

**Monitoring, Evaluation, Reporting and Improvement (MERI)
Plan**

for

Marthakal Indigenous Protected Area

Stage 1 (Land Areas)

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1. Introduction

1.1 Purpose of the Marthakal IPA MERI Plan

This plan specifies monitoring, evaluation and reporting towards effective, adaptive management of the Marthakal Indigenous Protected Area (IPA) Stage 1 as part of the National Reserve System. Its intent is to provide monitoring methodology and metrics relevant to Caring for Our Country (CfOC) 5 year outcomes, consistent with the Caring for our Country MERI Strategy and adequate to the future revisions of the Marthakal IPA Stage 1 Plan of Management. It also aims to provide feed-back to the Yolŋu Traditional Owners so they may clearly assess progress of the IPA initiative towards their long-term goals and objectives.

In line with the Caring for our Country MERI Strategy this is a plan to implement monitoring and evaluation in key areas rather than the entire scope of the project. Key areas to be monitored were selected on the basis they were;

- a) Relevant to CoFC five year targets;
- b) Suitable to efficient standardised measurement;
- c) Representative of a defined Long-Term Outcome of the IPA;
- d) Culturally appropriate and within the capacity of Gumurr Marthakal Rangers to implement.

1.2 Context of the Marthakal IPA MERI Context

This plan is nested within:

- The Plan of Management for Stage 1 of the Marthakal IPA
- The NRM MERI framework
- The Caring for our Country Outcomes 2008-2013
- The MERI Strategy for Caring for our Country Strategy 2009-13

1.3 Plan Audience

Table 1: Key users for this MERI plan

| | |
|---|---|
| Primary users: who will reflect and adapt | IPA managers (Gumurr Marthakal Rangers, IPA Management Committee and IPA Steering Committee); to inform on-ground adaptive management of IPA values and future revision of the IPA Plan of Management |
| Secondary users: who need to be aware of this plan | Caring for Our Country reporting requirements DSEWPC in substantiating management effectiveness with respect to the National Reserve System. |

2. Scope

2.1 Project description

This is a project to effectively manage a large Indigenous Protected Area and investigate the inclusion of an extensive corresponding area of Indigenous customary Sea Country in a remote part of Northern Australia.

Adaptive management of this protected area is aimed at maintaining and where appropriate enhancing the significant natural and cultural values. It will also seek to ensure sustainable use of natural resources. This work is to be undertaken by Gumurr Marthakal Rangers, an indigenous, community-based land and sea management group with skilled staff and good working relationships with relevant government agencies including NRETAS, AQISNT, Australian Customs and NT Fisheries.

Marthakal IPA comprises half a million hectares of Aboriginal freehold land and intertidal waters in north east Arnhem Land. It is a landscape dominated by three continental island chains arcing northward from Elcho Island. Traditional Aboriginal owners of this land enjoy exclusive authority to manage it. This MERI Plan relates entirely to this tenure, and apart from a parallel goal of declaring adjoining Sea Country¹, focuses specifically on management of land areas.

Major threats to the natural and cultural values of this IPA include feral predators, contagious pathogens, weeds, fire, feral herbivores and other non-native wildlife including cane toads, ship rats and tramp ants. The prevalence and severity for these threats varies within the IPA and three management zones have been identified; mainland areas (zone 1), inner islands (zone 2), and outer islands (zone 3). Overall the most pressing threat is the spread of exotic pests and weeds to pristine outer islands where critically endangered vertebrates persist or have been translocated. Other significant threats include altered fire regimes, the continued (worldwide) decline of threatened marine turtles (in particular olive ridley and hawksbill turtles) and biosecurity concerns such as the introduction of foreign weeds, pests or diseases to Australia through a remote and vulnerable coastline.

Management activities prescribed for this IPA address a number key Caring for Our Country 5 year outcomes. This MERI plan seeks to establish appropriate metrics for the evaluation and improvement of management in relation to these outcomes. These must be meaningful to the indigenous managers and within their capabilities to measure and report as well as suitable to reporting under Department of Sustainability, Environment, Water, Population and Communities (DSEWPC) guidelines.

¹ As Australian law only recognises Indigenous customary rights and non-exclusive Native Title rights over marine areas, management of associated sea country can only be possible by effective means, as opposed to the singular authority provided by Commonwealth Land Rights. Management of Sea Country will therefore entail a separate MERI Plan; an appendix to the Marthakal IPA (Stage 2) Sea Country Plan.

2.2 Project methodology

This project aims to consolidate and support Gumurr Marthakal Rangers, an indigenous community-based initiative and implement a 5 year IPA plan of management comprising structured, adaptive biodiversity and cultural heritage management. In doing so it will also engender employment, training and economic development in a remote, disadvantaged region of northern Australia. As prescribed in the Marthakal IPA Stage 1 Plan of Management, these outcomes will be achieved via the following priority activities.

Capacity Building

Academic Research Support: Facilitate rangers' involvement in significant regional studies (two-way learning) through the development of guidelines for research partnerships within the IPA, and the identification and potential sponsorship of relevant research projects.

Homelands Environmental Health Project: Supporting healthy lifestyles and environs on homelands, providing advice on and assistance with environmental issues at outstations. Supporting homelands land and sea management activities including customary burning, hunting, harvests and ceremonials.

Community Extension & Volunteer Project: Interpreting and delivering messages about land and sea management and sustainable use of wildlife, engaging the community, traditional owners and homelands residents in relevant IPA management activities.

Land and Sea Management

Landscape-scale Ecological Monitoring; Developing GIS and Cyber-tracker skills to monitor and map spatial distribution of notable wildlife (including marine mammals & turtles, sea birds), feral pests, weeds, Customs & Fisheries incidents.

