editing: Shannon Hogan.

Contents

Acronyms Used In This Report	iii
Acknowledgements	v
Executive Summary	1
Introduction	3
Structure of the Report	3
Aim of the Report	4
Limits of the Data	4
Background Theory and Debates	5
1. Protected Area Management: A Brief Overview	5
1.1 UNESCO and World Heritage	6
1.2 Management Categories for Protected Areas	6
1.3 Protected Area Governance	7
1.4 Changes to World Heritage Criteria	7
2. Australia and World Heritage: A Brief Overview	8
2.1 Legislative Guidelines in Australian ‘Protected Areas’	8
2.2 Commonwealth and Indigenous Partnerships in Heritage Protection	9
2.3 Australian Conservation and Native Title	11
2.4 Sharing Protected Area Management in Australia	12
2.5 Australian Protected Area Classifications	12
2.6 Types of Shared Management	13
2.7 Reserves and Indigenous Co-management	14
2.8 Benefits of Shared Park Management	15
2.9 Three Indigenous Community Perspectives on Shared Management	16
3. International Policies and Resolutions	17
3.1 The Legacy and Restitution of Rights within Protected Areas	17
4. Paradigm Shifts in Protected Area Management	18
4.1 Recommendation 5.17: Supporting a Diversity of Governance Types	19
4.2 Recommendation 5.24: Indigenous People and Protected Areas	20
4.3 Recommendation 5.25: Co-Management of Protected Areas	21
4.4 Recommendation 5.26: Community Conserved Areas (CCAs)	22
4.5 Recommendation 5.29: Poverty and Protected Areas	24
Summary	25
Dja Biosphere Reserve, Cameroon	27
Okapi Faunal Reserve, Democratic Republic of Congo	32
Mamirauá Sustainable Development Reserve, Brazil	37
Rio Platano Biosphere Reserve, Honduras	48
Lorentz National Park, Indonesia	61
Gunong Mulu, Malaysia	68
Kakadu National Park, Australia	73
Uluru-Kata Tjuta National Park, Australia	89
Great Barrier Reef Marine Park, Australia	97
Wet Tropics, Australia	104

Summary of Key Findings	116
7.1 Practical Insights.....	117
7.2 Lessons Learnt from Governance and Legislation Issues.....	118
7.3 Ecotourism.....	119
7.4 The Role of NGOs in Community Conservation	119
7.5 Co-Management and Indigenous NGOs	120
7.6 Mapping as a Mechanism for Policy Change	121
7.7 WTWHA – Cooperative Management	122
7.8 Canada’s National Parks	122
7.9 Policy Impediments.....	123
7.10 Summary Statement	124
Recommendations for Further Research	125
References	126

Acronyms Used In This Report

AIMS.....	Australian Institute of Marine Science
ARC.....	Aboriginal Rainforest Council
CBD.....	Convention on Biological Diversity
CCAs.....	Community Conserved Areas
CFCU.....	Caring for Country Unity
CED.....	Centre for Environment and Development
CEESP.....	IUCN Commission on Environmental, Economic and Social Policy
CIEL.....	Centre for International Environmental Law
CMPAs.....	Co-managed Protected Areas
COHDEFOR.....	Honduran Forestry Development Corporation
CLC.....	Central Land Council
CNRM.....	Cultural and Natural Resource Management
CPCLs.....	Permanent Local Consultation Committee
DAPVS.....	Department of Protected Areas and Wildlife (Honduras)
DEH.....	Commonwealth Department of the Environment and Heritage
DFID.....	Department for International Development
DNRM.....	Queensland Department of Natural Resources and Mines
DOGIT.....	Deed of Grant in Trust
DRC.....	Democratic Republic of Congo
ECNT.....	Environment Nature Conservation and Tourism
ECOFAC.....	Central African Forestry Ecosystems
EIS.....	Environmental Impact Assessment
EPA.....	Queensland Environmental Protection Authority
EPBC Act.....	Environment Protection and Biodiversity Conservation Act
FPP.....	Forest Peoples Programme
GBRMP.....	Great Barrier Reef Marine Park
GBRMPA.....	Great Barrier Reef Marine Park Authority
GBRWHA.....	Great Barrier Reef World Heritage Area
GIC.....	Gillman Investment Company
GIS.....	Global Information Systems
GPS.....	Global Positioning System
GTZ.....	German Society for Technical Cooperation
IBAMA.....	Brazilian Institute of Environmental and Renewable Resources
ICDPs.....	Integrated Conservation Development Projects
ILUA.....	Indigenous Land Use Agreement
IPAs.....	Indigenous Protected Areas
IPAAM.....	Amazonas Institute for Environmental Protection
IPULA.....	Indigenous Policy and Liaison Unit
IRCS.....	Inuit Regional Conservation Strategy
INF.....	Interim Negotiating Forum
IUCN.....	The World Conservation Union
IZCN.....	Institute for the Conservation of Nature

JNP	Jau National Park
KWF	German Development Bank
KNP	Kakadu National Park
KNPDMP	Kakadu National Park Management Plan
KWHID	Kakadu World Heritage in Danger
MA	Management Agreements
MAB	Man and Biosphere Programme
MLC	Mulu Liaison Committee
MOPAWI	Honduran <i>Mosquitia Pawis</i> (Indigenous NGO)
MOU	Memorandum of Understanding
MST	Ministry of Science and Technology (Brazil)
MSDR	Mamiraua Sustainable Development Reserve
MTP	Mulu Tourism Committee
MTSRF	Marine and Tropical Sciences Research Facility
MWC	Mulu Working Committee
NAILSMA	North Australian Indigenous Land/Sea Management Alliance
NBSAP	National Biodiversity Strategy Action Plan (Cameroon)
NFP	National Forestry Policy (Malaysia)
NGOs	Non-Government Organisations
NLC	Northern Land Council
NNTT	National Native Title Tribunal
NT	Northern Territory
NRM	Natural Resource Management
NRS	National Reserve System
NSW	New South Wales
NTA	Native Title Act
PAs	Protected Areas
PER	Public Environment Review
PRA	Participatory Rural Appraisal
QIWG	Queensland Indigenous Working Group
QLD	Queensland
QPWS	Queensland Parks and Wildlife Service
RPBR	Rio Platano Biosphere Reserve
PZM	Participatory Zoning and Management
RAAC	Rainforest Aboriginal Advisory Committee
RENARE	Secretariat of Renewable Resources
RFO	Royal Faunal Reserve
SCM	Sociedade Civil Mamiraua
SDR	Sustainable Development Reserve
SEDC	Sarawak Economic Development Corporation
TFUK	Tearfund of UK – a Christian NGO
TILCEPA	Theme on Indigenous and Local Communities Equity and Protected Areas
TNC	The Nature Conservancy
UNDP	United Nations Development Program

UNESCO United Nations Educational, Scientific and Cultural Organisation
USDOI United States Department of the Interior
WCPA World Commission on Protected Areas
WPC World Parks Congress
WTMA Wet Tropics Management Authority
WTWHA Wet Tropics World Heritage Area
WWF World Wildlife Fund

Acknowledgements

This report was funded by the Marine and Tropical Sciences Research Facility's Project 4.9.1 *Indigenous landscapes of the Wet Tropics World Heritage Area*.

Grateful acknowledgements are extended to Rosemary Hill, Michael Wood and Bruce White for their valuable assistance.

Executive Summary

The effective management of World Heritage sites is dependent on implementing a range of governance options that best addresses the conservation of ecosystems in tandem with the rights of Indigenous communities to fully participate in all stages of design, planning and implementation of conservation initiatives. The primary challenge lies in supporting co-management and community-based conservation initiatives and frameworks with policies, funding, and legislative institutions that sustain rather than constrain Indigenous conservation management practices.

In the last decade there have been significant developments in international conservation policy and practice; including a move away from viewing sites as isolated protected areas, to conceptualising conservation zones within larger-scale units of analysis. This paradigm shift has generated new opportunities and challenges for the co-management of conservation 'landscapes' and 'seascapes', based on the rights, institutions and knowledge of Indigenous and traditional peoples. The shift from considering conservation zones as discreetly bounded sites to a broader recognition of their contiguous relationship with regional landscapes and seascapes, has been accompanied by awareness that new forms of governance, policies and protocols are required to address conservation objectives at multiple levels. In particular, recognising alternative forms of governance and participatory management models, such as Community Conserved Areas (CCAs) or Indigenous Protected Areas (IPAs), as legitimate forms of conservation management has become an international priority.

Initiatives focusing on more equitable and effective models of co-management have become the cornerstone of 'best practice' conservation, not just in terms of capacity-building for Indigenous communities, but also for building 'resilience' into ecosystems. Since 2003, the IUCN has been active in promoting the legitimacy of community-based forms of governance through 'collaborative protected area management' (or conservation partnerships) supporting Indigenous community rights and social structures.

For the effective governance of World Heritage sites, co-management (or 'cooperative management') offers flexible possibilities for negotiating a balance between the conservation of World Heritage values and the formal recognition and realization of Indigenous common property rights and responsibilities toward the protection of both cultural and natural values. Co-management of World Heritage sites requires the establishment of equitable partnerships amongst stakeholders, taking into consideration site-specific requirements and capacities of all stakeholders. Equitable relationships are based on an equal capacity to contribute to decision-making processes, with recognition of different ways of representing interests, priorities, capacities and ambitions.

A 'partnership approach' to protected area governance requires not only the provision of adequate legislative and funding sources, but ensuring that formal conservation agreements are reinforced through 'bridging' mechanisms and protocols between Traditional Owners, non-governmental organisations, funding institutions, and state and federal governments.

In the Wet Tropics World Heritage Area, after many years of persistence and purposefulness, the rainforest Aboriginal groups of the area (Traditional Owners) successfully negotiated a regional ('protocol') agreement between state, Indigenous stakeholders and conservation organisations. The Regional Agreement was implemented in 2005 as a ministerially approved mandate to pursue Aboriginal cultural and natural resource management. As Bruce White (pers. comm. 2007) has highlighted; 'the key stone of the [Regional] Agreement is a Memorandum of Understanding creating a single Aboriginal natural and resource management agency (Aboriginal Rainforest Council) and a whole raft of

protocols crossing policy, planning, and operational natural resource management matters, within which the Aboriginal Rainforest Council plays a critical role instituting within World Heritage Area management practice’.

Importantly, whilst the Regional Agreement may not be a legally binding and enforceable agreement of the kind that may have originally been envisaged (by the Aboriginal participants on the Review Steering Committee and the Aboriginal negotiating team), Bruce White (pers. comm. 2007) makes the point that it has the advantage of being ‘relatively far reaching in its coverage of all management activities for the World Heritage Area’, and is flexible, responsive, and readily adaptable to recommendations and lessons learnt from annual reviews. Annual reviews are facilitated through a regional workshop open to all agencies and Aboriginal peoples of the Wet Tropics, encouraging the participation and ‘celebration’ of the Agreement (Bruce White pers comm. 2007). If we draw upon Dover’s five core principles for successful adaptive and innovative frameworks (cited in Hill 2006:581), it is evident that: (1) persistence; (2) purposefulness; (3) information richness and sensitivity; (4) inclusiveness and (5) flexibility are all qualities exemplified in the Wet Tropic Regional Agreement and its natural and resource management agency, the Aboriginal Rainforest Council (ARC). These core principles and flexible mechanisms for ecosystem management in the Wet Tropics Region provide a legitimate form of co-operative management that needs to be sustained, funded and supported by state and federal governments for the future benefit of the Wet Tropics Region and the fulfilment of ‘best-practice’ guidelines requiring the meaningful participation of Aboriginal people in all areas of world heritage management.

Introduction

Structure of the Report

The first part of this report considers contemporary literature on protected area governance and highlights best practice recommendations for Indigenous cooperative arrangements within World Heritage sites.

These topics establish the guidelines for 'best practice' models of Indigenous management and resource use in protected areas globally, and in Australia. The chapters provide an outline of specific areas of relevance, beginning with background to the World Heritage Convention through to contemporary approaches to protected area management. The aim of this section is to provide a summary of debates and recommendations on a wide range of issues related to the governance of World Heritage sites, highlighting the recommended criteria for establishing 'best practice' co-management according to the IUCN.

The second part of the report provides an overview of Indigenous resource use, policy, impediments, and management arrangements in ten 'natural' World Heritage sites in Australia and internationally. Key themes explored in each case study include:

- Site specific details, such as listing criteria, size and geographical location;
- Political and institutional context;
- Key legislation;
- Indigenous stakeholders;
- Mechanisms for co-operative management;
- Resource-use rights and constraints;
- Funding considerations;
- NGO involvement; and
- Useful insights.

Each case study provides site details and descriptive accounts of project particulars related to the abovementioned categories.

Drawing upon the 'lessons learnt', the final section identifies effective principles for delivering maximum conservation benefits through socio-cultural frameworks and Indigenous governance models. The report concludes with recommendations for further research.

Aim of the Report

The aim of this report is to contribute knowledge to Indigenous groups, government departments and other parties about issues related to the governance (co-management) of World Heritage 'natural' sites in Australia and internationally. An associated goal is to provide an overview of World Heritage 'best practice' definitions and recommendations. Highlighting co-operative partnerships with Indigenous communities from a range of sites internationally, the report identifies principles and practical applications that may be compatible with the Wet Tropics World Heritage Area.

Drawing upon best practice recommendations developed collaboratively by scientists, conservation groups and Indigenous representatives at the IUCN's Fifth World Parks Congress in Durban in 2003, the goal of this report is to identify actual mechanisms and frameworks that deliver maximum benefits to communities, whilst providing the highest levels of protection to World Heritage sites. Through a comparative analysis of World Heritage 'natural' sites, the report highlights governance frameworks that provide support for community authority and social systems within tropical forested sites identified as having 'universally significant 'natural' heritage values.

Limits of the Data

The main constraint on this desktop survey is not the availability of literature highlighting the socio-economic and conservation benefits of collaborative and participatory management (see Lockwood *et al.* 2006; TILCEPA 2004; Inglis *et al.* 2005; Folke and Maler 1996; Folke and Kaberger 1991), but the limitations in obtaining up-to-date management plans and ethnographically detailed data on World Heritage sites internationally. Management plans for World Heritage sites in Indonesia, Malaysia, Africa and South America are not readily available for public access, however, conservation and social-rights advocates such as WWF, Forests People Programme, and other international donors and interested parties have produced periodic reports on capacity-building initiatives and conservation efforts in targeted sites globally. The availability of this data was one of the guiding principles for the sites selected. The other criteria defining case-study selection was the existence of tropical (forested) ecosystems and Indigenous resource-use. While only two of the sites internationally demonstrated real co-management and capacity-building outcomes to date (Honduras and Brazil), the remaining case-studies provide examples of 'enabling initiatives' such as community mapping programs and collaborative relationships between Indigenous and conservation NGOs, focused on long-term policy change.

This report does not attempt to give an in-depth account of policies, negotiations, meetings and internal politics, but provides a broad overview of governance types, Indigenous stakeholders and institutional contexts in a range of comparative world heritage sites, highlighting processes and strategies contributing to collaborative and participatory management models. The overall impression gleaned from this comparative study is that while government agencies and park managers speak the rhetoric of participatory management, there are many missed opportunities to truly represent 'best practice' through more inclusive and decentralized approaches to world heritage conservation management. While there is still a long way to go in terms of meeting best practice standards in ecological management, the classic 'fences' approach to conservation is being fundamentally challenged by a growing awareness of the need to put people *back* into protected areas.

Background Theory and Debates

This section provides an overview of World Heritage management; categories of protected areas; debates on protected area governance; changes to world heritage criteria and paradigm shifts in world heritage management. It establishes the global framework and international approaches to the protection of natural *and* cultural values considered to be of 'universal significance.

1. *Protected Area Management: A Brief Overview*

Given that the broader goal of protected area conservation is to *preserve* biodiversity, the paradox is that the appropriation and control over space actually contributes to *changing* the environment (Roper 2000:61).

The first park to be protected under any form of legislation was Yellowstone National Park, zoned in the United States in 1872. The Yellowstone model of conservation prohibited hunters, loggers, miners, local communities, and Indigenous people from any involvement in park management or traditional land-use practices. This form of centralised and exclusionary conservation continued to define protected park management for most of the 20th Century (Lockwood *et al.* 2006:67). The Yellowstone approach to protected parks was based on the view that isolating large areas from human 'interference' would preserve nature's *pristine* state. Studies have shown, however, that the practice of removing and relocating inhabitants and resource-users leads to environmental change, 'not only *despite* the creation of protected areas, but 'as a *consequence* of it' (Roper 2000:61). It is now widely accepted that the 'classic' model of protected area conservation (the isolation of large areas in order to preserve 'pristine' nature from human interference), not only leads to environmental changes, but also creates serious conflicts with local people.

Since the 1980s the importance of local users, either for the success or failure of protected areas, has been widely established. One of the most significant changes has been the adoption of a social-ecological approach to protected areas, whereby sites are conceptualised within the context of contiguous landscapes and seascapes, rather than as individual 'islands'. Importantly, this shift requires protected area governance to take into account broader processes of economic development, including land/water use, global change, political/social and cultural contexts. The social-ecological approach to protected area governance argues that:

"They [parks] must be governed in ways that recognise the rights, needs and aspirations of local communities and Indigenous peoples, as well as the values ascribed to them by people from around the world. Sustainable use of resources from some types of protected areas, and exclusion of such uses from others, is an important part of this mix." (Lockwood *et al.* 2006: xxv).

Lockwood and others (2006:67) highlight that a social-ecological approach to conservation involves:

- Greater scientific awareness of the role of humans in shaping environments and landscapes;
- Greater awareness of the social and cultural aspects of Indigenous communities;
- Acknowledgement of human rights, particularly regarding Indigenous people, local communities, women and minorities;

- Recognition of multicultural perspectives involving protected areas and their management; and
- Recognition of peoples rights to participate in decisions affecting them.

1.1 UNESCO and World Heritage

The IUCN’s definition of a protected area is:

“An area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means.” (IUCN Best Practice Area Guidelines Series No.11:14)

UNESCO’s conservation mission is to identify, protect and preserve cultural and natural heritage around the world considered to be of universal value (Hawkins 2004: 294). As part of this mission UNESCO adopted the *Convention Concerning the Protection of the World Cultural and Natural Heritage* on 16 November 1972, during its seventeenth session in Paris. The criterion of outstanding *universal* values provides the distinction from sites of National Heritage (IUCN).

The Convention maintains the *World Heritage List* and oversees heritage protection through its *Operational Guidelines*. Nominations are evaluated on their “historical, aesthetic, archaeological, scientific, ethno-logical or anthropological value” (Hawkins 2004: 294). Natural heritage sites must be ‘outstanding physical, biological, and geographic formation, habitats of threatened species of animals and plants and areas with scientific, conservation, or aesthetic value’ (IUCN cited in Hawkins 2004: 294). Once classified, World Heritage Sites are allocated one of six management categories, based upon the primary objective of the area.

1.2 Management Categories for Protected Areas

Table 1: IUCN Protected Area categories and definitions.

Category 1a	Strict Nature Reserve: <i>Managed mainly for science.</i>
Category 1b	Wilderness Area: Managed mainly for wilderness protection.
Category II	National Park: Managed mainly for ecosystems protection and recreation.
Category III	Natural Monument: Managed mainly for conservation of specific natural features.
Category IV	Habitat/Species Management Area: Managed mainly for conservation and recreation.
Category V	Protected Landscape/Seascape: Managed mainly for landscape/seascape conservation and recreation.
Category VI	Managed Resources Protected Area: Managed mainly for the sustainable use of natural ecosystems.

It is important to note that IUCN protected area definitions and associated management categories are not prescriptive in types of ownership or management authority. In other words, protected areas in any of the six categories can be owned or managed by communities, private parties, government authorities, NGOs or various combinations of these.

“Also, private ownership and customary community rights can coexist with the status of protected area, although an official declaration may impose some

restrictions and obligations.” (IUCN Best Practice Area Guidelines Series No.11:15)

The IUCN approach toward flexible management, whereby the objectives of each management category can be achieved with the presence of human activities (either living within or adjacent to the protected area) is a contemporary approach endorsed both by the Fifth World Parks Congress and the Seventh Conference of Parties of the Convention of Biological Diversity. Both approaches call for management approaches that are carefully tailored to their ecological and social context (IUCN Best Practice Area Guidelines Series No.11:16). These governance types are detailed in *Chapter Four: Paradigm Shifts*.

1.3 Protected Area Governance

In relation to the governance of Protected Areas, the IUCN recognises that a diversity of complex processes and institutional mechanisms are needed to share management authority and responsibility between government agencies, representative of Indigenous communities, user associations, private entrepreneurs and land-owners. The collaboration required for a multi-user management model provides a basis for co-management (or ‘joint management’), whereby decisions are based upon consensus through various actors sitting on management boards. Distinct forms of co-management may also be developed in response to particular circumstances where the actors recognise the legitimacy of their respective entitlements to manage the protected area and agree on specific conservation objectives (IUCN Best Practice Area Guidelines Series No.11:22). These are elaborated in *Chapter Four: Paradigm Shifts*.

1.4 Changes to World Heritage Criteria

Prior to 1990, Article 1 of the World Heritage *Operational Guidelines for the Implementation of the World Heritage Convention* set out a very open definition of ‘cultural heritage’ (“monuments”, “groups of buildings” and “sites”). However, while the criteria for “sites” includes a specific reference to the “combined works of nature and man” (which allows for the inclusion of cultural landscapes and extended serial sites), the *Operational Guidelines* placed an emphasis on civilisations which have disappeared, and in effect, privileged a European heritage while excluding others. In December 1992 the World Heritage Committee modified the criteria for World Heritage Listing and incorporated guidelines for cultural landscapes within their *Operational Guidelines*. Within the Committee’s broad definition of cultural landscapes as “combined works of man and nature” the World Heritage Committee adopted three categories of cultural landscapes:

- The clearly defined landscape designed and created intentionally by man;
- The organically evolved landscape whether a relic or fossil landscape or continuing landscape; and
- The associate cultural landscape.

In adopting the ‘cultural landscapes’ category, the Convention also incorporated the concept of ‘intangible cultural heritage’, signalling a shift toward new concepts of cultural heritage beyond the concept of isolated and discrete monuments and sites. This shift from bounded and restricted concepts of heritage was part of the primary objectives of the 1994 *Global Strategy for a Balanced, Representative and Credible World Heritage List*.

Since 2005, the ‘Operational Guidelines (UNESCO 2005) for World Heritage Assessment of ‘outstanding universal value’ have merged the six ‘cultural’ criteria and four ‘natural’ criteria to form a unified set of ten classifications. As of 2007, the World Heritage List included 830 properties that the World Heritage Committee considers to be of outstanding universal value.

Of these, 644 are classified as 'cultural', 162 'natural' and 24 'mixed' properties throughout 138 States (UNESCO).

2. Australia and World Heritage: A Brief Overview

In August 1974 Australia became one of the first countries to ratify the World Heritage Convention, which came into force in 1975. By 2001, some 26 years since its inception, 170 countries had become State Parties to the Convention, touted as 'the most successful global instrument for the protection of cultural and natural heritage' (Department of the Environment and Water Resources)¹.

Much of the cultural heritage of Australia is characterised by living traditions, which prior to 1992, could only meet World Heritage criteria through evidence of 'interaction' as a 'natural place'. Following the ICOMOS and World Heritage Centre 'expert meeting' in 1992, recommendations for significant changes in cultural criteria led to the adoption of cultural landscapes as a distinct type of category. The 'cultural landscapes' category recognises; as Morphy has argued, that landscapes are "part of the way in which adaptive relations between people and land have been maintained" (Morphy 1993:206). Under Convention guidelines, 'mixed' criteria evidences the existence of both cultural and heritage values but does not demonstrate interactions between both. Rather it recognises the existence of both cultural and natural heritage in the same location. Evaluations for 'mixed' listings require two completely separate sets of criteria. The new category of 'cultural landscapes' assesses natural and cultural values through a single assessment. This is particularly suitable for Australian 'living landscapes'.

2.1 Legislative Guidelines in Australian 'Protected Areas'

In Australia, the Commonwealth legislative instrument regulating the protection of the environment is the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. Commenced on 16 July 2000, the Act replaced:

- *Environment Protection (Impact of Proposals) Act 1974*;
- *Endangered Species Protection Act 1992*;
- *National Parks and Wildlife Conservation Act 1975*;
- *World Heritage Properties Conservation Act 1983*; and
- *Whale Protection Act 1980*.

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* regulates the management of biodiversity conservation, which includes 'the protection and management of protected areas including Commonwealth reserves (national parks), World Heritage Properties, Ramsar wetlands and Biosphere reserves' (Department of the Environment and Heritage)². Prior to nominating a World Heritage Property for inclusion on the World Heritage List, the Act requires Commonwealth Governments to consult relevant States and parties of interest and use, and (to its best endeavours), prepare and implement management plans. The Act states that the principles of ecological sustainable development must incorporate decision making processes that 'effectively integrate both long-term and short-term economic, environmental, social and equitable decisions' (Department of the

¹ <http://www.environment.gov.au/heritage/worldheritage/convention.html>

² "An Overview of the Environment Protection and Biodiversity Conservation Act", Department of the Environment and Heritage, Environment Australia: <http://www.environment.gov.au/epbc/publications/pubs/overview.pdf>

Environment and Heritage). Through bilateral Agreements, the Act allows the Commonwealth to delegate responsibility for environmental assessments to 'State processes and systems' as long as the State meets Accreditation (best practice) requirements. In more limited circumstances, bilateral agreements allow States to grant environmental approvals under the Act. Amongst other matters, bilateral agreements under the Act also deal with management plans for World Heritage properties, overseeing co-operation, monitoring, enforcement etc (Department of the Environment and Heritage).

Legislation governing national parks, conservation areas and other reserves requires (1) a board of management; and (2) a management committee, trustee/trustees. In most instances committees and trustees are appointed by the government (although many committees have powers to add new members). Although independent of the government, their ultimate responsibility is to manage the land on behalf of the government, (representing the Australian or Queensland community as a whole). As the Queensland community, along with Indigenous people, has a direct stake in how management is carried out, they represent the other stakeholder in negotiations towards shared management agreements. Additionally, the local community and conservation groups, tourism operators, and national policy groups (such as the Australian Conservation Foundation and the National Trust) have an important stake in the long term success of management arrangements. A program of consultation and information-giving is therefore critical to garner wide support for the negotiation process and subsequent outcomes of management process (Hayes 2006:11).

In Queensland, the agency responsible for implementing environmental conservation legislation, the *National Parks and Wildlife Service* (an arm of the Environmental Protection Agency), retains ultimate control over funding and legislation application and ensures that the agency's policies are reflected in final agreements. Managers, administrative support workers, rangers etc are generally employees of the National Parks and Wildlife Service (Hayes 2006:12). Other Queensland government agencies with interests in various aspects of park management include:

- The Department of Natural Resources and Mines (which has responsibility for Indigenous heritage and Native Title issues);
- The Department of Aboriginal and Torres Strait Islander Policy (with responsibility for general policy regarding Indigenous people);
- Departments of Primary Industries, Local Government and Planning;
- Main Roads, Premier and Cabinet, and the Attorney-General's office;
- Commonwealth government agencies, such as the Department of the Environment and Heritage, the Department of Agriculture, Forestry and Fisheries; and
- The National Native Title Tribunal and the Office of Indigenous Policy Coordination.

In Queensland, protected area management falls under the jurisdiction of the Queensland Parks and Wildlife Service (QPWS) on behalf of the Environment Minister. Protected zones in Queensland's marine areas are covered under the *Marine Parks Act 2004* (Queensland), which provides for the establishment of marine parks. Marine Parks are managed by zoning and management plans, and require the 'cooperative involvement of public authorities and other interested groups and persons, including members of Aboriginal and Torres Strait Islander communities' (Hayes 2006:2-3).

2.2 Commonwealth and Indigenous Partnerships in Heritage Protection

In 1990 the Commonwealth Government developed best practice standards for conservation of Indigenous cultural heritage places. The '*Draft Guidelines for the Protection, Management and Use of Aboriginal and Torres Strait Islander Heritage Place*' were consistent with the

Burra Charter and the Australian Natural Heritage Charter. In 2000, the Australian Heritage Commission, together with an Indigenous Focus Group assisted with the revision and rewriting of the Draft Guidelines, which resulted in a new draft titled, '*Respecting Indigenous Heritage Places: A practical guide*'. The Australian Heritage Commission acknowledges that 'the current *Draft Guidelines* are also long and difficult to use, and while they promote consultation they do not necessarily encourage active management of places by Indigenous people' (Natural and Cultural Heritage Theme Report 2001).

In relation to meaningful Indigenous participation in heritage management, the Department of the Environment and Heritage (2001a) acknowledges:

'Evidence would suggest that most funding agencies have a policy of Indigenous consultation or referral, relating to Indigenous Heritage Management, but in reality there is probably quite a difference in the degree of meaningful involvement between communities and/or jurisdictions.' (DEH 2001)

In 2003 the World Commission for Protected Areas (WCPA)³ identified challenges to world conservation and park management in Australia and New Zealand. Key issues for the region included 'developing relationships with Indigenous people, matters of sustainable use, achieving sustainable financing for protected areas, measuring management effectiveness and the development of a comprehensive terrestrial and marine protected area system' (Inglis, Whitelaw and Pearlman 2005:2). The WCPA (2003) report also highlighted that the haste to prepare and implement plans often meant that areas requiring improvement, such as the effective involvement of Indigenous people, were sometimes overlooked (Inglis *et al.* 2005:1).

The Commonwealth model of 'co-management' (or 'joint management) in protected areas is distinguished by the following features:

- Title to Aboriginal land is returned to its Traditional Owners and the land is leased back for a defined (99) years for management as a national park;
- Traditional Owners are paid rent and other fees in recognition of the land's use for conservation and public benefit;
- Leases provide for ceremonial and traditional hunting practices by Traditional Owners and oblige the Department of the Environment and Water Resources to provide employment and other economic opportunities;
- Lease agreements require the Director of national parks to take all practical steps to promote Aboriginal administration, management and control of the park;
- A Board of Management on which Traditional Owners of their Aboriginal representatives form the majority directs management of the park; and
- The role of the Board is set out in legislation and includes the preparation of plans of management, determination of policy and monitoring management of the park (Department of the Environment and Water Resources).

DEH has identified the following best practice 'joint-management' arrangements involving World Heritage sites and Indigenous partnerships:

1978 Kakadu National Park pioneered the model of joint management of National Parks.

³ WCPA is an agency of the World Conservation Union (IUCN).

- 1995** Three archaeological caves in the Tasmanian Wilderness World Heritage Property at Ballawinne, Kuti Kina and Wargata Mina were returned to an Aboriginal community. This was the first time an Australian Aboriginal Community in Australia was given both title and sole management responsibility for land in a world heritage property;
- 1996** The Willandra Lakes Region World Heritage Management Plan was released after being developed through consultation with the Community Management Council, the Technical and Scientific Advisory Committee, the Elders Council and the Steering Committee.
- 1995** Uluru-Kata Tjuta National Park and its Board of Management won UNESCO's highest award, the Picasso Gold Medal for setting new international standards for World Heritage Management.

Five regions in Australia contain World Heritage Sites requiring consultation and management with Indigenous communities. Indigenous involvement in World Heritage Management in these sites ranges from consultation with relevant Indigenous representations at archaeological sites to heritage management decision-making, or membership on Environmental Advisory Committees. The preferred option is for Indigenous communities to control their land in order to maintain the vitality of their cultural heritage, however in the absence of this possibility, some communities have entered into joint management arrangements with private landowners, local councils, State or Territory and Commonwealth Government. Many Indigenous organisations are considering alternative approaches that provide greater control (Department of the Environment and Heritage 2001a). The Department of the Environment and Heritage (DEH 2001) recognises in principle that '[t]aking control of land is a major step towards Indigenous control of heritage places'.

2.3 Australian Conservation and Native Title

Indigenous engagement with 'biophysical landscapes' involves not just the ecology but also the social, political and cultural realms. Because the Commonwealth and States have legal obligations to ensure protection of Aboriginal and Torres Strait Islander interests in forested and other environments, the recognition of Native Title rights and interests must be paramount in the development of regional co-management arrangements. The *Native Title Act* (NTA) imposes conditions on any actions that affect Native Title rights over forested areas, and these rights vary from exclusive possession, to rights of access and to the use and enjoyment of resources. Through the NTA, the commonwealth has a responsibility for the protection of Native Title interests, therefore activities required for regional conservation agreements that may affect Native Title, such as access to land and sampling resources must be carried out in accordance with specific requirements.

Another category of protected areas are Indigenous Protected Areas (IPAs), officially recognised in 1998. An IPA is an area of land (or water) that Traditional Owners have voluntarily declared as a protected area (as defined by the IUCN), which is then managed by Traditional Owners for its biodiversity and associated cultural values. IPAs represent a very strong form of IUCN 'Community Conserved Areas' (CCAs) according to Lockwood and others (2006:565). The Australian Government (through the Indigenous Protected Area Programme of the Department of the Environment and Heritage, in exchange for this declaration, provide financial and technical assistance for the preparation of management plans. Once declared, IPAs are formally recognised as part of the National Reserve System (NRS) which has the goal of establishing a representative and comprehensive protected area system of bioregions in Australia. Although part of the NRS, the IPAs remain totally under Indigenous ownership and control, with Indigenous people determining the level of government involvement, the level of visitor access (if any) and the extent of development. IPAs are attractive to some Indigenous groups because they enable the management of

resources ‘without the loss of autonomy usually associated with joint management of protected areas’ (Lockwood *et al.* 2006:565).

The constraints to shared management agreements can be broadly attributed to:

- Capacity of the legislation to allow formal agreements;
- Government reserves and conservation policy; and
- Capacity of Indigenous communities to undertake direct or Native Title, negotiations (Hayes 2006).

2.4 *Sharing Protected Area Management in Australia*

A recent discussion paper released jointly by a number of key Queensland government agencies flags a future direction by the government to embrace an increase in Indigenous people’s ownership and participation in the management of state-controlled land. The discussion paper called *Looking after Country Together* identifies as its key outcomes an increase in Indigenous people’s ownership of land, access to land and sea country and an increase in their involvement in its planning and management. (Hayes 2006:10)

Australian ‘protected parks’ can be classified as Government Reserves (National Parks), or Conservation Reserves. ‘Conservation areas’ are large areas of land protected by a system of parks and reserves protected by the Commonwealth Government under the *Nature Conservation Act (1992)*. Protected area management is facilitated through clearly defined management principles, conservation plans and conservation agreements that are defined in the Act. The Act recognises the ‘interest of Aborigines and Torres Strait Islanders in nature and their cooperative involvement in its conservation’. Section 6 states that the national parks will be managed in consultation with land-owners and interested members of the community, including Indigenous people.

2.5 *Australian Protected Area Classifications*

Types of protected areas include: national parks (scientific), national parks, national parks (Aboriginal land), national parks (Torres Strait Islander land), national parks (recovery), conservation parks, resources reserves, nature refuges, coordinated conservation areas, wilderness areas, World Heritage management areas and international conservation areas.

Table 2: Australian Protected Area typology.

<p>A national park (specific) An area containing exceptional scientific values that, while being protected, may be studied in carefully controlled conditions.</p>
<p>National parks The most common of protected area types. They provide, to the ‘greatest possible extent, for the permanent preservation of the area’s natural condition and the protection of the area’s cultural resources and values’, whilst ensuring ‘the only use of the area is nature-based and ecologically sustainable’.</p>
<p>National parks (Aboriginal Land) and national parks (Torres Strait Islander Land) To be managed as national parks, but as far as practiceable in line with the Aboriginal or Island customs that apply to the area and activities within the area.</p>
<p>World Heritage management areas Managed to meet international obligations in relation to World Heritage Areas (such as the Wet Tropics) and to protect its ‘internationally outstanding cultural and natural resources’.</p>

2.6 Types of Shared Management

The National Native Title Tribunal (2006:10) outlines three main options in Queensland for formal Aboriginal involvement in managing national parks and conservation areas. The first two options rely on finding a successful relationship between the *Aboriginal Land Act* and the *Nature Conservation Act* (Hayes 2006:10).

- Dedication of the land as National park (Aboriginal land) or National Park (Torres Strait Islander land) under the *Nature Conservation Act 1992*;
- Joint management of national parks in the form of a lease-back arrangement under the *Nature Conservation Act 1992* and the *Aboriginal Land Act 1991 / Torres Strait Islander Land Act 1991*; and
- Co-management/cooperative management in the form of agreements between the State and Indigenous communities. This is subject to State policy and other legislative restraints depending on the nature of the agreement and category of protected area to which it relates.

According to Dr Lincoln Hayes of the National Native Title Tribunal (2006:10), the third option 'appears to be the most promising'; that is, for Indigenous communities to directly negotiate co-management arrangements. This can be undertaken as part of a Native Title proceeding, resulting in an ILUA containing clauses about the development of shared management arrangements in parks and reserves, ('often in exchange for surrender of Native Title, or as part of a package for the recognition of Native Title rights and interests'). An Indigenous Land Use Agreement (ILUA) is a formal Native Title agreement used as tool for developing shared management agreements. Indigenous Land Use Agreements are possible under section 24 of the *Native Title Amendment Act* (1998). George *et al.* (2004 cited in Ross *et al.* 2004:111) note that ILUAs can also be negotiated independently of the Native Title process and later ratified under the *Native Title Act* if desired. For this reason, the NNTT recognise ILUAs as an effective authorisation mechanism, with limited jurisdictional constraints to the application of an ILUA (Ross *et al.* 2004:111).

The NNTT (2006:6) defines *shared management* as 'any kind of involvement by local Indigenous people in the policy, planning or everyday management of a park, conservation area, or reserve'. Involvement varies from informal consultation with Aboriginal elders on issues impacting Aboriginal people (e.g. cultural heritage sites), to formal arrangements involving Aboriginal ownership and leaseback arrangements coupled, with an Indigenous majority on the Board of Management. World Heritage sites Uluru-Kata Tjuta and Kakadu are examples of formal models of shared management.

The NNTT (2006:6) employs two different terms to describe formal 'shared management' arrangements described above (i.e. Joint management and Co-management) – with broad distinctions separating the degree of involvement and responsibilities. The third category of involvement, 'consultative arrangements' does not classify as 'shared arrangements'.

Joint management involves a formal, legal partnership between Indigenous people and the government (or land-owner). The responsibility of government towards conservation is of equal importance to Indigenous owners' needs in caring for country. The Commonwealth model of joint management usually involves a lease-back clause over Aboriginal-owned land, for use as a national park. This provides Indigenous people with a formally recognised partnership of equal significance in regards to management and planning.

Cooperative or Co-management exists where the owner/operator of the national park – usually the Parks Service (on behalf of the government), manages the park on its terms, with the input of Indigenous people through management boards and committees that assist in

the preparation of management plans and guide decision-making about the park. Indigenous people have significant involvement and representation, but final authority and overall responsibility remains with the government. Such arrangements can be established through a formal agreement, or informal arrangements determined by management policy.

Consultative arrangements exist where Indigenous groups are consulted by management, usually on Indigenous issues. The National Native Title Tribunal does not consider this as shared management as 'there is no active management or decision-making for Aboriginal people. There is no requirement, other than general respect and goodwill, for management to take notice of, or action on, Indigenous concerns' (Hayes 2006:6)

There many other degrees of involvement in the management of a park or reserve, varying according to Indigenous aspirations, legislation, policy, and specific conservation issues.

2.7 Reserves and Indigenous Co-management

In Queensland there is also a system of Reserves which fall under the *Land Act 1994* (Queensland). Reserves include areas of land set aside by the State Government for community or public purposes, such as: Aboriginal or Torres Strait Islander purposes; beach protection and coastal management; cemeteries, crematoria and mortuaries; environmental purposes; heritage or cultural purposes; natural resource management; open space and buffer zones; parks and gardens; public halls; roads; scenic purposes; sport and recreation; strategic land management; travelling stock routes. Such reserves are managed by appointed trustees and some are also subject to Native Title proceedings. Native title may have been extinguished by public works, (especially reserves zoned before 23 December 1996), but where Native Title claims exist, there may be opportunities to negotiate shared management arrangements. The Commonwealth park system oversees large protected areas under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), which regulates the creation and management of such parks and reserves through the Director of National Parks. There are currently 21 reserves declared under the EPBC Act, including: six Commonwealth National Parks (e.g. Booderee National Park (NSW), Kakadu National Park (NT) and Uluru-Kata Tjuta National Park (NT)); thirteen Commonwealth Marine Protected Areas, (such as Lord Howe Island Marine Park and Ashmore Reef National Nature Reserve); and three Botanic Gardens (at Booderee, Norfolk Island and the Australian National Botanic Gardens). Although the Director of National Parks assumes total responsibility for Commonwealth reserves, many are administered and managed by Boards of Management and formal management plans. The World Heritage sites, Kakadu and Uluru-Kata Tjuta, are managed jointly by Indigenous Traditional Owners, who have agreed to lease back the land to the government for the purposes of national park, for 99 years (Hayes 2006:3).

In each Reserve the Traditional Owners have received freehold title with agreement clauses to lease the land back to the Commonwealth Government for use as a National Park. Lease-back conditions provide for joint management of the park; Indigenous majority on the Board of management; strategies for maximising Indigenous involvement in park operation; and the primacy of Aboriginal knowledge as the main framework for conservation.

The Great Barrier Reef Marine Park (GBRMP) involves a different model of conservation management incorporating a large span of marine waters, reefs and islands; and involving many traditional owner groups along Queensland's coast. Both the Commonwealth and State governments are involved (because it covers land and sea), as well as a large number of local government areas. The GBRMP 'shared management' requires a broad range of stakeholders, each with ideas and requirements about conservation and park area use. *Indigenous partnerships* represent Indigenous interests and encourage Indigenous

participation in all levels of the management process, including supporting Indigenous community initiatives in caring for the Marine Park (Hayes 2006:7).

2.8 Benefits of Shared Park Management

The National Native Title Tribunal summarises the benefits of management sharing for Indigenous people as:

- **Public recognition of Traditional Ownership of country:** 'Shared management arrangements can provide a very public and positive message to governments and communities about Indigenous groups as Traditional Owners, their desires to contribute to the well-being of their traditional country, protect their heritage and work in cooperation with others to achieve common goals' (Hayes 2006:18);
- **Engaging in cultural practices and maintaining cultural heritage:** The Ngadjon Jii people of the Wet Tropics region have reached a Memorandum of Understanding (MOU) regarding Wooroonooran National Park. The MOU authorises the Ngadjon Jii to 'develop community-based management strategies to allow for traditional activities within the MOU area.' It also allows them 'to bury their people within park boundaries', and has declared a restricted area over one culturally and spiritually important section of the park, giving the Ngadjon Jii authority to restrict access to the area (Hayes 2006:18).
- **Contributing Indigenous land management knowledge and expertise:** Shared management provides mechanisms for incorporating Indigenous ecological knowledge into conservation plans and regimes. 'The collaboration of Indigenous ecological knowledge and western scientific approaches to conservation has much to offer management planning' (Hayes 2006:18).
- **Explaining and interpreting culture:** 'Aboriginal involvement in heritage management contributes to the transmission and interpretation of Aboriginal culture to non-Aboriginal visitors. This activity can play an important role in improving Indigenous and non-Indigenous relationships and substantially enhance visitor experience in protected areas' (Hayes 2006:18).
- **Managing Tourism:** 'In culturally sensitive areas, or in areas where Aboriginal people wish to reside or use, managing tourist visitation is essential to preserve natural and cultural landscapes' (Hayes 2006:18).
- **Developing an economic base:** 'The balance between the cost of park management and financial benefits from tourism and other revenue sources needs to be considered. Some national parks can be expensive to manage and visitors can spend a great deal of money in them. Others have a low visitation rate and little or no income from tourism' (Hayes 2006:18).