Island Ark Project; Annual monitoring of populations of threatened (and translocated) species including island populations the Golden Bandicoot *Isodon auratus* (EPBC listed Vulnerable) and the Northern Quoll *Dasyurus hallucatus* (EPBC listed Endangered). To be carried out in conjunction with NRETAS and includes assessment of other zone 3 islands locations for translocation conservation.

Island Biodiversity Surveys; In collaboration with NRETAS, undertake island and mainland surveys for rare, threatened or poorly known taxa. Results also provide an on-going assessment of the health of the IPA biome.

Ghostnet Monitoring and Retrieval Project: Under the umbrella of NALISMA's Saltwater People's Network, continue to monitor, retrieve and destroy abandoned trawling/fishing nets from beaches and reefs within the IPA.

Cultural Heritage

Traditional Ecological Knowledge Project: A broad-based project to use, document and improve inter-generational transfer of traditional ecological knowledge, skills, associated language and customary practices. To be implemented across a range of land and sea management activities and community development/educational initiatives.

Junior Rangers Program; A school and outstation-based environmental education project aimed at engaging future landowners and users in land care and cultural continuity.

Towards IPA Stage 2: Sea Country

Protecting Sea Country Project: To locate and register significant sea and estuarine scared sites (with AAPA), develop site protection strategy, document sea country TEK, and better define the boundary of the marine IPA.

Review Maritime Values of the Marthakal IPA: collate information on traditional associations, customary rights and resources, commercial interests and conservation priorities in Marthakal Sea Country.

Public Consultation Process: To produce, disseminate and elicit responses to, Gumurr Marthakal Rangers *Statement of Management Intent* (SMOI) from key marine stakeholders. This includes a stakeholder workshop on effecting sea country management strategies and public notification of marine IPA declaration.

Marthakal IPA (Stage 2): Preparation of a Sea Country Plan, including a marine MERI Plan covering methods, targets and metrics necessary for substantiating management by effective means of sea country within the Marthakal IPA.

2.3 Objectives, activities and intended outcomes of the Marthakal IPA PoM

Table 1. Summarised Objectives of the Marthakal Stage 1 IPA Plan of Management

| Key Management Area/ Objective | Priority Action | Intended outcome |
|--|---|---|
| Community & Culture | | |
| Support for livelihoods on homelands | Paid landowner participation in IPA projects | Improved integration of IPA & customary land management practices Income diversification in remote communities |
| Women Rangers Group | TEK project, Sea Country Knowledge Project | Greater engagement with landowners Improved IPA cultural programs |
| Improved environmental health conditions for homelands residents | Homelands Environmental Health activities | Improved capacity & conditions for homelands residents, generating |
| Enhanced inter-generational transfer of traditional knowledge & skills | Traditional ecological knowledge project | Increased use of, respect for and retention of TEK & customary practices |
| Improved community capacity to manage land & wildlife | Community land & wildlife education strategy | Greater landowner support for & engagement with Gumurr Rangers & IPA Management |
| | Junior Rangers Program | Increased youth interest, awareness & capacity for sustainable land use |
| Reduced impact of contemporary threats to customary resources | Work on homelands, landowner specified activities, i.e. support for traditional burning; pig or buffalo removal | Safer, healthier more productive homeland environments, more abundant customary resources |
| Rangers on Homelands | Permanent Ranger bases at Mäpuru and Rorruwuy | More efficient land management |
| | | Employment in homelands |
| IPA Governance | | |
| Timely, efficient, cost effective IPA management | Establish Steering Committee | External representation, increased accountability |
| | Negotiate Land Use Agreement for core IPA | Formalised role for Gumurr Ranger program, reduced workload for |

| | activities | IPAMC |
|--|--|--|
| Relevant, useful IPA management, entirely supported by Traditional Land Owners | Establish TAO representative IPA Management Committee Produce GMR/IPA newsletter for Management Committee & Community Support & engage community in IPA management activities | Indigenous control of IPA Informed decision making Improved understanding of IPA operations and value |
| Safe, stable & supportive workplace for all Gumurr Ranger staff | Review OH&S protocols with regard to IPA activities Establish Trust Fund & source non-government financial support | No workplace injuries; long retention, happy healthy staff Broader economic base & independent revenue for financial stability of Gumurr Ranger program |
| Greater GMR capacity to manage the IPA | Continue relevant, accredited training for Gumurr Rangers staff | Improved staff confidence, knowledge and skills |
| Maximized indigenous employment & ensure adequate recruitment to GMR/IPA | Review staffing requirements & recruitment strategies with regard to IPA PoM | Adequate rangers, best quality cadets |
| Strong advocacy for indigenous land/sea management in the context of the IPA | Establish Gumurr Rangers / IPA website | Sustained national & international support for indigenous Rangers and Marthakal IPA |
| Adequate Infrastructure & maintenance | Undertake infrastructure review for IPA Develop maintenance schedule | More efficient and safer workplace Increased capacity to fulfil IPA Priority Actions |
| Remote Ranger Base | Remote shelter/work-base at Martjinba | More efficient and safer work in most remotest section of IPA |
| Land & Wildlife | | |
| Wildlife Management | | |
| Halt spread of cats, cane toads, black rats, dogs to Zone 3 Islands especially those with threatened species | Research, develop & implement a standardised strategy for inter-island quarantine Research & develop a rapid-response strategy for cane toad, cat or dog outbreaks on islands supporting threatened species | Maintain conservation significance of remote islands Protect threatened native species |
| Reduce harvest of eggs or adult Hawksbill (garriwa) & Olive Ridley Turtles (mududhu) | Develop appropriate & effective community extension material | Ensure sustainable use of threatened customary resources |

| | | |
|--|--|---|
| | Undertake regular surveillance of breeding or nesting areas of vulnerable wildlife | |
| Identify target species, communities or habitats for specific management | Instigate collaborative surveys for species of conservation concern Where appropriate support translocation conservation of threatened species | |
| Maintain or enhance overall biodiversity within the IPA | Apply holistic adaptive conservation management | Healthy country, Healthy People |
| Apply best-practice methods to all wildlife management activities | Establish additional biodiversity monitoring sites (in zones 1 & 2) for long-term assessment of IPA management effectiveness Using standardised techniques, continue monitoring of threatened wildlife on outer islands | Increase overall health, productivity and amenity of natural environment Ensure effectiveness of IPA management Improve critical management activities |
| Fire Management | | |
| Reduce frequency & scale of late dry season fires | Community education program & resources Engage homelands in planned burning | Improved ecosystem health, increased productivity, less weeds, more bush tucker |
| Maintain of ecosystem function & productivity through apt fire use | Prepare a fire plan for IPA including management zone prescriptions & wildfire mitigation strategy Plan Zone 3 prescribed burning with NRETAS | Ensure support for customary burning, Where apt, assistance for burning on homelands Reduced impact of wildfire on fire prone ecosystems and in 'empty country' |
| Protect life, property & cultural sites from uncontrolled fire | Assist traditional owners with early-season & asset protection burning Review Gumurr Rangers fire safety procedures | Reduced impact of uncontrolled fire homelands infrastructure and risk to life |
| Investigate participation in emission trading initiatives | Engage with NIALMSA to develop role in Carbon project | Establish enterprise based on fire management |
| Weeds & Pests | | |
| Minimise spread of all weeds to islands; in particular Zone 3 | Develop & apply strategy for inter-island quarantine | Limit impact of weeds on conservation values of the IPA |

| | | |
|---|--|---|
| | Strategically treat known infestations for group 2 weeds in Zone 3 Liaise with municipal construction & development teams to ensure best practice Develop community extension material | Conserve biodiversity Maintain ecosystem health |
| Reduce impact of grassy weeds in Zones 2& 3 | Implement systemic control measures i.e. feral animal & wildfire control Manage invasive grasses on islands, in settlements & at cultural sites Assess future resource requirements for strategic weed control | Limit the impact of existing weeds on natural & cultural values of the IPA |
| Early detection & strategic control of WONS, ALEW & NT Declared weeds | Improve & use I-Tracker to record, map & monitor weeds On-going training in identification, reporting & control of serious environmental weeds | Guard against threat of potentially serious weeds |
| Restrict spread of specified exotic trees & shrubs | Control specified trees & shrubs in & around communities | Limit establishment of potential weed species |
| Sea Country | | |
| Include Sea Country in Marthakal IPA | Publish <i>Statement of Management Intent</i> for Marthakal Sea Country Convene workshop of key stakeholders in Marthakal Sea Country With NLC, undertake consultations with TAO Undertake public notification process for marine IPA Prepare Sea Country Plan of Management | Gain broad stakeholder support for declaration of marine extension to Marthakal IPA Establish management priority over Marthakal Sea Country Develop structured management plan for Marthakal Sea Country |
| Better establish Marine Rights | Sea Country knowledge project to record knowledge of marine sacred sites & AAPA register | Comprehensive record of traditional marine use & associated knowledge. Increased rights over marine areas with high cultural significance |
| Surveillance & Biosecurity | | |

| | | |
|---|---|--|
| Prevent trespass, illegal landings, irregular immigration through the IPA | Improve I-Tacker system for biosecurity & fisheries monitoring | Streamlined work load More accurate, standardised reporting |
| Prevent introduction of exotic plants, animals or disease through the IPA | Reduce the density of feral stock (buffalo, pig, horse & cattle) at key locations | Lower potential for transmission & spread of exotic diseases or weeds |
| Reinforce Indigenous roles & rights in Sea Country | Establish voluntary boating & fishing registration system | Better monitoring of marine activity in Marthakal Sea country, improved relationship with other stakeholders |
| Increased prosecutions for trespass, site desecration & fisheries infringements | Obtain legal powers of enforcement Training in biosecurity monitoring & reportage | Reduce incidence of trespass on Aboriginal lands Reduce incidence of illegal/unregulated fishing |
| Increased marine capabilities & operational safety for GMR | Increase number of Rangers holding Coxswain Certificates Prioritisation for ghost-net retrieval Small Boat Handlers training | Maximise safety of Gumurr Rangers marine operations Ensure ability to meet NT Fisheries & AQIS contracts Ensure best use of Ghost net retrieval capacity |
| Improved safety of all maritime travellers | Marine Safety training & increased facility for search & rescue | Increase Gumurr Rangers capacity for marine emergencies |
| Research & Partnerships | | |
| Increased interaction with non-indigenous experts in land and sea management | Lobby NLC to convene annual NE Arnhem Land IPA workshop & Advisory Group meeting Develop partnerships & joint projects with scientists, academics & experts in relevant fields | Regional solutions for regional issues, advances in knowledge & methods Support for adaptive management |
| Increased involvement in relevant research projects | Research project nomination & sponsorship | Broader staff exposure to contemporary knowledge & methods. New solutions to management issues |
| Greater coordination with neighbouring Ranger groups | Annual work plans for joint management with Yirralka Rangers Regular surveillance operations with Maringa Ocean Patrol | Working with Countrymen and Kin, realising <i>ringitj</i> responsibilities Observing cultural affiliations and responsibilities |
| Greater public awareness of Marthakal IPA & GMR | Gumurr Rangers/IPA Website, IPA plan of Management | Increased support, advocacy and understanding for indigenous land management and homelands living |