Other potential economic benefits may derive from:

- Ecotourism (and other enterprises that provide cultural tours of parks, interpret culture, and manufacture and sell artefacts);
- Concessions paid by private business operators; and
- Park agencies contracting to develop cultural heritage management strategies and interpretative strategies and to undertake certain land management activities (Hayes 2006:19).

The National Native Title Tribunal notes that 'some of these potential revenue sources may only apply to Indigenous communities if land is Aboriginal-owned in the first place. The extent of the economic benefits from shared management may be determined by the nature of the

collaboration and the degree to which Indigenous involvement improves overall park revenue' (Hayes 2006:19).

Benefits of shared management to non-Indigenous people and communities include:

- **Improved conservation outcomes:** 'Indigenous peoples' significant expertise and knowledge about caring for country has been widely acknowledged;
- **Securing the future:** 'Opening the management format of parks and reserves for discussion and negotiation creates a model for Indigenous groups and parks managers to work together for the long-term inclusive and mutually beneficial park programs' (Hayes 2006:19);
- **Opening up a better experience for park visitors:** 'The contribution of Indigenous knowledge, information about Indigenous cultures and the incorporation of Indigenous voices and faces contribute to a more valuable experience for park visitors. Increased visits and tourism can enhance conservation outcomes by increased revenues, with flow-on effects into local Indigenous and non-Indigenous communities' (Hayes 2006:19).
- **Demonstration of reconciliation:** 'While the process of reconciliation between Indigenous people and the broader community (including governments) continues, the development of shared management arrangements provides a strong and practical example of reconciliation at work' (Hayes 2006:19).

Possible Impediments

While mainstream 'western' and Indigenous approaches to nature conservation approaches may be brought together in a mutually beneficial manner, it is likely that at some stage the two may be in conflict. In other words, while there may be agreement on the long-term value of protecting areas with natural and cultural significance, there can be different views about how to preserve the value. For example, some conservation and wilderness groups may have lands rights policies that support the right of Aboriginal people to hunt, fish and collect on Aboriginal land, except when these practices would lead to possible threats to endangered or protected species. (Hayes 2006:19)

In 1986 the Australian Law Reform Commission argued that conservation interests could override the rights of Aboriginal and Torres Strait Islander people to hunt and fish. However, more recently, the *Queensland Conservation Council's Protected Areas and Native Title policy* (points 1.3 and 2.1) recognises:

'The role of Indigenous peoples in creating and helping shape the present natural and cultural values of protected areas. It advocates 'the greatest possible extent' of care for the area's values and resources, at the same time as providing 'for the management of the area, as far as practicable, in a way that is consistent with any Aboriginal tradition or Island custom applicable to the area, including any tradition or custom relating to activities in the area' (Point 2.1.2) (Hayes 2006:19)

2.9 Three Indigenous Community Perspectives on Shared Management

The Queensland Indigenous Working Group (QIWG) argues that the process of shared management should ultimately be preparing Indigenous groups for sole management of the parks and reserves that form part of their traditional lands (Hayes 2006:22).

Alternatively, a recent paper on behalf of the Traditional Owners of some parts of the Great Barrier Reef Marine Park suggests that shared management of a park area need not be a 50-50 split in roles and responsibilities (that is to not say, an *equal* partnership – but rather

an *equitable* one, where each party contributes in a way that they are best able to do so) (Hayes 2006:22).

‘We say equitable rather than equal, to promote the idea that co-management arrangements can be agreed mutually and fairly, yet the allocation of roles between the parties may differ and may or may not easily be described as ‘equal’ since each is doing what it is best suited to. The essence is that the partners have balanced power relationships in decision-making, while contributing in possibly different ways according to their interests, priorities and capacities.’ (Cited in Hayes 2006:22)

At Uluru-Kata Tjuṯa (Northern Territory), *Tjukurpa* (or the law of the Anangu people), is the most important consideration for park management. Whenever a proposed action is inconsistent with *Tjukurpa*, then *Tjukurpa* must take precedence. Acknowledging that the wording of this management principle is given greater prominence due to Anangu land ownership and (thus legal control over the park’s destiny), Hayes (2006) notes that the ‘the overall flavour of this principle may require greater negotiation under other models of ownership’ (Hayes 2006:23).

3. International Policies and Resolutions

This section highlights key IUCN Resolutions on Indigenous peoples.

Over the past decade the IUCN (The World Conservation Union), its World Commission on Protected Areas (WCPA) and the World Wildlife Fund (WWF) have adopted numerous policies and resolutions aimed at addressing the rights and concerns of Indigenous peoples in connection to protected areas (PAs). The WWF for example, has acknowledged that ‘without recognition of the rights of Indigenous peoples, no constructive agreements can be drawn up between conservation organisations and Indigenous peoples groups’ (Mackay 2002:3).

3.1 The Legacy and Restitution of Rights within Protected Areas

In the last two hundred years, almost ten percent of the world’s surface has been transformed into protected areas (in over two thousand separate sites). Some estimate that approximately fifty percent of these areas are located on lands traditionally occupied and used by Indigenous communities. Many of these areas are subject to land claims filed by displaced Indigenous groups. The need to reach equitable partnerships between Indigenous and conservation groups will become even more critical in the future, as additional protected areas are planned all over the world.

Indigenous peoples’ rights to land and resources result from their social and historical continuity which pre-exists contemporary States. Such rights have been recognised through intergovernmental human rights bodies (under human rights instruments) and in treaties and draft declarations. Most states in the world are party to at least one of these instruments, and therefore have legal obligations to recognise and respect Indigenous rights to land and resources, based on traditional occupation and use (MacKay 2002:4).

4. *Paradigm Shifts in Protected Area Management*

Since 2003 there have significant changes to the governance and conceptualisation of protected areas, creating new opportunities for capacity building in the realms of Indigenous social rights and ecosystem conservation. This section provides a summary of the paradigm shift in protected area management, identifying key recommendations for addressing the challenges of integrating Indigenous models of governance and land-use systems with conservation priorities. This paradigm shift fundamentally recognises that ‘best practice’ equates to delivering the highest standards of conservation protection with optimum socio-cultural gains for Traditional Owners.

Historically, the management of Protected Areas (PA) has largely fallen under the jurisdiction of central bureaucracies, who in their treatment of sites as discrete ecological ‘islands’, excluded and disregarded the knowledge of Indigenous people living within or around these areas. While most countries in the world remain ‘wedded’ to this approach, there has been a gradual recognition that the management of Protected Areas must incorporate a range of other actors who can and do conserve habitats and species (TILCEPA 2004:1). While park management continues to be largely governed by centralised legislation, contemporary approaches draw upon a combination of decentralised management, active or adaptive management principles, shared or community management, and ecosystem management. Protected areas are now conceptualised within the context of the larger landscape and seascape – rather than isolated entities (involves assessing the relationship of conservation with broader processes of economic development, land/water use, global change, political/social contexts etc). Two global events in the 21st century have been pivotal in shifting the approach of protected area management toward a more inclusive and consultative approach:

- Fifth World Parks Congress (WPC), Durban, 8-17 September 2003.
- Seventh Conference of Parties to the Convention on Biological Diversity (CBD), Kuala Lumpur, 9-20 February 2004.

Held every ten years, the World Conservation Union (IUCN)⁴ World Congress on Protected Areas (or World Parks Congress) is recognised as the major global forum determining the agenda for Protected Areas. The Fifth World Parks Congress in Durban (2003) witnessed the largest gathering of conservation professionals and practitioners, and for the first time included the attendance and participation of around two hundred Indigenous, ‘mobile’, and community representatives (TILCEPA 2004).

The unprecedented representation of Indigenous voices at the congress and the willingness of the IUCN to include Indigenous issues was the result of preliminary efforts by Indigenous groups and their supporters. A pivotal precursor was the creation of the Theme on Indigenous and Local Communities, Equity and Protected Areas (TILCEPA), which was generated by the 2000 World Commission on Protected Areas (WCPA) and the IUCN Commission on Environmental, Economic and Social Policy (CEESP). TILCEPA and the IUCN Secretariat worked with the Forest People’s Program to assist Indigenous groups create the Indigenous Peoples Ad Hoc Working Group for the World Parks Congress. As a result of these initiatives, The Indigenous Peoples Preparatory Conference was held in

⁴ IUCN – The World Conservation Union includes membership of 140 countries, 70 states, 100 government agencies and over 750 NGOs. Its mission is “to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable. Over 10,000 internationally-recognised scientists and ‘experts’ from more than 180 countries volunteer services to its six global commissions (IUCN Website – www.iucn.org).

Durban immediately prior to the congress. By the commencement of the WPC, Indigenous and local representatives were well prepared to express their concerns and ensure these were incorporated in the final outcomes of the congress (Brosius 2004:609).

The theme of the congress, *Benefits beyond Boundaries*, emphasised the need to place conservation within a broader landscape matrix beyond conventional Protected Areas.

The outcomes of the WPC included a joint statement and a series of Recommendations for Protected Areas, which were incorporated into *The Durban Accord* and *Durban Action Plan*.⁵ The *Durban Accord* emphasised the need to build resilience against climate change into management plans, through scientific *and* Indigenous knowledge, facilitated through the implementation of adaptive and innovative strategies. The *Action Plan* (recognising the lack of a formal mandate), raised issues and suggested actions to be implemented through multi-level participation and partnerships. Each outcome identified key targets and specific actions. Two of the major outcomes emphasised:

- Conceptualising protected areas within the context of the larger landscape and seascape, rather than isolated entities (which involves assessing the relationship of conservation with broader processes of economic development, land/water use, global change, political/social contexts etc); and
- Moving toward a more inclusive and participatory model of protected areas, in which Indigenous and local communities are regarded as critical participants, their own conservation initiative are given due recognition and various forms of governance (including government, community, private, and collaborative) are given legitimacy.

4.1 Recommendation 5.17: Supporting a Diversity of Governance Types

Recommendation 5.17 reflects a world-wide trend in the decentralisation of management in protected areas, whereby partnerships between different sectors of society provide for greater engagement in decision-making. The WPC believes that the Ecosystem Approach endorsed by the Convention on Biological Diversity (CBD) supports a diversity of governance types, given that it recognises the centrality of social, cultural, economic and institutional factors in its approach to conservation. The CBD calls for the decentralisation of management to the lowest appropriate level and stakeholder participation in conservation (TILCPA 2004:53). To this end, participants at the WPC recommend that governments and civil society:

- a. Recognise the legitimacy and importance of a range of governance types for protected areas as a means to strengthen the management and expand the coverage of the world's protected areas, to address gaps in national protected area systems, to promote connectivity at landscape and seascape level, to enhance public support for such areas, and to strengthen the relationship between people and the land, freshwater and the sea;
- b. Promote relationships of mutual respect, communication, and support between and amongst people managing and supporting protected areas under all different governance types;
- c. Request that the IUCN World Commission on Protected Areas (WCPA) refine its Protected Area Categorization System to include a governance dimension that recognises the legitimacy and diversity of approaches to protected area establishment

⁵ The Durban Accord originated in Albany, Australia in 1997. It is the umbrella document and principle message from the Congress to the world.

and management and makes explicit that a variety of governance types can be used to achieve conservation objectives and other goals;

- d. Recommend that this 'governance dimension' recognise at least four broad governance types applicable to all IUCN protected area categories:
- Government managed;
 - Co-managed (i.e. multi-stakeholder management);
 - Privately managed; and
 - Community managed (community conserved areas)⁶

Call on the Parties to the Convention on Biological Diversity to:

- (i) Recognise the legitimacy of all these governance types;
- (ii) Adopt legal and policy measures to reinforce the management effectiveness and good governance attributes of these governance types; and
- (iii) Undertake initiatives to strengthen relevant institutional and human capacities, particularly mutual learning among protected area institutions and sites engaged in similar efforts.⁷

The IUCN acknowledges that conservation and sustainable management of ecosystems, biodiversity, and cultural values are dependent on the actions of the whole society. It also recognises that while many protected areas are managed primarily or exclusively by governments, there is a diversity of government types that deliver conservation along with social, economic and cultural objectives. Governance 'types' refer to the structure of management authority and responsibility, which may be derived from 'legal, customary or otherwise legitimate rights' (TILCEPA 2004:52). The diversity of governance types include:

- Decentralised Governance by state/provincial or local/municipal government units;
- Co-managed arrangements with local communities and other stakeholders;
- Indigenous or traditional territories governed or managed for livelihood, cultural and conservation purposes by Indigenous or traditional communities;
- Protected areas managed by private sector entities under long term contract or outright private ownership; and
- Transboundary conservation units.

Rosemary Hill (2006) has recently noted that Indigenous people globally are demonstrating significant interest in the community governance model – which is producing some successful conservation outcomes (Jones 1999, Luque 2003 cited in Hill 2006:578).

4.2 Recommendation 5.24: Indigenous People and Protected Areas

The IUCN and WPC recognise that Indigenous peoples, their lands, waters and resources (cultural knowledge and practices) have substantially contributed to the conservation of global ecosystems. For this to continue, protected areas must embrace the principle of collaborative management, incorporating the interests and needs of Indigenous peoples

⁶ Full details available at:
<http://www.iucn.org/themes/wcpa/wpc2003/pdfs/outputs/recommendations/approved/english/pdf/r17.pdf>

⁷ Full details available at:
<http://www.iucn.org/themes/wcpa/wpc2003/pdfs/outputs/recommendations/approved/english/pdf/r17.pdf>

(given that many protected areas of the world encroach and are found within and overlap with lands, territories and resources of Indigenous and traditional peoples).

The WPC recognises that effective and sustainable conservation is enhanced if the protected areas objectives do not violate the rights of Indigenous peoples living in and around them. The successful implementation of conservation programmes can only be sustained on a long term basis when consent for and approval by Indigenous peoples is achieved. World Heritage and the need of Indigenous peoples to protect their lands, territories and resources from external threats have a common objective.

In addition to the benefits to conservation, it is necessary for governments and international institutions to acknowledge the legacy of protected areas, whereby Indigenous peoples have suffered human rights abuses in connection with protected areas, which in some cases, continues today. The 1st World Conservation Congress, held in Montreal (1996), passed a Resolution (WCC 1.53) on *Indigenous Peoples and Protected Areas*, which was adopted by IUCN members. This Resolution:

- Recognises the rights of Indigenous peoples with regard to their lands or territories and resources that fall within protected areas;
- Recognises the necessity of reaching agreements with Indigenous peoples prior to the establishment of protected areas in their lands and territories;
- Recognises the rights of Indigenous peoples to participate effectively in the management of protected areas established on their lands and territories, and to be consulted on the adoption of any decision that impacts upon their rights and interests over those lands or territories.

4.3 Recommendation 5.25: Co-Management of Protected Areas

The IUCN has been resolute in its promotion of co-management as a strategy to strengthen partnerships in World Heritage conservation. Recommendation 5.25 recognises the benefits of promoting and reinforcing partnerships in conservation, which have also been emphasised through the Convention on Biological Diversity and the Millennium Development Goals (TELCPA 2004:63).

Co-managed protected areas (CMPAs) are defined as protected areas (as per IUCN categories I-VI):

‘where management authority, responsibility and accountability are shared among two or more stakeholders, including government bodies and agencies at various levels, Indigenous and local communities, non-governmental organisations and private operators...’ (TILCEPA 2004:63)

The capacity of governments alone to ensure that conservation and social objectives reflect best practice in World Heritage is disputed, while ‘some estimate this to be plainly impossible’ (TILCEPA 2004:62). The goal of co-management is to integrate and successfully mobilise the wealth and diversity of conservation-based knowledge available through Indigenous communities. However current efforts to incorporate Indigenous people in protected area management are often limited to consulting, recruiting assistance in implementing predetermined activities, or assigning some benefits without effective discussion and negotiation of options. The main causes of this failure to implement co-management involve the lack of supportive policies, protocols, and capacities (including legally binding instruments). For co-management of protected areas to be successfully implemented, management plans and protocols must be embedded within a legal and policy

framework that enhances capacity building, participatory action-research and a democratic exchange of experiences and lessons learnt.

The application of multiple forms of knowledge to conservation practices means that co-management, if properly implemented, can lead towards “more effective and transparent sharing of decision-making powers, a more active, conservation-friendly and central role of Indigenous, mobile, and local communities in protected area management, and a better synergy of conservation practices” (TILCEPA 2004:64). To this end, participants of the WPC (2003) recognise that understanding the potential of, and obstacles to, co-management approaches requires undertaking processes involving;

- Negotiating co-management agreements;
- Developing co-management organizations;
- Integrating adaptive governance approaches with more familiar adaptive
- Management exercises and;
- Learning by doing through participatory monitoring and evaluation.

The WPC recommends governments, protected area agencies, donor agencies, conservation NGOs, communities, and the private sector, and in particular the IUCN:

- Support the review, consolidation, strengthening and expansion of existing experiences of co-management of protected areas;
- Promote the participation of stakeholders in decision-making concerning protected area management, with particular regards to Indigenous, mobile and local communities, and disadvantaged groups via a range of mechanisms including information generation and sharing; joint visioning and participatory assessment exercises; support to stakeholders organising and capacity building; negotiated management agreements and benefit sharing; and full empowerment and accountability for conservation in effectively co-managed and community-managed areas;
- Create or strengthen enabling legal and policy frameworks for co-management in protected areas⁸;

4.4 Recommendation 5.26: Community Conserved Areas (CCAs)

Calls for the IUCN and WCPA to formulate and carry out a programme of work, with the full participation of Indigenous peoples, to support their initiatives and interests regarding protected areas, and to actively involve Indigenous peoples' representative authorities, institutions and organizations in its development and implementation;

- Provide support and funding to Indigenous peoples for community conserved, co-managed and Indigenous owned and managed protected areas;
- Encourage international conservation agencies and organizations to adopt clear policies on Indigenous peoples and conservation and establish mechanisms for the redress of grievances;
- Conduct an implementation review of the World Conservation Congress Resolution 1.53 Indigenous Peoples and Protected Areas and the IUCN-WWF Principles and Guidelines on Indigenous and Traditional Peoples and Protected Areas;

⁸ Full details available at:
<http://www.iucn.org/themes/wcpa/wpc2003/pdfs/outputs/recommendations/approved/english/pdf/r25.pdf>

- Recommend IUCN Members to consider the establishment of an IUCN Commission on Indigenous Peoples and Protected Areas at its next World Conservation Congress.⁹
- (i) The WPC recognises Community Conserved Areas (CCAs) as a legitimate form of biodiversity conservation. Therefore the participants of the WPC (2003) call on international organisations to recognise CCAs and integrate them into the IUCN PA category system. Recommendation 5.26 recognises that a considerable part of the world's biodiversity survives on territories formerly or currently under the control of Indigenous communities, who are actively or passively conserving many of these sites through traditional or contemporary means. This has historically been overlooked in conservation management.

Clearly WPC is stating here that the cornerstone of world's best practice in relation to Indigenous engagement in the conservation of natural and cultural values in World Heritage sites requires not only the fundamental requirement of free prior and informed consent, as well as taking into account the rights, livelihoods and interests of Indigenous people (WPC 2003 Recommendation 5.28), but also, as Hill and Mann (2003:1) have highlighted, the provision within conservation zones for alternative governance types, such as Community Conserved Areas (Indigenous Protected Areas) 'to be legally recognized, listed evaluated, de-listed, and supported with financial and other resources' by state governments.

The critical point, as Hill and Mann (2003) have highlighted is that the IUCN matrix provides for a level of protection that is not dependent on the type of governance. In other words; 'communities can achieve the highest level of protection' within sites classified under Category 1 (Strict Nature Protection) (Hill and Mann 2003:4). The WPC (2003) advise that national and international recognition of Community Conserved Areas (CCAs) is urgent and necessary, and as Hill and Mann state: "it shows good faith in the capacity of Indigenous people to manage their traditional lands and seas to gain a conservation outcome" (2003:6).

It is also an essential pre-requisite for governments wanting to engage effectively with successful Native Title claimant groups for a good conservation outcome on their lands and on other Aboriginal held lands. This is especially so where Indigenous groups do not wish to enter into joint management or co-management arrangements with the State but where they are nevertheless keen to pursue a conservation outcome on their country and by their own initiative and design (Hill and Mann 2003:5)

In Australia, the concept of Community Conserved Areas (CCAs) promoted by the World Parks Congress has many features that compliment the zoning of Indigenous Protected Areas (IPAs) (Smyth 2001 in Hill and Mann 2003:6).

CCAs are natural and modified ecosystems, including significant biodiversity, ecological services and cultural values, voluntarily conserved by Indigenous and local communities is through customary law or other effective means. The term used here is meant to connote a broad and open approach to categorising such community initiatives, and is not intended to constrain the ability of communities to conserve their areas in the way they feel appropriate (WPC 2003 Recommendation 5.26)

Participatory Management in Community Conserved Areas

In the context of World Heritage conservation projects the politics of land operate at different scales. The top level, (the global) involves relations of power between Indigenous

⁹ Full details available at:

<http://www.iucn.org/themes/wcpa/wpc2003/pdfs/outputs/recommendations/approved/english/pdf/r24.pdf>

communities and international conservation NGOs and global environmental agendas. In this framework, global conservation ideals tend to 'gloss over the magnitude of political changes involved' (Redclift 1984) and invest international conservation groups and allied states with increased authority to monitor and investigate rural communities (Luke 1994). Unless done through a co-operative framework involving the full participation of Indigenous people, there is risk of replicating the situation where programs attempting to integrate conservation with development 'serve to extend state power into remote and formerly neglected rural areas' (Neuman 1997:560).

Writing on behalf of the World Conservation Union (UICN) Oldfield noted that 'new ideas are needed' in biodiversity conservation because "people all too often see parks as government-imposed restrictions on their traditional rights" (Oldfield 1998:1). The IUCN's 'new approach' to conservation recognises the need for a redistribution of the material and social benefits of conservation, as well as the resolution of conflict between conservationists and local communities impacted by the imposition of top-down governance.

4.5 Recommendation 5.29: Poverty and Protected Areas

It is widely recognised that protected areas play a vital role in sustainable development through the protection and maintenance of biological diversity and of natural and *associated cultural resources*. No longer viewed as 'islands of conservation', protected areas are inseparable from issues of poverty, displacement, and land degradation. The Durban Accord (2003) recognised the powerful potential of protected areas to make a significant contribution to poverty reduction and to the broader development framework established by the Millennium Development Goals and the WWSSD Plan of implementation. Ensuring the conservation of biological values requires eliminating poverty through a multi-dimensional approach which address lack of assets/opportunities, vulnerability, and lack of power or voice.

A common legacy of widespread land use is the displacement and marginalisation of Indigenous and local communities from protected areas. The recognition that protected areas represent a valuable source of natural and cultural 'wealth' to these communities means that denying rights to protected areas can exasperate poverty. The view of the WPC is that protected area establishment and management cannot be allowed to increase poverty.

Many local communities living in and around protected areas have limited access to development opportunities. Protected areas therefore provide a currently unrealised potential to contribute to poverty reduction while continuing to ensure conservation objectives. Recognising the importance of including people in the role of conservation, requires communities to be supported to act as the new front-line of conservation. Encouraging communities to act as custodians of biodiversity requires the reduction of poverty and the successful implementation of capacity-building strategies (TILCEPA 2004:75).

Summary

Protected areas are considered some of the most versatile and important instruments for nature conservation and environmental policies in the 21st century. For Indigenous people globally, cultural heritage and natural resource management issues are largely inseparable from resource and political rights, involving cultural, social and economic issues. For this reason, the co-management of natural resources within World Heritage sites must provide a meaningful and practical framework, with opportunities for Indigenous people to fully exercise their cultural responsibilities and to articulate their future aspirations.

Some of the most important changes of the existing protected area 'best practice' recommendations deal with the possibility of governance and the re-classification of protected areas. 'If locals had traditionally settled those regions, a redefinition of the management category could legalise their presence and activity' (Roper 2000:65). Other options include participatory and cooperative management approaches. With regard to Indigenous participation in protected area planning and management:

'[T]he reconstruction of the negotiation process has shown that idealising approaches of reconciling 'man' and 'nature' are missing the point....conservation conflicts often result from the different forms of appropriation of space and nature by actors with unequal access to socio-economic and political power structures.' (Roper 2000:67).

Case Studies in World Heritage Management
International World Heritage Sites

Dja Biosphere Reserve, Cameroon

Land Tenure:	State
Management Type:	Participatory Conservation (ie; limited role in planning or management decisions). Despite the creation of Community Conserved areas with the Reserve, the day to day management of protected areas has generally not given adequate consideration to the Indigenous people living within and around these zones.
Legislation / Policy:	1993 Cameroon forestry policy - established the principle of community participation in forest management
Enabling Mechanism:	UNESCO's MAB Programme. The core philosophy of the (MAB) Program is <i>an emphasis on humans as an integral and fundamental part of the biosphere</i> . Community Conserved areas within Biosphere Model. Community maps are used as a mechanism for identifying resource-use zones and for providing a tool to engage in future management decisions and policy change.
Indigenous Capacity Building:	Limited within existing framework, but CAWHFI is working toward capacity-building. Direct community involvement limited to ten regional workshops. Management Plans are strong on language of participation, but weak on detail. Current participatory mechanisms include: Gathering data on ethno-botanical and zoological sacred forests; Community mapping exercises identifying resource-use zones Creation of a database based on ecological and traditional knowledge; Integration of Indigenous knowledge into conservation strategies.
Gender Equity Policies:	Yes but not actively promoted
Traditional Resource Use:	Restricted use rights have been secured by some conservation agencies in buffer zones

Site Details

Land Tenure

State

Area

526,000ha. Biosphere Reserve 500,000ha.

World Heritage Management Category

IUCN Class I protected areas

Classification

Natural World Heritage Site – Criteria ii, iv

1981 Biosphere Reserve (UNESCO's Man and the Biosphere Programme).

1984 Inscribed on the World Heritage List.

Vegetation

The Dja Reserve is located in a 'transition zone' between the forests of southern Nigeria and south-west Cameroon, and the forests of the Congo Basin. 90% of the forests are virtually undisturbed and contain a rich diversity of flora and fauna. The Dja River forms a natural boundary around much of the reserve (IUCN).

Brief Description

The Dja Biosphere Reserve is located with a corridor of National Parks known as The Tri-National Dja-Odzala-Minkebe Landscape (TriDOM). In Cameroon, the three national parks lying within this corridor are the Dja National Park, Bouma Bek National Park, and Nki National Park. Hunting for bushmeat in this area has been identified as one of the most significant threats to biodiversity conservation and the sustainability of these ecosystems (IUCN).

Management

Since 1992 management of the reserve has been implemented through the ECOFAC project (Central African Forestry Ecosystems), a cooperative agreement between Cameroon and the European Union.

In Cameroon, day to day management of protected areas has generally not given adequate consideration to the Indigenous people living within and around these zones. Usage Rights in national parks across Central Africa are restricted to Community Conserved Areas (CCAs), which are contemporary examples of agreements reached between conservation NGOs and governments to allow Indigenous people limited and regulated access to protected areas to satisfy at least part of their subsistence requirements. Community Conserved Areas provide avenues for local people to have formal roles in the management of parks, and establish a forum for dialogue between park managers and local communities (Forest Peoples Programme 2003).

Since establishment of the reserve in 1950 management has been restricted to protection of the resources and focused in particular, on anti-poaching activities. Between 1992 and 2004 the Dja Reserve was managed through the ECOFAC project (Central African Forestry Ecosystems) which is a cooperative agreement between Cameroon and the European Union.

In 2005 the Centre for Environment and Development (CED) and the Forest Peoples Programme (FPP) produced a summary report focusing on Indigenous and local communities' role in the management of the Dja Wildlife Reserve, Cameroon. It documented a case study of Indigenous and local communities' forest use, their role in the management of biological resources, and the impact of protected areas on their rights, as defined in national laws and international conventions, especially Article 10(c) of the Convention on Biological Diversity (CBD). Provisions for participation also exist in the Environment, Wildlife and Fisheries laws. Despite this strong emphasis in principle and law, the Forest Peoples Programme (2005) concluded that there is a continuing lack of participation by local and Indigenous communities in the development and implementation of forest management plans. This has been identified by FPP as one of the barriers to the implementation of the CBD Programme of Work on Protected Areas (Forestry Peoples Programme 2005).

Forest Peoples Programme (2005) notes that to comply with Cameroon law and the 'CBD,' the new management plan will have to consider all relevant aspects, including new information concerning local communities' use of forest resources (Forest Peoples Programme 2005).

Community maps will be used to promote meaningful participation by local and Indigenous communities in proposed planning discussions through their direct input to park management discussions and the government-approved management plan.

Approval by the Government of Cameroon for forest plans that recognise community forest rights will contribute towards Cameroon's implementation of

Article 10(c) of the CBD and the programme of work on protected areas by ensuring that communities' 'traditional, sustainable use' is protected in the new management plan for the Dja Reserve, and in the forest zonation to be developed through the GEF-funded Tri-National Dja-Odzala-Minkébé (TRIDOM) project. (Forest People's Programme 2005:3).

In 2006, the 30th session of the World Heritage Committee noted "with concern" that the Management Plan was still not yet officially in force (IUCN).

Hazinzwami (2000) argues that as a growing consequence of the priority placed on protecting World Heritage values over and above cultural values in Central African Wildlife Reserves, the new system of wildlife management introduced has "weakened the traditional management systems and deteriorated the traditional administrative authority and organisation to control access to wildlife resources" (Hakimzwami 2000:38). State-ownership and the emphasis on law enforcement over resources have resulted in the Indigenous community no longer feeling responsible for the management of their forestry resources.

As a result of the growing discontent the Indigenous Baka of the Dja Biosphere are claiming their rights to one part of the reserve. They complain of having been dispossessed of their forest. In their opinion, the Baka have never been consulted in the conservation proposals for the reserve. They have had no dialogue with conservation authorities, and are not familiar with the conservation objectives. The Baka assert that they were not informed nor consulted in the creation of the Dja Reserve. They also state that they were informed later of the existence of the conservation initiative by the authorities. According to the Forest People's Programme, the park's administration has never considered treating the Baka as '*legitimate and equal partners*' in the implementation of the reserve's conservation strategies, as stipulated in Cameroon's Forestry Policies (Forests Peoples Programme 2002). The Baka believe their future is under threat, insofar as they will no longer be able to make use of forest resources (Forests Peoples Programme 2005).

Indigenous Stakeholders

The population density around the reserve is low, estimated at 1.5 people per square kilometre (MINEF/ECOFAC, 2000:59).

There are up to 50,000 Baka in Cameroon's forest zone, and most activities are carried out communally. Baka subsistence is linked to the exploitation of forest resources. The forest is regarded as a framework for survival. The Dja River and the surrounding marshlands provided an abundance of fish. Fishing is mainly women's work. The children collect caterpillars, termites and other edible forest insects. The Baka use a rotational system of agricultural zones and hunting/fishing/gathering zones in accordance with traditional practices of resource management (Caruso 2005:136).

Baka conceptualise the forest as their 'ideal universe', their spiritual landscape. According to Baka cosmology, the god *Komba* is the creator of all things. The forest belongs to *Komba*. Thus the notion of ownership of the land and the forest does not exist amongst the Baka. It is *Komba* who makes the land and forest available to the Baka for subsistence needs. Nothing can replace *Komba* as the true owner of the forest and its resources. The forest and the Baka themselves are a creation of *Komba*, and the attachment for the forest comes from their view that:

The forest is the foster mother. She puts her fauna and flora at the disposal of men. These possessions are transformed before being invested in food, architecture, pharmacopeia or economic activities. This model permits

permanent regeneration, being based upon respect for the rhythms of nature. The Baka respects this rhythm by fitting himself into this environment without changing it, and by associating the relationship to the environment to an entire system of representation. (Abega cited in Ndameau, Forest Peoples Programme 2001:220)

Mapping and Participatory Approaches

Baka communities have become involved in community based mapping through the assistance of the Centre for Environment and Development, who worked for several years with communities to map their forest resources along the southern boundary of the Reserve. The production of a series of maps based upon the communities own knowledge will be used to implement a community-based mapping programme which includes technical training with GIS and GPS mapping systems (Poole 2003). Community mapping projects in the Dja World Heritage region aim to integrate traditional resource management practices of the Indigenous people within the management plans of the Reserve. One of the problems in implementing meaningful changes lies in the different funding priorities of international co-operation agencies. Some donors consider 'the involvement of local communities in the management of wildlife [as] a prerequisite for the project while others focus [on the] integral protection of wildlife' (Hakinzumwami 2000:21). Increased participatory management is likely to be gradual, however, because as Shephard and Brown (1997) note; the introduction of participation into natural resource management 'is inevitably a long-term enterprise that is best handled incrementally' (Shephard and Brown 1997).

Cameroon's Policies and Protocols for Participatory Conservation

In 1993 Cameroon adopted a forestry policy establishing the principle of community participation in forest management. The new law included several clauses intended to generate Indigenous involvement in the management of their natural resources in forested areas. Following recommendations from the Rio Summit, Cameroon's forest conservation policies and legislation were gradually implemented during the 1990s. However, As Nguiffo (Forest Peoples Programme 2001) notes, the application of the policies and legislation was problematic from the outset, due to a generic term for 'local people' which conflated the different ethnic groups of the Bantu and Baka Pygmies and created problems for participative management, which was perceived differently by the distinct ethnic groups (Nguiffo Forest Peoples Programme 2001). One of the difficulties for the Baka, is that the concept of protected areas is unknown within their concept of space.

Ndameau (Forest Peoples Programme 2001) argues that the legal arrangements of the 1994 Forestry Law are at variance with the customary practices of the Baka, and this leads to misunderstandings and conflicts.

There are three areas within the current legal framework of the Dja Reserve that conflict with Baka resource use, outlined below:

1. As the entire forest and its products were made available to the Baka by *Koma*, it is difficult for the Baka to accept the restrictions imposed on their forest activities. For the Baka, the only restrictions to the use of forest products are those related to taboos. This leads to contradictions between protected area legislation and Baka culture. Barter and the sale of forest products increasingly constitutes a major source of revenue for the Baka, however these practices are prohibited in the rules governing usage rights, which only allows the procurement of forest products for personal use.
2. The second point of conflict between the law and traditional Baka practices relates to the Zoning Plan. Established by Decree No 95/678/PM on 18 December 1995, the Zoning

Plan defines, amongst other forest areas, the multiple use zones, where activities by the population are allowed. The areas where the Baka enjoy customary rights do not, unfortunately, fall into these zones but instead are located within the Permanent Forest.

3. Finally, the hunting regulations also penalise them. For the Baka, the situation equates to a 'diminution of the forest' generated by an unbalanced diet and limited mobility (Nguiffo Forest Peoples Programme 2001:208).

'The Baka cannot conceive of a balanced diet without animal protein. Although they have put a great deal of effort into creating plots for growing food crops, they consider that their diet is poor because they lack game. The forest behind the village huts cannot satisfy their hunting needs, because of its degradation due to the intensity of human activity. The protected area remains the ideal place to carry out hunting throughout the year. The ban on entering the reserve has limited the movement of the Baka within the forest. In Baka tradition, the forest is the symbol of freedom and represents the ultimate refuge from the constraints of village life.' (Nguiffo Forest Peoples Programme 2001:208).

Summary: Indigenous Participatory Capacities in the Dja Reserve

To date, the Indigenous Baka peoples' involvement in strategies for protecting biodiversity in the Dja reserve has been severely restricted even though it is desired by the Baka and pursued by national and international NGOs. As the Forest Peoples Programme has continuously pointed out in their annual reports, the Baka's rights to use their forests in a sustainable manner are guaranteed by the Convention on Biodiversity (CBD), yet their rights remain under constant pressure by restrictions imposed by Cameroon forest authorities against their forest use. These restrictions have been imposed without communities' consent.

There is hope for change however. Using funding provided by the European Union, the Cameroon government and ECOFAC have pledged to initiate a new management phase and incorporate increased participatory planning in its objectives. The revised funding arrangements place a greater demand on protected-area policy-makers and managers to protect Indigenous and local communities' resource-use practices through park management plans.

'Cameroon's 1999 National Biodiversity Strategy Action Plan (NBSAP) specifies and makes clear the need for public participation, particularly the role of communities and Indigenous knowledge in the management and conservation of biodiversity. The Cameroon NBSAP Objectives emphasise the need to promote the recognition, documentation, and protection of traditional knowledge in the management of biodiversity, and that communities' traditional sustainable use of forest resources should be protected.' (Nguiffo, Forest Peoples Programme 2001).

To comply with Cameroon law and the CBD, the new management plan will need to address relevant aspects of participatory planning, including documenting the resource-use practices of local communities. To assist this goal, Indigenous land use maps are being developed through collaborative work with the Baka, and it is envisaged that these will play a critical role in increasing their involvement in the management of forests inside the Reserve. Community maps will be used to promote meaningful participation by local and Indigenous communities in proposed planning discussions through their direct input to park management discussions, and the government-approved management plan (Forest Peoples Programme 2005).

Okapi Faunal Reserve, Democratic Republic of Congo

Land Tenure:	State
Management Type:	Participatory Management – very limited. No role in management decisions. 'Permanent Local Consultation Committees' facilitate participatory conservation programs between Indigenous people and NGO management. Community Managed Reserves have not yet delivered effective outcomes. Capacity building is identified as a major goal.
Legislation / Policy:	Faunal Reserve (RFO): / World Heritage Site / Biosphere Reserve (UNESCO)
Enabling Mechanism:	UNESCO's Man and Biosphere Programme. The core philosophy of the (MAB) Programme is <i>an emphasis on humans as an integral and fundamental part of the biosphere</i> . Zoning within Biosphere Model (Buffer Zones).
Capacity Building Programs:	Limited within existing framework, but as an Integrated Conservation and Development Projects (ICDPs) - capacity-building is a major goal. Direct community involvement is currently limited to mapping exercises. Capacity-building objectives of NGOs include (1) Forest management using traditional knowledge; (2) Implementation of alternative strategies (ecotourism, medicinal plants). Management Plans are strong on language of participation, but weak on detail. Within the reserve, community maps are being used as a mechanism for identifying resource-use zones. These maps provide a tool to effect future management and policy decisions. Participatory conservation occurs through initiatives such as the ' <i>Inventories of the sacred forests</i> ' Project
Gender Equity Policies:	Not evident
Traditional Resource Use:	Traditional Resource Use: Restricted to Community Conserved Areas - one or two protected core zones (of 500,000ha); a large traditional hunting/gathering zone. Buffer zones of 5 kilometers radius around existing villages for hunting gathering, farming and construction and a 50km buffer zone all round the reserve. Wildlife regulations include authorized hunting methods, zoned hunting areas, a ban on commercial hunting and identification of protected species. (IUCN). Integrated Conservation and Development Projects (ICDPs) have been implemented within the reserve.

Site Details

Land Tenure

State

Area

1,372,625ha

1996 Inscribed as a World Heritage Site.

Natural World Heritage Criterion (iv)

IUCN Management Category

II (National Park). Biosphere Reserve

Forest Vegetation

- Clear forest mosaic
- Dry degraded dense forest

- Semi-deciduous forest
- Evergreen forests

Since 1994, the Democratic Republic of Congo (DRC) has been entangled in war and internal conflicts as well as outside interference (IUCN). As a result of these conflicts, Okapi Faunal Reserve was listed on the World Heritage Sites in Danger in 1997.

Brief Description

‘The Okapi Wildlife Reserve occupies about one fifth of the ‘Ituri Forest’ within the Congo river basin in the north-eastern Democratic Republic of the Congo, one of the great rainforest wildernesses of the world. The Congo has one of the largest drainage systems in Africa which has yielded a large number of major evolutionary discoveries. The Reserve contains threatened species of primates and birds, an immense flora, more than 4,000 of the estimated 30,000 okapi surviving in the wild and dramatic scenery including waterfalls on the Ituri and Epulu rivers. It is also of special interest as the homeland of traditional nomadic Mbuti and Efe pygmy hunter-gatherers.’ (UNESCO World Heritage).

THE RFO (faunal reserve) was created in May 1992, by a Decree of the Ministry for the Environment, Nature Conservation and Tourism (ECNT). In 1992, the establishment of the Faunal Reserve (RFO) resulted from collaboration between the World Wildlife Fund, the Congolese tobacco firm TABAZAIRE, and the Gilman Investment Company (GIC) The intention behind the creation of the reserve was not just to save a part of the Ituri Forest from the exploitation of its natural resources, “but rather to ensure that the native people should be able to benefit from, and use in a sustainable manner, the natural resources on which they had depended for centuries for their survival” (Mwinyihali 1999:1).

UNESCO’s Rehabilitation Project

In 2006, World Bank approval placed the RFO in ICCN’s *Program for the Rehabilitation of the DRC’s National Parks Network*. This initiative aims to strengthen government and Indigenous capacities to conserve globally important biodiversity in DRC (Taylor and Griffiths 2007:8). The project will build on recent reforms in the DRC including the 2002 Forest Code, which has been criticized for failing to adequately recognize Indigenous people, and for being developed and implemented without proper Indigenous consent or consultation (Taylor and Griffiths 2007:8). Some of the Program initiatives involve building the capacity of Indigenous peoples. In particular, the project claims to support ‘community development and participatory management’ including the ‘enhancement of pygmies well-being’ (Taylor and Griffiths 2007:8).

Summarising the Rehabilitation project to date, the Forest People’s Programme (2007) recently stated:

‘...the Rehabilitation of the DRC’s National Parks Network project uses positive language about community participation but its implications are unclear. ‘On the one hand, it claims to scale up the model of community-managed reserves and entails a specific pygmy-oriented program. On the other hand, institutional mechanisms for co-management are weak in detail; relocation and resource restrictions are treated with ambiguity; and the document does not elaborate on its claim that the project will support customary rights. Most worryingly, the project will contribute to the expansion of protected areas in the DRC but only seems to pay lip service to the principle of “free, prior and informed consent.’ (Taylor and Griffiths Forest Peoples Programme 2007:10).

Management

The management of the reserve is under the responsibility of *G/C*, the conservation NGO which supported the listing of the reserve. A management plan was prepared by the Institute for the Conservation of Nature (IZCN) with technical contributions and funding from WWF, the World Bank, the World Conservation Union (IUCN) and Tabazaire, (IUCN). Four management zones were established within the reserve in collaboration with local people including one or two protected core zones (of 500,000ha), including a large traditional hunting/gathering zone.

The management implemented zoning to encourage multiple uses and ensure that natural resources would be used in a sustainable manner by local communities. After conducting a study to determine how resources were used by each household, local people organised ground-level communities called Permanent Local Consultation Committees (CPCLs). The CPCLs were designed to participate in zone management; to provide a link between the local population and the ICCN/RFO officials; and to define development areas that were compatible with the goals of conservation. The CPCLs are the mechanism by which ICCN work with local communities. These partnerships identify problems arising at a local level, including 'cultural destruction', illegal poaching, the definition and respect of green zones, how to prevent illegal gold prospecting etc'. The collaboration between the CPCLs and the ICCN has provided an opportunity for the creation of Integrated Conservation and Development Projects (ICDPs) within the reserve. An initial project evidencing the collaboration efforts was the definition of agricultural zones within the reserve (Mywinyihali 1999).

Participatory Management Framework

One of the Rehabilitation Project management aims is to improve resource conservation through 'programs of collaboration' with Indigenous communities (IUCN). The involvement of the Indigenous communities occurs through a participatory management framework (Sebastian and N'yanga-nzo 2001:17). facilitated through the Permanent Local Consultation Committees (CPCLs). The community consultation committees define development areas that are compatible with the goals of conservation (Mywinyihali 1999). Capacity-building objectives identified to date include (1) Forest management using traditional knowledge; (2) Implementation of alternative strategies (ecotourism, medicinal plants).

One of the collaborative programs included a project titled "the *Inventory of the sacred forests in the DRC Area - Natural ecosystems.*" The general objective of the program was to contribute towards improving the potential knowledge on forest resource-use by recording the different 'sacred forests' in the DRC. (Sebastian and N'yanga-nzo 2001:17). Outcomes include:

- Creation of a database based on ecological and traditional knowledge;
- Improvement of conservation strategies of natural sites; and
- Assisting the population adopt an ecological conservation approach.

Building Indigenous Capacities

For centuries, Pygmy hunter-gatherers' have lived in the forest along with the Indigenous Bantu. A 1994 census estimated that 20,000 people live with the reserves boundaries, or the RFO and an additional 10,000 people lived within a radius of 15km. These groups are primarily hunter-gatherers, living almost entirely from the forest's natural resources. Institutional considerations for the management of the Reserve focused on how to sustain ecosystems through the integration of the Indigenous people (Mywinyihali 1999).

Component 2 of the project specifies a 'specific pygmy-oriented program' in the Virunga national park (Taylor and Griffiths 2007:30). This program is directed towards ensuring equal socioeconomic opportunities, equitable sharing of benefits, and access to social services. It will also ensure that Indigenous 'cultural values and specificities' are '[taken] into account' (p.30 cited in Taylor and Griffiths 2007) and that the project will 'promote pygmies' participation in decision-making and planning processes related to the management of the park' (p.82 cited in Taylor and Griffiths 2007:8). There is no specific fund reserved for the pygmy program, however \$550,000 is reserved for a range of activities listed as 'community conservation, pygmy program, socioeconomic monitoring, incl. SMP, and tourism' (Taylor and Griffiths 2007:8). In total, \$1.05 million has been allocated to community activities in two national parks (Taylor and Griffiths 2007:8). The Project Document notes that the pygmy program will be distributed through ongoing Indigenous people programs. Collaborative boundary demarcation, community hunting areas and community reserves are to be implemented. Site co-ordination committees (CoCoSi) will be established and will comprise of representatives of Indigenous groups. Despite these initiatives, the Forest Peoples' Programme notes that "institutional mechanisms for genuine co-management remain weak" (Taylor and Griffiths 2007:9).

To date, the Program has received a formal complaint by Indigenous peoples' organizations, and a full investigation is being conducted by the World Bank Inspection Panel. In its preliminary report released (2006), the Panel outlines criticisms such as failure to consult adequately with Indigenous peoples (Taylor and Griffiths 2007:8-10).

Potential Impediments

The Rainforest Foundation warns that with the ending of civil violence in the DRC, the forests will be vulnerable to the same large-scale clearance and industrial logging responsible that has been responsible for destroying much of Africa's rainforests (Counsell 2005:11). This will not only threaten the security of Indigenous peoples' resources, but will most likely impact upon conservation and capacity-building programs in the Okapi Faunal Reserve.

The danger now facing the DRC's forests is weak governance. With the likelihood that the state will be unable to regulate access to forest resources effectively, when concessions are allocated, it will be difficult to regulate concession boundaries. If the state is unable or unwilling to control logging "it may signal the start of a logging boom that could rapidly decimate the country's wood resources. This could, in turn, unleash a wave of negative environmental consequences". (Counsell 2005:15)

Summary

As argued by scholars Brandon and Wells (1992), the success of forest ecosystem conservation is critically dependent on government policies, land tenure legislation and institutional relationships. An important point is that effective incentives for linking conservation and development have often been missing. It is not enough for people to have marginal improvements through development activities; there needs to be adequate incentive for Indigenous communities to contribute to conservation management through their own cultural frameworks. Wells and Brandon (1992) highlight that another aspect of the 'incentives' problem facing protected area strategies is that the distribution of costs and benefits from conservation are unevenly distributed between local, national and international communities, which creates additional pressure on conservation. This occurs because the costs of conservation are greatest at the local level, and in order for people to supplement this unequal balance of costs and benefits and the lack of options for alternative possibilities, local communities often exploit natural resources within conservation zones, resulting in illegal activities such as the bushmeat trade (Brandon Wells 1992).

The Indigenous Bantu of the Okapi Reserve are continuing to harness the collaborative power of international NGOs to raise awareness of their marginalised position within the forestry reserves. A specific workshop was held in November 2005 to “discuss and identify a series of ecological, economic and social actions that would ensure a more harmonious and equitable cohabitation between pygmies, local Bantu communities, and the Park”. In particular, the project sought support from the UN Permanent Forum on Indigenous Issues with regard to pygmy-related activities (Taylor and Griffiths 2007:8-10).

Mamirauá Sustainable Development Reserve, Brazil

Approved as an extension of Jaú National Park, part of the Central Amazon Biosphere Reserve.

Land Tenure:	State
Management Type:	<u>Co-management (Community Conserved Areas):</u> Biosphere zoning within National Park Reserve. At its core is a resource management model which aims to reconcile the needs of the local people with the requirements of conservation. Management of the park resides with an international NGO and four federal departments. Co-management is facilitated by representatives of village groups and resource-user communities, who meet every two months with local governmental and non-governmental organisations. Annual General Assemblies provide the forum in which management decisions are discussed and voted upon.
Legislation / Policy:	Sustainable Development Reserve (SDR) – a category especially created for Mamiraua to provide for community development).
Enabling Mechanism:	World Heritage Listing. Man and Biosphere Programme.
Capacity Building Initiatives:	Objective of the co-management arrangements: to enable resource-dependent communities to create alternative sustainable economic activities that will(1) offset the opportunity costs of conservation; (2) comply with the rules of resource use, and (3) strengthen local participation in resource management. The communities have successfully developed: <ul style="list-style-type: none"> • Ecotourism: high quality / low impact (built and managed by community) • Fishing: Lakes - zoned for specific use, including protection, sustainable resource use and commercial use. Forestry: small-scale community forestry with industry linkages
Gender Equity Policies:	Yes
Traditional Resource Use:	Integrated Conservation and Development Zones.
Cultural Enhancement Programs:	Any research conducted within Mamiraua must reconcile traditional knowledge with scientific research (Koziell and Inoe 2006:23). Cultural Mapping has established traditional resource use areas which were then zoned for special use, while other areas (lakes) were zoned for commercial/restricted use. All of these areas are designed, implemented and managed by Indigenous communities. The floating lodge is located within an ecotourism reserve, where Indigenous people were actively involved in its construction and management.

Site Details

Land Tenure

State

Protected Area

260,000 ha (Focal or Demonstration zone).

The Focal area of the Mamirauá Sustainable Development Reserve (MSDR) is 864,000 ha in size. It is one of three Reserves that make up the Jau National Park World Heritage Protected Area, constituting 2,272,000 ha of diverse forestry ecosystems (UNEP-WCMC

Protected Areas Programme). With the 2003 addition of the three Reserves in the World Heritage zone, the total size of Jau National Park now under World Heritage Protection is 4,882,000 ha IUCN, WHC-03/27.COM/8C p.10).

2003 World Heritage Listing (granted as an extension of Jau Natural World Heritage site in 2003 (constituting part of the Central Amazon Biosphere Reserve)

Natural World Heritage Criterion (ii) (iv)

IUCN Management Category

Biosphere Reserve (part)

Situated in North Western Brazil, Mamiraua Sustainable Development Reserve is an extension of the Jau National Park (JNP). JNP is considered as a 'hot spot' for biodiversity conservation in the Amazon Basin, as well as a site of exceptionally high biodiversity value for conserving tropical forest ecosystems (IUCN Technical Evaluation of Jau National Park). The reserve forms part of the Central Amazon Protected Areas - a corridor of forests and ecosystems comprising over 6 million hectares.

The boundaries of the site include sufficient area to protect the site's heritage values from most direct effects of human encroachment and commercial resource extraction. The forests, which make up most of Jau are virtually *untouched wilderness* areas covering millions of hectares (IUCN Technical Evaluation:133).

Mamiraua's freshwater 'swamp forests' (*varzea*) represent one of Brazil's six national 'Biomes' (areas recognised by UNESCO's Man and Biosphere (MAB) Programmes as being of international importance in the conservation of biodiversity and the promotion of sustainable development). The Biospheres were designed to find an effective way of providing a sustainable balance between human societies and the environment. One of their principle functions is to promote economic development by incorporating concepts of social, cultural and ecological sustainability. The Brazilian Biospheres are managed by decentralised participative systems of management, based on national councils, regional colleges and state committees with an equal representation of governmental institutions (federal, states and municipal governments) and the society in general represented by NGOs, universities, key stakeholders, and the business sector.

History

The Mamirauá Sustainable Development Reserve lies within Jaú National Park World Heritage site. The Jaú National Park protects the entire hydrological basin of the Rio Jau, between two of the greatest rivers of the Amazon basin, the Negro and Solimões, and encompasses a unique group of exceptional ecosystems. It is primarily tropical forest and one of few conservation units in the Amazon region that protect such a large portion of the flora and fauna of 'blackwater river' systems. The Jaú is part of the Central Amazon Reserve World, constituting one of the largest contiguous complexes of protected areas anywhere in the tropics (larger than 40 sovereign states). (IUCN Technical Evaluation:133). The site's main objective is 'the conservation of a portion of the immense biodiversity of the largest rain forest on the Planet'; it 'promotes scientific research, as well as, the appreciation of the knowledge of the traditional communities and innovative projects for the sustainable management of forestry products and fishing'. (UNESCO).¹⁰

¹⁰ <http://www.unesco.org/uy/mab/documentospdf/brazilian.pdf>

In 1983, after becoming concerned about the survival of the white uakari apes, Brazilian biologist José Marcio Ayres, proposed the creation of an ecological station (intended to protect the habitat of the apes by preserving the alluvial flood plains). In 1990, approx. 260,000 ha was set aside for an 'ecological station', which under Brazilian conservation categories 'is primarily dedicated to research purposes', with no inhabitants permitted in the area (Roper 2000:63). Aware that the zoning of the area as 'ecological station' meant the forced relocation of the Indigenous inhabitants, Ayres and other Brazilian scientists founded the NGO *Sociedade Civil Mamiaraua* (SCM), and after conducting scientific and anthropological studies, began developing a management plan for the region. In order to legalise the status of the Indigenous communities within the area the site was re-classified as a 'Sustainable Development Reserve' - a category created especially for this purpose. In this re-listing, the area under protection was expanded to approximately 1.2 million hectares (Roper 2000:63). Since 1996, the entire area has been protected through an Act of the Amazonas State Legislature, as a Sustainable Development Reserve - a protected area category that has as its objective, the conservation of biological diversity through strong local participation. This classification also permits limited resource extraction by traditional communities in restricted management zones (IUCN category VI) (IUCN Technical Evaluation:134).

Chronology

- 1990** Mamirauá State Ecological Station established (core area 260,000 ha);
- 1993** Mamirauá designated a UNESCO Ramsar Wetland site;
- 1996** Mamirauá decreed a Sustainable Development Reserve by Amazonas state government (1,124,000 ha);
- 2001** The Mamirauá Reserve designated within the UNESCO Central Amazon Biosphere Reserve;
- 2001** Mamirauá Reserve won UNESCO award in the 'Science and Environment' category;
- 2004** The NGO *Sociedade Civil Mamiarauá* was awarded a UNDP Equator Prize.

Management

In 1996 the Mamiraua management plan was approved after an extensive program of research involving conservationists and social scientists. Administration of the plan began in 1997, its objective being to create alternative sustainable economic activities for Indigenous people that would (1) offset the opportunity costs of conservation; (2) comply with the rules of resource use, and (3) strengthen local participation in resource management (Gillingham 2001:805). The projects' community participation component was directed toward establishing a process of transparent decision making and problem solving by local residents and users, in conjunction with local authorities and other stakeholder groups (Marmontel 1997 cited in Gillingham 2001:806).

Cooperative Management

The Mamirauá Sustainable Development Reserve (MSDR) was the first Brazilian protected area to successfully combine the preservation of natural ecosystems with sustainable development. The Mamiraua initiative focused on conservation by empowering local people to contribute through a range of participatory and political organisation activities that built upon pre-existing institutional and social development processes (Koziell and Inoue 2006:12).

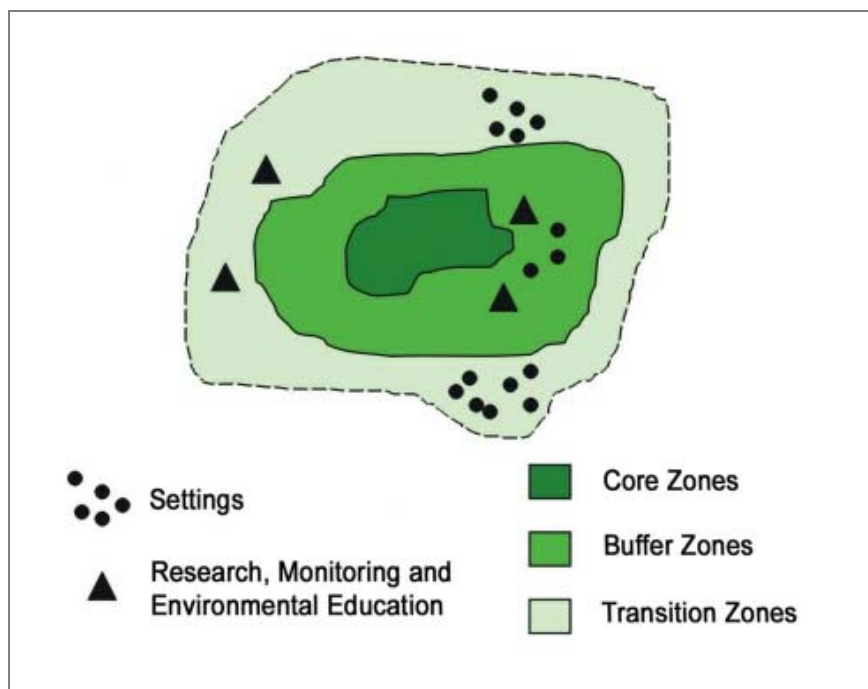
The Reserve is managed through a cooperative agreement between the *Sociedade Civil Mamiaraua* (Brazilian NGO), an international NGO, and the Amazonas Institute for Environmental Protection (IPAAM) encompassing four federal agencies including: (1) the

Brazilian Institute of the Environment and Renewable Natural Resources; (2) the Ministry of the Environment; (3) the National Council for Scientific and Technological Development; and (4) the Ministry of Science and Technology (MST) (IUCN Technical Evaluation:134).

The Park is administered by the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA). In 1992, following guidelines prepared by Institute (IBAMA), management plans were drafted between IBAMA, local municipal governments, research institutions and representatives of tourism industries in consultation with 60 'riverine communities', who continue to participate in the monitoring, management, protection and research programs. 150 people are employed under a Director and two Adjunct Directors. 100 volunteer guards from the local communities have received training, and more are doing so.

The activities of the MSDR to date have been carried out in the 2600km² Focal Area closest to the town of Tefe. (The Focal Area constitutes 23.2% of the whole Reserve). Special Management and Protected zones cover about 73,000 ha (35%) of the Focal Area. Protection and research is all done within the core zone near and around Lake Amanã and Rio Japura where the different lakes are zoned for specific use, including protection, sustainable use and commercial use. Monitoring of the fauna and community conserved area is done by volunteer inspectors from local communities. The rest of the Reserve is a Total Protection zone, which is not regarded as a problem, as it is virtually uninhabited by Indigenous people.

Zoning of Biosphere Reserves



(Source: UNESCO¹¹)

¹¹ Website: <http://www.unesco.org/uy/mab/documentospdf/brazilian.pdf>

Indigenous Stakeholders

The area has long been settled because of its productiveness and accessibility by river. The riverbanks of the entire region have been occupied since at least the beginning of the 20th century. The area was originally inhabited by Amerindian Indigenous groups, among which the Omágua predominated, but the Amerindian population was largely decimated by war and introduced disease. At the beginning of the 20th century after rubber-collecting declined, succeeding settlements were centred around trading firewood for steamships, with a subsistence economy built upon the sustainable harvesting of fish, manatees, and turtles. These settlements were concentrated around the trading posts of *patrons*, who controlled the markets of an extractive economy based on a system of debt-establishment and barter (IUCN)¹².

In regards to a traditional land-tenure model of forest-dwelling groups in lowland South and Central America, research evidences “a close link between the cultural conceptions and social institutions of lowland forest dwellers and their land-use practices” (Davis and Wali 1994:2). Davis and Wali (1994) refer not to a reductionist relationship between belief systems and subsistence activities, but rather to:

‘persistent patterns of belief and behavior in which conceptions of space, taboos on diet and hunting and cultivation, and the relationship between the natural and supernatural world would regulate the use of land. These patterns are evident across the whole span of cultural variation in the region.’ (Davis and Wali 1994:2).

A 1994 census estimated the resident population of the Focal Area to be around 1700 people in 23 settlements (0.6 persons/km) with 3600 persons in 37 neighbouring ‘user’ settlements (Gillingham 2001:805). These populations consist of a mix of Portuguese and Amerindian people (often known as *ribeirinhos*). A more recent report sponsored by the UK donor institution (DFID) written by Koziell and Inoue (2006:20) estimates there are around 1800 people based in 23 settlements within the Focal Area. There are three Indigenous (Amerindian) communities within the reserve, which are noted in the DFID report as differing ‘only slightly’ from the other communities. Most communities are located on the river margins. There are an additional 3600 people living in communities adjacent to the reserve (the Subsidiary Area) who are also classified as ‘resource users’ (Koziell and Inoue 2006:20).

Except for the purpose of local subsistence, hunting and logging of small and endemic species is prohibited within the Reserve. Zoning protection has generated an increase in animal populations and the sustainability of both forest and aquatic resources, especially within the 650,000ha of lakes which form 25% of the focal area. The economy of the Indigenous communities in the Mamairauá Reserve continues to be based on a traditional land tenure system, with subsistence activities focused on fishery and complimented by extractive industries and swidden agriculture, adapted to seasonal flooding (Roper 2000:63).

Political and Institutional Context

In the 1970s Brazil established a policy on protected areas which mirrored the ‘classic’ model of protected areas conservation; that is, locking away “huge and untouched areas, in which human activity was to be banned as far as possible”. (Roper 2000:62). At the time, this corresponded to international guidelines for the planning and implementation of protected areas, which also advocated for ‘technocratic’ planning concepts based almost entirely on

¹² http://www.unep-wcmc.org/sites/wh/cent_amazon.html

scientific measurement. As Roper (2000:62) points out, this approach changed in Brazil at the beginning of the '90s due to two key factors:

1. Political power with respect to the environment was 'devolved' to lower levels as part of a comprehensive decentralisation process; and
2. Environmental agencies underwent a process of institutional restructuring which dovetailed with a new wave of initiatives implemented by Brazilian NGOs, who were strongly committed to social and human rights issues. Instead of supporting the creation of new protected areas (as was the case in the 'classic' Brazilian environmental movement), this new wave of NGOs began to lobby for the interests of local people in protected areas.

Additionally, social scientists began highlighting the role of local people in their research activities and publications, and more importantly; the key stakeholders (the Indigenous people) began to take a more active role by establishing their own organisations (Roper 2000:62). It was within this context that the Mamirauá Reserve was created.

Shifts in Conservation Approaches

As a result of the growing influence of the international conservation movement from the 1960s, the number of protected areas in Brazil has risen dramatically (Davis and Wali 1994:5). At the same time, Brazilian governments, in collaboration with international conservation organisations and UNESCO's Man and Biosphere Program, have established protected areas for Indigenous communities in core areas or buffer zones within protected areas. This strategy reflects the current paradigm in Brazil which now recognises that Indigenous people should be co-managers in the design, implementation and daily operation of protected area conservation.

Co-management is facilitated through village representatives, who meet every two months with local governmental and non-governmental organisations. Annual General Assemblies provide the forum for management decisions to be discussed and voted upon. At the core of the management approach is the aim to reconcile the needs of the local people with the requirements of conservation (Roper 2000:63).

Budget

Between 1993 and 1997, IBAMA invested around R\$1,400,000 (approximately US\$780,000) in the Park, of which R\$378,000 (US\$211,000) were spent on developing the management plan. From 1992 to 1997, FVA channelled about R\$1,600,000 (US\$894,000) to the preparation of the plan, excluding researchers' salaries and the expenses of collaborating organisations. The primary sources of funding were: IBAMA through its National Programme for the Environment (PNMA-IBAMA), the World Wildlife Fund, the European Union, the W. Alton Jones Foundation, the Government of Austria and 14 other institutions. The funding available to the PP-G7 project (pilot program to preserve the Brazilian rainforest) amounts to nearly US\$47 million. About US\$3.8 million was allocated for Phase 1 (IUCN).

Funding Support

It is probable that no other protected area in the Amazon Basin has enjoyed the level of staff or funding of Mairaua over the space of a decade: approximately \$15 million has been invested in research, protection, management and outreach activities in the reserve over that period. The investment at Mamiraua has, however, been spent within what is referred to as the focal (demonstration) area of 260,000 ha where almost all research, protection and community development activities have been centred (IUCN Evaluation:136).

The data below provides budget estimates from two different sources (and in multiple currencies). The first (a) is from UNESCO's data sheet, while Table 3 details the actual budget allocated to the project by the UK funding institution (DFID), outlined in its 'Lesson Learnt' (2006) report. DFID's total financial contribution to the MSDR was UK\$4.4 million over ten years, over and above other funding received through other donor commitments – see Table 3 (below) for details (Koziell and Inoue 2006:40).

Table 3: Project goals, purpose and objectives for Phase 1 and 2.

Document	Goal	Purpose/Immediate Objectives	Budget
1992 Project Memorandum Phase 1	To assure the conservation of biodiversity in Amazonian flooded forest (<i>varzea</i>)	Conservation of biodiversity in the immediate focal area. Development of management techniques and production of a management plan. Improvement of livelihoods of local people through sustainable use methods and better social services.	UK\$1.6 million from DFID over five years from 1992-1997. Additional contributions from WWF UK\$0.5m; WCI UK\$0.3m; CNPq UK\$0.4m; EC UK\$0.04m
1995 Project Memorandum Phase II	Biodiversity of the Amazonian <i>varzea</i> flooded forest conserved	To conserve and manage MSDR in partnership with resident users, local people and the Institute.	Approx UK\$2.8m over five years from DFID (1997-1992) and other contributions (<i>not listed</i>)
Revised Project Logframe Phase II	Biodiversity of the Amazonian <i>varzea</i> flooded forest conserved and livelihoods assured	To protect the biodiversity of the Mamiraua Sustainable Development Reserve whilst securing sustainable improvements in the quality of life of local people.	No budget provided

Phase I: Involved creating new legislation for a Sustainable Development Reserve, a new conservation category unit established with the recognition that without involving local people in managing the reserve, its long-term viability would be compromised. This move was considered 'extraordinarily progressive' in a country where conservation legislation had been most conservative (Koziell and Inoe 2006:24).

Phase II: Resulted in the creation of the MSDI, a privately run research institute (legally classified as a social organisation). This allowed the MSDI to benefit from some public funding and enable it to search for other sources of funding. The Ministry of Science and Technology issued a management contract to MSDI. The establishment of MSDI provided prominence and a formal mandate to continue working in the MSDR. Although DFID funding ended in June 2002, the Mamiraua project still continues (Koziell and Inoe 2006:24).

Capacity-Building Initiatives

When drafting the first management plan, the *Sociedade Civil Mamiraua* (Brazilian NGO) embarked on capacity-building initiatives, recognising that creating new livelihoods out of biodiversity conservation and its sustainable use presented significant challenges. Overcoming these challenges meant accepting that conservation with development approaches is not *always* appropriate but is in some cases essential (this is usually the case areas of high national and global biodiversity value). One of the on-going challenges involves unrealised potentials for livelihood opportunities, for example; in the MSDR the sustainable use of certain wild resources could deliver a lucrative stream of economic

benefits, but without adequate legislative and management frameworks this potential remains unfulfilled (Koziell and Inoue 2006:18).

Over the six years (1995-2001) MSDR General Assemblies have agreed to:

- The establishment of a zoning system of lake use, whereby lakes are categorised for strict protection, local subsistence use, or local commercial fishing;
- The approval of the norms of the management plan concerning the use of natural resources in the area and;
- A ban on the entry of commercial fishing into the reserve.

All stakeholders agreed to respect periods of regeneration for lakes zoned as 'sustainable use' and 'commercial use'. Additionally, the local communities decided to sub-divide the Reserve into four types of zones which corresponded with their land tenure system and resource use requirements. These include:

- A divided, **total preservation zone**;
- Several **settlement zones**;
- Zones for **sustainable use**; and
- Zones for **special use**.

The participatory approach to zoning resulted in different priorities being negotiated during the planning process. Initially the scientific group recommended a continuous preservation in the central region; however the local communities argued that some of the lakes in those areas were indispensable to their resource use. In response, a divided total preservation zone was provisionally installed, and all actors agreed to increase their efforts to find alternative sources of income so that in the future the two parts of the total preservation zone could be united. According to Roper (2000), "[t]his processual negotiation strategy is indeed very innovative in the context of conservation conflicts" (Roper 2000:65).

Sarah Gillingham (2001) highlights that 'in effect, these decisions define a common property regime, whereby use rights for the natural resources of MSDR are controlled by identifiable groups (the residents and users), with a system of rules concerning who may use the resources, who is excluded from doing so, and how they are used' (Gillingham 2001:806).

Fishing

For the indigenous communities of the MSDR, around 83% of subsistence protein is supplied through fish consumption. The lakes harbour a great variety of fish, (some 400 species), most of which are edible. For 12 months of the year fish provide a highly sustainable source of protein with an exceptionally high commercial value. Fish also play a critical role in the forests' (*varzea*) sustainability. In a symbiotic relationship, the fish depend on the forests for food, which in turn depend on the fish for seed dispersal (Koziell and Inoue 2006:20).

A significant Indigenous initiative of the MSDR is the community-based fisheries management program. The project extended upon the zoning and lake rotation system introduced by the Catholic Church in the 1970s. The MSDR experience found that even though this was a recently introduced land-tenure management system, using an established and familiar method of resource management improves its likelihood of success and replication. Moreover, this rotation system drew upon traditional knowledge of stock regulation and 'zonation', and also on the social development and organisation of the

'fisherfolk'. The results demonstrated that science and traditional knowledge have complementary places in resource management, 'particularly as the inclusion of traditional knowledge often generates greater acceptance of management measures' (Koziell and Inoue 2006:36,iv).

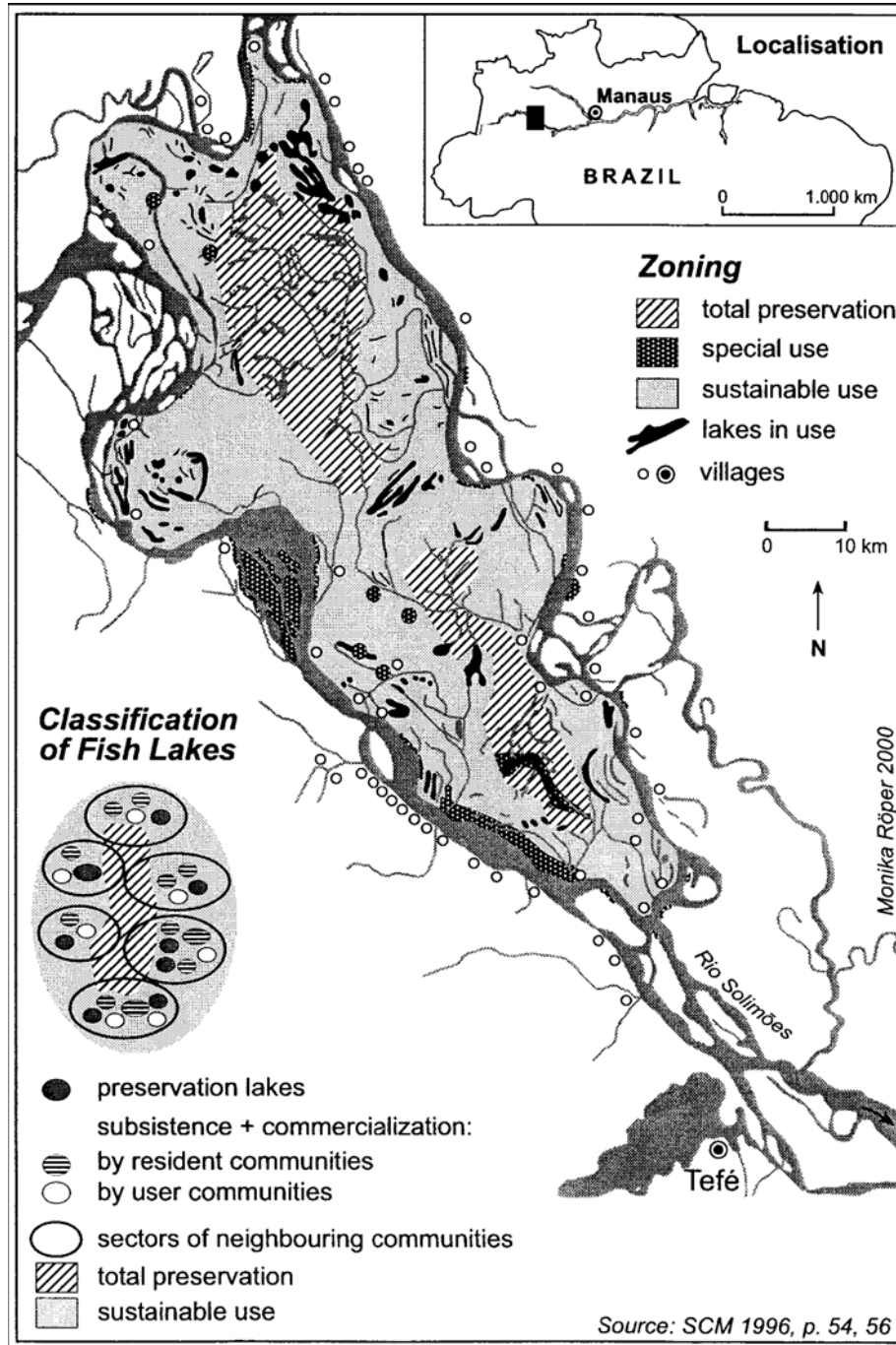


Figure 1: Mamiraua Reserve: Indigenous classification of fishing lakes.

Forestry

Another collaborative initiative was the community-based forestry management program. During the high-water period when there is no income from fishing or farming, forestry provides a valuable stream of income. Prior to the introduction of the forestry program, forest harvesting had not been carried out in a sustainable manner and benefits were flowing to external traders rather than local communities. When the SDR zoning was implemented the need to regulate and implement sustainable programs became paramount. However, at the time legislation was inadequate and the MSDR had to lobby for the development of necessary regulations before it could commence. In 1988 IBAMA issued the appropriate legislations, and since that time there has been some 'highly innovative work' undertaken by the forestry team. The MSDR provided support for establishing appropriate infrastructure and institutions to manage forestry operations, and with the community now in control and their activities made legal, they are no longer dependent on patron-client relationships with external traders. Another important provision was assistance toward the establishment of formally registered producer associations, which has helped the communities become more aware of their rights, responsibilities and future capacities. This has contributed to local empowerment (Koziell and Inoue 2006:37-38).

Eco-tourism

The potential for ecotourism in the MSDR is very high. The region contains a number of "charismatic" species" and it is much more accessible than other parts of the Amazon. A core area for eco-tourism was identified in the management plan and a floating eco-tourism lodge was constructed close to this area. Labourers were employed from the local communities, although this resulted in a longer construction period (as skills were relatively limited). The benefit of employing local people was that the project garnered the support of the communities. As a result, seven communities within the core area now receive direct benefits from tourism and associated activities. Income comes from the sale of handicrafts and lodge accommodation. In minimising potential impacts to cultural and natural resources, the venture was purposefully designed as a low impact – high value project (ie small numbers of wealthy and discerning tourists).

From 2006, *International Expeditions*, the largest ecotourism operator in the US has included Mamiraua in its catalogue, which is expected to make a significant impact on visitor numbers. Despite the pressures for economic returns, the priority is to maintain a low impact experience that delivers both conservation and economic benefits to Indigenous communities (Koziell and Inoue 2006:37-38).

Summary

According to Monika Roper (2000:63):

'The success of the Mamiraua project to date is largely due to the commitment and participation of a number of actors on different levels. On the local level, the participation of local people in developing the management plan was critical. Elements of the plan were discussed and negotiated with key stakeholders, and finally legitimised by vote. The traditional peoples' associations also assisted in implementing the management process in a variety of ways.'

The substantial financial contributions needed for this success (more than US\$2 million/year) were contributed largely from international donors. The scientific component, (conducted by internationally recognised institutions), played a pivotal role in securing international funding commitments. At the national level, the project included Brazilian scientific institutions. Most importantly, according to Roper (2000:63), the Brazilian authority for science and research

CNPq (*Conselho Nacional de Desenvolvimento Científico e Tecnológico*) assumed responsibility for a considerable part of the financing (Marmontel 1997:425 cited in Roper 2000:64). At the centre of the network is the Brazilian NGO *Sociedade Civil Mamiarauá* (SCM), acting as the executing agency, representative of the project, and mediator between all stakeholders.

Sarah Gillingham (2000:807) notes that one of the problems associated with the practical implementation of community-based approaches to natural resource management in the MSDR was that the acceptance of, and compliance with, the lake use categories have sometimes proved difficult, due to:

- Political factions within settlements; and/or
- Weak leadership, leading to lake invasions and disputes between different interest groups or settlements.
- Residents and users do not always comply with the agreed norms of resource use, “particularly in the case of norms limiting or proscribing local patterns of resource use” (Gillingham 2000:807).

The other aspect of the zoning plan that was problematic for the Indigenous population relates to the politics of kinship. Gillingham (2000:811) notes that the influence of kinship in ordering social relationships has several implications for the achievement of local participation in the resource management of the MSDR:

1. Firstly, the hierarchal local organisation was centred on the kinship-based dominance of particular families within each settlement, reducing the democratic participation and thereby the likelihood of collective action for resource management;
2. Secondly, struggles for political power between existing kin-based factions sometimes found expression in conflicts over resource use;
3. Thirdly, the extensive kinship networks mean, that under customary resource tenure arrangements, “the user groups of these ‘communities’ extend beyond those recognised by the organisational structure for local participation in resource management. (Gillingham 2000:811)

Despite the challenges of reconciling scientific and Indigenous conservation models, the Mamairauá Reserve represents a successful example of cooperative management. In 2001 Mamairauá Reserve won a UNESCO award in the ‘Science and Environment’ category, and in 2004 the NGO “Sociedade Civil Mamiarauá” received The Equator Prize, on behalf of the United Nations Development Program (UNDP). The Equator Prize is a prestigious international award that recognizes outstanding local efforts to reduce poverty through the conservation and sustainable development.

Rio Platano Biosphere Reserve, Honduras

Land Tenure:	State
Management Type:	Co-management (Community Conserved Areas) At its core is a resource management model which aims to reconcile the needs of the local people with the requirements of conservation – ‘Integrated Management’
Legislation / Policy:	Honduras National Congress Decree on Protected Areas declared (the Tawahka Biosphere Reserve) - 230,000 ha of tropical rainforest to protect ancestral territories.
Enabling Mechanism:	Man and Biosphere Programme and World Heritage Listing
Capacity Building Initiatives:	<p>Conservation Programs – turtle and iguana projects and butterfly breeding</p> <ul style="list-style-type: none"> • Eco-tourism based upon cultural values • Organic cultivation of Cacao and several timber and firewood species of trees • Women’s micro-enterprise initiatives • Poverty reduction outcomes (health, education benefits) • Community grass-roots organisation prevented building of dam • Legal title on 7,000 ha secured for agricultural activities <p>A National Congress Decree on Protected Areas was declared (the Tawahka Biosphere Reserve - around 230,00 ha of land) to protect cultural traditions and territories.</p>
Gender Equity Policies:	Women are particularly engaged and empowered.
Traditional Resource Use:	Within Integrated Conservation and Development Zones. Cultural activities are promoted within a cultural reserve, zoned with special legislation. Cultural
Cultural Enhancement Programs:	Cultural Mapping has established traditional resource use areas which were then zoned for special use such as eco-tourism; conservation projects; agriculture, cultural activities.

Site Details

Land Tenure

State (some privately-owned plots within the reserve)

Protected Area

500,000 ha

Includes:

350,000 ha constitutes the biosphere reserve

15,000 ha buffer zone

1982 Inscribed as a World Heritage.

1996 Placed on the List of World Heritage in Danger

IUCN Management Category

National Park, Biosphere Reserve

Natural World Heritage Criterion (i), (ii), (iii), (iv)

Vegetation

- Moist Forest
- Mangroves
- Miskito Pine Forests
- Coastal Lagoons
- Marine Area

The Rio Platano Reserve incorporates a diversity of ecosystems; from sea-coast through coastal savannas and lagoons to multiple types of tropical rainforests. Its rainforests contain endangered animals. Located on the watershed of the Rio Platano, the Rio Platano Reserve is part of the largest surviving area of generally undisturbed tropical rainforest in Honduras and one of the few remaining in Central America. In the valleys and along the Caribbean coast, around 5,000 Miskito and Paya Amerindians continue to maintain traditional lifestyles. The Mosquitia Corridor forms the largest contiguous tract of rainforest remaining in Central America today. Its international value lies in it being the largest intact component of the Mesoamerican Biological Corridor (UNESCO).

Historical Chronology

- 1970s** Concern over the rapid deforestation of the Mosquitia Corridor stimulated conservationists into calling for protected area status;
- 1980** The Honduran government declared 525,000 hectares of the Honduran Mosquitia as the Rio Platano Reserve;
- 1980** The cultural significance of the reserve and the vast, relatively undisturbed forests of the area led to its listing (under decree No.79) as the Rio Platano Man and Biosphere Reserve (MAB) (Nielson 2001:3). A management plan was developed;
- 1982** Listed as a world heritage site by UNESCO;
- 1996** Listed as World Heritage in Danger and remains listed due to “peasant colonisation, large-scale clearing for forests for cattle pasture, illegal timber extraction, governmental indifference, unregulated hunting and fishing, theft of archaeological sites and population growth” (Nielson 2001:3);
- 1997** The boundaries of the reserve were expanded to include the Patuca River in the southeast, taking the total area of the reserve to 8500km², which classifies it as one of Central America’s largest protected areas. The reserve was divided into three zones, a core zone, buffer zone and cultural zone, inhabited by Indigenous groups whose traditional resource use pattern have historically had a relatively low impact on biodiversity. The reserve constitutes the largest protected area in the Honduran portion of the Meso-American Biological corridor, and is divided into three zones in accordance with the Biosphere model. The model accommodates preservation, conservation, and human use through a conceptual framework of nucleus, cultural and buffer zones (Herlihy 1998:2). The nuclear zone (207,000 ha) is due to increase to 318,000ha under a German Government proposal (Richards 1994).

Indigenous Stakeholders

The site is inhabited by three Indigenous groups who live primarily in the northern buffer zone of the Biosphere; (Richards 1994). Determined to stop further encroachment of colonists (timber and agricultural ventures) onto their traditional lands, Indigenous leaders instigated a dialogue with the Honduran government to gain legal control over their lands more than twenty years ago. They have continued to garner international support, and

through their ongoing participation with NGOs (such as MOPAWA), have had some success in securing legal recognition of their lands (Herlihy 1998).

Rio Platano is the homeland of four Indigenous and 'native' ladino populations (of around 6,000 inhabitants in the northern zone) who have maintained the forest cover through centuries. These include the Meskito and Pech Amerindians, Garifunas of Afro-Caribbean descent, and the 'ladino's of mixed Spanish/Amerindian descent. The Miskito, who for over 2,000 years have preserved their traditional lifestyle, are the largest Indigenous group, with around 4,500 people living mainly in coastal settlements (UNESCO).

The Indigenous groups are primarily swidden farmers and 'extractivists' who have enjoyed a more or less 'symbiotic' relationship with the natural environment. In forest clearance and land preparation, strategic trees and thickets were left, permitting the regeneration of original forests in 15-20 year cycles. All three Indigenous groups hunt and fish regularly. The Garifuna use nets along the coastal areas, the upriver Pech use spears, and unlike the Ladino's, their interest lies in subsistence rather than commercial exploitation. Traditional beliefs, such as animism (the belief that plants and animals harbour spirit forms) have acted as mechanisms to prevent over-exploitation (Richards 1994).

Land tenure in the RPBR has been described as 'anarchic'. Colonists have claimed much of the land by making physical tracks through the forests, and Indigenous groups who use these forest lands for numerous non-timber products were not considered owners of these 'unutilised' lands, and therefore received no titles, despite official recognition of their land occupation rights in the Honduran Constitution (Richards 1994). The establishment of Indigenous land rights has proved a very slow process in Honduras. In 1987, representatives of ethnic groups presented a declaration demanding development of a legal basis for protection over their territorial and cultural inheritance. The response from the Government in 1988, through the Ministry of Planning was a proposed Law for Protection and Development of Ethnic Groups. There have also been major problems of external intimidation (UNDP, 1993 cited in Richards 1994:1).

The local Indigenous NGO, MOPAWI, was supported by Cultural Survival (an international NGO) in the investigation of the Indigenous land tenure situation. In the northern buffer zone, MOPAWI provided an important catalyst in the development of the Indigenous grass roots Committee of Land Vigilance, which led to the First Congress on Indigenous Lands in Mosquita (1992) and the production of a map delineating the current Indigenous land rights situation. The Congress then presented its demands to the Government, which included the establishment of a new Indigenous reserve to the south of the Biosphere Reserve (the Tawahka Suma area). This culminated in a National Congress Decree on Protected Areas over the Tawahka Biosphere Reserve (230,000 ha) - an Indigenous-managed rainforest reserve, providing a biological corridor linking Honduras and Nicaragua, established specifically to protect cultural territories.

Of the three Indigenous groups, the Garifuna have made the most progress in land rights issues. Communal land title has been obtained by most Garifuna communities. In the absence of an effective state presence the NGO community have supported MOPAWI in fighting for land rights and culturally-based economic imperatives (Richards 1994).

Management

MOPAWI Initiatives

MOPAWI is the Indigenous grass-roots development and conservation NGO that has been actively representing Indigenous communities in the Mosquito region of eastern Honduras for the last 20 years. MOPAWI represents several thousand Indigenous people inhabiting the

world heritage site, including the Miskito, Garifuna, and Mistizo people. MOPAWI's mission is to support integrated human development and nature conservation and has successfully protected some 230,000 hectares of Tawahka ancestral territories through the declaration of the Tawahka Biosphere Reserve.

MOPAWI assists the protection of World Heritage conservation values in habitats ranging from coastal beaches to pine savanna and primary rainforest. It promotes sustainable income generating activities that allow communities to reduce poverty without compromising the species with which they coexist. Importantly, the work of MOPAWI has raised the awareness of communities to the importance of protecting biological diversity and has encouraged communities to prevent construction of a dam in the Mesoamerican Biological Corridor. MOPAWI's partners in its integrated conservation and development mission for the total region of La Mosquita include the US Peace Corps, World Wildlife Fund (WWF), US Department of the Interior (USDOI), US Agency for International Development (AUSAID, Tearfund, and The Nature Conservancy (TNC). These collaborative partnerships have enabled MOPAWI to pursue conservation and development outcomes in the following program areas:

- Sustainable agriculture;
- Women in development;
- Community forest development;
- Preventative health;
- Bi-lingual-intercultural education;
- Organizational strengthening;
- Institutional strengthening;
- Public policy formation;
- Small business/credit
- Coastal marine management
- Integrated management of the Rio Platano Biosphere Reserve.

The most important role of MOPAWI and its partners has been the development and strengthening of local organisations implementing and managing eco-based tourism. This involved equipping the committee with additional skills and training to continue evolving, adapting and stimulating the ecotourism industry.