2.4 Caring for our Country targets and outcomes

Table 2. Table 2: Caring for our Country 5 year outcomes to which the Marthakal IPA will contribute

| Caring for our Country 2008-13 Outcomes | Funded Activity to be undertaken | Expected contribution of Marthakal IPA |
|---|---|--|
| Australia's National Reserve System | | |
| Expand the contribution of IPA to the NRS by at least 40% (8-16 million hectares) | Effective, on-going biodiversity conservation & cultural heritage management in Marthakal IPA | 450,000 ha of Aboriginal Land declared as IPA (c. 6% of target) Implementation of agreed (5 year) IPA PoM |
| Increase the proportion of NRS Protected Areas effectively implementing plans of management | Planning & development of IPA Stage 1 PoM, MERI Plan & Review of N& C Values | Accepted IPA Stage 1 PoM, MERI Plan & Review of N&C Values |
| | Project funding for on-going IPA management | Implementation of IPA PoM over 0.5 million ha. |
| Northern and Remote Australia | | |
| Protect important natural assets in northern and remote Australia, particularly NRS IPA | Structured environmental management including; Fire, weeds & feral animal monitoring & control, Threatened species management | Maintain Island Ark status of outer islands (56,335ha); manage fire, weeds & trespass on islands Regular monitoring/management of threatened (& translocated) species on key outer islands |
| Reduce the impact of invasive species in northern Australia, in particular, Cane Toads & Tramp Ants | Island quarantine project Tramp Ant control | Maintain Island Ark status of outer islands (56,335ha); guard against establishment of cane toads, cats, ship rats, dogs, pigs & significant weeds Control/containment of Fire Ant infestation on Elcho Is. |
| Expand traditional fire regimes in northern savanna, reduce wildfire, and facilitate Indigenous land managers' entry into | Fire management project Involvement with NAILSMA Carbon project | Prescribed burning on outer islands, support for customary burning on homelands |

| | | |
|--|--|--|
| emissions trading markets | | Review of opportunities for emissions trading |
| Community Skills, Knowledge and Engagement | | |
| Improve access to knowledge & skills for regional communities in managing natural resources sustainably and helping protect the environment | <p>Collaboration with key agencies</p> <p>Research partnerships & links to institutions</p> <p>Establishment of Advisory Group</p> | <p>Threatened Species Management on islands with NRETAS</p> <p>Better defined/integrated Research proposal development/sponsorship,</p> <p>Protocols for Partners</p> |
| Ensure the continued use, support, and reinvigoration of traditional ecological knowledge to underpin biodiversity conservation | <p>TEK project</p> <p>Sea Country planning project</p> <p>Community IPA planning, Cultural Review</p> | <p>Contemporary context for use & intergenerational transfer of traditional knowledge and skills</p> <p>Record of Sea Country knowledge & registration of marine cultural sites</p> <p>IPA Plan of Management based on traditional Abl. owner consultations, TEK & cultural perspectives</p> |
| Increase the engagement and participation of regional communities in activities to manage natural resources and protect the environment | <p>Ranger extension programs & interpretive media to enhance landowner engagement IPA management activities</p> <p>Stewardship project on homelands</p> <p>Yolŋu Community engagement in development & implementation of IPA PoM</p> | <p>Interpretation of contemporary land and sea management issues & methods to indigenous community of c. 1700</p> <p>Physical and or financial support for land and sea management activities on homelands</p> <p>Marthakal IPA is a significant partnership between Yolŋu traditional owners and DSEWPC</p> |
| Position regional NRM organisations to deliver best-practice landscape conservation & sustainable land use planning to communities and land managers | <p>Planning & development of <i>Marthakal Stage 1 IPA PoM + MERI plan</i></p> <p>Research & development of <i>Review of Natural & Cultural Values of Marthakal IPA</i></p> | <p>One regional IPA PoM for best-practice, adaptive biodiversity conservation over 0.5 million ha.</p> <p>Collated base-line data to enable effective adaptive conservation management in a large IPA</p> |

2.5 Key evaluation questions

A series of Key Evaluation Questions (KEQ) have been devised as part of the monitoring and evaluation framework for the Marthakal IPA. KEQ relate to performance indicators for objectives defined in the IPA Plan of Management.

KEQ also relate to national imperatives as relevant targets (5 Year Outcomes) of the CfOC program are incorporated into the Marthakal IPA Plan of Management.

KEQ are only defined for a small number of the objectives and target outcomes listed in the above tables (2.3, 2.4). It is important that MERI remains a practical, achievable activity within the scope of all IPA activities. For this reason KEQ have been chosen to provide a range of qualitative and quantitative results across all key management areas set out in Plan of Management. This monitoring should provide results adequate to the objective assessment of the Marthakal IPA initiative.

A research project is planned to improve MERI for the Marthakal IPA. This will aim to enhance monitoring, evaluation and feedback with respect to adaptive ecosystem management and socio-cultural outcomes.

3. Program Logic

Program logic was developed using two complimentary visions; that of Traditional Aboriginal Owners and that of Gumurr Marthakal Rangers (see Attachment 1.). The emphasis of this MERI plan falls principally to outcomes situated on this right-hand side of the hierarchy, where the Rangers' operational vision aligns with the broader goals of the CfOC initiative.

3.1 Assumptions within the logic and managing risk

The hierarchy at figure 1 and the rationale underpinning it rest on assumptions about how change will occur throughout the various levels of outcomes over time. The foremost of these assumptions are listed below. Risks associated with these assumptions are ranked on probability and gross effect. Key evidence support each assumption is provided as is an indication of whether the MERI plan will periodically test a particular assumption. No assumptions have been made where there is a medium to high probability of being false and a significant negative consequence for the project if wrong. Assumptions carrying medium risk are subject to regular testing via this MERI plan.

Table 3. Risk Management

| <i>Assumptions</i> | <i>Likelihood of assumption being wrong 1–5 (1 = rare, 5 = almost certain)</i> | <i>Consequences for longer-term outcomes if assumption is wrong 1–5 (1 = extreme, 5 = insignificant)</i> | <i>Key evidence to support this assumption</i> | <i>Assumption will be tested</i> |
|---|--|--|---|----------------------------------|
| Gumurr Rangers will continue to provide effective IPA management | 1 | 2 | Stable Aboriginal host organisation with long operational history, broad skills base & strong recruitment. GM Rangers are landowners | yes |
| Traditional Owners will continue to support the IPA | 2 | 1 | Long period of planning, strong landowner support, high level of understanding of IPA concept, landowner representative IPAMC & future LUA | yes |
| Government will continue to provide adequate financial support for effective IPA management | 2 | 2 | Considerable public investment to date, strong effective IPA PoM, multi year (3) secured funding | yes |
| Yolŋu Culture & TEK will remain strong & underpin IPA management | 1 | 2 | Extended living culture, inalienable land rights, IPA projects supporting TEK, language & cultural continuity | yes |
| Sea Country IPA declaration will be supported by wider marine stakeholder group | 2 | 3 | Sound argument for Gumurr Rangers mang'nt of adjacent waters + ²considerable existing rights over marine areas | yes |
| Native Title Rights over adjacent marine areas will eventually be recognized in Australian law | 3 | 2 | Strong claim to Sea Rights, many Registered Marine Sacred Sites, good advocacy & legal support via NLC | no |

² Following the Blue Mud Bay (appeal) decision 2009, these include an extension of (Cwth) Land Rights associated with Land Trust to cover inshore marine waters; inclusive of coastal waters down to the low tide mark, creeks and estuaries flowing over Aboriginal land.

4. Monitoring and Evaluation

Monitoring targets set out below provide both qualitative and quantitative measures of IPA management. They are designed to provide results necessary for evaluation of progress towards key objectives of the agreed IPA Plan of Management, and those of the overarching national Caring for Our Country strategy. Accordingly, monitoring is based on the Aspirational and Long-term Outcomes expressed in the Program Logic Hierarchy while key evaluation questions (KEQ) derive from the relevant Immediate or Intermediate Outputs underlying these Long-Term Outcomes; those forming activities within the Marthakal IPA Plan of Management.

All of the monitoring described here is to be undertaken by Gumurr Marthakal Rangers, as part of their role in implementing the agreed Plan of Management. The results monitoring will however be assessed by the IPA Management Committee and the IPA steering committee. It is also intended they be incorporated into reporting requirements for DSEWPC IPA funding agreements.

4.1 'Country like always; healthy, clean, too many animals, too much tucker, countrymen everywhere'

4.1.1 Are threats to environmental values of the IPA being effectively managed?

| KEQ | Indicator | Method | Metric | Review |
|---|---|---|--------------------------|--------|
| Has the incidence of grassy weeds in Zone 2 decreased, remained stable or, increased since last year? | 1. Density at monitored sites | 100m transect | % ground cover | Annual |
| | 2. Area of infestation(s) | No. of sites + Estimate of area (I-Tracker) | No. + Area (Hectares) | Annual |
| Has the monitored incidence of feral buffalo decreased, remained stable or, increased since last year? | Quantitative estimate of density at key sites | Head count at defined sites & times using binoculars. | No. of animals | Annual |
| Are feral buffalo still a significant problem for homelands residents on the mainland? | landowner responses | Collated landowner interviews | Y/N | Annual |
| Is the incidence of late dry-season fire greater or less than historic average? | MODIS fire history mapping | Visual estimate | Trend | Annual |

Assumptions

- Grassy weeds are a significant threat to the values of the IPA.
- Buffalo represent an increasing threat to natural and cultural values of the IPA.
- Landowner responses are not significantly influenced by the observer.
- The status of grassy weeds and feral buffalo within the IPA are useful surrogates of ecosystem health.

4.1.2 Is structured management effectively maintaining and or enhancing environmental values of the IPA?

| KEQ | Indicator | Method | Metric | Review |
|--|------------------------------|--|--------------------------------|------------|
| Have any new outbreaks of group 1 weeds occurred on islands in Zone 3? | Presence/absence | uniform monitoring, I-Tracker | No. | Annually |
| Have cane toads or black rats spread to any zone 3 islands? | Presence/absence | uniform monitoring, I-Tracker | No. | Annually |
| Are populations of Threatened Species on Zone 3 islands healthy? | Population & status estimate | capture-mark- recapture, physical attributes examination | Trend | Biennially |
| Have any further species of conservation concern been identified within the IPA? | Presence/absence | specific survey, opportunistic records | No. of taxa No. of loci | Annually |
| Are IPA activities helping to keep cultural knowledge & skills alive in our community? | IPAMC members' response | Qualitative question | Y/N + members' recommendations | Annual |

Assumptions

1. Island Quarantine protocols are established and respected by landowner's and other stakeholders.
2. Rangers are able to visit all major islands in each year.
3. Rangers are able to accurately assess the status of weeds and pests on zone 3 islands
4. NRETAS have resources and interest in collaborative monitoring of threatened species on Zone 3 islands.
5. NRETAS have resources and interest in collaborative biodiversity surveys within the IPA.
6. Fauna and flora of the IPA is not (scientifically) well known.

NB. Monitoring outlined above forms only part of the intended monitoring for adaptive management as recommended in the PoM.

4.2 Gumurr Rangers on top! Real jobs, safe work, respect and support for Yolŋu care of Yolŋu land

4.2.1 Has Gumurr Rangers' management capacity and operational safety increased as a result of establishing an IPA?

| KEQ | Indicator | Method | Metric | Review |
|---|---|--|---|-----------|
| What percentage of Gumurr Rangers work plans do PoM priority actions form? | Objectives being met or otherwise | Review work plans against PoM activity table | Trend (%) | 6 monthly |
| Have research proposals been identified & developed? | Offered research collaboration or sponsorship | Review records | No.& type | Annually |
| How many projects involved external partners? | Collaborative protect completion | Review records | No. & type | 6 monthly |
| Has Gumurr Ranger's skills-base grown? | Accredited training completion | Review records | Attainments & levels (i.e. Certificate III) | Annually |
| Are the workplace & work practices safe? | Days lost to workplace injury or illness? | Review Sick Leave records & Incident Reports | No. | 6 monthly |

Assumptions

1. PoM is appropriate and relevant to landowners, IPAMC and Gumurr Marthakal Rangers.
2. Research collaborations are conducted appropriately, providing valuable experience learning opportunities for Rangers.
3. Research collaborations are relevant to IPA management issues.
4. The frequency and severity of accidents is reduced through proper practice and appropriate equipment.