- MOPAWI has provided the catalyst for implementing the norms and cultural values of the communities in the guide and service course implemented by the Honduran Institute of tourism (HIT). MOPAWI is working with the institute towards a certification system for guide training;
- Training courses reinforce the value of Indigenous knowledge;
- MOPAWI and partners have continually collaborated with communities to facilitate effective dialogue and cooperation between the community, state and private sectors;
- This interaction between community, state and private sectors has increased opportunities and addressed challenges of ecotourism implementation and highlighted the necessity of tourism planning based upon the values and needs of the communities and the reserve;
- MOPAWI's small credit and business program has provided loans to service providers to improve lodging, food and transportation facilities;

- MOPAWA facilitated the construction of a visitors center and a series of bridges and trails through a cost sharing arrangement – the community supplied the labour and local materials while MOPAWI provided skilled labour and non-local materials.
- MOPAWI have taken a cautious approach to visitor numbers and have embarked on small-scale marketing.
- The conservation initiatives (butterfly and turtle programs) provided constant affirmation of local stewardship of natural resources and garnered motivation to continue;

The Participatory Zoning and Management Component was designed specifically to open a dialogue and co-management principles between resident populations and government authorities. Participatory research, involving the collection and interpretation of data by local people using Indigenous resource use knowledge, has produced excellent results in conservation, poverty reduction and the empowerment of local people (Herlihy 1998:2).

Management Framework

Although the Reserve was legally declared in 1980, there was no effective control until 1987. Initially, management fell under the jurisdiction of the Ministry of Natural Resources, but their presence was negligible. In 1991, official management was handed from the Secretariat of Renewable Resources (RENARE) to the newly established Department of Protected Areas and Wildlife (DAPVS) of the Honduran Forestry Development Corporation (COHDEFOR). However, DAPVS inherited the responsibility for management without adequate resources. COHDEFOR had become unpopular due to consistently approving the extraction of timber to wealthy outsiders while prohibiting subsistence farming and forest clearing of local communities. This led to the protection and buffer zone management being almost entirely taken over by the NGO community, with support from international donors. In 1990 the German Government submitted a major project proposal comprising a grant of over nine million dollars (Richards 1990). In 1991 the German Consultancy (GFA) developed a management plan for the reserve, which included redefining and expanding the reserves boundaries to include an additional 300,000 ha. The redefinition of the three macro zones included an expansion of the cultural zone to include additional rainforest and pine savannah with Indigenous settlements reaching eastward (Richards 1998:2).

In 1996 a corrective action plan, recommended by an IUCN conservation status report was endorsed by the Honduran Minister for the Environment. In 1997 after feasibility studies, the Rio Platano Project commenced and the buffer zone was expanded by 300,000 ha. A management plan for the Reserve was implemented with the help of the World Heritage Fund, as part of a large-scale project for improving conservation of the site which is financed by the German Society for Technical Cooperation, GTZ, and the German development bank, KfW (IUCN).

Management Goals

The United Nations Man and Biosphere Program provided the primary focus of reserving priority conservation areas in an international network of biomes. The MAB program, the first such reserve in Central America, provided the conceptual link between conservation, and formal recognition of the lands and traditions of Indigenous peoples within the Mosquita Corridor.

A critical management component of the reserve was the Participatory Zoning and Management project, funded through a 12 million dollar, six year long collaboration between the Honduran State Forestry Agency (AFE/COHDEFOR) and the German Government (GTZ,KfW), who provided technical and financial support, under their Social Forestry Program. The Participatory Zoning and Management Component of the BRP was designed

to create a dialogue between Indigenous populations and government authorities in order to facilitate the co-management of the Rio Platano Biosphere (RPB) Reserve. This was also done as a form of 'best practice', according to Peter Herlihy, a university geography professor who worked with the team of consultants hired by the German Consultancy (GFA) to develop the proposal. Herlihy developed the Participatory Zoning and Management Project on the basis that:

'Participatory research has demonstrated that involving local people in the collection and interpretation of data produces excellent results by incorporating their intimate knowledge of resource use into a standardised format.....Early examples...have demonstrated that participatory research enables local people to articulate their knowledge of resource use into a standardized and intelligible format, and that the people involved are empowered by the data produced.'

(Herlihy 1998:1).

Participatory Management Framework

In the northern buffer zone of the Reserve, a local Indigenous NGO, *MOPAWI* (the Mosquitia Pawisa Agency for the Development of the Honduras Mosquitia) received support from WWF among others, to develop Miskito farming systems, implement sustainable development programs, document Indigenous land rights, and provide information on the deforestation process. The latter proved an important catalyst in the development of the Indigenous grass roots Committee of Land Vigilance. (Richards 1994).

MOPAWI was supported by Cultural Survival in an investigation of the Indigenous land tenure situation. This culminated in the First Congress on Indigenous Lands in Mosquitia (1992) and a map delineating the current land rights situation. The Congress on Indigenous Lands in Mosquitia Congress then presented a series of demands to the Government, including the establishment of a new Indigenous reserve to the south of the Biosphere Reserve (Tawakha Suma area). This resulted in the formation of a biological corridor linking Honduras with Nicaragua (Richards 1994).

Participatory Zoning

The Participatory Zoning and Management Component (PZM) of the biosphere reserve was designed to contribute to the protection, conservation and management by developing a process that involved the Indigenous population together with non-governmental organisations. Prior to the mapping project, there was very little involvement of NGOs and the Indigenous populations had little knowledge about their lands and resources being within the limits of a protected area. The PZM provided a mechanism for the Indigenous people to manage and administer the lands and natural resources of the reserve. The participatory research methodology permitted Indigenous communities and their leaders to develop their own "consensual strategy" for the zoning, which allows them to manage and administer the lands and natural resources of the reserve. The PZM was implemented using a participatory research methodology, enabling the Indigenous populations to develop and clearly express their cognitive and intimate knowledge of their culture, lands, and resources. Designed and defined by the Indigenous populations, together with NGOs such as MOPAWI and its partners, the zoning system provided the fundamental base for the development of a Global Management Plan to assure the permanent conservation of these zones within the reserve (Herlihy 1998).

The PZM process also provided Indigenous populations with an understanding of the existing relationship between resource-use and limitations of the reserve. The objective was the establishment of a well-defined property rights and management regime over natural resources within the reserve. The PZM's participatory research methodology enabled

Indigenous communities to define land-use categories and identify the specific limits of these areas on maps, and then develop the regulating management norms for controlling the exploitation of these resources. The results of this research and participatory process formed the principle basis for establishing a consensual Global Management Plan of the reserve (Herlihy 1998). According to Peter Herlihy, who oversaw the PZM component of the Rio Platano Biosphere Reserve, the three key interrelated objectives were:

- Incorporating Indigenous populations in participatory research in order to increase their participation in the conservation and management of the protected area. The goal was to strengthen the administration of local organisations and provide mechanisms to incorporate the Indigenous knowledge in the development of the Management Plan;
- To describe and produce large scale community land use maps, using resource categories defined by the people;
- To design a system of zoning based upon Indigenous concepts and models, which will enable the control, regulation, administration and management of the Platano Biosphere reserve, within the context of national legislation.

The participatory process led to Indigenous communities, international NGOs and other community-based organisations becoming involved in management process. In addition, during the process, the National Honduran Congress approved the re-delimitation of the reserve (covering 8,000 square km) and the Honduran State Forestry Agency (AFE/COHDEFOR) approved a new Rio Platano Forestry Region with the same limits. The Management Plan thus fully integrates Indigenous people and nongovernmental organisation with state authorities in the conservation and administration of the Rio Platano Reserve.

Funding and Technical Partnerships

During its 20 years of operations, MOPAWI has had several partnerships:

- **1885 Continuing to present:** Tearfund of UK (TFUK) – a Christian NGO supported by around 16,000 churches in the UK. This partnership provided financial and technical support in sustainable development, conservation of nature, and institutional development. Technical assistance was provided in three forms:
- **Apprenticeship program:** 12-19\8 months volunteer service by recent university graduates, assigned to specific task as assistants to local (Indigenous) staff;
- **Long-term professional collaboration:** volunteers with a Master's background / and or experienced professionals on assignment as advisers in specific areas, such as environment, animal husbandry, micro-enterprise etc. These were four year terms that could be extended one year.
- **Short-term consultations:** usually for institutional development in specific areas – on assignment for 1-6 weeks to assist in solving specific tasks such as assisting the set-up of accounting systems and training Indigenous staff in its operation. This was done in several modules, allowing Indigenous staff to implement what was learnt and allow them to identify on their own what they required additional assistance with.
- **1990:** The World Wide Fund for Nature (WWF) provided financial and technical assistance, with a focus on the Integrated Conservation and Development Project (ICDP). Technical assistance was provided on a semi-permanent basis and technical advisers were assigned for specific tasks for 1-3 weeks for projects, such as training local staff and new community groups to operate a small forest enterprise as part of the forest management plan.
- **1995:** The USA Department of the Interior (USDOI) formed an alliance called the Partnership for Biodiversity with participation from several Honduran government

institutions, USAID, the Peace Corps, and MOPAWI. MOPAWI played the role of coordinator for the partnership and project implementer. USDOJ provided financial and technical assistance to strengthen activities for the conservation and sustainable development of the Platano reserve. These included support for a) the Sea turtle conservation project; b) community organisation; and c) eco-tourism in the Rio Platano reserve.

- **1997:** The Nature Conservancy (TNC). TNC contributed knowledge of Protected Areas and Park management, accumulated by TNC through many decades of experience around the world. They provided financial and technical assistance in areas such as “Human Ecology Evaluation, Threats and Stakeholders Analysis, and Site Conservation Planning”. TNC provided access to training events and conferences such as the bi-annual conservation week, which have been valuable both at discussing the most updated issues on conservation, administration of protected areas management and providing a forum for conservation managers to discuss challenges and successes.

Cultural Ecotourism

The three community-managed ecotourism projects outline in this review are located within the cultural zone of the Rio Platano Man and Biosphere Reserve (RPBR). In addition these three communities, six other communities also provide ecotourism services throughout the northern zone of the RBPR, including the coastal communities of Palacios, Cocobilia, Neuvo Jerusalem, Kuri and Barra Platano.

MOPAWI has been fundamental in the design and implantation of economic and conservation initiatives within the cultural zone, which is relatively isolated from the social, cultural and political context of Honduras. The diversity of ecosystems supports four different ethnic groups as well as sustaining a large variety of flora and fauna representative of the “Central American Isthmus’ biotic wealth” (Neilson 2001:2). The management of ecotourism projects has involved three local communities working with MOPAWI to develop unique approaches to the design, infrastructure, and implementation of each project. These communities include Las Marias, a river perch community, Raista, a coastal Miskito community, and Plaplaya, a coastal Garifuna community (Neilson 2001:2). Although each approach has been distinctive, overarching principles include the wide participation of community members, local ownership, and the control of visitor services and infrastructure.

Ecotourism has existed in the Rio Platano Reserve since the 1980s, when around 7 groups of up to 30-40 tourists started to visit the area at different times of the year. In 1992 three commercial tour operators began bringing tourists to Las Marias, and further improvement in infrastructure and services has since led to the area being listed on the itineraries of over 10 travel guides. Today tourist visitation has almost tripled, with tourists travelling through the northern zone of the reserve en route to Las Marias. However, the Rio Platano is not widely advertised as a travel destination in Honduras’ key tourism areas, and there is potential for future growth from those regions (Neilson 2001:4).

Critical aspects of ecotourism that MOPAWI have applied to the three ecotourism projects in their cultural zone include:

- Education for all participants;
- Minimal impact on the local environment and culture;
- The conservation of biology;
- Small-scale and slow growth;
- Supply driven development; and
- The involvement of local people through the development.

Cultural Ecotourism Dimensions

The diverse ecosystems, cultures, flora and fauna, and archaeological sites in the PBBR offer a variety of options for the eco-tourist. The 'eco-ethnic' experience includes, (but is not limited to):

- Travelling on rivers, lagoons and inland waterways in dugout canoes;
- Swimming in the Caribbean Sea; experiencing the culture of three different Indigenous groups;
- Observing abundant flora and fauna and learn about their uses by local communities;
- Visiting ancient archaeological sites; hiking through lowland tropical rainforests;
- Assisting in the protection of the largest sea turtle in the world; or seeing how butterflies can provide a sustainable economic alternative to traditional slash and burn agriculture” (Neilson 2001:5); and
- The ecotourism committee requires any visitor or commercial operator to be accompanied by an official local guide for all hikes into the forests or rivers.

Accommodation ('food and lodging services') throughout the PRBR is “rustic and traditional” (Neilson 2001:5). Single room dormitories are built from local materials and have thatched or tin roofs, and no electricity. Guests are supplied with mosquito nets. More developed lodging facilities are available at Palacios, the entry and exit point into the reserve. The food is prepared locally, and made from locally produced foods prepared in traditional dishes.

Mechanisms for Sustainable Ecotourism

The participatory planning process emerged as a result of community requests for a greater role in the design and formulation of projects. This led to a 12 week participatory planning process implemented by the community, facilitated by MOPAWI. A five-year strategic plan (1995-2000) was prepared, specifically addressing ecotourism management. The planning process attempted to ensure that all members of the community had a stake in the process and outcomes, not just the more dominant leaders, or employees of MOPAWI (Neilson 2001:11). The initial process involved:

- Creating stakeholders from the distinct segments of the community in the process;
- Training MOPAWI personnel in participatory planning techniques;
- Conducting interactive focus groups with these segments to identify community values;
- Bringing these various perspectives together in a general assembly;

The emergent goals for participatory community management included:

- Equitable share of profits and opportunities associated with ecotourism - through the local ownership of guide, lodging and transportation services;
- Minimising the cultural, social, and environmental impacts of tourism - through the ownership of services, the service providers;
- Working within the cultural norms of the community;
- Utilising Indigenous knowledge of medicinal plants, wildlife behaviours, and forest management practices. The use of this knowledge reinforces the value of the knowledge;
- Improve and control services provided to ecotourists – maintain traditional architecture for the construction of lodge, food facilities and transportation. These strategies were

initially challenged by early tour operators but were stymied through the communities commitment to conserve unique cultural values (Neilson 2001:13).

These goals provided the foundation for the economic, socio-cultural, and conservation strategies and mechanisms that were implemented in the planning process (Neilson 2001).

Mechanisms for Community Conservation

- Guide training emerged as a common mechanism for all 3 communities to improve services to visitors. They requested and received guide training from MOPAWI through its Partnership for Biodiversity Program (DOI, Peace Corps, USAAID and MOPAWI) ;
- Training promoted conservation goals – over 100 guides throughout the cultural zone of the RPBR received training workshops (Neilson 2001).
- Formation of Ecotourism Committee. The committee produced conservation-based rules and regulations for tourists and guides (Neilson 2001).
- Overseeing compliance of regulations by commercial tour operators. The Honduras Institute of Tourism has formally adopted these norms and regulations as official protocols for the community (Neilson 2001).
- Compliance with the rules and regulations established by the committee has eliminated hunting and fishing associated with tours prior to the ecotourism planning process. This has reduced the pressure on wildlife resource us in the area (Neilson 2001).
- Community members are increasingly substituting domestic meat for wild game. This substitution supports the incomes (Neilson 2001).
- Some women have used the additional source of money for family planning, in order to reduce family numbers to optimal size that is significantly smaller than current size (Neilson 2001).

Conservation Initiatives

Butterfly Farm

The butterfly farm utilises the following strategies to promote conservation:

- The farm serves as a non-formal educational center providing education to visitors, school children and community members about the value of conserving forest resources.
- Conserving diverse habitats to use for the capture and release of butterflies.
- Revenue. The \$2 fee contributes to habitat maintenance (Neilson 2001).

Turtle Conservation

The Plaplaya Turtle Committee views tourists as a valuable asset for a project that functions with little funding required.

- The \$1 fee to accompany beach guards on night patrols contributes to conservation of habitat and protection;
- The committee uses tourists to supplement patrols;
- Project contributes to global awareness of species fragility (Neilson 2001)

Community Initiatives

As a result of the participatory approach, additional strategies and mechanisms were developed to ensure the equal distribution of profits within all the families. The Ecotourism Committee developed protocols whereby all heads of households, single women, widows, or grandparents would be eligible as tourist guides. The committee manages this alphabetic list on a rotational system (Nielson 2001). Other initiatives included:

- The women's organisation formed with the purpose of renewing traditional Pech crafts, music, and dance, and provided alternative sources of income through the sale of crafts, baked goods and cacao products. They requested and organised training in traditional crafts that had been 'lost' to the younger generations;
- The women opened a store to sell local artwork, baked goods and locally produced chocolate.
- The ecotourism committee formally requested that the community be 'dry' – resulting in the prohibition of the consumption of drugs or alcohol.

Economic Benefits

Ecotourism as a sustainable industry has produced significant economic benefits in the northern zone of the RPBR and in three communities. It has also resulted in the creation of 28 full-time jobs (Nielson 2001).

Prior to the formation of the ecotourism committee only 23% of community families received any income from tourism. Currently 100% of families in Las Marias are benefiting from ecotourism in guide services, food, lodging, transportation or sale of other goods;

- The annual household income from tourism has doubled.
- Negative benefits include conflicts over social and cultural values primarily related to money and the development of a cash economy.

Social Benefits

- Health: access to health care and medicines. Disposable income to purchase medicines etc. Child and community health has improved (Mendoza 2002).
- Education: educational opportunities have increased as a result of ecotourism. MOPAWI has facilitated a bilingual – intercultural program (Miskito-Espanol) in collaboration with the Ministry of Education. This program includes a curriculum orientated toward sustainable development, conservation of nature, and strengthening cultural heritage with an emphasis on the environmental aspects (Mendoza 2002).
- Communication: the individual communities have contributed collectively to new discourses of cultural conservation (Mendoza 2002).
- Material well-being: increased disposal income. Sustainable production capacity has increased within Indigenous communities in La Mosquitia, especially organic cacao in the Rio Patuca region; forest management in the Rio Mocerón region, and eco-tourism in the Rio Platano region. Over 1,000 families have increased income capacities and many of these are using this additional income to support their children in attending elementary and high school and increasingly, university education (Mendoza 2002).
- Status of women: the women's craft store and the creation of Indigenous arts and crafts has provided women with elevated status in the community. Many women meet

regularly in a leadership role. The women's' organisation is one of the strongest organisation sin the community;

- Cultural pride: There has been an increased value placed on sharing and strengthening 'culture' through music, dance, food, crafts and traditional knowledge;

Summary

'Community Organisational Capacity – The benefits of collaborative community action have been realised in practice, therefore strengthening the empowerment of community organisations. The participation of the Indigenous people in the struggle for land and resources rights has not only empowered the five Indigenous communities, but around 1,000 people have gained legal title over 7,000 ha of land and have achieved a National Congress Decree on Protected Areas to declare the Tawahka Biosphere Reserve (around 230,00 ha of land to protect their cultural traditions and territories). Facilitating community organisational development has increased the involvement of the Indigenous community in specific conservation and sustainable development activities, creating greater potential for protecting the integrity of the ecosystem and biodiversity.' (Mendoza 2002).

In the Rio Platano Resrve, the single most significant strategy in achieving culturally appropriate conservation and socio-cultural benefits has been the interactive participatory planning process which established a culturally accepted vision of sustainable ecotourism. The most significant factor generating the economic benefits of ecotourism has been enuring local ownership of infrastructure and keeping services within the capacity of local stakeholders. For example, MOPAWI and its partners did not heavily promote the ecosystem initiatives but encouraged steady growth over time to develop the organisation structures, services and infrastructure necessary to cater for sustainable use of resources (Neilson 2001:21-22). The participatory planning process demonstrated that:

- Indigenous community members should be the primary stakeholders in planning processes to develop a strategic use plan for the protected area. 'They should be involved throughout this process as designers and facilitators so that the final product is owned by them' (Neilson 2001:22).
- Zones selected for their ecological and eco-tourism values 'should integrate specific restrictions that are acceptable to the primary stakeholders and provide a reasonable measure of protection for the long-term viability of the tourism attraction' (Neilson 2001:22).
- The challenge is to develop the financial capacity to respond to the local organisation request and interest in participating in more and more of these efforts and initiatives (Mendoza 2002).

As a result of MAPAWI (and its partners) efforts over the last twenty years, the Rio Palatano Reserve has increased its profile as one of the most important MAB reserves in Central America and is attracting interest and attention from many sectors, nationally and internationally. This interest is fundamental to generating ongoing funding and research support which will further enhance Indigenous capacities within the buffer and cultural zones of the Reserve.

In 2002 The Honduran Mosquitia Pawis (POPAWI) Agency for the Development of the Honduran Mosquitia was listed as a finalist in the *Equator Initiative Prize* in the United Nations Development Programme. This local non-government organisation (NGO) was nominated for its integrated human development and conservation activities. The POPAWI,

nominated by the Nature Conservancy, was hailed for its success and innovation in the Integrated Management of the Rio Platano MaB Reserve, Agro-ecology, Community forestry, Community health development, micro-enterprises and advocacy outputs (Mendoza 2002). A list of outputs included:

- The first leatherback and loggerhead turtles conservation project in the Reserve, with over 3,500 newborns released into the Caribbean Sea; A similar has been applied to protect the rare green iguana.
- The first Indigenous Committee for eco-tourism micro-enterprise generating income for over 50 Pech and Miskito families in the Reserve;
- 700 Miskito, and Tawahka families generating income from the organic cultivation of Cacao and several timber and firewood species of trees;
- The first Indigenous community to have negotiated with the government an Usufructure Agreement for 68,000 hectares of broadleaf and pine forested land at 40 years term;
- First women peer groups including Miskito, Garifuna and Mestizo – have developed micro-enterprise skills, are managing 120 village banks and micro-business. Cash accumulation was equivalent to more than US\$10,000 in savings over 8 years.
- Community grassroots organisations- strengthening and developing their traditional land and resource use. This resulted in the Patuca II dam on the Mesoamerican Biological Corridor being prevented from being built.
- Poverty reduction. Forest Management and Eco-tourism have contributed to well-being of communities and sustainable production capacity has increased.
- The five Tawahka Communities of around 1,000 people of Rio Patuca have
- Gained legal titles for agricultural activities in around 7,000 hectares of land;
- Achieved a National Congress Decree on Protected Areas to declare the Tawahka Biosphere Reserve (230,000 ha) of tropical rainforest to protect their ancestral territories.

Lorentz National Park, Indonesia

Land Tenure:	State
Management Type:	Centralized State Management
Legislation / Policy:	
Enabling Mechanism:	Integrated Conservation and Development Projects (ICDPs).
Capacity Building Initiatives:	Limited, but improving. Community mapping has created some successful outcomes in zoning <i>adat</i> area (traditional resource use areas). A participatory planning process is being currently implemented in two sites within the Lorentz National Park (Wamena, Ibele and Asmat area, Joerat). CIEL (2002) notes that these planning forces will create <i>adat</i> conservation agreements (community-based management plans). The management plan for 2001-2020 identifies activity priorities including the development of seaweed, edible shell and sea cucumber cultivation, increasing handicraft and home industries, as well as strengthening post-harvesting fishery processing and community-based forestry (UNESCO).
Gender Equity Policies:	Not evident
Traditional Resource Use:	Restricted to <i>Adat</i> Areas and community managed agriculture zones. Community governance within these areas has led to increased protection of orchids from poachers.
Cultural Enhancement Programs:	Resource Mapping and collaboration with international NGOs has generated successful policy change. Mapping has led to formally recognised: Clan-based <i>adat</i> areas; Local land use; Protected (sacred) areas Limitation on selling land to outsiders; and <ul style="list-style-type: none"> Mechanisms for planning and development of public facilities and infrastructure, such as road construction that should involve adapt institution.

Site Details

Land Tenure

State

Protected Area

2.5 million ha

1999 World Heritage Listing

IUCN Management Category

National Park

Natural World Heritage Criterion (i), (ii), (iii), (iv)

Vegetation and Conservation Values

Indonesia is characterised by 'mega-biological diversity' in which can be found:

- 10% of the world's total plant species;
- 12% of the mammals;
- 16% of the reptiles and amphibians;
- 17 % of the bird species; and
- 25% of all marine and freshwater fish species (MacKinnon et al. 1996 cited in Haeruman 2001:2).

Lorentz National Park (2.5 million ha) is the largest protected area in South-East Asia. It is the only protected area in the world to incorporate a continuous, intact transect from snowcap to tropical marine environment, including extensive lowland wetlands. Located at the meeting-point of two colliding continental plates, the area has a complex geology with ongoing mountain formation as well as major sculpting by glaciation. The area also contains fossil sites which provide evidence of the evolution of life on New Guinea, a high level of endemism and the highest level of biodiversity in the region. The lowland area is a wide swampy plain, covered with virgin forest and intersected by countless winding rivers and streams, mostly tidal. The largest of these rivers empty into the shallow Arafura Sea, which separates the island of New Guinea from Australia (IUCN).

Site Description

Located at the meeting point of two colliding continental plates, the area has a complex geology with on-going mountain formation as well as major sculpting by glaciation and shoreline accretion which has formed much of the lowland areas. These processes have led to a high level of endemism and the area supports the highest level of biodiversity in the region. The area also contains fossil sites that record the evolution of life on New Guinea (IUCN).

When Lorentz National park was being considered for World Heritage listing in the 1990s the government had to address UNESCO concerns over development impacts, including a proposed highway running east from the mining town of Timiki, and the possible expansion of mining activity in Freeport's neighbouring exploration concession. The Indonesian Government advised the World Heritage Committee in October 1999 that the boundaries of the park had been adjusted, excluding a 150,000 ha oil and gas concession. However, according to the Mines and Communities Organisation, the Forestry Department took no action on a UNESCO suggestion that it put a 'keyhole' around the Mamoia deposit to allow for its development, with a single river system put aside for its tailings. McBeth asserts that it is unclear why the Mamoia deposit area was not excluded from the park, however UNESCO officials report that it can still be excluded if the government can provide a compelling economic argument so that it doesn't lose its World Heritage status in the process (McBeth 2005).

Political and Institutional Context

Indonesia's forests and protected area system have been described as impressive both for the resources it protects and for its size and comprehensiveness (Haeruman 2001). These biological resources are under increasing threat; with Indonesia among the top five in the world for threatened mammals and top of the list for threatened birds (IUCN).

In the 1980s during Indonesia's 'New Order Regime' the State classified over 75% of the total land area as State Forest, including pre-existing local community rights over forests and natural resources, in what has been described as 'the largest land seizure in history' (Fay and Strait 2001 cited in CIEL 2002:xxvii). The Indonesian government established its first five national parks (Mount Leuser, Mount Gede Pangrango, Ujung Kulon, Baluran, and Komodo). The designation of National Park mandates the protection of environmental life support systems and the preservation of species diversity, while allowing for the sustainable use of natural resources. Regulated human activities are permitted within National Parks, such as research, recreation, and the collection of non-timber forest products in a sustainable and controlled manner. In many cases, park boundaries have significant overlaps with land claimed by Indigenous and pre-existing communities (Haeruman 2001:2). Indigenous communities living around and within forested areas have been particularly marginalised from decision-making processes and restricted from accessing forest resources (Moeliono and Wodicka 1998).

Chronology

- 1919** The first protection status (the Lorentz Nature Monument) was given by the Dutch Colonial Government;
- 1956** The protected status was abolished due to conflicts with Indigenous people over unresolved land ownership;
- 1970s** Freeport Indonesia begins operations on Indigenous land;
- 1978** Established as a Strict Nature Reserve by the Indonesian Government;
- 1990** The Directorate General of Forest Protection and Natural Resource Management formally approached the WWF Indonesia Program to request assistance in conducting research and designing a management plan. In co-operation with PHPA, WWF prepared a framework park management system that takes into account the traditional land tenure and resource use systems of the tribal communities living within the park;
- 1990** (Onwards) WWF has gathered basic social and human ecological information on the Indigenous groups in the park as a first step in the process of developing the management plan;
- 1996** A group of scientists, including WWF and PHPA staff were abducted in the north eastern part of the reserve and due to the political unrest in the Lorentz area, surveys were restricted to the buffer zone and the Asmat area of the park. Despite the hostage crisis, WWF and PHPA in cooperation with the Government have started a participatory resource mapping program to rationalize land use planning in the buffer zone and involve local people in boundary delineation, park zonation, and buffer zone development, particularly since the status changed from Strict Nature Reserve to National Park in 1997.
- 1997** Declared National Park by the Ministry of Forestry (including the Eastern extension).

Management

Since the 1980s, a gradual shift in management philosophy within national parks in Indonesia has occurred, from a model of strict preservation (with little or no involvement of local communities or enterprises), is largely due to the introduction of Integrated Conservation and Development Projects (ICDPs).

The Centre for International Environmental Law (CIEL) (2002:91) reports that as of 2002, a draft Memorandum of Understanding (MOU) to incorporate community-based management plans into the Lorentz National Park Management Plan is being negotiated between WWF-Sahul and the local planning authority (*Bappeda*). A participatory planning process is being currently implemented in two sites within the Lorentz National Park (Wamena, Ibele and Asmat area, Joerat). CIEL (2002) notes that these planning forces will create *adat*

conservation agreements (community-based management plans). The management plan for 2001-2020 identifies activity priorities including the development of seaweed, edible shell and sea cucumber cultivation, increasing handicraft and home industries, as well as strengthening post-harvesting fishery processing and community-based forestry (UNESCO).

WWF-Indonesia is helping implement the Lorentz Management Plan, which is based on collaborative management principles. WWF are working to empower local actors, communities, government, and local NGOs to participate effectively in park management, and are assisting with the revision of district spatial plans (WWF). To date management problems have come from the activities of the Freeport gold mine, located on the slopes of the Carstenz massif near Mount Puncak Jaya. The predominantly open cast mining techniques have had a number of negative environmental impacts, including river pollution, oil spillages, logging for fuel supplies and extensive building development for the 4,000 strong work force. There is however a Law No.5 and the joint decree from the Ministry of Forestry and Mines and Energy 1989 and 1991, prohibiting any mining inside national parks (IUCN).

In 2003 the Rainforest CRC was engaged by the Wet Tropics Management Authority and Commonwealth Department of the Environment and Heritage to develop the Lorentz World Heritage Strategic Plan. In 2005 the Strategic Plan was completed and submitted to Indonesia's Director General for Forest Protection and Nature Conservation as a guide to the sustained management of the Lorentz World Heritage Area for the next five years (CRC 2004-2005 Annual Report).

The IUCN Technical Evaluation states that:

'Given the number of Indigenous people living in the park and in proximity to it, it is essential that park management work in partnership with them. The various Indigenous groups have much to offer in contributing to the management of the park and the park could bring significant benefits to them in return. WWF have undertaken some excellent work with the local communities here and the Asian Development Bank (1992) has also studied what types of projects are needed to address community issues. The process of preparing the management plan for LNP has also involved representatives from the different stakeholders and this involvement needs to be encouraged and further expanded.'

Indigenous Stakeholders

Over a period of more than 24,000 years, Indigenous populations in the region have developed complex and distinctive cultures. These traditional economies are controlled by a complex system of cultural taboos and rituals that have helped to prevent over-exploitation of forest resources (UNESCO).

Inhabited by people for at least 5000 years, the Lorentz National park is home to eight Indigenous groups, including the Nduga, Amungme (Damal), Nakai (Asmat Keenok), Sempan, West Dani and Komoro (WWFa). Several communities are found in the lowland rivers and swamps, where they retain a semi-nomadic lifestyle, supplemented with agriculture. The lowland inhabitants (Asmat, Mimika and Somohai) in the southern foothills depend almost entirely on sago as a food source. The Mimika are divided in two linguistic groups, the Sempan and the Kamoro. The Kamoro live in the south-western corner of the park while the Sempan inhabit the south-eastern part (UNESCO).

Since the 1970s, a massive mining operation (Freeport Indonesia) has been operating on Indigenous land, with massive impacts on the surrounding environment. According to Survival International (an international NGO supporting tribal peoples worldwide), the

activities of the giant Freeport gold mine on the slopes of the Carstenz massif near Mount Jaya has displaced many of the local Indigenous Amungme tribe (WWF).

In 2004, following a meeting between the Uelesi (an *adat* community living on 4000,000 ha within the Lorentz) and Forestry Department officials a Participatory Rural Appraisal (PRA) was conducted with two of the Uelesi community groups. The aim of the PRA was to develop trust, share ideas and reach a consensus on forestry policy development; the PRA highlighted the effectiveness of Uelesi's established *adat* customs of resource and land management. For both the community and the government, the meeting provided alternative options for regulating and demarcating land-zones. Using the community-developed maps produced through the Walesi Customary Support Organisation in collaboration with the *adat* people, the Uelesi communities identified their landscape realities depicting community-managed agro-forestry, timber and agricultural areas.

The Uelesi *adat* leader stated that he wanted the government to learn that they have been living within the park, utilising their Indigenous knowledge and customary governance systems for subsistence use as well as to protect the park's natural resources. The Uelesi described how they mitigate against the negative impacts of environmental changes such as landslides and erosion by planting on steep slopes and reforestation. The application of selective cutting and planting of a variety of trees prevented further landslides. Local regulations and rules for social and environmental management were also outlined. The community has developed a system to enforce consensus over natural resource management practices, such as replanting over logged forested areas or limiting expansion of the agricultural area to prevent intrusion on the forest. An issue of contention raised during the PRA was the long-standing conflicts over the protected forest boundaries in the buffer zone of the park, which were established without community consultation or consent. As a result of this lack of consultation, the community either ignored or destroyed boundaries that directly impacted on their livelihoods. A valuable outcome of the meeting was an agreement by the forestry officials to actively include the community in future decision-making processes. (Multistakeholder Forestry Programme 2005).

As a result of the meetings with the Uelesi, the local Forestry Department is currently developing a policy framework for Community Based Forestry Management, with an aim to integrating the information from the PRA exercise within the government's planning. It is anticipated that the provincial strategic plan for sustainable forest management will be revised, based on the information provided during this meeting between the *adat* community and Forestry officials (Multistakeholder Forestry Programme 2005).

Mapping Mechanisms

Decentralised governance offers the best hope for good natural resource management, yet as Janis Alcorn (2000) notes; problems occur when communities are fractured, or lack cohesion. In contexts where collective action is needed to assert rights and achieve self-determination, mapping may build community cohesion and strengthen local governance. In protected areas, mapping can help to determine rights over, and access to, natural resources. Mapping also allows Indigenous communities to develop positive links with provincial or national administrations and/or regional conservation groups,

Alcorn suggests that "Global Positioning Systems (GPS) and compasses have become the tools of choice in the fight for survival in remote areas of the world where both Indigenous peoples and biodiversity are threatened with extinction" (2000:2):

1. GPS units and compasses are increasingly used to draw maps that reveal information about conflicts, as well as overlaps and trends in areas where rights and responsibilities

- are not clear. Maps may serve as evidence in courts of law, and frequently stimulate policy reform movements;
2. Community-based maps provide Indigenous participation in arenas previously dominated by governments. They also provide a way to renew local commitment to governing local exploitation of those same resources. In short, maps are powerful political tools in ecological and governance discussions. Community-based maps also assist communities to renew cultural identity, to take steps toward legal reform, to demand accountability, to plan land use, and/or to advocate decentralisation;
 3. Zoning maps for protected areas are sometimes used to get some form of tenure recognition for local communities.

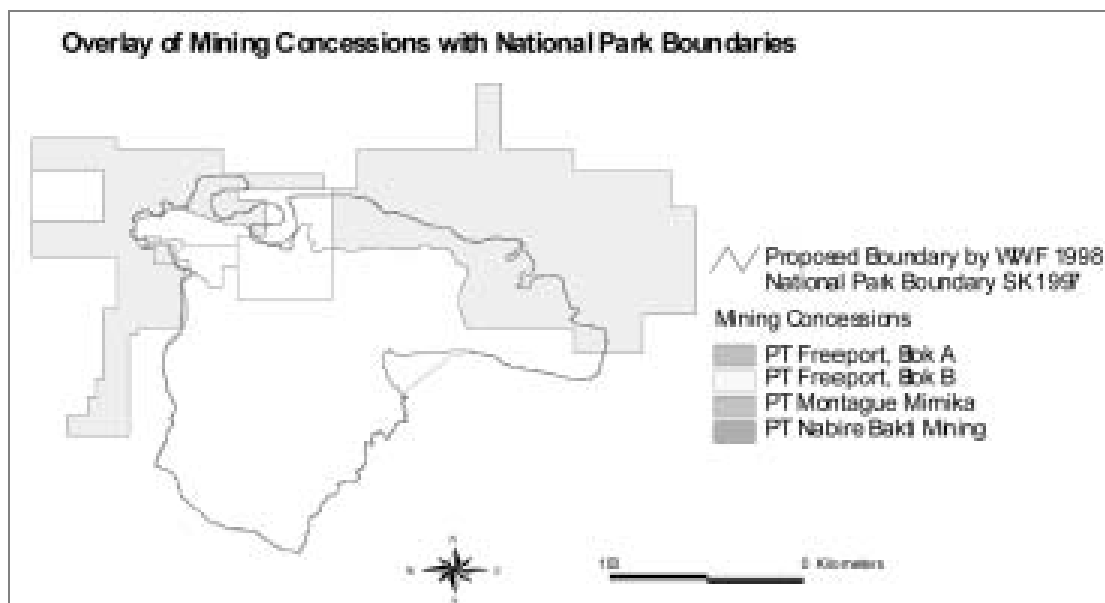


Figure 2: This GIS map was used successfully in a campaign to encourage the Minister of Mines and Energy to sign off on the Lorentz World Heritage Site application, ensuring that there would be no mining in the park. (Source: WWF-Indonesia).

Collaborative Conservation

In 1991 local communities of Walesi, within Lorentz National Park, felt threatened by the proposal of a power plant imposed on them by the National power Corporation (PLN) near Lake Habema. When implemented the plant would control areas owned primarily by Walesi communities. Elders sought advice and established a Walesi Adat Deliberation Body (*Badan Musyawarah Adat Walesi*). A group of Walesi teachers were assigned the executives of the Body. After reaching a successful compensation agreement with PLN the Walesi Adat deliberation Body (YBAW) went on to collaborate with an Indonesian NGO (*O'o ukul Heatnem*) and WWF-Lorentz to map the boundaries of Lorentz National Park (CIEL 2002:92). This collaboration resulted in Agreements covering:

- Clan-based adat areas;
- Local land use;
- Protected (sacred) areas
- Limitation on selling land to outsiders; and

- Mechanisms for planning and development of public facilities and infrastructure, such as road construction that should involve adat institution.

Through the long process of consensus building, the Walesi Adat deliberation Body (YBAW) identified six enabling conditions needed to achieve and maintain community-based management authority over *adat* territories:

- Early agreement among adat institutions to manage areas collaboratively so that threats and benefits are shared;
- Agreement among adat institutions to identify clear boundaries of areas to be managed collaboratively;
- Agreement among adat institutions to assign an independent institution to become coordinator and communicator of adat area management;
- Knowledge and information about resource potentials within the managed area;
- Agreement among adat institutions to establish local use regulations that accommodate both adat rules and the official state regulations; and
- Recognition by various parties of the adat managed area (the territory), the local use regulations, and the institution (CIEL 2002:93).

Summary

The strategy of ICDPs within Lorentz national park is to build local support for conservation initiatives by providing community development projects in buffer zones adjacent to protected areas. Successful ICDPs have clear conservation objectives, identify threats, have strong park managers, and allow for active stakeholder participation (Haeruman 2001:2). The ICDP concept has received strong support from the World Bank, Asian Development Bank, European Union, USAID, and many international donors and NGOs, who have combined to spend US\$130 million over the past ten years on ICDPs in Indonesia. However, a review of the two official and eighteen unofficial ICDPs found very disappointing results. Lack of success was attributed to weak institutional capacity and lack of good governance, and failure to place parks within a broader regional planning framework (Wells, et al, 1997 cited in Haeruman 2001:5). Assessments pointed to a need for an eco-regional approach; the importance of information gathering strategies within an adaptive management approach, an emphasis on providing economic benefits for local people, and the value of consensus-building and collaborative management (Moeliono and Wodicka 1998).

'Centralised policy-making underpinning conservation projects in Indonesia has been one of the main constraints in participatory management efforts. Indonesia has a number of 'enlightened' policies which guide the development of social or community forestry conservation programs. However the implementation of conservation programs is often based upon plans developed with little knowledge or participation of key stakeholders, such as Indigenous peoples. Government and NGO objectives often neglect critical elements of integration and co-ordination.' (Moeliono and Wodicka 1998).

When recognised as a legitimate form of land management within protected areas, the traditional model of Indigenous land tenure (*adat* rights) enable elders and heads of villages to more effectively monitor and manage activities on their lands and contribute to conservation imperatives. The Habemas local communities successfully expelled outside hunters as well as orchid gatherers from their *adat* area, while in Walesi and Ibele, *adat* elders ensure tourists must be accompanied by local guides as a strategy to prevent outside hunters and orchid-gatherers from trespassing on traditional areas (CIEL 2002:92).

Gunong Mulu, Malaysia

Land Tenure:	State
Management Type:	Centralized State Management (participatory management; ie limited role in decision making processes; roles restricted to advisory committees.
Legislation / Policy:	National Forestry policy (NFP) 1978.
Enabling Mechanism:	Consultative Committees
Capacity Building Initiatives:	Limited. Community participation in park management, policy and development through: <ul style="list-style-type: none"> • The Mulu Liaison Committee (MLC); • The Mulu Tourism Committee (MTC); • The Mulu Working Committee (MWC).
Gender Equity Policies:	Not evident.
Traditional Resource Use:	Restricted to Traditional Use Zone.
Cultural Enhancement Programs:	Resource Mapping and collaboration with international NGOs has generated successful policy change.

Site Details

Land Tenure

State

Area

52,000 ha

Date and History of Establishment

2000

IUCN Management Category

National Park

Natural World Heritage Criterion (vii), (viii), (ix), (x)

Vegetation

A wide range of soil types and altitudes occur in the nominated site, thus a wide diversity of vegetation formations are represented. Seventeen vegetation zones have been recognised, over 3,500 plant species listed and 1,500 flowering plants identified. The site is considered a Centre of Plant Diversity (IUCN). Gunong Mulu National Park is considered to be one of the richest sites in the world for palms, with approximately 111 species and 20 genera recorded. Of particular significance is Wild sago palm *Eugeissona utilis*, which occurs on the steep slopes of Gunong Mulu (UNESCO).

Conservation Values

Malaysia has 736 species of bird within its territory, 270 bird species have been recorded in Gunung Mulu. Of the 29 endemic Borneo species, 26 have been recorded in the park area.

'The caves of Mulu are important for their classic features of underground geomorphology, demonstrating an evolutionary history of more than 1.5 million years. One of the world's finest examples of the collapse process in Karstic terrain can be also found. GMNP provides outstanding scientific opportunities to study theories on the origins of cave faunas. With its deeply-incised canyons, wild rivers, rainforest-covered mountains, spectacular limestone pinnacles, cave passages and decorations, Mulu has outstanding scenic values. GMNP also provides significant natural habitat for a wide range of plant and animal diversity both above and below ground. It is botanically-rich in species and high in endemism, including one of the richest sites in the world for palm species.' (UNESCO).

Historical Background

Many of the Indigenous Berawan people have felt alienated from the Park as far back as 1976, when the state government acquired a 20 acre site from an Indigenous landowner, giving assurance that the park's headquarters would be built there. Instead, the authority provided this land to Borsamulu Resorts (BRSB) to build the Royal Mulu Hotel and Resort. In 1993 an additional 243 acres was taken for the 2nd phase of the resort and other developments. However a number of Indigenous families had claimed that land and some had built small lodgings for tourists. During the 1990s the Berawans held peaceful protests which were prevented by the authorities with police threats and force (World Rainforest Movement 2004).

Management

The Management of Gunung Mulu reflects the broader politics of patronage in Sarawak's management over forestry resources and Indigenous peoples rights. After its world heritage listing in 2000 the parks management was handed over to private interests (Borsamulu Park Management), a subsidiary of Borsarmulu Resorts (BRSB) which also owns the Royal Mulu Hotel and Resort. The state government connection lies with the brother and sister of Sarawak's Chief Minister holding common shareholding of BRSB and the Sarawak Economic Development Corporation (SEDC). The Chief Minister's siblings also sit on the BRSB's board of directors (World Rainforest Movement 2004).

A number of management plans have been produced for the site. The first Management and Development plan was prepared in 1982 by J.A.R Anderson and the Earl of Cranbrook. This was followed by a second management plan in 1992, compiled by the Sarawak Forest Department. This covered activities between 1993-1995. A third management plan was prepared in 2000. Acknowledging the need to garner strong community support for conservation efforts, Initiatives within the integrated development Management Plan (2000:57) call for the development of a communications program, whereby protocols must be established to ensure regular communication between both groups. To this end the management plan recognises the need for a dedicated meeting place such as a cultural centre, (which may also provide for the sale of traditional merchandise and local dance performances) for quarterly meetings to be held, in addition to 'extraordinary meetings' which could be called for urgent matters.

The World Heritage listing resulted in high density, low density, traditional use and wilderness zones within the park. High density zones are concentrated around the Park

Headquarters, four 'show' caves and four other caves. Visitors are restricted to paths, with strict rules enforced on visitor behavior. Low density zones include the trails and caves open for adventure caving activities. Traditional zones are reserved for subsistence hunting and gathering of forest produce. Wilderness zones include 95% of the nominated site's caves. The general public is not allowed access to these zones, and research is only allowed with permission from the Director of Forests.

Indigenous Stakeholders

The Penan and Berawan Indigenous people live adjacent to the park boundaries. Both groups still have hunting and collecting rights for subsistence hunting zones within the park. Excavations from Wind Cave by the Sarawak Museum have revealed artefacts and human remains believed to date from 3000 to 500 years before present. The cave is believed to have been used as an ancient burial site, with many of the artefacts being identical to those found at similar sites in the region. The Penan people are semi-settled and nomadic groups along the borders of the park and on its boundaries. Two long houses exist along the south-western perimeter of the park at Batu Bungan and Long Iman, a number of Penan are settled here. A nomadic group of this tribe live in the eastern part of the park. The exact number of inhabitants here is currently unknown; however it is thought that it is no more than 10 people (IUCN). The IUCN estimates of nomadic Penan contradicts estimates provided by *BMF Tong Tana* (a European NGO), who claim there were still 140 nomadic Penan living in Gunong Mulu national park in 1996. Their possibilities for hunting however, are now limited to boar and deer. There are no Indigenous living in any of Sarawak's other protected areas. The Dajak who live immediately outside of the reservation boundaries are allowed to gather secondary products and hunt within the buffer zones (Lantjak Entimau) (BMF 1996).

Mechanisms for Participatory Management

From 1985 to 1996, the majority of park staff were recruited from local communities. Some of the tour agencies were owned or partly owned by Berawan's. Aside from some tourism agencies, no programmes were conducted to provide the local communities with management skills to establish successful businesses, and as a result construction contracts were always licensed to contractors from Miri or Marudi. Indigenous communities were only employed on a part-time basis as labourers (Liam and Gill 1998:160).

The Berawan agree that they have historically been marginalised in terms of employment opportunities in Gunong Mulu. They have asserted that despite the fact that some of their youth have academic qualifications applicable to certain positions in the Mulu National Park, the Berawan claim they were overlooked (BMF 1993). Moreover, they highlight that even those few Berawan who have obtained work within the park have no role in participatory management decisions. In a public statement in 1993 the Indigenous communities complained that "[a]lthough most of the Mulu workers are Berawan...they don't hold any position or participation with regard to the development of Mulu. In addition, when they applied for tender contracts such as clearing the Melinau river from sunken logs and debris, the tender was awarded to non-Berawan interests, leading them to ask: 'Is this development for us? If it is then certainly we are left out' (*Tong Tana* 1993).

Increasing numbers of tourists visiting the park (increasing at 30% to 40% yearly peaking at 12,000 in 1992) generated the construction of an airport and road to the Royal Mulu Resort. This further alienated the local communities as Indigenous customary rights (*temuda*) were not recognised and no compensation was paid for loss of agricultural land. The resort employed staff mainly from outside the region. The tour agencies and construction contractors began to bring in workers from outside the communities. The resentment this created within the local communities led to direct attacks on park facilities and disruption to the tourism industry. Since 1997 the park has introduced a policy of participatory

management and staffing at the resort, with small value contracts being awarded to locally registered contractors (Liam and Gill 1998:162).

In 1998 participatory management programs within the Gunong Mulu National Park for both the Penan and the Berawan included training courses; department licensing for freelance guides; the establishment of a Freelance Guides Association; establishment of a local Boat Operators' Association with licensing and training (with encouragement to outside tour agencies to utilise these services); and the creation of a Special Park Committee (Liam and Gill 1998:160). In 2004, the World Rainforest Movement reported that the government is planning a number of projects to enable Mulu National Park to become a major tourist destination. Many of these projects will further infringe on the rights and lands of the Indigenous communities, who they assert have 'persistently asked the government for the land to be properly surveyed and deeded, to no avail' (World Rainforest Movement 2005).

One of these proposed projects is an extension to the Mulu airport. Following the governments refusal to validate the claims, the Indigenous landowners have hired a lawyer and called for arbitration. The Berawans also claim that the government have not been able to participate adequately in the decision-making over the control, regulation, management and implementation of development activities near the park, even when such activities directly impacts upon them. The Berawans further assert that they continue to be excluded from most business and economic activities generated from tourism ventures, with their participation limited to 'mere workers' (World Rainforest Movement 2005).

In the current management plan (2000:58) provision is made for the documentation of Indigenous knowledge and traditions, which may be used for cultural tourism; the development of agricultural use and pest control; ethobotanical and medical research, and to encourage the younger generations to maintain their cultural practices.

For more than a decade the Berawan's have demanded that the government:

- Recognise their land rights;
- Demarcate their lands and issue titles to all landowners in the Melinau area;
- Ensure the participation of the Berawan people in decision making to control and manage development near the Mulu National Park; and
- Ensure a fair share of tourism development and allow them to control development that impacts their cultural heritage.

Summary

The management of Gunong Mulu is attempting to provide an alternative model to the hierarchal, centralised form of management exercised by the state and federal Government in Malaysia, which to date has largely neglected Indigenous land and resource-use rights. Although Gunong Mulu National Park has experienced many problems, it is endeavouring to integrate the Indigenous Penan and Berawan people living in close proximity to park boundaries into the park infrastructure and tourism industry, as a matter of priority (Liam and Gill 1998:160). To this end, the Management Plan states that one of its objectives is 'to benefit the local communities'. Community participation on park management, policy and development occurs through the Mulu Liaison Committee (MLC), the Mulu Tourism Committee (MTC) and the Mulu Working Committee. Committee members are drawn from Government departments, the private sector and local communities. The broad objective of the committees is to address community problems, education and social issues and raise awareness of government policy (Liam and Gill 1998:160).

Case Studies in World Heritage Management
Australian World Heritage Sites

Kakadu National Park, Australia

Site Details

Land Tenure

Approximately 50% of the land is Aboriginal land, leased to the Federal Government (Director of National Parks). Title is held by the Aboriginal lands trust.

Protected Area

1,307,300 has (Stages 1 and 2) 19 804 km²

Establishment Date

1981; reinscribed 1987, 1992

IUCN Management Category

National Park

Natural World Heritage Criterion (i), (ii)

Cultural World Heritage Criterion (iii), (iv), (v)

Conservation Values

Formed millions of years ago, the 500km long Arnhem Land Escarpment towers over Kakadu's vegetated wetlands, creating a 'mosaic of eroded sandstone, plunging waterfalls, rivers, billabongs, flood plains, paperbark swamps, mangroves, monsoon forests and extensive tropical woodlands. Kakadu represents one of Australia's most ecologically complex and important regions. The scale of Kakadu's wilderness and the complex diversity of its ecosystems provide a refuge for a wide variety of plants and animals, including:

- At least 1682 plant species;
- More than one-third of Australia's migratory bird species (two and a half million birds flock in the wetlands of Magela and Nourlangie floodplains alone);
- Sixty species of reptiles and amphibians;
- More than 50 species of fish; and
- Over 100 species of termites and more than 300 species of ants.

Kakadu is a landscape of cultural, spiritual, and social significance to local Aboriginal people. Significant places in the landscape include ceremonial sites, sites of religious significance, archaeological and rock art sites. The some 15,000 rock art sites of Kakadu continue to represent 'living sites' for Traditional Owners, and as such are important 'storehouses' and references of traditions and knowledge for the contemporary and future generations of the Traditional Owners (UNESCO).

Cultural Values

The park contains many richly decorated Aboriginal caves with a number of significant art styles, concentrated along the Arnhem land escarpment, some dating back 18,000 years. The area is outstanding in the antiquity and quality of its 1,000 archaeological sites and Aboriginal culture and estimated 7,000 art sites. Excavated sites have revealed evidence of the earliest human settlement in Australia and the world's oldest evidence of edge-ground axes. Pieces of ochre that were used for painting have been found throughout occupational deposits dating to 25,000 years ago. There are many sacred sites of great religious significance to the Aboriginal people' (UNESCO).

Background

In 1981, Kakadu became the first Australian place to be listed as a World Heritage site and is one of only 17 sites in the world listed for both its cultural and natural values. Located in the wet-dry tropics of northern Australia, Kakadu National Park (KNP) is an Aboriginal cultural landscape spanning an area of within the Alligators Rivers Region of the Northern Territory of Australia. Kakadu NP was nominated in 3 successive stages (UNESCO). First inscribed on the World Heritage List in 1981, Kakadu NP was reinscribed in 1987 with expanded criteria, and further reinscribed in 1992 under 'natural' and 'cultural' criteria. The Stage III (1992) consolidated nomination reported that:

- Few species have been lost from the area since the arrival of non-Aboriginal people;
- The Park is ecologically intact and rock paintings are in a good state of conservation;
- Illegal collection of stone artefacts reported at some of the more accessible cultural sites; and
- Key ecological 'integrity issues' were examined and identified.

Kakadu was established as a National Park at a time when conservation groups were advocating for protected areas and Aboriginal people were advocating for the recognition of their traditional lands and resources. At the same time, significant uranium deposits were found in the Alligator Rivers Region and a formal proposal was submitted to the government to develop the deposit. In 1973 the Commonwealth Government established a Commission of Enquiry into Aboriginal land rights in the Northern Territory. During the time the Enquiry was held, the *Aboriginal Land Rights (Northern Territory) Act 1976* was legislated. The Land Rights Act allowed the commission to establish the Ranger Enquiry, to determine the validity of a claim to Traditional Ownership of land in the Alligators River Region. In 1977 the Australian Government accepted most of the Ranger Enquiry recommendations, including those granting Aboriginal title to areas in the Alligator Rivers Region and establishing Kakadu in stages. An arrangement was made for the Traditional Owners to lease land granted to them to the Australian Government for management of a national park. Mining would be allowed in areas adjacent to the Park (KNPDMP 2006:5).

The final stage of Kakadu National Park (stage 3) was declared progressively in 1987, 1989, and 1991. This was due to the debate over whether mining should be allowed at Guratba (Coronation Hill), located in the middle of the culturally significant area referred to as 'Sickness country'. Eventually, the Traditional Owners wishes were respected when the Government declared there would be no mining at Guratba. In 1996, all the land in stage 3, except for a former pastoral lease was granted to the Gunlom Aboriginal Land Trust and leased to the Director of National parks as part of Kakadu National Park (KNPDMP 2006:7).

The Aboriginal Lands Trust lease to the Director of National Parks was executed in November 1978 and March 1991. In 1996 a memorandum of lease was signed between Gunlom Aboriginal Land Trust and the Director of National Parks for managing Jawoyn lands in the south of the Park (Section II, Periodic Report 2002:14). The lease agreements provide for Traditional Owners:

- The right to continue, in accordance with Aboriginal law, the traditional use of any area of the park for hunting or food gathering (other than for commercial purposes);
- The right to continue the use of any area of the Park for ceremonial and religions purpose;
- The right to reside within the Park, subject to the provisions of the Plan of Management;

The Director of National Parks also agreed to lease covenants:

- To encourage the maintenance of Aboriginal tradition
- To promote and protect the interests of relevant Aboriginals
- To encourage Aboriginal business and commercial initiatives and enterprises within the Park
- To have regard in performing its functions in relation to the Park, to priorities provided for in the Plan of Management or determined from time to time by the Board
- To encourage as many relevant Aboriginals as is practicable to provide services in relation to the Park
- To regularly consult and liaise with the Northern Land Council and relevant Aboriginal associations in connection with the administration, management and control of the Park (Periodic Report 2002, Section II:14); and

The Alligator Rivers Region which includes Kakadu, is listed on the Register of the National Estate under the Australian Heritage Council Act 2003 because of its National significance. At the time of preparing the current Plan of Management (2006) Kakadu as a whole and some sites in the Park are also under consideration for inclusion in the National Heritage List or Commonwealth Heritage List under the EPBC Act 1999 (KNPDMP 2006).

Political and Institutional Context

- Environment Protection and Biodiversity Conservation (EPBC) Act 1999
- Northern Territory Aboriginal Land Rights Act 1976
- Northern Territory Sacred Sites Act 1989
- Heritage Conservation Act 1991
- Territory and Wildlife Conservation Act 1995
- Planning Act 1976
- Alligator Rivers Region Act 1976 provides specific protection to catchments area vulnerable to the effects of mining

Environmental organisations have raised concerns over the Commonwealth Governments' (1999) decision to implement a new environmental legislation, which they argue 'further weakens the role of Australian Government' in protecting World Heritage values'. The report titled, *Kakadu World Heritage In Danger (1999)* critiques the then proposed Australian Government legislation, the *Environment Protection and Biodiversity Conservation Bill* (EPBC) (which came into effect in November 1998), for repealing the *World Heritage Properties Conservation Act* which has been acclaimed as world's best practice model legislation for World Heritage 'and brought great merit to Australia' (*Kakadu World Heritage In Danger* Report 1998: 4.7 Summary Statement). The report further cautioned that:

Repeal of the legislation, as well as being embarrassing to Australia, will be viewed with disbelief by other countries who have in the past commended Australia's initiative and commitment to World Heritage. The legislation has met with strong opposition from Non-Government Organisations, particularly because of the extent to which the Australian Government is prepared to delegate World Heritage matters to a lower tier of Government. This has implications for all World Heritage properties in Australia (*Kakadu World Heritage In Danger* Report 1998: 4.7 Summary Statement).

The reform of the previous environmental legislation came after a 1989 review of the Australian National Parks and Wildlife Service, titled the *MacDonald Report* (Department of

the Parliamentary Library 1999). The Key recommendation from the *McDonald Report* was a single nature conservation Act. When legislated in 1998, the Bill replaced:

- The Endangered Species Protection Act 1992;
- Environment Protection (Impact of Proposals) Act 1974;
- National Parks and Wildlife Conservation Act 1975;
- Whale Protection Act 1980; and the
- World Heritage Properties Conservation Act 1983.

The Wilderness Society produced a report (1998) citing '82 reasons why the new environment legislation is bad for the environment'. In the context of cultural heritage one of the fundamental issues the Wilderness Society cited for labeling the *Environment Protection and Biodiversity Conservation Bill* 1998 'unsatisfactory as Australia's primary environmental law' was its treatment of Indigenous rights. In 1998 the Wilderness Society called for the legislation to:

- Recognise Indigenous rights with regard to biodiversity;
- Respect Traditional Ownership and use of wildlife;
- Recognise intellectual property rights, particularly with regard to the control of access to genetic and biological resources;
- Respect Joint Management arrangements at Kakadu, Uluru-Kata Tjuta and Booderee (Jervis Bay) National Parks.

The Kakadu Draft Management Plan (2006:21) notes that the EPBC does not affect the operation of s.211 of the *Native Title Act 1993*, 'which provides that holders of Native Title rights covering certain activities do not need authorisation required by other laws to engage in those activities'.

Management

In accordance with the IUCN management categories, the 2006 management plan has been developed under the category of 'national park'. Regarding the involvement of Indigenous people in the management of the site, this category stipulates that:

- a. The needs of Indigenous people should be taken into account, including subsistence resource use, to the extent that they do not conflict with the management principles governing the protection of World Heritage values; and
- b. The aspirations of the Traditional Owners of the land within the reserve or zone, their continuing land management practices, the protection and maintenance of cultural heritage and the benefit of the Traditional Owners derive from enterprises established in the reserve or zone, consistent with these principles, should be recognised and taken into account (KNPDMP 2006:28).

In accordance with the *National Parks and Wildlife Conservation Act 1975* the Kakadu Board of Management and Director of National Parks and Wildlife drafted its first management plan after a 12 month consultation period, in which 97 public submissions were received. In addition to the public submissions, the input of park staff and an Aboriginal Consultative Committee (comprised of 43 Aboriginal representatives from Aboriginal communities within the Park) were considered in the planning phase.

The fifth Kakadu National Park Draft Management Plan (KNPDMP), guides park management until 2011. The 2006 Draft Management Plan lists one of its key aims as enabling Traditional Owners to 'assume more responsibilities related to the administration, control and management of the Park and have more opportunities to earn income and gain jobs on country'. In addition, it aims to enable '[y]oung Bininj [to] learn about their culture and participate in the management of the park' (KNPDMP 2006:33).

In its management approach the 2006 Draft Management Plan states:

'At the time of preparing this Plan not all of the land in the Park was Aboriginal land under the Land Rights Act but management to date (including composition of the Board, and previous management plans) has been based on the principle of managing the whole Park as if it is Aboriginal land.' (KNPDMP 2006:30).

In particular, the 2006 Draft Management Plan recognises the conditions of the lease agreements, which require the Director of Parks to:

'provide a range of social and economic benefits for Bininj, including promoting Aboriginal administration, management and control of the Park, and subject to this Plan, engaging as many Relevant Aboriginals as is practical to provide services in an in relation to the Park.' (KNPDMP 2006:33)

In fulfilling this obligation, the Plan reports that:

'During the life of the 4th Plan, numbers of Bininj employed in the Park increased, and some support mechanism such as training were established to assist Bininj staff members. Paying an annual rent and a percentage of the charges collected in the Park and providing a range of employment, enterprise and training opportunities related to the Park are also requirements of the lease agreements.' (KNPDMP 2006:33)

In the daily management of the Park, the Board of Management stipulates:

'The Board, Director and Park staff need to make decision and manage the Park in accordance with the EPBC Act, the lease conditions, this Plan, the EPBC Regulations and other Balanda laws but must include Bininj and use Bininj cultural protocols and practices (including clan based decision making) to the greatest extent possible.' (KNPDMP 2006:30)

Joint Management Principles

- Culture, country, sacred places and customary law are one, extend beyond the boundaries of Kakadu, and need to be protected and respected;
- Bininj and Balanda keep joint management strong by working together, sharing decision-making, learning from and respecting each other;
- Young Bininj have opportunities to learn about culture and country;
- Bininj and Park management share obligations to look after the natural and cultural values of the Park;
- Tourism is developed at a pace and level determined by Bininj, and strong partnerships are maintained with the tourism industry; and
- Visitors are provided with opportunities for safe, enriching and memorable experiences (KNPDMP 2006).

The key instruments upon which Kakadu's shared management arrangements operate are:

- The statutory framework of the lease agreements under the Aboriginal Land Rights NT Act 1976;
- The Board of Management established in 1989 with a majority (10/15) of Aboriginal members;
- Plans of Management established under the National Parks and Wildlife Conservation Act 1975. This act was replaced by the National Parks and Wildlife Conservation Act 1975.

Through the Kakadu Board of Management, the joint management of KNP is shared by the Aboriginal Traditional Owners (*Bininj*) and the Director of National Parks (*Balanda*). The Director is assisted by *Parks Australia*, a division of the Australian Government Department of the Environment and Water Resources.

The Board of Management for the Park, established on 26 July 1989, comprises 14 members, including 10 Aboriginal people nominated by the Traditional Owners of the Park. As part of its lease obligations, the Board of Management consults with the Northern Land Council (NLC) on issues affecting Traditional Owners. The Land Council's roles concerning a business or commercial enterprise on Aboriginal land include:

- Assisting Aboriginal people to carry out commercial activities, including resource development, the provision of tourist facilities and agricultural activities;
- Negotiating Land Use Agreements on behalf of the Traditional Owners;
- Ensuring that Aboriginal culture, traditions and law are respected and followed;
- That the relevant Aboriginal people make informed decisions; and
- Ensure that commercial and resource use agreements are equitable (NLC Annual Report 2001-2002, Chapter 7.2:36)

Aboriginal 'living areas' are established at around 10 locations in the park. Approximately 300 Aboriginal people reside in the park, including Traditional Owners and Aboriginals with recognised social and traditional attachments to the area. Management objectives allow Traditional Owners, and other Aboriginal people having traditional association with the area, to maintain and, where desirable, establish new living areas at appropriate locations. The town of Jabiru, with a population of 1,200, built to service the Ranger uranium mine, is within the park (UNESCO).

Collaborative Process

Day to day management of the Park ('routine actions') is undertaken in accordance with policies, prescriptions, and procedures listed in the Parks Manual of Procedures. Bininj are consulted 'where necessary and in accordance with Board/NLC consultation guidelines'. The decision is then made by 'an appropriate officer' (KNPDMP 2006:32 Table 1).

'Non-routine actions' (such as major capital works, tourism, employment, commercial activities etc) are processed in accordance with management plan policies, prescriptions and procedures. Bininj are consulted 'where necessary and in accordance with Board/NLC consultation guidelines'. Relevant stakeholders are consulted/informed, and decision is made by Board of Management (KNPDMP 2006:32 Table 1).

Capacity Building Mechanisms

1. The Draft 2006 Management Plan asserts that: (5.1.2) maintaining and developing Bininj cultural knowledge and skills will be recognised as important Park work by:
2. Observing Bininj priorities for cultural management;
3. Applying Bininj knowledge and skills in park management programs for natural and cultural heritage;
4. Recognising cultural knowledge and skill development as important components of staff development;
5. Use of Bininj languages and language training will be supported and encouraged within the Park; and
6. As appropriate and subject to Bininj approval, Balanda place names used in the Park will be replaced with local Bininj place names (KNPDMP 2006:40).

Co-management Mechanisms and Protocols for Protecting Indigenous Cultural Values and Resource Use

The Northern Land Council administers the Land Trust lease over Kakadu, and therefore plays a pivotal role in its joint-management. The NLC participates in consultations regarding the development of Management Plans. The NLC staff attend Board of Management meetings in an advisory capacity and facilitate negotiations with the Commonwealth Government relating to the Traditional Owner's interests in the management and operation of the Park. The NLC implement Integrated Conservation and Development programs, which focus on the conservation, management and utilisation of natural resources by Aboriginal people. Through its Caring for Country program, the Natural Resources branch is the major mechanism for resource management, incorporating capacity-building, land management planning and sustainable use of resources.

Fire Management: The Board of Management is endeavouring to adopt more traditional fire management principles, and consults with *Bininj/Mungguy* about the implementation of fire management programs within the Park. Traditional Owners are overseeing and monitoring traditional burning in particular areas of the Park, with assistance from Parks Australia as required. This has positively contributed to Park biodiversity and management and is assisting the intergenerational transfer of traditional knowledge through 'action learning' facilitated by family groups. Further cultural land-management programs are being developed (IUCN Period Report, Section II:25).

Control Over Cultural Heritage: Daily work plans for managing cultural heritage have been developed primarily by park staff in consultation with Traditional Owners on specific projects. *Bininj/Mungguy* have expressed concern that they have not been able to direct the control over the management of their cultural heritage to the extent that they would like. This was addressed through a Memorandum of Understanding Regarding the Control of Aboriginal Cultural Material in Kakadu National Park. The MoU established the Bininj Heritage Management Committee that is directed by the advice of Traditional Owners and provides feedback to the broader community (IUCN Periodic Report 2002, Section II:28).

Protection of Oral Cultural Heritage: Aboriginal Traditional Owners are concerned that their vast knowledge of flora, fauna, habitats, seasonal changes, landscapes, places and history, and cultural beliefs regarding the creation era of Kakadu are being lost as each generation passes, jeopardising the intergenerational transfer of knowledge. *Bininj/Mungguy* stress that they need to control and manage recording programs and develop appropriate access and storage protocols (KNPDMP 2006).

Objective 1.8 of Australia's National Strategy for the Conservation of Biological Diversity recognises the need to ensure the continuity of the ethnobiological knowledge of Australia's Indigenous peoples to the conservation of Australia's biodiversity (NLC Annual Report 2001-2002:35). The North Australian Indigenous Land and Sea Management Alliance (NAILSMA) has identified the need for research to support the conservation of Indigenous knowledge as an urgent priority for Indigenous Land Management. NAILSMA, through the Caring for Country Unity (CFCU) (a bottom-up community development approach) has received funding for the CRC for Tropical Savannas Management and WWF to institute a coordinating program across northern Australia

In Kakadu National Park, the range of management responses for protecting Indigenous knowledge includes:

- Logistical support for ceremonies and traditional cultural activities undertaken by Traditional Owners;
- Recording and documenting Aboriginal languages within the area;
- Recording Aboriginal knowledge of fauna and flora;
- Recording personal histories and stories of interaction between Europeans and Bininj/Mungguy, as well as documenting place names¹³ and religious stories;
- The Bininj Heritage Management Committee determines use and access to cultural material and sets priorities for its collection. As part of the goal of maintaining traditional skills, oral cultural material is recorded 'on country', wherever possible; and
- Parks Australia provides multi-media archival mechanisms and storage facilities for oral cultural heritage materials.

Another program implemented to protect the cultural heritage values of Kakadu has been the Indigenous Heritage Education Project at Jabiru Area School; a joint initiative between the Northern Territory and Commonwealth Governments. With an objective to improve learning outcomes, the aim of the program is to increase the educational access of children of Traditional Owners and/or children speaking local languages, as well as supporting and maintaining the cultural heritage traditions of the Indigenous people in the Kakadu region (IUCN Periodic Report, Section II:30).

Protecting Sites of Significance: Traditional Owners have expressed concern that the 'wrong people' (according to Aboriginal people) may be entering sites of significance. Addressing this issue, Parks Australia established a register of significant sites identifying sensitive areas, and registering the wishes of Traditional Owners in relation to these sites. These sites are patrolled by Parks staff and monitored by Traditional Owners. In addition, 'Sickness Country' in the south of the park is managed with protocols established under the terms of lease agreement with the Gunlom Aboriginal Land Trust (IUCN Periodic Report 2002, Section II:29).

Managing Damage to Rock Art and Archaeological Sites: In order to protect these 'living sites' visitor access to rock art or any other archaeological sites will be strictly controlled by Traditional Owners through the Bining Heritage Management Committee and may involve restricted access arrangements (IUCN Periodic Report 2002, Section II:29).

Monitoring Programs: Inscribed on the World Heritage List for its cultural and natural values, Kakadu National Park has developed indicators for the assessment of the

¹³ '...Every place has a clan name, and every place has a clan' (Jacob Nayinggul, Manilagarr clan' (KNPDMP 2006:4)

maintenance of cultural values. Monitoring programs are designed and implemented from advice received from the Kakadu Research Advisory Committee. Methods adopted for the monitoring of cultural values include:

- a. Social Impact Studies: including issues related to education, economic development, employment, training, housing, infrastructure, health and culture. The 1992 Kakadu Region Social Impact Study (KRSIS) undertook research into social issues related to Uranium mining in the Kakadu region (IUCN Periodic Report 2002, Section II:30)

Employment and Training: In 2002 the Board of Management entered into a three year Memorandum of Understanding (including the provision of joint-funding), which enables the NLC to employ a dedicated Kakadu Park Officer. The position is intended to facilitate more active engagement of relevant Aboriginal interests in the management and operation of the Park. The initiative was the result of the Traditional Owners desire for enhanced involvement by the NLC, particularly in consultation and decision-making processes associated with joint-management of the Park (NLC Annual Report 2002-2003:25).

As of 2002 there were 70 people employed in the Park, 41% of which were Aboriginal staff members (Periodic Report 2002 Section II:17). This demonstrates an increase in Aboriginal employment, given that in 1989 the Park employed 38 fulltime staff, with approx. 33% (12 people) being Aboriginal employees (IUCN Nomination Summary 1992).

The Park lease agreement requires the development and implementation of Aboriginal training programs in Kakadu. Key actions include:

- Recruitment of Traditional Owners in Park Management positions;
- Employment of a training officer dedicated to Indigenous staff training programs;
- Provision of continuing training in workplace skills, including literacy and numeracy, law enforcement, using new technology in the workplace, and tourism and public relation skills;
- Personal development programs for Aboriginal staff members to enable promotion to higher administrative and management positions; and
- Provision for cross-cultural training programs for all Kakadu staff (IUCN Periodic Report 2002, Section II:18).

Women in Land Management: The Northern Land Council has developed Ranger Program throughout the NLC region, and encourage women's participation in all aspects of ranger work from spraying weeds to protecting sacred sites. The NLC reports that women have been 'enthusiastic participants' in the development of family "culture camps" conducted in the school holidays. In June 2002 Kakadu Aboriginal women rangers hosted the Ngalmuka Land Management Conference with over 100 women attending. Two resolutions were passed calling for the establishment of a fully resources Women's Ranger Program in the Ngukurr and Borroloola regions. (NLC Report 2001-2002, Chapter 7.1.1:34-35)

Threats to Cultural Heritage

Since 1998, conservation and Indigenous groups have actively protested against the Commonwealth Governments' approval of mining leases on the cultural landscapes of the Aboriginal Traditional Owners. The leases concern the *Jabiluka deposit*, owned by Energy Resources of Australia (ERA). The *Jabiluka deposit* is one of the world's largest high-grade uranium deposits. 'Located adjacent to the floodplain of Magela Creek in the Northern Territory, it lies about 20 km north of the existing ERA-owned Ranger mine and near the tourist route to the Ubirr rock art sites. Although within the boundaries of Kakadu National

Park, the Jabiluka lease is technically not part of the park. Conservation groups believe that the mining will have 'significant and long-term impact on the cultural and natural world heritage values of Kakadu National Park' (The Wilderness Society 1998). One of the concerns of conservation groups is that the leases will result in 20 million tonnes of radioactive waste being stored near *Mirrarr* sacred sites. The Commonwealth Government Report of 1999 argued that the mining sites were not within the World Heritage area, but conservation groups counter-argue that they are 'ecologically and culturally contiguous with it' (The Wilderness Society. 1998l).

The campaign to protect Aboriginal cultural heritage from the mining began after the CEO of Energy Resources of Australia (ERA) announced in 1997 that 'ERA will push ahead with plans for Jabiluka whether or not it is ultimately opposed by the senior Aboriginal Traditional Owner of the land' (The Wilderness Society 1998d).

This was followed by a response from the Northern Land Council (NLC), advising the Minister for the Environment and Minister for Resources of serious flaws in the environment and social impact assessment process (NLC 1999). In 1998 the World Heritage Committee instructed a UN Inspection committee to prepare a report recommending actions to the World Heritage Committee for the protection of Kakadu National Park (IUCN). The UNESCO Mission (1998) recommended that mining at Jabiluka should not proceed because issues of social, environmental and cultural impact were not adequately dealt with in the approval process (NLC 1999). In response, the Australian Government established a Senate Inquiry to report to UNESCO.

On 15 June 1999, the Northern Land Council (on behalf of the Traditional Owners) advised the Senate Inquiry into the Jabiluka Uranium Mine Project to suspend work on the mine site immediately until UNESCO's final decision on Kakadu was reached. The NLC submission to the Inquiry noted that:

'environmental concerns, the interests of Traditional Owners and concerns about the social impact of mining on Aboriginal people living in Kakadu have been swept aside by the Government in its haste to approve mining at the site.' (NLC 1999)

Regarding concerns with the social impact, the NLC stated:

Neither the Environmental Impact Statement (EIS) nor the Public Environment Review (PER) gave an honest appraisal of the enormous potential for adverse impacts on the lives and wellbeing of the Aboriginal people who would be affected by Jabiluka.

The EIS did not adequately cover the social and cultural impact of mining on Aboriginal people living in Kakadu, principally because the outcomes pre-empted the findings of a study (KRSIS-Kakadu Regional Social Impact Study) and therefore could not take its crucial findings into account.

The new concept outlined in the PER will prolong the life of the mine by as much as 25 years on the original timeframe given in 1982, with the potential for severe environmental and social implications on the area.

Regarding the views of Traditional Owners and other Aboriginal people affected by the mine, the NLC submission stated:

The Environmental Impact Statement (EIS) – the substantive part of the assessment process – focused on an option (milling uranium at the Ranger mine

site) that requires the consent of the Traditional Owners, who have consistently stated it will not give this consent.

Given the social impact that mining (at Ranger) has already had on the area, it is not surprising that there would be opposition against another uranium mine.

In 2002 the Chairman of Rio Tinto announced that the company would not mine without the agreement of the Traditional Owners. Following a meeting of Traditional Owners, the mining company and the NLC, agreed to enter into discussions to develop a sustainable plan for the future of Jabiluka (as part of Rio Tinto's exit strategy from the town) and to enter into a formal agreement of understanding regarding the future of the mine (NLC Annual Report 2002-2003:36). The legal moratorium on negotiations between the mining company and the area's Traditional Owners expired on 26 April 2005 (*Wilderness Society* 2005).

Chronology of Key Events

- 1987** World Heritage Listing
- 1997** ERA announced that it will push for Mining Leases regardless of Aboriginal approval
- 1988** Federal government formally approved the Jabiluka uranium mine within the boundaries of KNP
- 1998** Wilderness Society announced that the Traditional Owners (the Mirrar Gundjehmi) are unequivocally opposed to the project
- 1998** World Heritage Committee instructed a UN Inspection committee to prepare a report recommending actions to the World Heritage Committee for the protection of KNP
- 1998** World Heritage Committee announced its intention to visit KNP
- 1998** Conservation Groups submitted a Report for listing KNP as a World Heritage Site in Danger
- 1998** Australian Government criticized the report of the UN Inspection Team on the impacts of the Jabiluka mine on KNP as 'biased, unbalanced and superficial'
- 1998** World Heritage Committee called on Australian Government to immediately halt construction of the Jabiluka mine
- 1998** Government appointee to the World Heritage Mission supported independent scientific criticism of Jabiluka
- 1998** UN Mission Report recommended that the proposal to mine and mill uranium at Jabiluka should not proceed
- 1999** Senator Hill announced that the government will spend \$1 million on an international lobbying campaign to try to prevent KNP being placed on the 'World Heritage in Danger List'
- 1999** Federal Government Report to IUCN and ICOMOs
- 1999** Construction resumed at mining sites
- 1999** Northern Land Council calls for halt to work at Jabiluka
- 1999** NGO assessment of Government responded to the 16 recommendations of the World Heritage Committee's mission to KNP
- 1999** World Heritage Committee meets to consider KNP
- 1999** UNESCO World Heritage Committee rejected proposal to list KNP as a World Heritage site 'in danger'
- 2000** Rio Tinto became new owners of Jabiluka Mining Lease and announced continuation of mining

- 2001** Rio Tinto's CEO announced that, given community opposition and poor market conditions, the company could not support the development of Jabiluka in the short term
- 2001** IUCN 7th World Congress congratulated the Mirrar Traditional Owners for defending Kakadu from the threat posed by the Jabiluka uranium mine. IUCN urged international NGOs to continue in their efforts to ensure that the Jabiluka uranium mine is never operated and the mine site is quickly rehabilitated for future incorporation back into the World Heritage site after agreement is reached with the Traditional Owners
- 2002** Rio Tinto Rio Chairman re-affirmed the company's commitment not to proceed with the controversial Jabiluka uranium mine and called for its rehabilitation
- 2003** Conservation groups and Traditional Owners welcomed the announcement that the mine decline (*the hole*) at Jabiluka will be filled and rehabilitated
- 2005** Conservation groups sent a message to the French government not to allow its nuclear subsidiary Areva to develop a uranium mine in the heart of KNP. Earlier in 2005 Areva signalled its intention to push for the new uranium mine at Koongarra (*Wilderness Society* 2005)
- 2005** The legal moratorium on negotiations between the mining company and the area's Traditional Owners expired on 26 April 2005 (*Wilderness Society* 2005)

In 2002, after a prolonged campaign by Australian environmental NGOs, the new owners of the mining leases, Rio Tinto, announced that they will not proceed with the controversial Jabiluka uranium mine, and in 2003, Rio Tinto called for its rehabilitation (*Wilderness Society* 2002).

The Campaign

In 1998, a report titled "Kakadu, World Heritage In Danger" (KWHID) was submitted to UNESCO's World Heritage Committee by concerned conservation groups, including:

- The Wilderness Society (Australia);
- Friends of the Earth (Australia);
- Australian Conservation Foundation;
- Greenpeace (Australia);
- Australian Rainforest Conservation Society;
- Humane Society International;
- Environment Centre of the Northern Territory;
- Conservation Council of Western Australia;
- Conservation Council of South Australia;
- Conservation Council of the South East Region and Canberra;
- Nature Conservation Council of NSW;
- Queensland Conservation Council;
- Tasmanian Conservation Trust;
- Environment Victoria; and
- Arid Lands Environment Centre.

The report states that '[t]he major cultural and environmental controversies and uncertainties now facing Kakadu World Heritage Area' derive 'from the three uranium Mining Lease enclaves created in the World Heritage Area' (*Executive Summary* 1998). It further asserts

that Stage 1 and 2 nomination documents for Stages 1 and 2 submitted to the World Heritage Committee 'were totally uninformative on the enclaves and planned uranium mining in those enclaves, perhaps to the point of misrepresenting the then current and planned mining within the enclaves' (KWHID Executive Summary 1998). The campaign received the attention of numerous other international NGO's, who rallied for support through their global networks (for example see *Peace Movement Aotearoa* website¹⁴).

In the 1998 report, the environmental NGOs pointed out that the natural heritage and cultural heritage within the Jabiluka and Koongarra Mining Leases are an integral part of the natural and cultural heritage of Kakadu World Heritage Area. On this basis, it argued that:

Any past, present or future decision to maintain the Koongarra and Jabiluka Mining Leases as enclaves in the Kakadu World Heritage Area therefore cannot be justified on natural or cultural heritage grounds. Their exclusion can only be based on grounds other than World Heritage values. (KWHID Executive Summary 1998).

In particular, the report asserts that the existence of the mines upstream and within the boundaries of the World Heritage sites compromises the integrity of the World Heritage values. The call for the listing Kakadu under Heritage Sites in Danger was motivated by '[a] flawed and compromised environmental impact assessment process for Jabiluka, the second uranium mine in an enclave of Kakadu World Heritage Area', which 'significantly heightens the risk of "danger" to World Heritage values not just over the 28+ years of the project but over the 10,000+ years existence of radioactive uranium ore tailings afterwards' (KWHID Executive Summary Statement).

Additional criticism was directed toward the Australian Government's for granting approval to commence development of the Jabiluka uranium mine:

- Despite the objections of the Traditional Owners of the Aboriginal land held as Mining Lease;
- Prior to completion of formal assessment of critical aspects of the mine;
- Prior to actioning 73 preconditions, albeit inadequate;
- Despite 'last minute' changes being made to critical aspects of uranium ore tailings disposal without proper assessment and public review; and
- Before the resolution of outstanding legal issues in the Federal Court

According to the collective NGO opinion, this action was 'totally pre-emptive and falls far short of world's best practice expected of development control and management within the external boundaries of a World Heritage Area', producing 'serious deficiencies which are now contributing to the risks and threats to the World Heritage values of the listed property and associated enclaves' (Executive Summary 1998). The granting of mining leases within Kakadu was also strongly opposed by political factions and the Traditional Owners of Kakadu. In January 1998, the European Parliament passed a resolution condemning the Jabiluka project and calling on the Australian Government to stop it and the Australian Senate also passed resolutions condemning the project. The Traditional Owners, combined with environment groups, led the campaign against the mine, along with church groups and thousands of concerned individuals in Australia and overseas (Wilderness Society for the Jabiluka Alliance 1998).

¹⁴ <http://www.converge.org.nz/pma/jabiluka.htm>

With regards to Kakadu's World Heritage cultural values, the report asserts that 'the cultural heritage - the art sites, the archaeological sites, the mythological sites and indeed the whole landscape - within the Jabiluka and Koongarra Mining Leases, are an integral part of the more expansive cultural heritage and cultural landscape which has been justifiably recognised as being World Heritage' (KWHID 1.1 Summary Statement). Lying within an important Indigenous cultural landscape, the leases contain many significant cultural heritage sites. Cultural heritage sites and concerns include:

- More than 100 art sites are found in Jabiluka Mining Lease alone;
- The oldest known archaeological deposit in the Kakadu region (Malakananja II) is in Jabiluka Mining Lease"- not in the listed property as claimed by the Stage 2 and 3 nominations; and
- One of the 10 major Rock Art sites presented in the Stage 3 nomination. (Malakananja II in the Jabiluka Mining Lease!)

UNESCO's Response

In UNESCO's 24th Ordinary Session held in Cairns (2000), the World Heritage Commission adopted a resolution on KNP World Heritage management, based upon an agreed text between the International Scientific Panel of ICSU, IUCN and the Supervising Scientist of the Australian Government. Annex XII of UNESCO's report (2000), outlined the Committee's views on the issue of mining at Jabiluka, stating:

IUCN believes that mining should not take place within designated natural World Heritage sites. IUCN also believes that any mining operations on the edge of, or near World Heritage sites, should be subject to stringent risk analysis to ensure World Heritage values are not threatened. That, of course, is the test the World Heritage Committee should apply in this case. (UNESCO 2000: Annex XII:1).

The UNESCO response noted that the lesson to be learnt from the "Kakadu saga" was that during the evaluation process, 'more attention needs to be paid to potential threats to World Heritage sites and values'. Noting that 'evaluating possible threats from mining can be difficult and costly', the Committee concluded that 'if the Committee is to avoid the complex and time-consuming arguments which have been a feature of this case, it would be better to identify such potential problems well in advance and as part of the evaluation process' (UNESCO 2000:Annex XII:1).

IUCN Statement (UNESCO 2000: Annex XII:1).

IUCN recognises that there are other values – aesthetic as well as cultural values – which were not examined by the ISP but which are affected by the mine and about which IUCN still has concerns, which it has set out in the past and which have been well documented.

Moreover, IUCN appreciates that there are legitimate concerns of the Traditional Owners to be addressed – for example they should be involved in the monitoring programme.

IUCN very much hopes that the Australian Government will respond quickly and positively to the request that it commence the additional analysis and monitoring programme recommended by the ISP and IUCN. It is self-evident, of course that these measures should be in place before any mining commences.

In view of the change in the majority ownership of the Jabiluka mine, IUCN would welcome a message from this Committee to the new owners – Rio Tinto – that they should undertake to comply with all undertakings given by the former owners, and will fulfil all their obligations towards the Kakadu National Park World Heritage site.

Australian Government Response

A report submitted by the *Supervising Scientist of Australia concerning Kakadu National Park*; the Independent Scientific Panel of ICSU stated:

‘[T]he Supervising Scientist has identified all the principal risks to the natural values of the Kakadu World Heritage site that can presently be perceived to result from the Jabiluka Mill Alternative proposal. These risks have been analysed in detail and have been quantified with a high level of scientific certainty. Such analyses have shown the risks to be very small or negligible and that the development of the JMA should not threaten the natural World Heritage values of the Kakadu National Park.’ (UNESCO 2000: Annex XIII).