4.2.2 Are infrastructure and resources adequate to implement the agreed Plan of Management?

| KEQ | Indicator | Method | Metric | Review |
|--|---|--|--------|-----------|
| How many IPA Priority Actions have been completed to date? | Priority Actions done | Review activities against PoM | No. | 6 monthly |
| Are funding or equipment shortfalls impacting priority management activities? | IPA activities uncompleted or altered | Review Work-plan/budget | Trend | Annually |
| Are staffing shortfalls impacting IPA work plans? | IPA activities uncompleted | Review of work-plan/ staffing levels | Trend | Annually |
| Do safe, obtainable efficiencies in staffing or expenditure exist | IPA activities could occur more efficiently | Review work practices/budget/staffing levels (unexpended funds?) | Trend | 6 monthly |
| What percentage of Gumurr Ranger program funding is non-government (or fee-for-service)? | non-grant revenue | Financial audit | Trend | Annually |

Assumptions

1. Priority Actions within the PoM are achievable.
2. Adequate recruitment from (or to) this remote region is possible.
3. Adequate conservation of IPA values is achievable within the constraints of available government funding.
4. Accession of non-welfare, non-grant funding is a valid goal.

4.2.3 Has the IPA led to enhanced respect for and participation in Yolŋu land and sea management?

| KEQ | Indicator | Method | Metric | Review |
|---|--|--|-------------------------------|-----------|
| How often does the IPA Management Committee meet? | IPAMC meetings | review meeting minutes to ascertain a) quorum, b) effective extent of meeting | No. | Annually |
| How many Yolŋu landowners have assisted GM Rangers activities? | No. of volunteers | review records of volunteer participation in all management activities | No. | 6 monthly |
| Are 'stewardship' arrangements operating? | No. of participating homelands | audit funded homelands IPA activities; i.e. TEK, environmental health & biosecurity programs | \$ project(s) expenditure | 6 monthly |
| Is there broad stakeholder support for Sea Country declaration? | No. of assenting parties | assess via public SOMI meeting & future Marine IPA Steering Committee meetings | % (of key stakeholders total) | Annually |
| Is the Plan of Management a useful guide for Gumurr Rangers | Response of senior rangers & coordinator | Qualitative assessment | Y/N + recommendations | Annually |

Assumptions

1. Land owners and other homelands residents will voluntarily engage in IPA management activities.
2. IPA management activities either parallel or compliment customary practices.
3. Customary land management activities and associated TEK are fostered through sponsored Stewardship (payments to land owners for activities such as coastal surveillance, cultural site maintenance or prescribed burning).
4. Broad stakeholder support will assist declaration of Marthakal Sea Country IPA.

5. Review and Improvement

5.1 Reviewing the MERI plan

Marthakal IPA MERI plan will be reviewed annually. Results of monitoring and evaluation will be provided to DSEWPC as Part D of the project funding agreement. MERI results and recommendations for improvement or change will be provided annually to the IPA Management Committee. DSEWPC provide input to the review of the MERI plan via their role in the IPA Steering Committee. This review will consider the data, management strategies, processes and progress towards the projects' defined aspirational and long-term outcomes. Strong emphasis will be placed on the adaptive management approach for continuous improvement of the overall IPA project. A pro-forma for recording and presenting the results of monitoring is provided at Attachment 3.

5.2 The feedback cycle

As described above monitoring results will be collated and reviewed to provide both primary and secondary users with clear evidence of effective IPA management, or otherwise. Four streams of evaluation will proceed on the basis of these results.

1. Gumurr Marthakal Rangers will, with their Coordinator's guidance, undertake an annual evaluation of their operations. This review will produce internal recommendations with respect to **immediate outputs** and have effect through rescheduling work plans, adjusting operational procedures and methods.
2. Marthakal IPA Management Committee (IPAMC), comprising and representative of the Traditional Aboriginal Owners of the land, will at least annually be provided with the collated, interpreted MERI results for evaluation. On the basis of these results the IPAMC will make decisions on structural changes to the project, at the level of **intermediate** and **long-term outcomes**. As owners of the Land Trust the IPAMC also have the ability to alter certain project **fundamentals**. For instance, by instigating a formal Land Use Agreement providing Gumurr Rangers greater operational autonomy.
3. Marthakal IPA Steering Committee (IPASC) including senior Rangers, agency and partnership representatives will annually be provided with the relevant MERI results for evaluation. On the basis of these results the IPASC will make recommendation on operational and structural changes to the project, at the level of **intermediate outcomes** and **immediate outputs**. The Steering Committee is also responsible for coordinating a review and revision of the IPA Plan of Management within five years; a process that will be informed by MERI results.
4. It is intended that an Expert Advisory Group (IPAAG) be convened annually to review management efficacy and offer guidance on best-practice. MERI plan results will inform this group of general progress towards **long-term outcomes**. In conjunction with other relevant data on specific issues MERI plan results will also assist this group in providing recommendations for operational improvements at the level of **immediate outputs**.

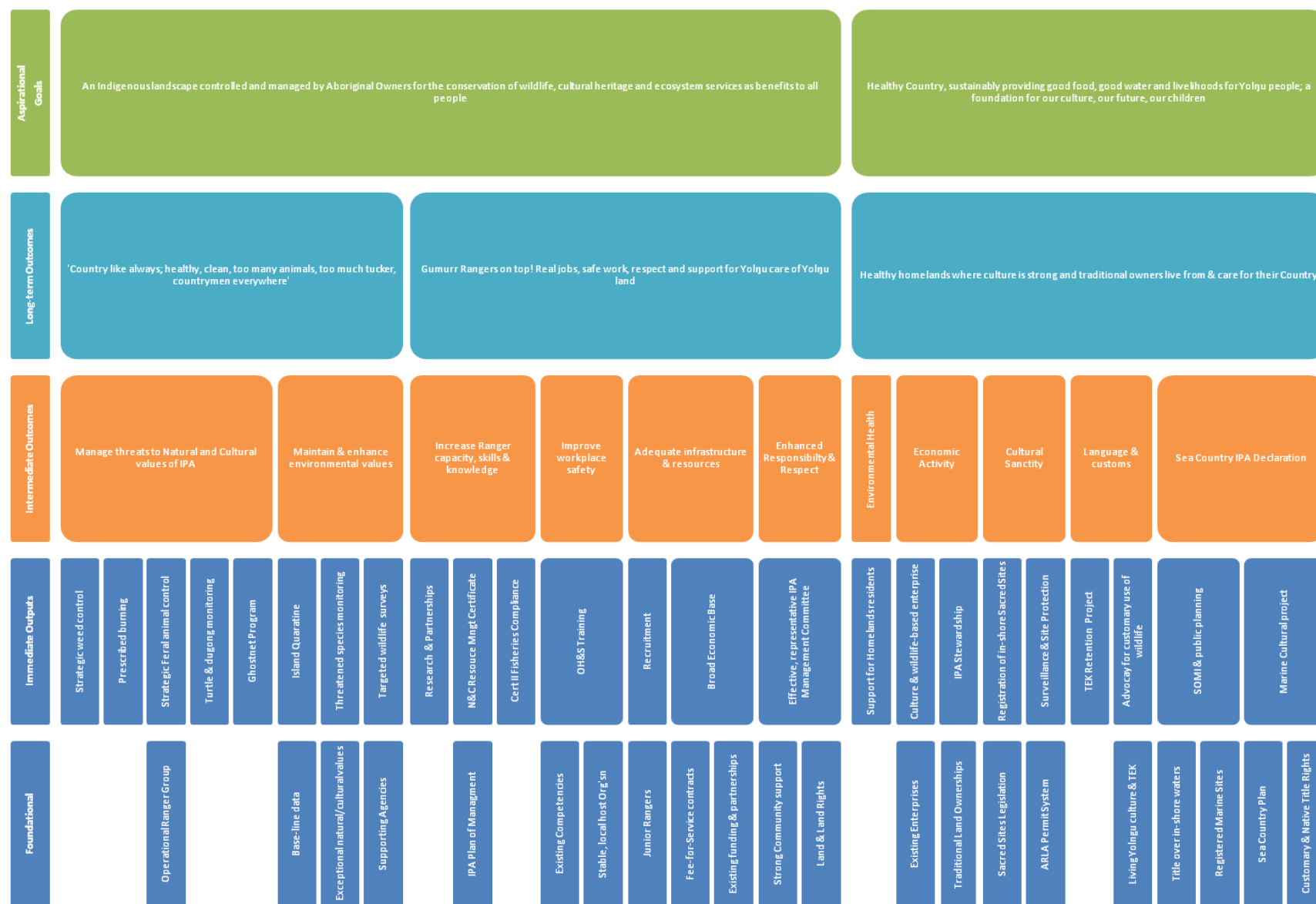
In all three of these streams adjustments to management will, where shown to be successful, be incorporated into the 2nd Plan of Management for the Marthakal IPA. The 2nd Marthakal IPA PoM will include a revised MERI plan reflecting the evolution of this project. This may extend to changes in land owners' expectations and goals or simply a gradual shift in project emphasis as initial objectives are realised.

5.4 Reporting

Table 4. Reporting requirements for the Marthakal IPA (mandatory and otherwise)

| Type of report | Requirements | Recipient | Timeframe |
|---|---|---------------|---|
| MANDATORY CARING FOR OUR COUNTRY REPORTS | | | |
| Interim progress report | <ul style="list-style-type: none"> Results to date against targets using Caring for our Country reporting template Summary of expenses For the period July to 30 November of each year that the project is funded | DSEWPC | <ul style="list-style-type: none"> Within 60 days of the 30 November for each year of the project |
| Annual progress report | <ul style="list-style-type: none"> Results to date against targets using Caring for our Country reporting template For the period December to 30 June of each year that the project is funded Financial year funding acquittal for period July to June for each year that the project is funded | DSEWPC | <ul style="list-style-type: none"> Within 60 days of the 30 June each year of the project |
| Final project performance report | <ul style="list-style-type: none"> Final compilation and assessment of all the Project data/results (May include information from mid-year reports, annual reports, and other research reports) Summative conclusion on achievements biophysical and /or social, cultural economic or environmental change that has occurred. Final project financial acquittal for the whole of the projects life | DSEWPC | <ul style="list-style-type: none"> Within 60 days of the specified completion date for the project |
| Milestone report | <ul style="list-style-type: none"> Mandatory report specified against a milestone | DSEWPC | <ul style="list-style-type: none"> As specified in Deed of Agreement |
| OTHER REPORTS | | | |
| IPA Management report | <ul style="list-style-type: none"> Non-mandatory report informing IPA Committee members of the project expenditure, activities & outcomes | IPAMC & IPASC | <ul style="list-style-type: none"> twice yearly Annual |
| Operational Report | <ul style="list-style-type: none"> Non-mandatory public report on IPA N&C resource management activities, outcomes & adaptive measures | IPAAG | <ul style="list-style-type: none"> Annual |