According to the *Supervising Scientist*, this conclusion; ‘reached after detailed and lengthy consideration of possible threats to the natural values of Kakadu, clearly vindicates the overall conclusion of the report...submitted to the Committee in April 1999’ (UNESCO 2000: Annex XIII).

Traditional Owner Response

In 2000, senior Traditional Owner Yvonne Margarula, Mirrar wrote to the World Heritage Committee advising that ‘discussions during the 24th Session of the World Heritage Committee between the Mirrar and the Australian Government had broken down’ (UNESCO 2000: Annex XIII). The letter stated:

We remain extremely concerned at the Australian Government's unwillingness to accept, in an advisory or observatory capacity, the assistance of the World Heritage Committee, in spite of the Government's admission that an impasse has been reached.

The letter highlighted a deterioration of trust between the Australian Government and the Mirrar delegation.

The Australian Government representatives to this forum have misrepresented, improperly and inaccurately, the content of our discussions with the Government to members of States Parties. These representatives have suggested that the discussion focussed on issues related to financial resources rather than a constructive process that would result in the protection of Kakadu's cultural heritage. Such misinformation only undermines any opportunity of future constructive dialogue.

Concluding, Traditional Owner Yvonne Margarula stressed that:

‘the Mirrar delegation has tirelessly pursued resolution with the Australian Government by constructive dialogue. Our suggestions have been routinely rejected. This process has now reached a point where the integrity of the Mirrar position is in danger of being undermined. We have, therefore, suspended all discussions but are willing to receive advice and direction from the World

Heritage Committee to ensure Kakadu's living cultural heritage is protected.'
(UNESCO 2000: Annex XIII)

A Resolution for Now

In 2004 at its 28th session held in China, 2004 the World Heritage Committee:

1. Welcomes the news that the mining company Energy Resources of Australia has made a commitment to the Gundjehmi Aboriginal Corporation (GAC) that no mining will take place at Jabiluka without the agreement of the Mirrar people; and
2. Notes that in December 2003 the Jabiluka mine site was put into long-term care and maintenance (WHC-04/28.COM/26:35).

Uluru-Kata Tjuta National Park, Australia

Site Details

Land Tenure

Joint Management – Inalienable freehold title was passed to the Aboriginal Uluru-Kata Tjuta Land Trust on 26 October 1985. The land was subsequently leased to the Director of National Parks and Wildlife for a period of 99 years on 26 October 1985 (UNESCO).

Protected Area

132,566ha (1325km²)

Establishment Date

Inscribed as a Biosphere Reserve in 1977 and inscribed as a World Heritage site in 1987.

IUCN Management Category

National Park; Biosphere Reserve

Natural World Heritage Criterion (ii), (iii).

Cultural World Heritage Criterion (i), (iv).

Conservation Values

According to UNESCO, Uluru-Kata Tjuta National Park is considered an example of both cultural and natural heritage of universal value. As a cultural landscape, the park represents the combined works of nature and man, manifesting the interaction of humankind and its natural environment and is an outstanding example of traditional human type of settlement and land-use known as hunting and gathering. The landscape also reflects part of the outcome of millennia of management, using traditional Aboriginal methods governed by the Tjukurpa (the Aboriginal law). While the monoliths are of outstanding scientific and cultural significance, the park also contains and protects a range of desert ecosystems. Within the boundaries of the park, all four principle ecological zones of the region are found (IUCN).

The park comprises extensive sand plains, dunes and alluvial desert, punctuated by the Uluru monolith Kata Tjuta, some 32km to the west. More than 150 bird species occur in the park, 66 of which are considered resident. These include parrots, wrens, thornbills and raptors such as peregrine falcon *Falco peregrinus*. All five Australian reptile families are represented including monitor lizard *Varanus giganteus*, thorny devil lizard *Moloch horridus*, western brown snake *Pseudonaja nuchalis*, Ramsay's python *Aspidites ramsayi* and many others. Amphibians such as water-holding frogs *Cyclorana cultripes* and *C. platycephalus* can be found. Invertebrates include fairy shrimp *Imnadopsis* sp. and shield shrimp *Triops australiensis*, which exploit seasonal rock pools. (IUCN).

Cultural Values

The Park, and particularly the Uluru monolith, is one of several interconnected nodes of local and religious significance. The cave paintings on Uluru indicate the lengthy occupation of the land by Aboriginal people. The park is crisscrossed by a network of tracks, marking mythical journeys interconnecting cultural sites both inside and outside the park. A number of sites are regarded by the Aborigines as secret, thus requiring specific management action. Uluru is also considered a significant symbol of national identity by all Australians (UNESCO).

Indigenous Stakeholders

The resident Aboriginal Pitjantjatjara and Yankunytjatjara population number around 150, but varies according to ceremonial activities. The Traditional Owners have rights of occupation and live in the Mutitjulu Community “living area close to the rock. Traditional occupations are hunting and gathering. Controlled burning has long been used for environmental management.

Background

Between 1918 and 1921 large adjoining areas of South Australia, Western Australia and the Northern Territory were declared Aboriginal reserves. In 1920 the South-Western or Petermann Reserve (the land that is now part of Uluru-Kata Tjuta National Park), was declared an Aboriginal Reserve by the Commonwealth Government under the *Aboriginals Ordinance* (NT) (Department of the Environment and Water Resources).

In 1975 a 104km² reservation beyond the park's northern boundary, (15 km from Uluru), was approved for the development of a tourist facility and an associated airport, to be known as Yulara. The campground within the Park was closed in 1983 and the motels finally closed in late 1984, coinciding with the opening of the Yulara resort. In 1992 the majority interest in the Yulara Resort held by the Northern Territory Government was sold and the resort was renamed 'Ayers Rock Resort' (Department of the Environment and Water Resources).

On 24 May 1977 the Park became the first area declared under the Commonwealth *National Parks and Wildlife Conservation Act 1975*, under the name Uluru (Ayers Rock-Mount Olga) National Park, to be managed by the Director of National Parks. In 1993, at the request of Anangu and the Park Board of Management, the name of the Park was changed to Uluru-Kata Tjuta National Park (Department of the Environment and Water Resources).

In 1995 Uluru - Kata Tjuta won UNESCO's Picasso Gold Medal (the highest UNESCO award) for outstanding efforts to preserve the landscape and Anangu culture, and for setting new international standards for World Heritage.

Political and Institutional Context

- *The Aboriginal Land Rights (Northern Territory) Act 1976*
- The Aboriginal Land Rights (Northern Territory) Amendment Act 1985
- National Parks and Wildlife Conservation Amendment Act 1985
- *The National Parks and Wildlife Conservation Act 1975*
- *Environment Protection and Biodiversity Conservation Act 1999.*

Prior to 1985 the Traditional Owners, the Anangu, negotiated for many years to gain legal recognition of their traditional land. In 1972 Traditional Owners gathered at Uluru for the first recorded ceremonies emphasizing their Traditional Ownership. In July 1973 the *Federal House of Representatives Standing Committee on Environment and Conservation* visited Uluru to prepare a report on the Park (Department of the Environment and Water Resources).

The report concluded:

In the future the traditional rights of Aboriginals must be assured and a central role in responsibility for management will rest with them.

The report recommended that the Park be managed by the Federal Parks and Wildlife Service and provided suggestions for Aboriginal people to be involved in [Park management](#). It suggested creating a suitable living area for Anangu to help facilitate their involvement in the Park. These recommendations were carried out and a bore and camp-ground was established (Department of the Environment and Water Resources).

In 1979, a claim was lodged under the *Aboriginal Land Rights (Northern Territory) Act 1976* (the Land Rights Act) by the Central Land Council (on behalf of the Traditional Owners) for an area of land that included the Park. The Aboriginal Land Commissioner found there were Traditional Owners for the Park but that the Park could not be claimed as it had ceased to be unalienated Crown land upon its proclamation in 1977. The claimed land to the north east of the Park is now Aboriginal Land held by the Katiti Aboriginal Land Trust (Department of the Environment and Water Resources).

In line with commitments made by the newly elected Commonwealth Government in 1983, the *National Parks and Wildlife Conservation Act 1975* and the Land Rights Act were amended in 1985 to provide for the Park to be granted as Aboriginal land and to be jointly managed by Anangu and the Commonwealth, through a lease to the Director of National Parks and a joint Board of Management with an Anangu majority. In the negotiation of these arrangements it was agreed between Anangu and the Government that the lease would be for 99 years and that Anangu would receive an annual rent and share of Park revenue (Department of the Environment and Water Resources).

Chronology

- 1958** Uluru and Kata Tjuta changed from Aboriginal Reserve to Tourist and Wildlife Reserve
- 1976** Aboriginal Land Rights Act (Northern Territory) Act
- 1979** Katiti Land Claim presented but not granted as title was held by Director of National Parks
- 1983** Aboriginal title to Uluru acknowledged by Prime Minister Hawke
- 1983/4** Uluru Resort established
- 1985** Traditional Owners presented with Freehold Title for Park area, land leased back to Federal Government
- 1987** Uluru National Park listed as World Heritage 'natural' site
- 1992** Yulara Resort renamed Ayers Rock Resort
- 1993** Park name changed to Uluru-Kata Tjuta National Park
- 1994** Uluru-Kata Tjuta National park listed as World Heritage 'cultural' landscape
- 1995** Uluru-Kata Tjuta National Park Cultural Centre
- 1997** Uluru-Kata Tjuta National Park wins N.T Reconciliation Award
- 2000** Environmental Biodiversity Protection and Conservation Act 1999 replaces National Parks and Wildlife Conservation Act 1975.
- 2000** Cultural Site Management Unit established
- 2000** Ara irititja oral history program established
- 2001** First Anangu Rangers graduate through Bachelor of Insititute
- 2002** Cultural Heritage Action Plan adopted
- 2002** Destructive fires burn much of Uluru-Kata Tjuta National Park
- 2003** Wildfires destroy luxury accommodation at the Resort
- 2005** 20th 'Handback' celebrations

Park Philosophy

Acknowledging the Park as a cultural landscape is a pivotal component of the Management philosophy. The management of Uluru - Kata Tjuṯa National Park centres around the concept of *Tjukurpa*, which is the foundation of Anangu life. The Traditional Owners, the Anangu, say they are pleased that this interaction between themselves and the land has now been recognized as being of World Heritage value (Department of the Environment and Water Resources). This concept is expressed on the cover of the Plan of Management by the words:

'Tjukurpa Katutja Ngarantja' Tjukurpa above all else

The term, *Tjukurpa/Wapar*, includes many complex but complementary concepts, encompassing:

- Anangu religion, law and moral systems;
- The past, the present and the future.
- The creation period when ancestral beings, Tjukaritja/Waparitja, created the world as it is now;
- The relationship between people, plants, animals and the physical features of the land; and
- The knowledge of how these relationships came to be, what they mean and how they must be maintained in daily life and in ceremony.

Tjukurpa governs the rules, obligations, responsibilities and guidelines for all relationships. As a belief system encompassing the totality of life, *Tjukurpa* underpins Anangu attitudes and guides people's spiritual, physical, mental, emotional, moral and economic behavior. *Tjukurpa* establishes the rules Anangu use to govern society and manage their land. As the 'proper way of doing things' it dictates correct procedures for dealing with problems, and penalties for breaking the Law (Department of the Environment and Water Resources).

Since colonisation, Anangu people have had to modify their traditional Law and have also adapted non-Aboriginal law to help enforce *Tjukurpa*. Sacred sites are protected under Commonwealth and Northern Territory legislation and hunting and foraging rights are protected under the legislation and lease agreement with the Director of National Parks (Department of the Environment and Water Resources). The Board of Management is governed by the *Environment Protection and Biodiversity Conservation Act 1999*.

Joint Management

Joint management of Uluru - Kata Tjuṯa National Park began in late 1985, with the first Board of Management held on 22 April 1986. Under the *Aboriginal Land Rights (Northern Territory) Act 1976* the Central Land Council (CLC) represents the interests of the Traditional Owners in negotiations and consultations regarding their lands. A CLC Joint Management Officer conducts consultations and represents the interests of Traditional Owners in management of the Park.

The joint management of Uluru - Kata Tjuṯa National Park is facilitated through the Director of National Parks and the Uluru - Kata Tjuṯa Board of Management. In carrying out his management responsibilities, the Director is assisted by Parks Australia, a division of the Australian Government Department of the Environment and Water Resources. The Board of Management and the Director are responsible for the Plan of Management and for making

policy and management decisions. The Board may provide advice to the Minister for the Environment and Water Resources regarding management of the park. Parks Australia is responsible for day to day management and implementation of Board decisions. Informal meetings are conducted weekly between the Office for Joint Management and Parks Australia to build communication links and foster trust (Uluru-Kata Tjuta Management Plan 2000).

The lease agreement ensures that the Director of National Parks:

- Has an Anangu majority on the Board of Management
- Encourages the maintenance of Anangu tradition through protection of sacred sites and other areas of significance
- Maximises Anangu involvement in Park administration and management, and provides necessary training
- Delivers training programs to Anangu to enable them to take up employment in the Park
- Maximises Anangu employment in the Park by accommodating Anangu needs and cultural obligations with flexible working conditions
- Uses Anangu traditional skills in Park management
- Actively supports the delivery of cross-cultural training by Anangu to Park staff, local residents and Park visitors
- Consults regularly with Anangu
- Encourages Anangu commercial activities in the Park
- Makes rental payments to the members of the Uluru - Kata Tjuta lands trust
- Maintains the Park to best practice standards
- Involves Anangu in staff selection

Management policy and programs aim to:

- Maintain Anangu culture and heritage;
- Conserve and protect the integrity of the ecological systems in and around the Park;
- Provide for visitor enjoyment and learning opportunities within the Park.

Traditional Owners of Uluru-Kata Tjuta living within the Park (eg; Mutitjulu Community) are represented by a Park Liaison Officer in the joint management partnership on a day-to-day basis (Department of the Environment and Water Resources). Decision making is based on the principle that Anangu responsibility takes precedence over other management considerations. Anangu advise that if this is not done *Tjukurpa* will not be fulfilled and the country will die. Anangu are consulted regarding infrastructure, location, and building design to ensure that these do not conflict with *Tjukurpa*. There have been occasions when Anangu have exercised their right to modify or refuse applications presented to them (Uluru-Kata Tjuta Management Plan 2000:19).

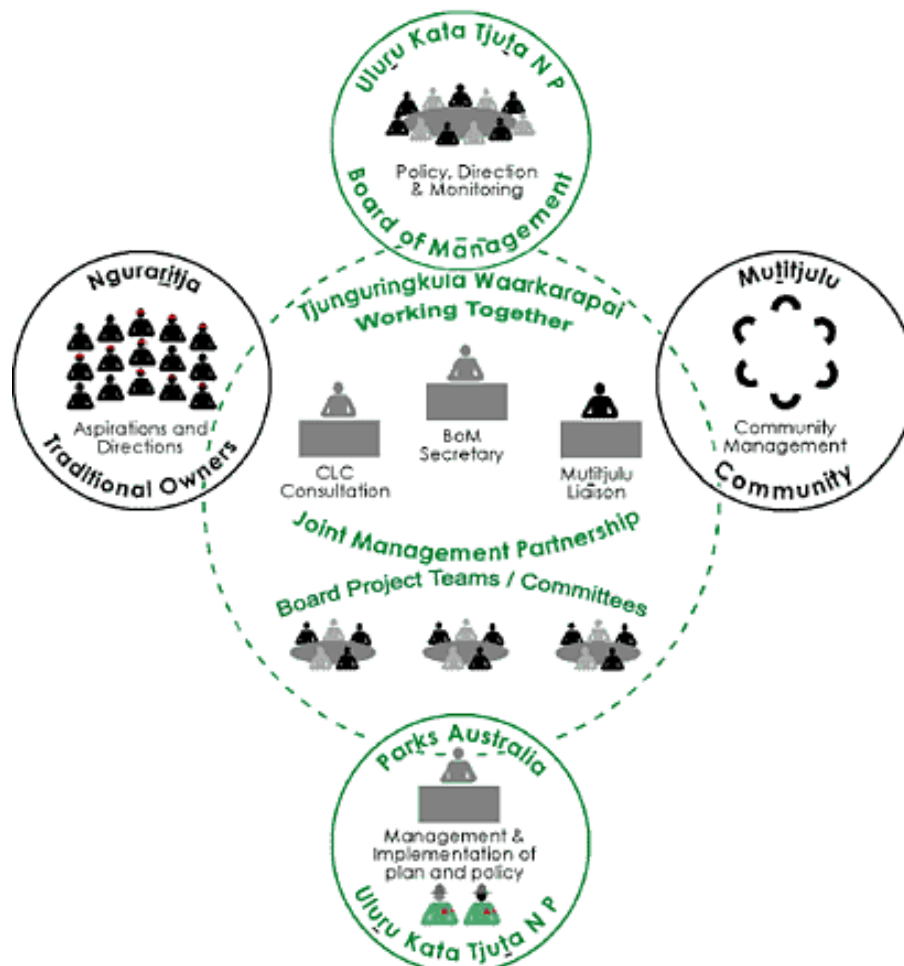
The Board is assisted by a number of subcommittees advising on specialised areas of Park Management eg tourism, science, media, cultural heritage protection. Any of the Board's subcommittees may make recommendations to the Board, who then administer final decisions and recommendations to the Director and Park Manager (Department of the Environment and Water Resources).

Of the twelve members of the Board of Management:

- Eight Aboriginal members are nominated by the Anangu Traditional Owners;
- One member is nominated by the federal minister responsible for tourism and approved by Anangu;
- One member is nominated by the federal minister responsible for the environment and approved by Anangu;
- One member is nominated by the Northern Territory Government and approved by Anangu;
- One member is the Director of National Parks.

The 4th Plan of Management, implemented in 2000 is the first bi-lingual management plan in Australia. The combination of traditional Anangu natural and cultural management skills with conventional park management practices underpins the management approach (Uluru-Kata Tjuta Plan of Management 2000).

Figure 2: Diagram of the Joint Management Arrangements in Uluru-Kata Tjuta National Park (copied from Department of the Environment and Water Resources)¹⁵



¹⁵ <http://www.environment.gov.au/parks/uluru/joint-management.html>

Collaborative Advisory Committees

The Tourism Consultative Committee: Member of the Board are members of the Tourism Consultative Committee. Ways of facilitating more effective dialogue between the Committee and Traditional Owners are being developed.

The Scientific Consultative Committee: Adopts a regional approach to cultural and natural heritage management as required under World Heritage listing and assists in meeting UNESCO's Man and Biosphere Program. The Committee comprises Anangu and other people who have expertise in scientific research and survey relevant to Uluru-Kata Tjuta National Park.

The Cultural Centre Steering Committee: The Cultural Centre is a focus for supporting and promoting Anangu enterprises and the Steering Committee assists Anangu gain greater control over its facilities. The Committee is comprised of men and women from each representative organization operating within the Centre. Anangu have the majority representation on the Committee.

The Employment, Education and Training Committee: Consisting of a Park Training Officer, a representative of the Office of Joint Management, relevant community members and specialist members of advisory groups such as TAFE and DEETYA. The Committee facilitates the training, liaison and education strategies within the Park.

Participatory Programs and Protocols

Protecting Oral Cultural Heritage: The Anangu have a vast knowledge of the fauna, flora, seasonal changes, landscape, history, and habitats within the Park, recognized by the Board as being pivotal to well-being of the Anangu and the management of the Park. In order to record the oral knowledge of the Anangu, the Board is developing 'best practice' protocols for the protection of cultural and intellectual property. The objective is to utilize this knowledge in conjunction with Western conservation practices in the daily management of the World Heritage values for which the Park is listed.

A participatory approach is adopted for consultation and training within the Park. Such methods provide a 'toolbox' for consultation. Programs and protocols covered by the current Plan of Management (2000) include:

Fauna and Flora: The Uluru Faunal Survey is an ongoing program that draws on the expertise of traditional knowledge for the conservation of ecology within the Park.

Water Resources: The Anangu are involved in the development and implementation of a rock hole maintenance program so traditional practices and maintained and traditional knowledge is transferred to younger generations.

Fire: As a vital mechanism for ecosystem protection, the Park is developing a fire management regime (carried out with the involvement of the Anangu, combining traditional Anangu burning practices with Western scientific methods).

Resource Use: The Anangu continue to hunt and gather within remote areas of the Park and in areas outside the Park.

Bioprospecting: Parks Australia and the Northern Land Council are reviewing the benefits and implications of bioprospecting, which involves the exploration, extraction, screening, and utilization of Indigenous knowledge for the production of commercially valuable genetic or biochemical resources.

Mining: The Plan of Management recognizes that mining is not compatible with the World Heritage status and other values of the park. Therefore no mining or transport of minerals will be permitted within the park. It also recognizes that activities external to the park may also have adverse impacts on the cultural and natural values within the park.

Cultural Activities: The Director can approve the closure of the Park or areas within it for allow for private Anangu cultural activities.

Tourism: *Tjukurpa* carries an obligation to care for visitors to the Park, and any fatalities or injuries are grieved by the Traditional Owners. Therefore Traditional Owners encourage tourists not to climb Uluru, but to walk around the base instead. Interpretive messages *Nganana Tatintja Waya* (We Never Climb) conveys this message, and for tourists wishing to climb, a requirement for briefings is part of the current plan of management.

Protection of Cultural Sites: Photography of sacred sites is not permitted. The domes of Kata Tjuta are strictly off-limits to visitors, Signs and protective fencing are erected in consultation with the Traditional Owners.

Cultural Awareness: The Cultural Centre provides cultural interpretations and displays for conveying the Park philosophy involving *Tjukurpa*; park values; and commitment to joint management. The Centre supports Anangu activities by providing a venue for the sale of locally produced arts, crafts, souvenirs and tourism ventures. Tourists are advised to visit the cultural centre first to learn about appropriate behaviour and to rethink whether they should climb the 'rock'.

Capacity Building: A strategy is being developed for the employment and training of Anangu people in the commercial sector, with special preference provided to businesses that are owned by Anangu, or prepared to set targets for increased employment of Anangu people. Anangu are consulted regarding training programs and Anangu businesses are encouraged to submit proposals for consideration by the Board of Management.

Employment: Anangu people are employed in full-time and part-time positions as Rangers, and Parks Australia employs additional Anangu people on a consultancy basis. To facilitate equitable decision-making the Board pays senior men and women for advice on particular land-management expertise, such as fire management. 30% of staff employed within the Park are Anangu.

Summary

The acknowledgement of Uluru-Kata Tjuta as a World Heritage *cultural landscape* facilitated changing priorities in management, as reflected in the current (2001) management plan. This plan is the first to recognize in land management, the primacy of the cultural practice of the Traditional Owners, reflected by its bilingual presentation. The plan emphasizes the partnership between Traditional Owners and the Australian government based upon the combination of Anangu cultural and natural management skills with conventional park practices. Burning regimes, derived from the *Tjukurpa of lungkata* (the centralian blue-tongue lizard) has been adapted as a major ecological management tool in the park. Additionally, conservation of the cultural landscape requires the conservation of cultural values of specific sites, storylines and places, including sacred sites, birthplaces, rock art, camping places, rock holes etc. The current plan of management provides operational guidelines for the protection of both natural and cultural values associated with *Tjukurpa* (Lockwood, Worboys, Kothari 2006:466).

Great Barrier Reef Marine Park, Australia

Site Details

Land Tenure

The Coastal Waters (State Title) Act 1980 (Commonwealth of Australia) vested title to the seabed inside the outer limits of the three-mile territorial sea in the State of Queensland – subject to a number of conditions including:

- a. The continuing operation of the Great Barrier Reef Marine Park Act 1975;
- b. Exclusive rights to explore and exploit the seabed of the Continental Shelf beyond the territorial sea are vested in the Commonwealth (Federal Government) subject to certain limited rights conferred on third parties.
- c. Within the limits of the State of Queensland, public title is vested in the State of Queensland, apart from public lands owned by the Commonwealth.
- d. Some land is held by private persons (UNEP-WCMC).

Protected Area

34,870,000ha (includes Far North, Cairns, Central and Mackay Capricorn Sections); Marine Park 33,126,500ha. Note: 'The islands that form part of Queensland are not covered by the Great Barrier Reef Marine Park Act and are not included as part of the Marine Park, but are included in GBRMPA's work program as it is funded by 'day to day management funds' (UNEP-WCMC).

1981 World Heritage Listing

World Heritage 'Natural' Criterion (vii), (viii), (ix), (x) (The Great Barrier Reef Marine Park meets all four World Heritage 'natural' criteria)

UNESCO Comments

The original nomination for the GBRWHA referred to cultural heritage within the park, however the World Heritage Committee inscribed the GBRMP only for its natural values. The Committee feels that all the cultural attributes outlined in the nomination are adequately 'dealt with through legislative mechanisms - eg; shipwrecks are managed through *the historical Shipwrecks Act 1976* (IUCN Periodic Report 2002, Section II:6).

Management Category

(V) Protected landscape

Extending more than 2,000km off the east coast of Australia from just south of the Tropic of Capricorn to the coastal waters of Papua New Guinea', the Great Barrier Reef World Heritage Area 'is a site of remarkable variety and beauty on the north-east coast of Australia'. It boasts the world's largest collection of coral reefs, and includes:

- The largest turtle breeding area in the world (contains six of the world's seven species of marine turtles) and over 175 species of birds;
- Over 2,900 coral reefs built from more than 360 species of hard coral and a breeding area for humpback and other whale species;
- 13% of the world's total 'echinoderm' species (star fish) – 800 species and more than 5000 species of molluscs;
- Approx. 500 species of seaweeds and over 2000km² of mangroves (including 54% of the world's mangrove diversity).

Brief Chronology

- 1903-1948** (Queensland). Heron-Wistari and Green Island Marine Parks (1974), (gazetted under the Forestry Act 1959-1976) (Queensland), were the first Marine Parks on the reef. Areas of the region able to be declared part of the Marine Park and subsequently zoned.
- 1976** Powers transferred to the National Parks and Wildlife Act 1976 and Fisheries Act 1976, respectively;
- 1979** First section of the Great Barrier Reef Marine Park, the Capricornia Section, was proclaimed.
- 1981** Cairns and Cormorant Pass sections declared as part of the Marine Park - remainder declared in subsequent years.
- 1981** Inscribed as World Heritage Site.

Queensland Marine Parks Act 1982, 1989

Nature Conservation Act 1992 and the *Fisheries Act 1995* (These acts significantly changed the major pieces of Queensland legislation identified in the nomination of the property) (UNEP-WCMC).

Relevant National and State Legislation

- The Great Barrier Reef Marine Park Act 1975;
- National Parks and Wildlife Act 1976;
- Queensland Marine Parks Act 1982, 1989;
- Nature Conservation Act 1992 and the Fisheries Act 1995;
- Environment Protection and Biodiversity Act 1981;
- Native Title Act 1993

Almost 50% of the State Islands within the GBRWHA are National Parks under the (Queensland) *Nature Conservation Act* – The tenure on other islands is either leasehold, freehold or Deed-of-Grant in Trust (DOGIT) lands.

The Act, its regulations and zoning plans 'have primacy over conflicting provisions of both Commonwealth and Queensland legislation, except in relation to the navigation of ships and aircraft. Constitutionally, the Queensland Government has responsibility within the area for those waters which were internal waters at the time of Federation and for all islands above the low water mark within the outer boundaries of the Great Barrier Reef Region, except for those few which are owned by the Commonwealth of Australia' (UNEP-WCMC).

Management

Daily management of the GBRWHA (including the GBR Marine Park, State marine parks and island national parks) is administered through the 1979 *Emerald Agreement* between the Commonwealth and State (Queensland) Governments. Both governments provide funding for the day-to-day management program, which primarily funds enforcement, surveillance, monitoring and education/interpretation. The Management Strategy Group and a Management operations Group (both have representatives from GBRMPA and QPWS), and one member of the Marine Park Authority is a Queensland Government representative (IUCN Periodic Report 2002- Section II:11). This arrangement provides for:

- A Ministerial Council comprising two ministers from each of the two governments;

- A Consultative Committee and close liaison with park officers. The arrangement recognizes that the islands, reefs and waters of the area are a continuum and that they should be managed on an integrated basis.

Since inscription on the World Heritage list, the Great Barrier Reef Marine Park Act has been amended to provide for:

- Increased powers for inspectors;
- Increased penalties; extended search and seizure powers outside the Marine Park;
- Powers to remedy actual damage or prevent possible damage;
- Allow costs of clean-up operations to be recovered from convicted offenders;
- Allow the Marine Park Authority to assist other institutions and individuals in environmental issues (UNEP-WCMC).

The integrated management strategy is enhanced by a number of mechanisms including:

- A single independent agency (GBRMPA) with legislative support (in the form of overriding powers) from the Great Barrier Reef Marine Park Act 1975;
- Strong cooperation with the State Government (Queensland) through formal agreements, industry, research institutions and universities, particularly the CRC Reef Research Centre;
- Complimentary legislation for most adjoining state waters;
- Strategic zoning plans and site-specific management plans;

The Commonwealth Government coordinates co-operative management for the GBRWHA. It administers management through the Great Barrier Reef Marine Park Authority (Board), a Commonwealth Agency responsible for its overall planning and management. Under the *Great Barrier Reef Marine Park Act 1975* GBRMPA is required to establish a Consultative Committee made up of representatives of government, industry and community bodies. GBRMPA works in partnership with Native Title claimants in managing the GBRWHA and has developed a co-operative management model with Traditional Owners.

GBRMPA comprises a Chairperson and two part-time members nominated by the Commonwealth Government (one representative from the Aboriginal and Torres Strait Islander communities living adjacent to the Marine Park) and a part-time member nominated by the Queensland Government.

Administering the Act

Under the Act, zoning plans govern all four sections of the Park, including Mackay/Capricorn, Central, Cairns and Far Northern sections. Buffer zones are incorporated to protect areas of relatively higher conservation value. The Great Barrier Reef Marine Park Act has introduced the concept of 'controlled multiple-use planning and management of marine areas through zoning and permissible activities'. Queensland Marine Parks legislation was amended to allow 'mirror zonings' where necessary, to minimize public confusion between the areas of jurisdiction of the two governments (UNEP-WCMC).

The Act provides the Queensland Department of Environment and Heritage with the power to create statutory management plans for areas, species or ecosystems within the Marine Park. GBRMPA also has the authority to refuse or grant permits for a broad spectrum of activities within the Marine Park; including tourist facilities, educational and research programs, aircraft

operations, waste discharge, collecting, installation and operation of moorings, and traditional hunting and fishing (UNEP-WCMC).

Budget: The 2000-01 operating expense for managing the Park were in the order of AU\$30.6 million (GBRWHA IUCN Periodic Report 2002).

The Environmental Management Charge (EMC) (since 1993) applies to most commercial operations in the Marine Park - a proportion of which contributes to research management (IUCN Periodic Report 2002, Section II:17).

Indigenous Stakeholders

Over 70 coastal Aboriginal and Torres Strait Islander groups maintain strong cultural relationships to the GBRWHA. In 2002 there were some eleven Native Title claims registered over parts of the GBRWHA (IUCN Periodic Report 2002, Section II:11).

Indigenous people living in Aboriginal and Torres Strait Island communities in the Great Barrier Reef area (including Palm Island, Inginoo, Bamaga, Sesia, New Mapoon, Umagico, Yarrabah, Wujal Wujal, Hopevale, Cooktown and Lockhart River) as well as other urban centres, have rights of access to marine and near-shore resources which have played an important role in their economy during the past several thousand years (UNEP-WCMC). As sea-faring people, seafood is a valuable part of the economy for Torres Strait Islander people, not only for subsistence purposes, but also for establishing trading relationships. Trade networks, cultural beliefs, music, laws and creations stories remain a highly significant part of cultural society today. The *Native Title Act 1993* recognises the continuing rights and interests of Aboriginal and Torres Strait Island Communities to their land and sea areas within the GBRWHA.

Participatory Management

The GBRMPA acknowledges that the empowerment of Indigenous peoples through involvement in all tiers of management 'will help develop effective and acceptable solutions for key Indigenous issues, and is crucial for effective management' (GBRMA). Traditional resource-use activities within the Park are managed under the *Great Barrier Reef Marine Park Act 1975*; the *Great Barrier Reef Marine Park Regulations 1983*; and can also be undertaken under the *Native Title Act 1993*. Since 2003, the GBRMPA has been developing Traditional Owner Agreements with protocols and strategies for enabling Traditional Owner management of marine resources in traditional lands and waters.

Indigenous people have not always felt like their view has been considered in planning processes and management decisions. David Lloyd (1998) notes that in the initial development of zoning plans, the GBRMPA had established 'unprecedented levels of public participation', but by 1990 it was apparent that more efficient mechanisms were needed for improved communication with stakeholders. In 1992/93 feedback from the Australian Resource Assessment Commission, Coastal Zone Inquiry (1992/93) and the Burns Inquiry into Queensland Recreational fishing, highlighted that many community groups were concerned about their lack of involvement in the *management* (as distinct from planning) of their local coastal areas. After the initial consultation phase, the GBRMPA focused on consultation with peak bodies based in major population centers and local input was restricted to single events, for example, the release of the plan of management. Following this feedback, the GBRMPA developed a methodology for improving community input into management of the Park (Lloyd 1998).

Capacity Building Mechanisms

In 1995 an Indigenous Liaison Unit was established to assist in identifying the interests and objectives of Indigenous peoples in relation to Native Title, governance and the maintenance of the cultural and traditional values associated with the Great Barrier Reef. In 2001 the unit was renamed the Indigenous Policy and Liaison unit (IPULA). The Unit addresses issues related to the recognition of 'cultural heritage values, semi-subsistence resource-use, information sharing, cooperative management, protocols, cultural advice, and liaison'. In addition to liaising with Indigenous communities, IPULA staff work with government authorities, the tourism industry, the fishing industry and conservation groups in order to build a greater awareness of Indigenous issues within the GBRWHA. The key aim of the IPULA is to provide 'timely and accurate information in regard to Indigenous issues and achieve cooperative management of the Great Barrier Reef World Heritage Area' (GBRMPA).

In 1995 the Girringun Aboriginal Corporation was formed. The corporation represents the land and sea interests of the Traditional Owners of the Bandjin, Gulhnay, Jirrbal, Nywaigi, Waragamay, Girramay, Warungnu, Djiru and Gugu-Bahhun groups. A Governing Committee comprised of an Elder and elected representative from each of the nine tribal groups manages the Corporation. The Committee determines the policy and direction of initiatives, according to the aspirations of the group. Girringun organizes training and employment programs and has developed a comprehensive GIS database of known cultural heritage sites and values in the region. In the report '*Girringun Salwater Ranger Unit: A co-management Proposal*' (2002) the Girringun outlined their aspirations for co-management, being to 'establish ongoing and collaborative whole of government management approaches to ensure effective and holistic management...' (Ross, Innes et al CRC Technical Report No.56).

Co-management programs include:

- Aboriginal Values and Cultural Heritage: (including protection, transmission of knowledge, resource use). Outcomes include fish trapping priorities, bush tucker programs, cultural site protection and priority identification;
- Fishing: including monitoring, limiting and reducing the impact of fishing on fish stock;
- Tourism: to reduce the impact of tourism on social and cultural values;

Since 2002, the GBRMPA has developed co-management partnerships with Native Title claimants, requiring full consultation over all permit applications. Within the region, important cultural sites and values are associated with specific areas, islands and reefs. Traditional activities have been disrupted and displaced through commercial activities such as shipping, tourism and fishing. Other opportunities for social and economic aspirations have been developed by coastal Aboriginal groups, enabling them to participate co-operatively in the management of the GBRWHA (IUCN Periodic Report 2002, Section II:11).

As of 2004, the pro-activeness of the PULA was instrumental in:

- a. Highlighting Indigenous relationships with the marine environment to ensure cultural and heritage values are recognized;
- b. Providing equity for Indigenous involvement in setting directions and management action;
- c. Presenting Indigenous values of the WHA positively to stakeholders and the wider community;

- d. Providing for the maintenance and protection of Indigenous subsistence activities within the bounds of ecological sustainability, with particular emphasis on ensuring the long-term viability of threatened species;
- e. Ensuring fisheries management strategies meet the traditional, social, cultural and economic needs of Aboriginal and Torres Strait Islander Communities;
- f. Implementing mechanisms to resolve conflicts between stakeholders.

Today Indigenous groups are involved in all user-group management issues, such as tourism, Coastcare programs and permits, which then informs the development of participatory management structures and models (GBRMPA). Other mechanisms for engaging Traditional Owners in community management include:

- a. Workshops with Traditional Owners and other Government Agencies;
- b. Development of consultation strategies to engage Traditional Owner groups in GBRMPA programs;
- c. Education programs to raise awareness of Aboriginal and Torres Strait Islander's relationship and connection to sea country;
- d. Creation of culturally appropriate policies reflecting Traditional Owner cultural and heritage values for their sea country;
- e. Aboriginal and Torres Strait Islander membership on the Board of the Marine Park Authority, the Great Barrier Reef Consultative Committee and the GBRMPA's four Reef Advisory Committees.

Tourism

Tourism ventures are allowed with a permit within all, except preservation and scientific research zones, (ie; in 99.8% of the Marine Park). Whilst the area designated free from tourism or fishing appears low, the Marine Park encompasses large areas of open water, so that the proportion of reef designated is, in practical terms, much higher. Tourism is the most significant activity taking place on the reef in economic terms, generating an estimated Au\$1 billion (US\$750 million) per year (as of 1993).

In 1993, it was estimated that 2,291,000 tourists, visited the Great Barrier Reef Marine Park, spending over 1.8 million visitor nights on the reefs and islands. Transported by 542 commercial vessels, resort guests engage in recreational activities, including fishing, diving and snorkelling, water sports, sightseeing, and reef-walking. The education of reef users is a major element in managing and protecting the World Heritage values. The Authority has an education/information section which produces programs and materials for public education and assists tourist operators in the development of activity programs with both a conservation and education focus (UNEP-WCMC). Figures provided in the 2002 Periodic Report provides annual visitation estimates of around 1.6 million tourists, with approximately 40% of these transported by ten major tour operators (IUSDN Periodic Report 2002, Section II:17).

Fisheries

Fisheries beyond Queensland coastal waters are managed on a cooperative basis with most species being managed by the Queensland Government. The Fisheries Management Act 1995 provides the making of an agreement in relation to the management of fisheries to the States of Australia (UNEP-WCMC).

Scientific Institutions

GBRMPA has continued to develop scientific research facilities and projects since the formation of the Great Barrier Reef Committee in 1922 (now the Australian Coral Reef Society) and the British Great Barrier Reef Expedition to the Low Isles in 1928-29. The listing of the park on the World Heritage List has stimulated a significant increase of scientific research in the area. This has been generated in response to an increased World Heritage concern with the crown-of-thorns starfish outbreaks and intensifying human demands placed on the world heritage values.

Field stations are operated by the University of Queensland (Heron Island), the University of Sydney (One Tree Island), James Cook University and the Australian Institute of Marine Science (AIMS). The latter two, both located in Townsville, have extensive coral reef research programs a broad range of scientific disciplines. Research into ecologically sustainable development of the Marine Park is integrated within the Cooperative Research Centre, which includes the AIMS, Great Barrier Reef Marine Park Authority (GBRMPA), Queensland Department of Primary Industries, James Cook University and Association of Marine Park Tourist Operators. Drilling and mining in the Marine Park is prohibited except for approved research purposes (UNEP-WCMC).

Wet Tropics, Australia

'The wet tropical rainforests of northern Queensland are recognised as amongst the most outstanding natural features on earth. The special significance of the region was formally recognised in 1988 when 900,000 hectares of tropical rainforest and associated habitats were placed on the World Heritage List. Known as the Wet Tropics World Heritage Area (WTWHA), this region of spectacular scenery and high biodiversity extends in a narrowband for approximately 450 km from Townsville to Cooktown' (Wet Tropics Management Authority 1995).

Relevant Legislation

Wet Tropics of Queensland World Heritage Area Conservation Act (1994)

Key Terms of Reference

- Aboriginal people have occupied, used, and enjoyed land in the Area since time immemorial.
- The Area is part of the cultural landscape of Rainforest Aboriginal peoples and is important spiritually, socially, historically and culturally to aboriginal people particularly concerned with the land.
- It is, therefore, the intention of the Parliament to recognise a role for Aboriginal peoples particularly concerned with land and waters in the Area, and give Aboriginal peoples a role to play in its management (COMLAW).

The Act does not affect the Environment Protection and Biodiversity Conservation Act 1999, or affect the operation of:

- (i) The Environment Protection and Biodiversity Conservation Act 1999; or
- (ii) The *World Heritage Properties Conservation Act 1983*, so far as it continues to apply to parts of the Wet Tropics of Queensland World Heritage Area because of Part 2 of Schedule 6 to the *Environmental Reform (Consequential Provisions) Act 1999*.
- (iii) Mechanisms for achieving greater Aboriginal involvement in management are provided under legislation such as the:
- (iv) *Aboriginal Land Act (Queensland) 1991*;
- (v) The Native Title Act (Commonwealth) 1993;
- (vi) *Wet Tropics Management Plan (Queensland) 1998* or where land is owned by Aboriginal peoples (e.g. DOGIT, freehold/private, etc);
- (vii) The *Queensland Nature Conservation Act 1992*; and the
- (viii) *Wet Tropics World Heritage Protection and Management Act 1993* require the Environmental Protection Agency/Queensland Parks and Wildlife (QPWS) and the Wet Tropics Management Authority to perform their functions, as far as practicable, in consultation and cooperation with Rainforest Aboriginal people.

Land Tenure

- National park, state forest or timber reserve (80%);
- Freehold tenure (private land) (less than 5%);
- A variety of leasehold lands, government reserves and Aboriginal communities (DOGIT lands) (about 15%).

'The complexity and diversity of the contemporary and traditional land tenure systems and the associated management regimes largely defines the region's socio-political context. Historically, rainforest Aboriginal groups have been dispersed and fragmented in the post-European settlement period making Traditional Ownership patterns problematic to define. Equally, from the Indigenous peoples (Bama) perspective, the western land tenure and management system is perceived to be "just as complex and convoluted" (Wet Tropics Review Steering Committee 1998).

Native Title

At least 80% of the World Heritage Area is potentially claimable by a number of Aboriginal groups under the Native Title Act 1993. This means that Rainforest Aboriginal people will have a significant role in the management of the World Heritage Area. Currently, 16 Native Title claims have been lodged with the National Native Title Tribunal for land in the World Heritage Area, though none have yet reached the final determination stage (WTMA).

The Authority has a legal responsibility to protect World Heritage values as well as comply with the requirements of the Native Title Act 1993 (Commonwealth). In some cases, the exercise of Native Title holders rights' may be inconsistent with the Authority's obligations under the World Heritage Convention. In other cases, the exercise of Native Title rights may have the potential to enhance the conservation of World Heritage values. The Authority negotiates cooperative partnerships with Traditional Owners through Land Use Agreements (WTMA).

Cooperative Management

The following statement by the Wet Tropic's Management Authority in 1998 demonstrates the long-term persistence of the rainforest Aboriginal Groups in their desire for meaningful participation and co-management of the WTWHA.

'The nomination of the Wet Tropical Rainforests of North Eastern Australia in December 1987, for its natural values, was not without controversy and political intrigue. Rainforest Aboriginal groups were drawn into the debate at an early stage and they have continued to lobby for position and certainty with respect to their rights, interests and cultural integrity, with little gain'. (WTMA 1998:IX)

Seven years later, the continued lobbying and persistence of rainforest Aboriginal groups resulted in a significant cooperative Regional Agreement being signed between the state and commonwealth governments, 18 rainforest Aboriginal groups, and the Wet Tropics Management Authority.

Chronology

- 1987** Wet Tropics nomination for World Heritage Listing
- 1994** Wet Tropics of Queensland World Heritage Area Conservation Act
- 1998** Wet Tropics Management Plan
- 1998** Wet Tropics World Heritage Listing
- 1998** Wet Tropics Steering Committee Review
- 1998** Interim Protocols for Aboriginal Participation in Management of the World Heritage Area
- 2005** Wet Tropics Regional Agreement
- 2005** Wet Tropics Aboriginal Cultural and Natural Resource Management Plan

Indigenous Stakeholders

The Indigenous people within the Wet Tropics regions represent 18 different tribal groups, including;

Banjin, Bar-Barrum, Djabugay, Djiru, Girramay, Gulngay, Gunggandji, Jirrbal, Koko Muluridji, Kuku Yalanji, Ma:Mu, Ngadjon-Jii, Nywaigi, Warrgamay, Warungnu, Yidinji and Yirrganydji. There are also named clan groups within these tribal groups.

Although these tribal groups have collective aspirations, they have different priorities in caring for 'Country' and believe it is important that people recognise these cultural differences. Authority and decision-making happens at a local level for each tribal group (WTMA).

Co-Management

The key instrument for management-sharing within the Wet Tropics World Heritage Site is the *Wet Tropics of Queensland World Heritage Area Regional Agreement*, which was signed on 24 April 2005, between:

- The Wet Tropics Management Authority (WTMA);
- The Commonwealth Government (Department of the Environment and Heritage);
- Queensland Government (Department of Environment, Local Government, Planning and Women, and Department of Natural Resources and Mines);
- Representatives of the eighteen Aboriginal tribal groups present in the Wet Tropics World Heritage Area (WTWHA).

The Regional Agreement represents the largest and most structured arrangement for shared management responsibilities in Queensland to date (Hayes 2006:15). The key elements of the Agreement are:

- **Recognition of cultural values:** The parties will work towards mapping the cultural values of the area to allow for such information to be considered when making management decisions. The agreement also points towards an 'Aboriginal Plan' to state Aboriginal requirements and aspirations in natural resource management in the area.
- **Participation in decision making:** Parties will seek to amend relevant legislation to overturn current requirements that a minimum of only one Aboriginal person be appointed to the Board of Directors of the Authority, to a requirement for a second Rainforest Aboriginal person be appointed;
- **Establishing a statutory advisory committee:** The WTMA initially had two statutory advisory bodies, both of which feature representatives of Rainforest Aboriginal people: the Community Consultative Committee and the Scientific Advisory Committee. The Regional Agreement established a third group, the Aboriginal Rainforest Council (ARC):

Aboriginal Rainforest Council (ARC)

The Aboriginal Rainforest Council is the ministerially endorsed body appointed and assigned to represent the views of the 18 Rainforest Aboriginal tribal groups (and other Aboriginal people particularly concerned with the land) within the WTWHA [to] greatly enhance the meaningful and beneficial participation of Rainforest Aboriginal people in the management of the WTWHA. Together with the inclusion of an additional Aboriginal person(s) on the WTMA

Board of Directors, the ARC forms the basis for cooperative management of the WTWHA. (Hayes 2006:15);

Actively participating in planning, permitting and management. The role of Aboriginal people (in the processes of planning, permitting and managing the WTWHA) is articulated within the Regional Agreement via a set of Principles and Protocols for Cooperative Arrangements (Hayes 2006:16). The two main objectives are to:

'..provide for the cooperative management of the World Heritage Area, including in the areas of policy development, strategic planning, park planning, permitting, operational management, monitoring and reporting, cultural heritage management; and establish a set of protocols aimed at ensuring that Aboriginal people have effective involvement and input into the planning and hands-on management of the WTWHA. These would include protocols for consultation and Aboriginal involvement in operational management, policy development, planning, permitting, heritage management and mapping, environmental impact assessment, monitoring and reporting' (Hayes 2006:16).

Key Mechanisms for Participatory Management

Specific mechanisms for participatory management range from information sharing and consultation arrangements between Traditional Owners and land management agencies, through to joint-decision making power. *Management Agreements* and *Protocols* are the key mechanisms for facilitating co-management of the Wet Tropics World Heritage Area (WTMA).

The Wet Tropics Management Authority follows Section 62 Guidelines No. 3 Guidelines for Consulting Aboriginal People Particularly Concerned with Land in the Wet Tropics Area of the Wet Tropics of Queensland World Heritage Area Conservation Act. The protocols are intended to ensure that Aboriginal people are properly consulted about activities requiring a permit under the Plan. The statutory guidelines regulate processes by which the Wet Tropics Management Authority and the Queensland Parks and Wildlife Service make decisions on permit applications under the Wet Tropics Plan (WTMA).

Key processes that have been initiated by the Aboriginal groups include:

- (i) Steering Committee Review findings and recommendations;
- (ii) Interim Negotiating Forum;
- (iii) Interim Protocols for Aboriginal Participation in Management of the World Heritage Area;
- (iv) Wet Tropics Regional Agreement;
- (v) Rainforest Aboriginal Advisory Committee (RAAC);
- (vi) Aboriginal Rainforest Council (ARC);
- (vii) Wet Tropics Aboriginal Cultural and Natural Resource Management Plan;

Wet Tropics Steering Committee Review (1998)

In 1998 the *Wet Tropics Act* was endorsed without adequate consultation with the Rainforest Aboriginal people. Following this, the Wet Tropics Steering Committee undertook a review of Aboriginal Involvement in the Management of the Wet Tropics World Heritage Area. The report "*Which way our cultural survival?*" examined the current and future aspirations of Rainforest Aboriginal people in the Wet Tropics region (ARC). The process was directed by an all-Aboriginal steering committee, who, with the assistance of specialist consultants (*Technical Team*), undertook the Review between 1996 and 1998. A government reference

group was set up to provide policy advice and comment on ideas coming out of the Review. The Review made findings on current approaches to Aboriginal involvement in the Wet Tropics World Heritage Area, and provided a series of recommendations for more effectively meeting land management needs and the aspirations of Rainforest Aboriginal people (WTMA).

Focusing on various tenures which are managed by the Queensland Parks and Wildlife Service (QPWS), the Department of Natural Resources (DNR), and the Wet Tropics Management Authority, (within the World Heritage Area) the Review confirmed that Rainforest Aboriginal people are very committed to meeting their land management and cultural obligations as defined under traditional law and custom. The Wet Tropics Ministerial Council agreed that approx. one third of the 167 Review recommendations could be implemented immediately (WTMA).

The review highlighted the following key points:

a) Native Title: With regards to Native Title, the Review found that:

“It is not an unlikely possibility that the existence of Native Title in parts of the WTWHA will considerably constrain the management of this region. This will present a particular challenge for the relevant land management agencies. In the case of national parks the capacity for land managers to fully exercise their statutory management functions where Native Title rights exist may be significantly restricted. For example, Native Title holders of land in national parks benefit from s.69 of the Nature Conservation Act 1992 (Qld) which means that their Native Title is only affected by a conservation agreement or covenant, or a regulation giving effect to a management plan for the area. The Wet Tropics Plan provides inadequate attention to relevant Aboriginal issues, particularly in relation to the potentially significant implications of Native Title for WTWHA management. It is therefore questionable whether the Wet Tropics Plan and the underlying management systems are able to achieve the envisaged levels of protection for World Heritage values where Native Title exists. The Review identified (particularly in the Terms of Reference 14 consultancy report) that for government agencies to wait for a formal determination of Native Title, before developing management agreements with Traditional Owners, is poor risk management. Given that Native Title rights and interests exist under common law prior to a determination (and continue to do so until proven otherwise) it would be prudent for WTWHA management agencies to be working more closely and proactively with Traditional Owners. Even if agencies are not in a position because of current government policy to negotiate on Native Title issues prior to a formal determination, there is still room for management agreements to be struck in the context of meeting existing cultural heritage and consultation obligations. A better working relationship now will only serve to facilitate the resolution of potentially competing interests upon a formal determination of Native Title. It will also help to overcome the degree of uncertainty that is currently inhibiting a significant proportion of current management decision making. The first step towards utilising available mechanisms in order to increase the extent of management involvement for Aboriginal people and to resolve problem areas associated with the continuing existence of Native Title, is the establishment of meaningful and coordinated negotiation between government WTWHA land management agencies and Rainforest Aboriginal people with an interest in the region. These negotiations will not only serve as the basis for meeting the rights and interests of Aboriginal people, they will also (as previously mentioned) assist government agencies to fulfil their

existing obligations to protect the region's cultural values and co-operatively involve Rainforest Aboriginal people in management" (Wet Tropics Review Steering Committee 1998:XIX- XX).

Recommendation for renomination of the WTWHA for its cultural values was also an outcome:

'In addition to the notion of a staged approach to the development of a Final or Regional Wet Tropics Management Agreement between Rainforest b) 'Aboriginal people and WTWHA government management agencies, the Review also strongly supports the proposal for a Commonwealth funded detailed assessment of the cultural values of the region. Such an assessment would serve as a precursor to the possible renomination of the WTWHA for its cultural values over and above its current status listing for its natural values only. Even on national parks where cultural resource protection is one of the cardinal principles of national park management, the protection of cultural values appears to be secondary to natural values protection within the WTWHA. Cultural re-listing of the region would serve to even out this imbalance. It would also serve as an important catalyst for ongoing Rainforest Aboriginal cultural survival by providing the foundation and impetus necessary to develop an improved legislative and management framework to better protect the region's cultural values, and to allow Rainforest Aboriginal people to access and manage sites. Without adequate protection of cultural places, significant objects, and intangible cultural property such as; traditional knowledge, stories and place names, the ability of Rainforest Aboriginal people to maintain the integrity of their unique culture and identity in the face of increasing pressures on the WTWHA is greatly diminished. Furthermore, cultural re-listing has the potential to act as a stimulus for both Aboriginal and non-Aboriginal economic development through the promotion of the region as offering an internationally unique cultural experience". (Wet Tropics Review Steering Committee 1998:XX).

Summary of the key elements and findings of the *Review*:

- Native title (including common law Native Title rights) has specific implications for the management of the WTWHA (particularly on national parks) that warrants its consideration as a significant management issue;
- The need for a more proactive and anticipatory approach to Native Title across all management regimes, particularly given that Native Title determination applications could be accepted over approximately 80% of the WTWHA;
- A series of recommendations based on an evaluation of previous WTMA policy on Aboriginal issues with a particular focus on the effectiveness (or otherwise) of current mechanisms of involvement;
- The need for a more coordinated and uniform approach to Aboriginal issues between relevant government agencies and across all management regimes. The need for a full and proper assessment of the cultural values of the WTWHA as a precursor to possible renomination of the region for its cultural significance;
- That the State and Commonwealth governments fully support and resource any process towards possible renomination of the region for its cultural values;
- The need for a range of consultation and planning protocols for a variety of management and research activities (specific examples and recommendations are provided);

- That a number of obligations under existing legislation are arguably not being met by the relevant WTWHA agencies particularly in the context of consultation with Aboriginal interests and cultural heritage protection;
- That an Interim Negotiating Forum and Final Agreement between WTWHA management agencies and Rainforest Aboriginal people be developed as a means of structuring practical negotiated solutions to identified problem areas and for further reinforcing already successful strategies (WTMA).

Interim Negotiating Forum

A key recommendation of the Steering Committee Review (1998) was the establishment of an Interim Negotiating Forum (INF), between Rainforest Aboriginal people, the Wet Tropics Management Authority (WTMA), Environment Australia (EA), Queensland Parks and Wildlife Service (QPWS), Department of Premier and Cabinet (PandC) and Department of Natural Resources and Mines (DNRM). This recommendation was endorsed by The Wet Tropics Ministerial Council with the goal of negotiating solutions to management issues identified in the Review. The INF was the starting point to develop a regional agreement between management agencies and Rainforest Aboriginal people. The key issues discussed within the INF were:

- Recognition of the cultural values of the World Heritage Area;
- Native title and World Heritage management;
- Aboriginal involvement in policy, planning, and management;
- The development of meaningful management agreements; and
- Traditional resource use, and the use of ecological knowledge.

A number of management themes underpinned these five main categories, including:

1. The management of permits;
2. The protection of cultural values; and
3. Aboriginal employment and training.

The Wet Tropics Management Authority follows Section 62 Guidelines No. 3 Guidelines for Consulting Aboriginal People Particularly Concerned with Land in the Wet Tropics Area. The permitting protocols are intended to ensure that Aboriginal people are properly consulted about activities which require a permit under the Plan. These statutory guidelines will also assist the Wet Tropics Management Authority and the Queensland Parks and Wildlife Service make decisions on permit applications under the Wet Tropics Plan (WTMA).

Wet Tropics Regional Agreement

‘The central principle of the Agreement is the recognition of Rainforest Aboriginal people's rights and interests and to afford them the opportunity to define and negotiate their own priorities, needs and aspirations for management of the Wet Tropics’ (Aboriginal Rainforest Council website).

Following recommendations from *Which Way Our Cultural Survival* (1998) the Wet Tropics Regional Agreement was signed in 2005 between Rainforest Aboriginal people, the WTMA, EPA, QPWS, DNRandM (Qld) and DEH (Commonwealth). The Regional Agreement represents a Memorandum of Understanding for the Aboriginal Rainforest Council (ARC), providing Protocols for effective consultation and involvement. Approximately 400 Rainforest Aboriginal people, Australian and State Ministers and government representatives, industry,

conservation and community groups witnessed the signing of the Wet Tropics Regional Agreement in Innisfail. This was a historical occasion, representing the first time that so many tribal groups had joined collective forces to achieve an outcome for all Aboriginal groups across the region. The Regional Agreement addresses the key recommendations of “Which Way Our Cultural Survival” (1998) which stressed the need for joint management of the Wet Tropics World Heritage Site with Traditional Owners. The agreement was signed between the eighteen Rainforest Aboriginal tribal groups, the Wet Tropics Management Authority, the Australian Department of Environment and Heritage (DEH), the Queensland Environmental Protection Agency/Queensland Parks and Wildlife Service and the Queensland Department of Natural Resources and Mines and Water.

The central principle of the Agreement is to allow Aboriginal people to participate in the management of the Wet Tropics through the recognition of their rights and interests, including allowing Aboriginal people to determine and negotiate priorities, needs and aspirations, with regard to management. The goal of the Agreement is to foster a cooperative and equitable approach between World Heritage Management agencies and Rainforest Aboriginal people. The key objectives of the cooperative management Principles and Guidelines cover a range of activities governing the WTWHA including:

- Policy development;
- Strategic Planning;
- Park Planning;
- Commercial, scientific and educational activity permitting;
- Operational Management;
- Monitoring and Reporting;
- Cultural heritage management and mapping.

The main features of the Regional Agreement include:

- Establishment of the Aboriginal Rainforest Council (ARC) as the peak organisation to broadly represent Rainforest Aboriginal people on land and cultural heritage matters across the World Heritage Area (under Section 40 of the Wet Tropics World Heritage Protection and Management Act 1993). The WTMA agreed to provide \$20,000 annually toward operational costs and each State and Commonwealth party will allocate funds toward an annual workshop to review the Regional Agreement;
- Establishment of the Rainforest Aboriginal Advisory Committee (RAAC) by recognition of the ARC as a statutory advisory committee to the WTMA Board;
- Increased participation in decision making through the agreement to include a second Rainforest Aboriginal person on the WTMA Board;
- Recognition of the cultural values of the Wet Tropics through support to list the World Heritage Area for its cultural values on the National Heritage List and potentially the World Heritage List (to complement its current World Heritage listing for natural values);
- Participation in policy, planning, permitting and management through a set of principle/guidelines and detailed Protocols which outline appropriate ways to involve Rainforest Aboriginal people in World Heritage management.

Rainforest Aboriginal Advisory Committee

In 2005, two significant outcomes of the Regional Agreement culminated in creation of the Rainforest Aboriginal Advisory Committee (RAAC) and the Aboriginal Rainforest Council (ARC). The RAAC is a statutory committee appointed by the Wet Tropics Management

Authority Board. The role of RAAC is to advise the Board about Rainforest Aboriginal issues. RAAC members represent all 18 tribal groups in the Wet Tropics. They meet four times a year before Board meetings. The RAAC Chairperson then attends the Wet Tropics Board meetings and tables a RAAC report and presents RAAC resolutions for consideration by the Board. The RAAC Chairperson raises any other issues important to Rainforest Aboriginal people.

Aboriginal Rainforest Council

Following recommendations by the Steering Committee Review (1998) the Aboriginal Rainforest Council (ARC) (an independent organisation) was endorsed as the peak organisation for land and cultural heritage matters across the Wet Tropics World Heritage Area. The ARC represents the 18 tribal groups from the Wet Tropics region (ARC).

One of the initiatives of the Aboriginal Rainforest Council (on behalf of the Wet Tropics Aboriginal Groups) is to record and manage Indigenous knowledge on issues related to spirituality, culture, customary economy (food, medicines, toots, stories and traditions) so that this knowledge can be passed on to the next generation, and additionally be used to monitor and protect the Wet Tropics Region. The ARC have been successful in obtaining \$1 million for a 'cross-regional Natural Heritage Trust' for the funding of the Cultural Heritage Mapping Project (funded until June 2008), and it is envisaged that the mapping project will also contribute toward efforts at re-listing the WTWHA for its cultural landscapes values (ARC Website). Below is a list of objectives, tasks, and outcomes as outlined by the ARC.

Project Objectives

1. To build the capacity of local Traditional Owner groups to document, store and apply their cultural heritage information in relation to the management of their traditional Country, and hence to develop a regional framework for applying cultural heritage information to the WTWHA; and
2. To develop a proposal to nominate the WTWHA for the National Heritage List for its cultural landscape values and to re-nominate the WT WHA for its World Heritage Indigenous cultural landscape values

Project Tasks

- Support Rainforest Traditional Owner groups to record, manage and apply cultural heritage information as part of the planning and management of their respective traditional Country within the WTWHA
- Provide Traditional Owner groups with training in recording and managing cultural heritage information, including training in GIS, GPS, video, photography, site recording, traditional knowledge and oral history recording.
- Augment existing data storage capability within regional and local Aboriginal organisations to store and manage cultural heritage information.
- Collaborate with a JCU project currently collating and interpreting available information required for the nomination of the Wet Tropics World Heritage Area for its cultural landscape values.

Project Outcomes (Anticipated):

- Greatly improved storage of, and access to, cultural heritage information for Traditional Owner groups to apply to on ground management

- Improved skills and understanding of Traditional Owners to utilise data storage and retrieval systems for their cultural heritage information
- Local and Regional Frameworks for collaborating with management agencies in protecting and applying cultural heritage values to WTWHA management

The project will also deliver documents to nominate the WTWHA for the National Heritage List for its Indigenous cultural landscape values and to re-nominate the WTWHA for its World Heritage Indigenous cultural landscape values.

Wet Tropics Aboriginal Cultural and Natural Resource Management Plan

In 2005 the Wet Tropics Aboriginal *Cultural and Natural Resource Management Plan* was implemented as a regional plan for natural resource management from 2004-2008. One of the overarching principles of the Plan was that 'Aboriginal knowledge of country is recognised as being parallel to mainstream scientific knowledge systems in NRM planning' (*Sustaining the Wet Tropics: A Regional Plan for Natural Resource Management 2004-2008*, 2005:5) The Plan was developed with assistance from:

- North Queensland Land Council;
- Natural Resources and Mines;
- FNQ NRM Ltd;
- Rainforest Cooperative Research Centre; and
- Giringun Aboriginal Corporation.

The *Cultural and Natural Resource Management Plan* was a culmination of the following Reports:

- Volume 1: Background to the Plan
- Volume 2A: Condition Report: Biodiversity Conservation
- Volume 2B: Condition Report: Sustainable Use
- Volume 2C: Capacity Building and Institutional Change
- Volume 3: Caring for Country and Culture - The Wet Tropics Aboriginal Cultural and Natural Resource Management Plan (this plan)
- Volume 4: Sustaining the Wet Tropics: A Regional Plan for Natural Resource Management (Wet Tropics NRM Plan)
- Volume 5: A Regional Investment Strategy 2004-2007
- Prior to its implementation, key achievements of the Aboriginal CNRM plan included:
- The creation of an Indigenous Working Group comprised of elders and an Indigenous Technical Support Working Group;
- Two Traditional Owner positions on the Joint Working Group (a total of six members);
- Employment of an Aboriginal Project Officer;
- An Indigenous position on the FNQ NRM board, established in 2003;
- Two Indigenous positions on the 'Science Panel' advising the NRM Board;
- Employment of a Project Officer for Aboriginal Capacity Building in 2003;
- Employment of a Planning Officer in 2003;
- Support for 4 regional forums for Traditional Owners;
- 2 workshop reports through the Rainforest CRC

- More than 15 (1 day) preparatory workshops (between 2003-2004)

Key 'implementation actions' (amongst others) determined for the Aboriginal CNRN Plan (as part of the Regional NRM Plan) were:

- Ensuring equity of Indigenous interests in NRM planning, including assessment of potential impacts of natural resource use on the social, economic and cultural life of the Indigenous groups;
- Ensuring that natural resource planning, management and resource-use activities are consistent with Indigenous people's interests and rights under the Native Title Act and other relevant legislation;
- Developing further mechanism for consultation and participation for Indigenous People in the planning, management and utilisation of natural resources;
- Developing Indigenous NRM Protocols for adoption by NRM Board;
- Developing cultural protocols for NRM Board, requiring certain projects (to be determined by Traditional Owners) to undertake cultural heritage surveys of sites; with Traditional Owners paid as consultants;
- Developing cultural criteria and standards for NRM Board that must be adhered to by all NRM projects funded by the NRM Board;
- Promoting membership of Indigenous people on decision-making bodies and advisory committees (Developing an Aboriginal Plan for the Wet Tropics NRM Region, Qld 2004:139-140).

Management Agreements, or Integrated Land Use Agreements (ILUA) formalise cooperative arrangements so that land management obligations can be achieved, both under traditional and western law. They are voluntary, negotiated, cooperative agreements between land holders (often Government agencies), Rainforest Aboriginal people and the Wet Tropics Management Authority. Management Agreements (MA) fall under s.42 of the *Wet Tropics Management Plan 1998*, and cover activities normally prohibited under the Management Plan. MAs result in an amendment to the Plan that must contribute to the primary goal of the WTWHA (Wet Tropics of Queensland World Heritage Area Regional Agreement 2005).

The agreements protect cultural heritage, and can provide financial, scientific, technical or other assistance for land management (such as training courses and equipment to control weeds, or fencing to protect waterways and rainforest from cattle). As partnership arrangements, the Agreements must have the consensus of all parties, and once formalised, can operate over any duration of time.

Protocols are regarded as critical for achieving effective working relationships between Government agencies and Aboriginal people under *the Wet Tropics World Heritage Protection and Management Act 1993* and the *Wet Tropics Management Plan 1998* (QLD). The protocols which are intended to ensure proper consultation with Aboriginal people about activities that require a permit under the Plan, were developed jointly by the Wet Tropics Management Authority and the then Bama Rainforest Association (Bama Wabu), and endorsed by the Board in 1998. The WTMA and QPWS are required to adopt the general principles (protocols) of behaviour when consulting and negotiating with Aboriginal people. The core of these principles include:

- The involvement of Aboriginal people right from the very beginning of a project a commitment to negotiate on equal terms;
- The ability to follow through with agreed outcomes;

- Ensuring that staff are working with the right people to be speaking for that country (by working through land councils and other representative bodies);
- Making sure that any negotiations are done in an open and honest way.

Summary of Key Findings

Rosemary Hill (2003:2) has noted that collaborative management arrangements are already emerging as successful governance structures in several World Heritage sites, including:

- East Rennell Island, Solomon Islands: owned and managed by local people who have prepared a draft resource management plan, with statutes available if required, to assist them with the implementation of the plan;
- Belize Barrier Reef Reserve System, Belize: delegated to the Belize Aodobon Society;
- Noel Kempff Mercado National Park: administered through an agreement between two government agencies, which have transferred management responsibility to the Friends of Nature Foundation (an international non-governmental organisation).

More recently in Queensland, Indigenous Protected Areas (IPAs) are being developed in Great Barrier Reef World Heritage Area (GBRWHA) and the Wet Tropics World Heritage Area (WTWHA). In both these areas, the challenge to provide innovative types of governance structures integrating a broad range of stakeholder's interests is part of the Commonwealth's obligations to the World Heritage convention. As part of these obligations, contemporary IUCN 'best practice' recommendations for supporting Indigenous governance and sustainable resource-use within protected areas call for a more inclusive and participatory model of conservation in which Indigenous communities are regarded as critical participants, their conservation initiatives are given due recognition, and various forms of governance (including collaborative and co-operative) are given legitimacy and supported through financial and legislative means (*Recommendation 5.16;5.17*). Best practice in protected area management also requires that protected area systems guarantee the restitution of sacred places and recognition of cultural and spiritual values, giving balanced attention to assisting Indigenous people obtain legal and technical support in efforts to maintain these values and practices (*WPC Recommendation 5.13*).

The sites in this study were selected to represent a variety of ecological, political, and land-tenure models within forested-ecosystem World Heritage Sites. The case studies provide an initial sense of the complexity of forest conservation globally. The diversity of sites and issues is possibly the most notable feature, evident in the varied ecologies, agricultural and land-use systems, government policies on forestry and land-tenure, Indigenous populations, and settlement histories. These factors have all contributed to differences in forest classification, conservation and institutional priorities, perceived management threats and varied interventions. While diversity is the key aspect of these protected areas, comparative analysis also highlights themes common to all the sites, including issues of community participation, participatory mapping, access rights, collaborative relationships between NGOs and Indigenous groups, and contested views over forestry resources.

Of the case studies examined, only two of the six international world heritage sites (outside Australia) demonstrated real co-management principles based upon cultural *and* conservation imperatives and equitable decision making. In both cases (Brazil and Honduras) co-management arrangements have facilitated the empowerment of the local communities, which is producing positive conservation outcomes and providing alternative sources of income for the forest inhabitants. However, both examples required a considerable amount of funding support in the development phases and would not have been possible without collaborative arrangements with scientific institutions, Indigenous community groups, and supportive government policies. Both sites required special rezoning in areas designated for traditional resource use and ecotourism ventures. The other sites examined (in Cameroon, DMR, Indonesia and Malaysia) evidenced genuine efforts toward policy reform and participatory planning, and in all of these cases, cultural and resource

mapping is proving to be a valuable tool to bring the cultural imperatives and resource management knowledge of the Indigenous communities into management planning and administration.

In the four Australian world heritage sites examined, both Kakadu and Uluru-Kata Tjuta demonstrate that joint-management may guarantee majority representation on management boards, but often there is a gap between the cultural imperatives of the local Indigenous communities and decisions made, leading to a loss of autonomy. Future commercial mining activities that may impact on the cultural values of Kakadu remains an issue of real contention for Kakadu's Traditional Owners. In Uluru-Kata Tjuta, the wishes of the Traditional Owners for people not to climb 'the rock' need to be placed above the priorities of tourism. The fact that in both examples, lease-back conditions were part of the decision to recognise Aboriginal ownership of the land and resources, is a clear reflection of the types of coercive politics that muddies any claim to 'free, prior and informed consent'. In the cooperative management models underpinning the GBRMP and WTWHA (based upon ministerially endorsed protocols and principles) opportunities for the consensual and inclusive co-management of world heritage values provide opportunities for developing meaningful, collaborative, and innovative models of cooperative conservation.

This desk-top analysis of a range of World Heritage forested sites indicates that successful examples of protected area management involve supportive legislative mechanisms; participatory planning frameworks; Indigenous and conservation NGOs; a cooperative state-management philosophy, the legal recognition of resource-rights, Indigenous land-tenure models, and cultural norms of resource regulation, coupled with strong community and research linkages and significant financial bolstering to support the development and implementation of long-term strategies.

7.1 Practical Insights

There are valuable insights from the Mamiraua (Brazil) and Rio Platano (Honduras) World Heritage Sites that are applicable to the Wet Tropics region. Both the Mamiraua and Rio Platano sites were legislated as sustainable development reserves (SDR), which enabled Indigenous governance models and resource use practices to be incorporated into the design and management of the innovative participatory planning projects. In both sites, legislation was amended to rezone specific areas identified by the Indigenous communities as critical for the success of conservation, resource-use and cultural well-being. Collaborative relationships between government agencies, conservation and Indigenous NGOs also facilitated much of the success in these two world heritage sites.

Ecotourism, traditional handicrafts, community mapping, and conservation projects underpin the ongoing success of Rio Platano, while ecotourism, timber extraction, commercial fishing and community mapping initiatives characterise the success of the Mamiraua project. In Mamiraua, the government handed over management to a conservation NGO, while in Rio Platano, co-management was managed by the local Indigenous NGO (MOPAWI). In both sites there was a concerted and collaborative effort made to:

- (i) Change policy and legislative frameworks toward a more 'enabling environment;
- (ii) Address the governance gap within the area by engaging in local institutional development and political organisation activities, trying to move beyond patronage politics;
- (iii) Develop and implement the management systems and technologies that would encourage sustainable use of existing natural resources;
- (iv) Introduce economic alternatives based on biodiversity conservation and its sustainable use.

7.2 Lessons Learnt from Governance and Legislation Issues

In both the Mamiraua and Rio Platano World Heritage Reserves, the following key Principles are instructive:

- The sustainability and duplication of promising new approaches to sustainable livelihoods in areas of high local and global biodiversity will be undermined if policy and legal frameworks remain unsupportive of them. If policy and legal frameworks are unsupportive, constraints will be too great and constructive approaches will be rendered unviable. Both the Mamiraua and Rio Platano initiatives delivered policy change supportive of Indigenous governance systems;
- Proposals for policy and legislative reform have to balance stakeholders' needs with politicians' interests and government priorities for the greatest chance of success. The Mamiraua team ensured that all proposals were presented to all key decision-makers and stakeholders thus maintaining a highly participative approach. By doing so they managed to capture the State Government's interest, whose backing of the proposal was a critical factor in the passing of the Sustainable Development Reserve Decree. The Rio Platano Indigenous NGO (and supporting donor institutes and organisations) successfully lobbied the government for policy change by collectively representing Indigenous groups within the area;
- 'Public relations' helps convince politicians and decision-makers that change is necessary, but targeted promotion is needed where the stakes are high. The Mamiraua team developed a wide network of supporters and also built a strong reputation based on sound research. This, in combination with extensive PR, raised awareness across Brazil about the initiative. Wider awareness of the Mamiraua programme, particularly in influential circles also helped institute the necessary policy and legislative changes. In Rio Platano, the Indigenous NGO received world-wide acclaim for successful conservation initiatives. Both projects were listed as finalists (with Mamiraua receiving 1st place) in the Ecuador Prize (acclaimed as the highest award for conservation and sustainable development outcomes in South America), ensuring ongoing international support;
- Where there are different policy and legal options targeting similar issues, these should be structured to compliment and not conflict with each other. In Mamiraua it was necessary to articulate the differences in protected area categories in Brazil, whereby the zoning category of RESEX allows human habitation and sustainable use in 'simpler ecosystems', while the zoning of SDR (sustainable development reserve) is more suited to complex ecosystems with high global as well as local biodiversity values. In Honduras, a special rezoning was decreed so that Indigenous communities could conduct agro-forestry, ecotourism, and cultural activities within the reserve.
- Incorporating marginalised groups into the process may take time. The Mamiraua project recognised the real need to empower women, and gradually over time women increasingly became more involved in decision-making in the various associations. In Rio Platano, women were actively engaged in commercial enterprises and have become significantly empowered in decision-making processes within their local communities.

7.3 *Ecotourism*

In both the Mamiraua and Rio Platano Reserves, ecotourism was introduced to provide an alternative source of income for the Indigenous people and to compensate for losses arising from restrictions resulting from conservation imperatives. Key lessons from these projects include:

- Grant finance is critical for community-based eco-tourism initiatives. In the MSDR case, necessary financial resources provided by the UK Department for International Development (DFID) enabled the building of a floating lodge and other related tourism infrastructure, an initiative that has proved to be one of the most successful community based ecotourism ventures in the Amazon. (Koziell and Inoue 2006:15);
- Even if the benefits arising from eco-tourism appear limited, their value can be high to the local community. In the case of the MSDR the ecotourism initiatives provided benefits for only those communities living within the sector where it was located, however the benefits accruing were significant and contributed to raising national and international interest in the area.

7.4 *The Role of NGOs in Community Conservation*

Adaptive co-management (ACM) in forestry ecosystems refers to actions taken jointly by diverse interests in response to changing forest management needs and conditions. Managers and other stakeholders together decide suitable interventions, based on repeated assessment of past efforts. The role of international and national NGOs in attempting to serve goals and meet needs as defined by grass-roots organisations has come under particular scrutiny. There are several perspectives on the role of international and national NGOs as mediators between local and global priorities. One perspective sees these NGOs as 'the building blocks of society' (Meyer 1999:143), enriching trust relationships and enhancing the ability to solve problems cooperatively, while others, such as Fisher (1998) regards international and national NGOs supporting grass-roots organisations as nurturing and pluralizing society by increasing the number of intermediary organisations between key stakeholders and the state. Other scholars such as Berkes (1995), Brosius (1997) and Feeney et al (1990) adopt the opposite approach, arguing that stakeholders own management over their collective resources enhances local empowerment and has a higher likelihood of success than mediated ones. These 'adaptive management' scholars believe that traditional communities are capable of developing their own collective management strategies without external direction.

An additional cautionary note against an over-reliance on national and international NGOs in participatory management approaches is that non-Indigenous NGOs are capable of replacing grass-roots objectives with alternative agendas of their own. For instance, anthropologist Janet Chernela (2005) argues that the act of mediation, 'when conducted by outsider interlocutors, may undermine local community initiatives' or even create dissent rather than collaboration by benefiting one subgroup while excluding others (Chernela 2005:622). Alcorn, Luque et al (n.d) argue that 'foreign' NGOs who are implementing programs at local level do not always pay explicit detail to governance at local levels, and without detailed knowledge of community history and dynamics they risk increasing pre-existing social and economic inequities. Brandon and Wells (1992:565) point out that a dilemma in protected area governance and Indigenous resource management models is that while traditional Indigenous management systems exist, they are not always adequate to maintain the resource base under rapidly changing conditions; moreover, Indigenous communities may wish to protect resources other than the goals prioritised by conservation. The question is; is it better to build up the authority of traditional decision-making mechanisms which may be highly exclusionary, or to institute broad-based participatory

mechanisms involving multiple linkages between local, national and international NGOs. Brandon and Wells (1992:565) conclude that: 'the answers to these questions will in part depend on the socio-cultural context and the relationship of local people to the resource base' (Bruce and Wells 1992:565).

One of the key lessons learnt from the Mamiraua and Rio Platano World Heritage sites is that local Indigenous NGOs are better equipped to represent the interests and cultural differences of key stakeholders. For example, in Mamiraua the careless use of wording in an evaluation report (which was meaningless to the writer) but of great significance to those being evaluated, caused a great deal of tension and seriously undermined relationships. There was also a lack of understanding and respect accorded to local management styles by the international funding institute (DFID), leading to the conclusion that '[m]ore effort should be made...to understand the implications of cultural differences...(Koziell and Inoue 2006:16). In contrast, the Rio Platano Reserve was co-managed through a local Indigenous NGO with representatives from each community engaging in decision making processes. This resulted in a more collaborative form of co-management, derived from a culturally-based regional approach to combining sustainable development with conservation.

7.5 Co-Management and Indigenous NGOs

There are many advantages for parks authorities to develop co-management partnerships with Indigenous NGO:

Firstly, the theme of the Vth World Parks Congress (2003) 'Beyond Borders', recommends that in order to build long-term resilience for protected areas and 'benefits beyond sites', good governance and co-management of World Heritage values requires the development of positive partnerships between civil society and governments. The role of local Indigenous NGOs in mediating between governments and Indigenous communities is of particular importance, given that a high percentage of protected areas involve the rights of Indigenous communities to fully participate in the co-management of World Heritage. This view is reinforced through *Recommendation 5.25*, which calls for involving Indigenous groups and strengthening legal and policy frameworks to enable co-management with Indigenous stakeholders.

Secondly, the World Parks Congress (2003) advocates for the recognition of alternative forms of governance, such as Community Conserved Areas (CCAs), which in Australia have many of the same qualities of Indigenous Protected Areas (IPAs). In Brazil and Honduras community conserved areas have been successfully established within Sustainable Development Reserves. The success of the Honduras site (Rio Platano), was primarily due to the persistence of the local Indigenous NGO, MOPAWI, (and its funding partners) in lobbying for the rezoning of areas for cultural and ecotourism ventures. The special legislation enacted for the rezoning of the Mamiraua reserve was critical to creating an effective land-use model for achieving both conservation and the sustainable use of resources.

Thirdly, Indigenous organisations are increasingly asserting and receiving recognition of their rights and control over territories and ancestral lands, and are actively securing rights over their traditional collective knowledge (Alcorn, Luque et al n.d). Chaplin (2004 in Alcorn Luque et al) believes that if governments follow the guidance of international law, it is possible to rebuild the capacities of representative Indigenous organisations (and other community-based organisations) in protected areas, as a beneficial land-use option for Indigenous communities. The Mamiraua and Rio Platano projects exemplify the value of building upon traditional knowledge and governance systems.

The positive benefits that Indigenous NGOs can offer protected area conservation include:

- Policy Making – at local, national and international level;
- Project Design and Implementation;
- Political Influence with private corporations, funding bodies, political parties, and government agencies.

It is important for state agencies and governments to recognise the value of local Indigenous NGOs in channelling, nurturing, and building trust in government processes, because while they cannot replace government structures, their support or lack of support can assist or undermine government objectives in the planning and management of World Heritage sites. Ensuring that Indigenous NGOs are represented in the co-management of protected areas is beneficial for effective governance in numerous ways, including:

- Providing innovative frameworks for the implementation of programs at the local level (Indigenous NGO networks have been an effective force in collaborative management schemes (for example MOPAWI in Honduras) MOPAWI developed sustainable, culturally-based eco-tourism projects through the collaboration of Indigenous groups, successfully implementing conservation programs and ecotourism ventures according to community requirements.
- Creating alternative information flows, thereby supporting transparency. (Indigenous NGOs have access to issues affecting stakeholders and can encourage participation of a diverse range of stakeholders in decision-making processes). NGOs also serve as conduits for ideas and can raise awareness of local issues. The MOPAWI initiatives in Honduras built upon local knowledge of issues affecting communities and these were conveyed to the international NGOs and donor institutions. Through its intimate knowledge of Indigenous concerns and ambitions, MOPAWI was able to successfully translate these into productive community projects.
- Acting as critical gatekeepers in negotiations between government agencies and groups of affected stakeholders.
- Ensuring the success of conservation objectives through collaborative arrangements with Indigenous groups.

Finally, with regard to governance models, the ultimate objective is to identify which form of adaptive co-management model is best able to utilise protected area resources to meet the needs of the present without compromising the viability of cultural and ecosystem diversity in the long term. One of the most critical aspects of ecosystem sustainability is empowerment – providing the local community with the means of taking control over their personal situation in order to improve it (Jonas 2003:9).

7.6 Mapping as a Mechanism for Policy Change

National laws and policies often ignore Indigenous rights and governance systems. Maps can be used as part of a larger communication strategy to foster legal and policy reform at the national level. The consensus behind a map gives it legitimacy in political debates. In the sites examined in Cameroon, Democratic Republic of Congo, Malaysia and Indonesia, the maps produced for developing resource use zones were instrumental in building NGO support for Indigenous people's rights, with gradual changes to policy being realised. Maps showing traditional use of areas now strictly protected for biodiversity have been used to allow resource use or to promote public debate about the issue instead of forcing relocation. In Indonesia, for example, WWF used the results of mapping to advocate for the reclassification of several strictly protected areas into national parks, including *adat* areas

within the Lorentz. In Cameroon and the DRC, mapping projects such as 'the sacred forests initiative' are generating community empowerment and providing a means for the pygmy forest people to assert their resource needs within highly protected reserves. In another world heritage example not examined in this study, Karen communities in Thailand have not been evicted from Thung Yai Wildlife Sanctuary, in part due to information included on maps.

The key guiding principle is that the mapping turns authority and decision making over to the community so they can direct the map's use. Sustainable policy change occurs when grassroots institutions are empowered and linked with political structures at higher levels (Edwards 1999).

7.7 WTWHA – Cooperative Management

The culmination of the Wet Tropics Regional Agreement in 2005 represents a successful example of Indigenous self-determination.

This cooperative arrangement, established through a formal mandate and a plethora of protocols, provides a flexible model for achieving an optimum balance between the conservation of World Heritage values and the full recognition and realization of Indigenous common property rights and responsibilities toward the protection of both cultural and natural values

The question of whether joint management or cooperative management represents international 'best-practice' is not just contingent on legal inalienable title to land, but on whether management arrangements provide maximum outcomes in terms of the conservation of World Heritage values *through* effective participatory management by Indigenous communities. Given the IUCN paradigm shift in recognising World Heritage sites not just as bounded 'islands' but as contiguous landscapes constituted and sustained by cultural values, cooperative and joint management arrangements represent different but equally legitimate ways of fulfilling World Heritage obligations toward conservation and Indigenous aspirations. Legal land title does not guarantee that Indigenous aspirations and traditional governance models are adequately represented, even with the majority representation on management boards.

To date the Aboriginal Rainforest Council has been representing Indigenous stakeholders in the co-management of the WTWHA since 2005, and whilst the Regional Agreement may not be a legally binding and enforceable agreement, to reiterate Bruce White's (pers comm. 2007) point; it has the advantage of being 'relatively far reaching in its coverage of all management activities for the World Heritage Area', and is flexible, responsive, and readily adaptable to recommendations and lessons learnt from annual reviews.

Evidence that cooperative conservation can be successful if supported legislatively and financially, can be found in Canada, where the Inuit have productively managed national parks for over 30 years.

7.8 Canada's National Parks

In Canada, the national parks department established Totally Protected Areas with the consensus of the Inuit Indigenous community. However, the Inuit felt they were largely ignored in the development and management of tourism industries. External agencies constructed and managed tourist ventures with no participation from the Inuit community. The Inuit felt alienated from the national parks and the tourism industry and believed that visitors were missing out on a valuable cultural experience. Following strong objections by the Inuit against the establishment of further protected areas, the National parks Department introduced a policy of total integration and management of protected areas by the local

communities. As a result, the Inuit now own and manage the facilities and infrastructure, with benefits going directly into Inuit communities. This collaborative relationship between the Indigenous Inuit and the National Parks Department of Canada has fostered a supportive environment for the further establishment of protected areas (Liam and Gill 1998:160).

The Inuit Regional Conservation Strategy, implemented since 1986, governs a variety of mechanisms and interrelated projects involving capacity-building initiatives. Progress has been made in several areas, including preliminary work on developing an IRCS database, a register of Inuit experts, and a manual of Inuit resource management. Discussion with possible partners has been undertaken toward developing a protected areas network in the Arctic. The Inuit Regional Conservation Strategy has actively encouraged the initiation of sustainable development demonstration projects and provided support to co-operative agreements for the management of shared species of animals among communities, regions, and nations (Reimer 1998).

The formal arrangements between the Canadian government (Parks Canada) and the Inuit have resulted in the successful cooperative management of 13 national parks, protecting over 180,000 km² of parks in all eco-regions of Canada. These co-operative agreements ensure that parks officials and others with 'expertise', in conjunction with the aboriginal communities of the area participate as members of a cooperative management board, which provides advice to the minister responsible for national parks (on issues such as harvesting, management of cultural and natural resources, economic needs and initiatives and staff training and hiring). While the *Canada National Parks Act* leaves ultimate decision making to the Minister, in the 30 years of cooperative management 'there has been no occasion where the minister has rejected or altered a board's management advice' (Lockwood, Worboys and Kothari 2006:533).