Attachment 1. Program logic for the Marthakal IPA



Attachment 2. MERI Monitoring Guide

| Item | Metric | Details | * Facility | Review period |
|---|--------------------------------|--|------------|---------------|
| Incidence of grassy weeds, Inner Islands? | % (ground cover) | During growing season, at worst infestations (and those being treated), establish one or more 100m transects through the infestation. Walk (100 large steps) the transect scoring each step for <i>open ground</i> , <i>weed species</i> or <i>non-weeds</i> to obtain a % score for each of these 3 categories .i.e. 50%, 30%, 20%. Repeat at set transects, at same time each year. | IT SS | Annual |
| | No. (of loci) | Record all known major infestations and estimate the area of each in hectares | IT | Annual |
| | Area (ha.) | | | |
| Incidence of feral buffalo on mainland? | No. (head/site) | Establish 2 or more suitable observation points or road transects spaced no less than 5km apart. Chose a time & season to maximise number of animals present (i.e. within 1 hour of sunrise or sunset) count the number of buffalo seen. Repeat at the same time, season and sites. Timed transect counts may be driven, 1hour at approx. 35km/hour, repeat up to daily. Divide head count by No. of surveys completed to get average. | IT | Annual |
| Impact of feral buffalo on homelands? | Yes/No | Interview senior residents at effected mainland homelands. Q.1. Are <i>detun</i> a problem on your homelands? Q.2. Would you like to see less <i>detun</i> on your homelands? | SQ RR | Annual |
| Incidence of late dry-season fire? | % (trend) | With assistance from NT Bushfires, establish the area of the IPA burnt between October and December each year and the % deviation from historic (MODIS) average. | RR | Annual |
| Grassy weeds on outer islands? | No. (species) No. (islands) | Routinely monitor for serious grassy weeds (group 1) on outer islands (zone 3). GPS all outbreaks, record species, estimate area. Report species/island. | IT | Annual |
| Have cane toads | Presence/ Absence | Undertake annual toad checks, 'listen and look' searches at freshwater after dark. Alternatively, check for | IT | Annual |

| | | | | |
|---|-------------------------------------|---|-------------------------------------|---------|
| or black rats spread to any zone 3 islands? | | tracks at suitable sites during day. Trap for rats using baited Elliot traps, (overnight). Potentially - use wax sentinel blocks to indicate presence of black rats on islands via distinctive teeth marks. | RR | |
| Threatened Species population health? | Trend (Pop' size) Trend (Health) | With support from NRETAS, undertake capture-mark-recapture (to establish population size), and examination of physical attributes (to establish population health) at key islands. | IT SS RR | 2 year |
| Locate rare, threatened or poorly know wildlife. | No. (of spp.) No. (of loci) | With support from NRETAS, undertake targeted surveys for species of conservation concern. Also record (location, ID, date, distinguishing features if not collected) all opportunistic records for species of conservation concern (see PoM for list). | IT EX RR | Annual |
| Is the IPA supporting TEK? | Yes / No Annotated | Include this question annually in the IPAMC agenda and record recommendations given. <i>Q. Are IPA activities helping to keep cultural knowledge & skills alive in our community?</i> | SQ RR | Annual |
| PoM Actions versus Rangers work plans? | % (trend) | Review Gumurr Rangers annual or biennial work plan against the Biodiversity and Cultural Heritage Management Summary in the PoM (7.4). Establish what percentage of the actions is being undertaken. | RR | 6 month |
| Identified / developed research proposals? | No. Type | Establish the number of research proposals offered, collaborated in or otherwise supported by Gumurr Rangers | RR | Annual |
| Projects with external partners? | No. Type | Record the number and nature of projects in collaboration with external parties (i.e. NRETAS) | RR | 6 month |
| Gumurr Ranger's skills-base? | No. Type | Collate training accreditation (attainments & levels), for all Rangers for whole year | RR | Annual |

| | | | | |
|--|--|--|------------------------|-----------|
| Workplace Safety? | No. (days) No. (days on WC) | Review Sick Leave & Incident Reports records to establish; a) days lost to sick leave, b) days claimed under workers compensation (as a surrogate of injury seriousness), for all Rangers for whole year. | RR | 6 month |
| No. of Priority Actions completed | No. (cumulative) | Review completed work plans against all PoM Priority Actions (summary at MERI Table. 3) NB. Attempt to complete actions in all Key Mngt' Areas and all Mngt' Zones | RR | 6 month |
| Adequate funding, equipment & maintenance? | Yes / No, annotated No. | Review maintenance schedule. Q. Is maintenance regular, adequate? Review budgeted work plan. Q. Are there significant unfunded activities? Q. Is replacement or specific equipment required? Establish number of Priority Management Activities uncompleted or altered due to funding shortfalls. | SQ RR | Annual |
| Are staffing shortfalls impacting IPA work plans? | No. | Review of staffing levels against Annual Workplan, estimate the number of Priority Management Activities uncompleted or altered due to funding shortfalls. | RR | Annual |
| Potential savings; staffing or operational expenditure? | Amount (\$) Annotate | 1. Report unexpanded grant funds, identify line item. If activity was satisfactorily completed, account for budget overestimate. 2. Objectively report any areas of where obtainable efficiencies may be made | FR RR | 6 monthly |
| Percentage independent revenue? | Financial audit | At annual audit establish the % of overall Gumurr Ranger program funding that is non-grant funding, i.e. independent, non-welfare income, e.g. contract fee-for-service payments | FR | Annual |
| Successful IPA Management Committee meetings | No. (attendees) Yes/No (quorum) No. (actions done) | Review meeting minutes of IPAMC meeting for number of attending members & check for legitimate quorum Review actions implemented from the previous IPAMC meeting | RR | |
| Landowner participation in IPA activities | No. | Maintain and review records of landowner (unpaid) participation in Gumurr Rangers IPA activities | RR | |

| | | | | |
|---|-----------------------------|---|------------------------|---------|
| Stewardship engagement in IPA activities | No. Type. \$. | Maintain records of participation, payments and outcomes for stewardship work in homelands Audit & review against IPA funded activity categories for homelands | RR | Annual |
| Is IPA PoM a useful guide for GMR? | Yes/No. + Recommendation | Qualitative question. Answered, after discussion, by Senior