7.9 Policy Impediments

Under Australian constitutional arrangements the responsibility for Protected Areas lies primarily with State Governments. Of these Queensland, Western Australia, Tasmania and Victoria have no formal joint management of parks. Therefore as Rosemary Hill (2006) has noted, the effectiveness of the federally supported Indigenous Protected Areas (IPAs or in IUCN terminology, 'Community Conserved Areas') are constrained by structural factors. Hill asserts that IUCN's best practice Guidelines on Indigenous and Local Communities and Protected Areas, and its commendation of Australian IPAs as an example of community conserved areas being fully integrated into the National Protected Area systems 'fails to take into account Australia's Constitutional arrangements' (Hill 2006:578). IPAs are attractive to some Indigenous groups because they enable the management of resources 'without the loss of autonomy usually associated with joint management of protected areas' (Lockwood, Worboys and Kothari 2006:565); however, this autonomy is potentially limited without adequate funding as Rosemary Hill (2006:584) highlights:

'An analysis of services delivered, customers, and classification as private/public good, for each of the zones within the ILUA, based on concepts developed by the Financing Protected Areas Task Force of the World Commission on Protected Areas (2000) concluded that national parks and the conservation agreement zones supply identical public benefits in relation to preservation of species and genetic diversity, maintenance of environmental services, and protection of specific natural and cultural features, and therefore should expect the same level of funding from governments to support their production of public goods (Hill 2002). However, there are no arrangements to ensure ongoing funding of the conservation agreement zones even at the same level as national parks in northern Queensland, whose current funding is considered grossly inadequate

with overall budgets less than one-thirteenth, of the Australian standard (Larsen).’ (Hill 2006:584)

In addition, legal arrangements, while providing for conservation agreements with ‘landowners’ (prohibiting the use, acquisition or interference of a cultural or natural resource within the area), do not make provision for Indigenous concepts of management, founded on customary law or traditional practice, (according with the IUCN community governance model). Because of this lack of recognition toward customary governance, ‘policy commitments by the Queensland government are not reflected in the available legal mechanisms to sanction such recognition’ (Hill 2006:585).

7.10 Summary Statement

The goal of co-management, (being the integration and successful mobilisation of the diversity and richness of conservation-based knowledge available through Indigenous communities) is best achieved through collaborative arrangements which integrate Indigenous governance models (based upon the fulfilment of cultural and resource-use obligations) into all levels of planning, management and regulation. In many of the case studies examined, current efforts to incorporate Indigenous people in protected area management are often limited to consulting or recruiting assistance in the implementation of predetermined activities, or assigning benefits without effective discussion, or negotiation of options. The three main causes of this failure to successfully implement co-management involve; (i) the lack of supportive policies, (ii) protocols, and (iii) capacities (including legally binding instruments). For the co-management of protected areas to be successful agreements must be supported by a legal and policy framework that enhances capacity building and participatory action-research, whilst providing forums for the democratic exchange of ideas and experiences.

For the realisation of ‘best practice’ standards in the cooperative conservation of the WTWHA, (involving not just the consultation, but the meaningful contribution of Traditional Owners’ in all areas of management), the Aboriginal Rainforest Council (ARC) represents an effective mechanism by which rainforest aboriginal groups are accorded with equitable opportunities to contribute to conservation goals and cultural obligations. With sustained funding to nurture Indigenous initiatives and cultural projects (such as the ARC mapping project) the Queensland government, through the WTMA has the potential to set new international standards for best-practice in the conservation of World Heritage areas. Success should not be measured through a short-term lens however, as Dovers’ (2003) timeframe for the success of adaptive and innovative systems (such as the ARC and the Wet Tropics Regional Agreement), recommends at least ten years of persistence to achieve maximum outcomes.

The comparative analysis of this desktop report indicates that the Wet Tropics cooperative model of management represents best practice in terms of facilitating (through protocols and principles) and integrating the voice and aspirations of rainforest Aboriginal groups into all levels of management, and not just in consultative roles. Legislative policies and substantial ongoing funding is needed to support these initiatives.

Recommendations for Further Research

- Further research addressing the broader question of how traditional governance systems are successfully integrated into the management of large-scale World Heritage forested sites is recommended. This research would ideally involve an analysis of case-studies within the WTWHA, such as the (2006) study by Rosemary Hill (which highlighted gaps between policy and legal mechanisms).
- Further research is also recommended to provide a deeper understanding of the success and limitations of the Canadian cooperative parks model, which has successfully integrated customary resource management, tourism initiatives and conservation imperatives for over 30 years.
- In addition, given that the aim of governance in world heritage sites is to achieve a high degree of protection, which ‘can be achieved concurrently with partnerships with a range of players, including partnerships that support community authority and social structures’ (Hill 2003:2), a comprehensive global thematic study to document the current status of partnerships supporting community authority and social structures in world heritage forested sites would be beneficial not just at the regional level, but also on a national and global level.

‘Internationally, rigorous criteria to measure progress toward a more inclusive approach in national systems would enhance our capacity to ensure the current paradigm shift become more than just convenient rhetoric.’ (Hill 2006:577)

Rosemary Hill (2003:3) has indicated that the proposed methods for a thematic study of this kind would involve seven stages:

1. The establishment of an international team to collaborate in the project and oversee its management;
2. A literature review and documentary analysis;
3. Survey of potential and current tropical forested world heritage sites;
4. Development of appropriate systems to describe sites on the basis of types of partnerships that support community authority and social structures;
5. Selection of sites with a range of approaches to supporting community authority and social structures;
6. Workshop with managers and communities from selected sites;
7. Report production.

References

- Abel, Thomas and J.R. Stepp. 2003. A new ecosystems ecology for anthropology. *Conservation Ecology* 7(3):12. Accessed 12/02/07. Available at: <http://www.consecol.org/vol17/iss3/art12> (accessed 7/02/07)
- Aboriginal Rainforest Council (ARC) Website. Accessed 12/03/07. Available at: <http://www.arc-inc.org.au/>
- Alcorn, Janis B. 2000. *Borders, Rules and Governance: Mapping to catalyse changes in policy and management*. Gatekeeper Series no. 91. International Institute for Environment and Development (IIED). Sustainable Agriculture and Rural Livelihoods Programme. Accessed 12/03/07. Available at: <http://www.poptel.org.uk/iied/docs/gatekeep/GK91.pdf>.
- Alcorn, Janis B., Luque, Andres and Weisman, Wendy. n.d. Non-governmental Organizations and Protected Area Governance. Accessed 12/03/07. Available at http://www.earthlore.ca/clients/WPC/English/grfx/sessions/PDFs/session_2/Alcorn.pdf
- ANZECC Working Group on National Parks on National Parks and Protected Area Management. 2000. *Report on Audit of Uptake of Best Practice Reports in ANZEC Organisations*. 27 April 2000, online 15 February 2007. Available at: <http://www.environment.gov.au/parks/publications/best-practice/uptake/index.html>
- ANZECC Working Group. 2001. Best Practice in Cultural Heritage Management (Historic Heritage on Parks and Protected Areas'. *A Report to the ANZECC Working Group on National Park and Protected Area Management*. New South Wales National Parks and Wildlife Service. Department of Natural Resources and Environment, Victoria, February 2001
- Appleton P. 2000. An Indigenous Co-Management Strategy for the Great Barrier Reef World Heritage Area. The Great Barrier Reef Marine Park Authority, Townsville.
- Australian Government Attorney General's Department. Online (COMLAW). Accessed 12/03/07. Available at: <http://www.comlaw.gov.au/ComLaw/Legislation/ActCompilation1.nsf/framelodgmentattachments/C4AA25A52075CBF3CA256F710050FFD6>
- Australian National Periodic Report Section II: Report on the State of Conservation of Kakadu National Park. 2002. Accessed 12/03/07. Available at: <http://whc.unesco.org/archive/periodicreporting/cycle01/section2/147.pdf>
- Berkes, Fikret. 1995. Community-based Management and Co-Management as Tools for Empowerment. *In Empowerment towards Sustainable Development*. N Singh and V.Titi, eds. Pp 138-146. London: Fernwood, Halifax, and Zed Books.
- Best Practice in Cultural Heritage Management (Historic Heritage on Parks and Protected Areas) 2001.
- Bills Digest No. 135 1998-99: Environment Protection and Biodiversity Conservation Bill 1998*. Department of the Parliamentary Library. Parliament of Australia. 1999. Accessed 12/02/07. Available at: <http://www.aph.gov.au/library/pubs/bd/1998-99/99bd135.htm>.
- Biswas, A. and Tortajada, C. 1995. Environmental management in Cameroon:A participatory approach. Full text of an article from *The Courier ACP-EU*No. 153, September-October 1995: pp: 85-86. Accessed 04/03/07. Available at: <http://www.euforic.org/courier/153bis.htm?=&andgroups=EUFORIC&password=9999&username=guest@euforic.org&workgroup=>

Brandon, K.E. and Wells, M. 2002. *Planning for people and parks: Design dilemmas*. World Wildlife Fund and The World Bank, Washington, DC, USA, The World Bank, Washington, DC, USA. Accessed 12/03/07. Available at: <http://www.sciencedirect.com/science/article/B6VC6-45KN8F9-1P/2/3b9bc9107a6704c8f78d492d8255d4c6>

Brosius, J. Peter. 1997. Endangered Forest, Endangered People: Environmentalist Representations of Indigenous Knowledge. *Human Ecology* 25(1):47-69.

Brosius, P., Lowenhaupt Tsing, A., and Zerner, C. 1998. Representing communities: Histories and politics of community-based natural resource management. *Society and natural Resources*. 11:157-168.

Caruso, Emily. 2005. The Global Environment Facility in Central Africa: A Desk-based review of the treatment of Indigenous peoples' and social issues in a sample of 14 biodiversity projects. *Forest People Programme*. Accessed 02/02/07. Available at: http://www.forestpeoples.org/documents/ifi_igo/gef/gef_caf_rev_mar05_eng.pdf

Centre for International Environment Law (CIEL) in collaboration with Institute for Policy Research and Advocacy, Indonesian Center for Environmental Law (ICEL), and International Centre for Research in Agroforestry (ICRAF). *Whose Resources? Whose Common Good?: Towards a New Paradigm of Environmental Justice and the National Interest in Indonesia*. January 2002. Accessed 12/03/07. Available at: http://www.ciel.org/Publications/Whose_Resources_3-27-02.pdf

Cleaver, Kevin. 1993. A Strategy to Develop Agriculture in Sub-Saharan Africa and a Focus for the World Bank. *World Bank Technical Paper Number 203*. Washington, DC: The World Bank. Accessed 06/02/07. Available at: <http://ideas.repec.org/p/fth/wobate/203.html>

Colchester, Marcus. 1994. Salvaging Nature: Indigenous Peoples, Protected Areas and Biodiversity Conservation. UNRISD Discussion Paper. Geneva: United Nations Research Institute for Social Development. Accessed 12/02/07. Available at: <http://www.wrm.org.uy/subjects/PA/nature.html>

Counsell, Simon. 2005. Democratic Republic of Congo— after the war, the fight for the forest. *Broken Promises: How World Bank Group policies fail to protect forests and forest peoples' rights*. Published by the Rainforest Foundation, CDM Watch, Global Witness, Sinks Watch, Forest Peoples' Programme, Environmental Defence, Down to Earth. pp:11-19. Online 03/03/07. Available at: http://www.forestpeoples.org/documents/ifi_igo/wb_forests_joint_pub_apr05_eng.pdf

David, Shelton H., and Wali, Alaka. 1994. Indigenous Land Tenure and Tropical Forest Management in Latin America. Environment Department. The World Bank. *Ambio*. Vol.23. No. 8. Accessed 03/03/07. Available at: <http://info.worldbank.org/etools/docs/library/139598/forest.pdf>

Department of the Environment and Water Resources. *Park History*. Accessed 13/02/07. Available at: <http://www.environment.gov.au/parks/uluru/history.html>

Department Natural Resources and Mining. 2003. Looking after country together. A proposal for a partnership agreement to improve Indigenous people's access to an involvement in the management of land and sea country. Draft Discussion Paper.

Eghenter, Cristina. What is *Tana Ulen* Good For? Considerations on Indigenous Forest Management, Conservation, and Research in the Interior of Indonesian Borneo. *Human Ecology*. 28:3, pp331-357.

Energy Resources of Australia, Jabiluka Mill Alternative: Synopsis of Key Issues and Processes, August 1998.

Environment Protection Agency and NT Department of Lands, Planning and Environment. 1996. Jabiluka: Draft Guidelines for an Environmental Impact Statement on the proposed development of Jabiluka No 2 uranium mine.

Environment Australia. 1997. Environment Assessment Report: Proposal to Extract, Process and Export Uranium from Jabiluka Orebody No 2.

Environment Australia. 1998. Environment Assessment Branch, Environment Assessment Report: The Jabiluka Mill Alternative at the Jabiluka No 2 Uranium Mine.

Environment Australia. 1998. Guidelines for a Public Environment Report on the Proposed Development of the Jabiluka Mill Alternative at the Jabiluka No 2 Uranium Mine.

Environment Australia. 1999 Australia's Kakadu: Protecting World Heritage, Response by the Government of Australia to the UNESCO World Heritage Committee regarding Kakadu National Park, http://www.biodiversity.environment.gov.au/kakadu/jabiluka/response_aust.html

Environment Protection Authority. 2000. Marine Protected Areas in Queensland – a draft planning framework. Environmental Protection Agency, Brisbane.

Fabiano, Toni. 2006. Forest Management in Brazil: Barriers and Bridges to Decentralisation in a Federal System. *Center for International Forestry Research (CIFOR) and the International Development Research Council (IDCR)*. Accessed 03/02/07. Available at: http://dlc.dlib.indiana.edu/archive/00001890/00/Fabiano_Toni_Decentralization_IASCP_2006.pdf

Fabiano, Toni. 2007. Forest Management in Brazil's Amazonian Municipalities. Online 02/02/07. Available at: http://www.idrc.ca/en/ev-43424-201-1-DO_TOPIC.html

Feeny David, Fikret Berkes, Bonnie J. McCay, and James M. Acheson. 1990. The Tragedy of the Commons: Twenty-Two Years Later. *Human Ecology* 18(1):1-19.

Federal Court of Australia, *Margarula v Minister for Environment, Minister for Resources and Energy and Energy Resources of Australia*, 1 June 1999.

FNQ NRM Ltd and Rainforest CRC 2004. Sustaining the Wet Tropics: A Regional Plan for Natural Resource Management, 2004-2008. FNQ NRM Ltd, Innisfail.

Folke, C. and Kaberger, T. *Linking the Natural Environment and the Economy: Essays from the Eco-Eco Group*. Kluwer Academic Publishers, London.

Forest Peoples Programme, U.K. Centre for Environment and Development, Cameroon. 2005. Protecting and Encouraging Traditional Sustainable Use in Cameroon: Customary Use of Biological Resources by Local and Indigenous Peoples in Western Dja Reserve, Cameroon.. August 2005. Accessed 04/02/07. Available at: *Case study on Indigenous Peoples and Protected Areas* http://www.forestpeoples.org/documents/africa/cameroon_trad_use_aug05_eng.pdf

Fourmile H., Marrie A. 1996. Indigenous community involvement in the management of the Cairns area marine parks, Cairns section of the Great Barrier Reef Marine Park. Bukal Consultancy Services Pty Ltd., Gordonvale Qld.

Gundjehmi Aboriginal Corporation, We are not talking about mining: The History of Duress and the Jabiluka Project, July 1997: http://www.mirrar.net/index_main.htm

Gundjehmi Aboriginal Corporation, Submission from the Mirrar People to the UNESCO World Heritage Committee ICCROM and ICOMOS in relation to the Australian Government's report "Australia's Kakadu: Protecting World Heritage", May 1999: http://www.mirrar.net/index_main.htm

George M, Innes J, Ross H. 2004. Managing Sea Country Together: Key Issues for Developing Co-operative Management for the Great Barrier Reef World Heritage Area. CRC Reef Research Centre Technical Report No 50, CRC Reef Research Centre, Townsville, Australia.

Ghimire K.B., Pimbert M.P., Social change and conservation. An overview on concepts and issues. In: Ghimire, K.B., Pimbert M.P. (eds), *Social change and conservation. Environmental politics and impacts of national parks and protected areas*, pp.1-45. Routledge, London.

Gillingham, Sarah. Social Organisation and Participatory Resource Management in Brazilian *Ribeirinho* communities: A Case Study of the Mamiraua Sustainable Development Reserve, Amazonas. *Society and Natural Resources*. Vol 14:803-814. Accessed 03/03/07. Available at: <http://taylorandfrancis.metapress.com/content/3yvldjkeu5b7t8nj/fulltext.pdf>

Mandis Roberts Consultants. 2000. Draft Gunong Mulu National Park Integrated Development Management Plan.

Haba, John. 2005. Indonesia's Experience Within the Nusantara Archipelago Context: Between Research Findings and Policy Implementation. Presented at International Conference on Research, Public Policy and Asian Public Policy Schools. Bandung, March 14-15 2005. Accessed 10/03/07. Available at: http://www.idrc.ca/uploads/user-S/11127586421John_Haba.rtf

Hanna S. Folke, C. and Maler, K. 1996. Rights to Nature: Ecological, Economic, Cultural, and Political Principles of Institutions for the Environment. Island Press. Washington D.C.

Hawkins, Donald. 2004. Sustainable Tourism Competitiveness Clusters: Application to World Heritage Sites Network Development in Indonesia. *Asia Pacific Journal of Tourism Research*. Vol 9, No.3:293- 307.

Hayes, L. 2006. A Guide to Developing Indigenous Shared Management Arrangements for Conservation Areas in Queensland. National Native Title Tribunal, Commonwealth of Australia. Accessed 12/03/07. Available at: http://www.nntt.gov.au/research/files/Shared_management_21Sept%2006TH.pdf

Haeruman, Herman. 2001. *Financing Integrated Sustainable Forest and Protected Areas Management in Indonesia: Alternative Mechanisms to Finance Participatory Forest and Protected Areas Management*. International workshop of experts on financing sustainable forest management . A Government-Led Initiative in Support of the United Nations. IPF/IFF/UNFF Processes. Accessed 12/03/07. Available at: <http://scholar.google.com/scholar?hl=enandlr=andq=cache:56A-kDhM4F8J:www.cifor.cgiar.org/fsfm/Papers/23Haeruman.pdf+Management+of+Lorentz+National+Park>

Hazimzumwami, Elie. 2000. Community Wildlife Management in Central Africa: A Regional Review. *Evaluating Eden Series. Discussion Paper No.10*. Submitted to IIED August 1998, published February 2000.

Herlihy, Peter. Participatory Zoning and Management of the Rio Platano Biosphere Reserve, Honduras. Accessed 02/02/07. Available at: <http://srdis/ciesin.columbia.edu.cases/honduras-003.html>

High Court of Australia, Yvonne Margarula v Minister for Resources and Energy, Commonwealth of Australia, Energy Resources of Australia Ltd and Northern Territory of Australia, application for special leave to appeal, 20 November 1998.

Hill, Rosemary. 2006. The Effectiveness of Agreements and Protocols to Bridge Between Indigenous and Non-Indigenous Toolboxes for Protected Area Management: A Case Study from the Wet Tropics of Queensland. *Society and Natural Resources*. 19:577-590.

Hill, Rosemary. 2003. *Governance: Partnerships that recognise community authority in World Heritage Tropical Forests. Proposal for a Global Study Theme and Workshop*.

Hill, Rosemary and Mann, Maria. 2003. *Indigenous Ownership and Joint Management of Conservation Lands in Western Australia*. Consultation Paper, July 2003. A Joint Submission from Environs Kimberley and the Australian Conservation Foundation.

Holling, C.S. 1978. *Adaptive Environmental Assessment and Management*. John Wiley, London, U.K.

Infield, Mark. 2001. Cultural Values: A forgotten Strategy for Building Community Support for Protected Areas in Africa. *Cultural Survival*. 15:3, pp.800-802. Accessed 02/03/07. Available at: <http://www.blackwell-synergy.com/doi/abs/10.1046/j.1523-739.2001.015003800.x?journalCode=cbi>

IUCN 1991. Protected Areas of the World: A Review of National Systems. *Vol.3: Afrotropical*. Gland, Switzerland: IUCN (The World Conservation Union).

IUCN. 1998. Expert Opinion Concerning the Mitigation of Threats Posing Ascertained and Potential Dangers to Kakadu National Park by the Jabiluka Mine, May 1999.

IUCN. 2004. World Commission on Protected Areas (WCPA). Indigenous and Local Communities and Protected Areas: Toward Equity and Enhanced Conservation. *Guidance on policy and practice for Co-managed Protected Areas and Community Conserved Areas*.

Inglis, Whitelaw and Pearlman. 2005. Best Practice in Strategic Park Management: Towards an Integrated Park Management Model. Sustainable Tourism Cooperative Research Centre.

Interim Protocols for Aboriginal Participation in Management of the Wet Tropics World Heritage Area.

International Council for Science, Review of an Independent Scientific Panel of the scientific issues associated with the proposed mining of uranium at Jabiluka in relation to the state of conservation of Kakadu National Park, May 1999.

Joiris, Daou. n.d. Indigenous Knowledge and Anthropological Constraints in the Context of Conservation Programs in Central Africa. Brussels Free University, Accessed 02/02/07. Available at: <http://environment.yale.edu/documents/downloads/0-9/102joiris.pdf>

Jonas, Nagahuedi Mbongu S. 2003. An Equator Initiative Working Paper – Key Factors Leading to Successful Sustainable Community Livelihoods: Lessons Learned and Research Options based on a Desk Analysis of Winning Equator Prize 2002 Projects. Accessed 03/03/07. Available at: http://www.undp.org/equatorinitiative/documents/pdf/JonasMbonguReport_OnlineVersion.pdf

Juma, Calestous and Timmer, Vanessa. 2003. Social Learning and Entrepreneurship: A Framework for Analyzing the Equator Initiative and the 2002 Equator Prize Finalists. Working paper of 5 December 2003. Accessed 05/03/07. Available at: http://www.ksg.harvard.edu/sed/docs/sdsem/juma_timmer_equatorpaper_031205.pdf

Kakadu: World Heritage In Danger - submission to World Heritage Committee: Executive Summary. Accessed 12/02/07. Available from: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/jabwhsub/>

Kakadu National Park Plan of Management, Australian National Parks and Wildlife Service, Kakadu National Park Board of Management, 1991.

Kakadu Natural and Cultural Heritage and Management, edited by Press T, Lea D, Webb A and Graham A, Australian Nature Conservation Agency, North Australia Research Unit, The Australian National University, Darwin, 1995.

Kakadu Region Social Impact Study, Report of the Aboriginal Project Committee, June 1997.

Kakadu Region Social Impact Study, *Report of the Study Advisory Group*, July 1997.

Kakadu National Park Plan of Management, Kakadu Board of Management and Parks Australia, June 1998.

Kinohill and Energy Resources of Australia. The Jabiluka Project EIS Supplement, June 1997.

- Koziell, Izabella, Inoue, Cristina. 2006. Mamiraua Sustainable Development Reserve, Brazil: Lessons Learnt in Integrating Conservation with Poverty Reduction. *Biodiversity and Livelihoods Issues No.7*.
- Land, M. and Corbett, T. 2005. 'The Tyranny of Localism: Indigenous Participation in Community-Based Environmental Management. In *Journal of Environmental Policy and Planning, Vol.7, No.2, pp:141-159*.
- Larsen, L. and Pannell, S. 2006. *Developing the Wet Tropics Aboriginal Cultural and Natural Resource Management Plan*. Cooperative Research Centre for Tropical Rainforest Ecology and Management. Rainforest CRC, Cairns. (202 pp).
- Lennon, Jane and Associates. 1999. The international significance of the cultural values of the Australian Alps. Report to the AALC.
- Liam, Jack, and Gill, David. 1998. *Community Participation in National Parks and Nature Reserves, A Case Study: Gunong Mulu National Park*. Proceedings of the Second Workshop on Sarawak's National Parks and Wildlife. Forestry Department, Sarawak, December 1998.
- Lockwood, M. Worboys, G. Kothari, A. (Eds) 2006. *Managing Protected Areas: A Global Guide*. Earthscan, London, UK.
- Lloyd, David. 1998. A New Approach to Community Involvement in the Management of the Great Barrier Reef World Heritage Area, North Queensland, Australia. The World Bank/WBI's CBNRM Initiative. Accessed 12/03/07. Available at: <http://srdi.ciesin.org/cases/australia-003.html>.
- MacKay, 2002. Addressing Past Wrongs: The Right to Restitution. A Forest Peoples Programme Occasional Paper (2002:37)
- Malaysian Nature Society. 2003. *Forest Policy and Strategic Plan*. Accessed 12/03/07. Available at: <http://www.mns.org.my/gallery/science/MNS%20Forestry%20Policy.pdf>
- Melbourne Rainforest Action Group. Landrights Struggle in Sarawak. Sarawak Update. 16th June 1993. Online 03/03/07. Available at: <http://nativenet.uthscsa.edu/archive/nl/9307/0027.html>
- McBeth 2005. *Buried Treasure*. Mines and Communities Organisation. October 22, 2005. Accessed 12/03/07. Available at: <http://www.minesandcommunities.org/Action/press800.htm>
- Mendoza, Sandra . Coordinator, Nicaragua and Honduras Country Programs. Email Nomination of MOPAWI; Honduras, C.A. May 15, 2002. *The Nature Conservatory*.
- Mengang, J.M. n.d. *Evolution of Natural Resource Policy in Cameroon*. (Sub-Director of Protected Areas, Ministry of Waters and Forests, Cameroon). Yale FandES Bulletin No.2. Accessed 02/02/07. Available at: <http://environment.yale.edu/documents/downloads/0-9/102mengang.pdf>
- Moeliono, Ilya and Wodicka, Stefan. 1998. *Cattle Cockatoos, Chameleons, and Ninja Turtles: Seeking Sustainability in Forest Management and Conservation in NUS Tenggara, Indonesia*. Paper presented at International Workshop on Community-Based Natural Resource Management (CBNRM), Washington, USA. Accessed 13/03/07. Available at: <http://info.worldbank.org/etools/docs/library/97605/conatrem/conatrem/documents/Indonesia-Paper.pdf>
- Multistakeholder Forestry Programme. 2005. *Papua: Indonesia's Richest and Poorest Province*. Accessed 12/03/07. Available at: http://www.mfp.or.id/v3/h01-6n-cm.php?id=404_0_88_0_C
- Mwinyihali, R.K. 1999. The RFO: Zoning as an Approach to Natural Resource Management. Online 02/02/07. Available at: <http://srdis.ciesin.org/cases/congo-001-en.html>

Natural Heritage Trust, Commonwealth of Australia (2004). Guidelines for Indigenous Participation in Natural Resource Management', *Departments of Agriculture, Fisheries and Forestry and the Environment and Heritage*. Accessed 12 /02/2007. Available at: <http://www.nrm.gov.au/Indigenous/publications/participation-guidelines/index.html>.

Natural Heritage Trust, Commonwealth of Australia. Case Studies in Indigenous engagement in natural resource management' (2004). *Departments of Agriculture, Fisheries and Forestry and the Environment and Heritage*. Accessed 12 February 2007. Available at: <http://www.nrm.gov.au/Indigenous/publications/case-studies/index.html>.

Ndameau, Benout. 2001. Protected Areas and Indigenous Populations: Opposing logic of conservation and survival in the Baka area of Moloundou Region (South West Cameroon). Forest Peoples Programme.

Ndameau, Benout. 2001. Protected areas and Indigenous peoples: the paradox of conservation and survival of the Baka in Moloundou region (south-east Cameroon). *Case Study 7: Cameroon-Boumba Bek*. Available at: http://www.forestpeoples.org/documents/africa/cameroon_dja_b_bek_eng.pdf

Nelson, J., Norbert, G. 2003. Enhancing equity in the relationship between protected areas and Indigenous and local communities in Central Africa, in the context of global change. *Final Report for TILCEPA* January 2003. Accessed 04/02/07. Available at: <http://www.iucn.org/themes/ceesp/Publications/TILCEPA/CCA-Nelson-Gami.pdf>

Nguiffo, Samuel. 2001. One forest and two dreams: the constraints imposed on the Baka in Miatta by the Dja Wildlife Reserve. *Forest Peoples Programme*. May 2001.

Nielson, E. A. 2001. *Community-Based Ecotourism development and Management in the Rio Platano Man and Biosphere Reserve, Honduras*. Report for the Nature Conservancy International Conservation Program. Online 28/02/02. Available at: http://turismo-sostenible.rds.hn/documet/iniciativas/rio_platano_ecoturismo.pdf

Nelson, John. 2004. Conservation and Communities in Central Africa: The need to secure Indigenous rights and biodiversity. *Forests Peoples Programme*. Available at" http://www.forestpeoples.org/documents/africa/cefdhac_5_ip_rights_biodiversitymay04_eng.shtml

Neumann, R.P. 1997. Primitive Ideas: Protected Buffer Zones and the Politics of Land in Africa. *Development and Change*. 8:559-582. Accessed 03/03/07. Available at: <http://egj.lib.uidaho.edu/egj15/martino1.html>

Nguiffo, S. 2001. Cameroon – Dja Wildlife Reserve. One forest and two dreams: the constraints imposed on the Baka in Miatta by the Dja Wildlife Reserve. Case study 6 – Cameroon – Dja Wildlife Reserve 195. *Forest Peoples Programme*, May 2001

Northern Land Council. 1999. Media Release: NLC Calls for halt to work at Jabiluka. Accessed 12/03/07. Available at: http://www.nlc.org.au/html/files/1999_06_jabiluka.PDF

Northern Land Council Annual Report 2001-2002. Chapter 7: Managing Land and Seas. Accessed 12/03/07. Available at: <http://www.nlc.org.au/html/files/AR02%20ch7.pdf>

Northern Land Council Annual Report 2002-2003. Aboriginals Benefit Account Report. Accessed 12/03/07. Available at: http://www.nlc.org.au/html/files/AR03_05.pdf

Northern Territory Department of Lands, Planning and Environment. Assessment Report 22: Jabiluka Number 2 Uranium Mine Proposal, August 1997: <http://www.lpe.nt.gov.au/enviro/EIAREG/Jabiluka/Jabiluka.htm>

Northern Territory Department of Lands, Planning and Environment, *Assessment Report 26: Jabiluka Milling Alternative*, July 1998: <http://www.lpe.nt.gov.au/enviro/EIAREG/jabmilalt/default.htm>

Oldfield, Sara, 1988. Buffer Zone Management in Tropical Moist Forests: Case Studies and Guidelines. Gland, Switzerland. IUCN.

Pannell, Sandra . 2006. *Reconciling Nature and Culture in a Global Context? Lessons from the World Heritage List*. Cooperative Research Centre for Tropical Rainforest Ecology and Management. Rainforest CRC, Cairns, Australia (114pp).

Poole, Peter. 2003. Cultural Mapping and Indigenous Peoples: A Report from UNESCO.

Ranger Uranium Environmental Inquiry, Second Report, Australian Government Publishing Service, Canberra 1977.

Reeves, J, QC, Building on Land Rights for the Next Generation, Report of the Review of the *Aboriginal Land Rights (Northern Territory) Act 1976*, August 1998:
http://www.atsic.gov.au/issues/land/land_rights/Default.asp

Reiner, Chester. 1993. Moving Toward Co-operation: Inuit Circumpolar Policies and the Arctic Environmental Protection Strategy. Accessed 12/03/07. Available at:
<http://www.carc.org/pubs/v21no4/moving.htm>

Religion, Science and the Environment. *Field Trips*. Online 2/2/07, available at:
<http://www.rsesymposia.org/more.php?theitemid=43andcatid=82>

Richards, Michael. 1994. *Protected Areas, People and Incentives: the Search for Sustainable Forest Conservation in Honduras*. Rural Development Forestry Network, Overseas Development Institute, Regents College, Regents Park, London. Online 03/03/07. Available at:
http://members.tripod.com/d_parent/michaelr.html

Roper, M. 2000. On the way to a better state? The role of NGOs in the planning and implementation of protected areas in Brazil. *Geojournal* 52:61-69.

Ross H, Innes J, George M, Gorman. 2004. Traditional Owner aspirations towards co-operative management of the Great Barrier Reef World Heritage Areas; Community case studies. CRC Reef Research Centre Technical Report No.56, CRC Reef Research Centre, Townsville, Australia Accessed 12/03/07. Available at:
<http://www.reef.crc.org.au/publications/techreport/pdf/Technical%20Report%2056.pdf>

Rylands, Anthony, Brandon, Katrina. 2005. Brazilian Protected Areas. *Conservation Biology*, 19 (3), 612–618.

Sebastian, L. and N'yanga-nzo, J. 2001. *Integration of Biodiversity into the Forestry Sector in the Democratic Republic of Congo (DRC):Congo Case Study*. Paper prepared for an international workshop on "Integration of Biodiversity in National Forestry Planning Programme" held in CIFOR Headquarters, Bogor, Indonesia on 13-16 August 2001. Online 03/03/07, available at
http://iodeweb1.vliz.be/odin/bitstream/1834/626/1/Congo_E.pdf

Shepherd, Gill, and Brown, David. 1997. *Theme 3: Institutional frameworks for forest conservation*. Overseas Development Institute, London. U.K. Accessed 06/02/07. Available at:
<http://www.earthwatch.org/site/pp.asp?c=crLQK3PHLsFandb=479837>

Smyth, D. 2004. Case Study No.4 – Developing an Aboriginal Plan for the Wet Tropics NRM Region in North Queensland, Smyth and Bahrdt Consultants For the Natural Heritage Trust. Supervising Scientist Group, Assessment of the Jabiluka Project: Report to the World Heritage Committee: www.deh.gov.au/ssd/uranium-mining/arr-mines/jabiluka/ssd-report.html
Supreme Court of the Northern Territory, Yvonne Margarula v Hon Eric Poole, Minister for Resource Development and Energy Resources of Australia Ltd, 16 October 1998.

Tasneem Balasinorwala, Ahish Kothari and Madhulika Goyal (Compilers) 2004. Participatory Conservation: Paradigm Shifts in International Policy. A compilation of outputs from global events related to participatory conservation. TILCEPA. IUCN, Gland, Switzerland and Cambridge, UK and Kalpavriksh, India. Iv: 120pp.

Taylor, L. and Griffiths, T. 2007. A desk-based review of the treatment of Indigenous peoples' and social issues in large and medium-sized GEF biodiversity projects (2005- 2006). Forest People Programme. Accessed 02/02/07. Available at: http://www.forestpeoples.org/documents/ifi_igo/gef/gef_biodiv_proj_review_feb07_eng.pdf

The Department of the Environment and Heritage, Commonwealth of Australia. (2001a). Natural and Cultural Heritage Theme Report. Australia State of the Environment Report 2001 (Theme Report).

The Department of the Environment and Water Resources. Best Practice in Cultural Heritage Management (Historic Heritage on Parks and Protected Areas. A Report to the ANZECC Working Group on National Park and Protected Area Management (NSW National Parks and Wildlife Service, Department of Natural Resources and Environment, Victoria. February 2001.

The Wilderness Society for the Jabiluka Alliance, 1998. URGENT! JABILUKA WORLD HERITAGE ALERT. On Peace Movement Aotearoa (PMA) website. Accessed 12/03/07. Available at <http://www.converge.org.nz/pma/jabiluka.htm>.

The Wilderness Society. 1999. 82 reasons why the new environment legislation is bad for the environment. Accessed 13/02/97. Available at: <http://www.wilderness.org.au/campaigns/policy/legislation/82reasons/>.

The Wilderness Society. 1997. *We will blockade Jabiluka*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19971009_blockade/.

The Wilderness Society. 1998a. *Kakadu's Natural Values*. Accessed 12/03/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/natural/>

The Wilderness Society. 1998b. *Kakadu's Cultural Values*. Accessed 12/03/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/cultural/>

The Wilderness Society. 1998c. *Kakadu blockade: Police to clear Jabiluka protest site*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19980521_mr/

The Wilderness Society. 1998d. *Jabiluka – Background*. Accessed 12/03/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/background/>

The Wilderness Society. 1998e. *International alarm for Kakadu triggers World Heritage inspection team visit*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19980624_mr/

The Wilderness Society. 1998f. *World Heritage Committee to send inspection team to assess Jabiluka*. Accessed 12/03/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/whcteam/>

The Wilderness Society. 1998g. *Government Increases Chance of World Heritage in Danger Listing for Kakadu*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19981126_mr/

The Wilderness Society. 1999a. *World Condemnation of Australian Government Failure to Protect Kakadu*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19981201_mr/

The Wilderness Society. 1999b. *Government appointee to the World Heritage Mission supports independent scientific criticism of Jabiluka*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19981202_mr/

The Wilderness Society. 1999c. *Unprecedented Government lobbying blitz on Kakadu exposed*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19990216_mr/

The Wilderness Society. 1999e. *Government Report on Kakadu is a smoke screen*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/quickfinder/?topic_id=41

The Wilderness Society. 1999f. *Green groups hit back at Hill*. Accessed 12/03/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19990519_mr/

The Wilderness Society. 1999g. *Shame Australia shame - ERA to desecrate Kakadu World Heritage today*. Accessed 12/02/07. Available at: <http://www.wilderness.org.au/campaign>

The Wilderness Society. 1999h. *Kakadu - World Heritage in Danger? part 2*. Accessed 12/02/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/in_dang2/

The Wilderness Society. 1999i. *World Heritage Bureau meets to consider Kakadu*. Accessed 12/02/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/19990707_mr/

The Wilderness Society. 1999j. *World Heritage Committee capitulation on 'In Danger' Listing for Kakadu World Heritage Area*. Accessed 12/02/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/whcfails/>

The Wilderness Society. 2000a. *ERA General Meeting: Closing Down Jabiluka will Herald a New Era for the Company*. Accessed 12/02/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/20001019_mr/

The Wilderness Society. 2000b. *Rio Tinto Renews Threat to Kakadu*. Accessed 12/02/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/20010315_mr/

The Wilderness Society. 2001a. *The Campaign to save Kakadu takes a giant step forward*. Accessed 12/02/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/rio/>

The Wilderness Society. 2001b. *Protecting Kakadu - resolution from World Wilderness Congress, 2001*. Accessed 12/02/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/res_wwc/

The Wilderness Society. 2002. *No consent equals no mine at Jabiluka - 'full stop'*. Accessed 12/02/07. Available at: http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/20020904_mr/

The Wilderness Society. 2003. *The end of the Jabiluka Uranium Mine - campaign update*. Accessed 12/02/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/endjabiluk/>

The Wilderness Society. 2005. *Message to French government: "Keep out of Kakadu"*. Accessed 12/02/07. Available at: <http://www.wilderness.org.au/campaigns/northernaustralia/kakadu/kakadu/>

Tong Tana, December 1996. *Journal of the Bruno Manser Fonds. On the subjects of rain forests, Indigenous rights and timber trade*. Online 03/03/07. Available at: <http://www.bmf.ch/letters/news9612.html>

Uluru-Kata Tjuta Plan of Mangement: Uluru-Kata Tjuta Board of Management, Parks Australia 2000. Accessed 12/03/07. Available at:
http://www.environment.gov.au/parks/publications/pubs/uluru_plan_2000.pdf

United Nations Development Programme. Equator Prize Finalists 2002. Accessed 020/2/07. Available at:
http://www.undp.org/equatorinitiative/equatorprize/EquatorPrize2002/equator_prize2002.htm

United Nations. Economic and Social Council. 27 May 2003. Consultation and Training Workshop for Pygmy Communities on Human Rights, Development and Cultural Diversity in Cooperation with ILO and UNESCO, 11-15 November 2002. *Commission on Human Rights, Sub-Commission on the Promotion and Protection of Human Rights, Working Group on Indigenous Populations. Twenty-first session, Agenda item 6(c) of the provisional agenda.* Accessed 05/02/07. Available at:
<http://www.unhcr.ch/Huridocda/Huridoca.nsf/f247c38438f0ddcdc12569910037e669/dff2146c245d71fbc1256d6400432f4f?OpenDocument>

United Nations Educational, Scientific and Cultural Organisation (Africa Department). 2003. UNESCO in Africa: 2002-2003. (AFR-2003/WS/2). Accessed 09/02/07. Available at:
<http://unesdoc.unesco.org/images/0013/001319/131972e.pdf>

United Nations Educational, Scientific and Cultural Organisation World Heritage Committee, Report on the mission to Kakadu National Park, Australia, 26 October to 1 November 1998:
<http://www.biodiversity.environment.gov.au/kakadu/pdfs/inf18e.pdf>

United Nations Educational, Scientific and Cultural Organisation. Convention Concerning the Protection of the World Cultural and Natural Heritage. World Heritage Committee. Twenty-seventh session. Paris. 2003. WHC-03/27.COM/8C. Vankrunkelsven, Luc. 2003. *Access denied: the Brazilian land issue.* Leisa Magazine, September 2003. Accessed 2/2/07, available at
www.metafro.be/leisa/2003/193-15.pdf

United Nations Educational, Scientific and Cultural Organisation. IUCN Technical Evaluation for Lorentz National Park. Accessed 12/03/07. Available at:
http://whc.unesco.org/archive/advisory_body_evaluation/955.pdf

United Nations Educational, Scientific and Cultural Organisation World Heritage Committee. Report of the 28th session, 28 June-7th July 2004. WHC-04/28.COM/26. Accessed 12/02/07. Available at:
<http://whc.unesco.org/archive/2004/whc04-28com-26e.pdf#decision.15B.35>

Waite T D, Dudgeon C and Fell R, *Review of Jabiluka Mine Alternative Tailings Management Proposal*, Unisearch Ltd, 19 August 1998.

Wet Tropics Management Authority (2005), Wet Tropics of Queensland World Heritage Area Regional Agreement.

Wet Tropics Management Authority (WTMA) Website. Accessed 12/03/07. Available at:
http://www.wettropics.gov.au/rah/rah_regional.html

Wet Tropics Steering Committee: 1998. *The Review of Aboriginal Involvement in the Management of the Wet Tropics World Heritage Area.* Accessed 12/03/07. Available at:
http://www.wettropics.gov.au/rah/rah_pdf/REVIEW.pdf

Wet Tropics Aboriginal Plan Project Team. 2005, Caring for Country and Culture - The Wet Tropics Aboriginal Cultural and Natural Resource Management Plan. Rainforest CRC and FNQ NRM Ltd. Cairns. Accessed 12/03/07. Available at:
http://arc-inc.org.au/index.php?option=com_docman&task=doc_view&gid=3&Itemid=54

World Wildlife Fund. 2005. *Jengi is the Baka pygmy god of the forest.* Accessed 09/02/07. Available at:
http://www.panda.org/about_wwf/where_we_work/africa/where/cameroon/jengi_project/people/index.cfm

World Wildlife Fund (WWF). *Lorentz National Park, Indonesia: Glaciers and mangroves in Asia-Pacific's largest protected Area.* Accessed 16/03/07. Available at: http://www.panda.org/about_wwf/where_we_work/asia_pacific/our_solutions/new_guinea_forests/conservation_new_guinea_forests/sites_new_guinea_forests/lorentz_national_park_indonesia/index.cfm

World Wildlife Fund. 2001. *Community Based Conservation: Recognition of Rights and Roles of Adat Communities in the Management of Lorentz National Park. Final Project Status Brief 2001.* Accessed 12/03/07. Available at: <http://www.worldwildlife.org/bsp/kemala/wwfs.htm>

Further Information

Marine and Tropical Sciences Research Facility
PO Box 1762
CAIRNS QLD 4870

This document is available for download at <http://www.rrrc.org.au/publications>

Credits: Cover photos courtesy of *David Souter* and *Suzanne Long*.

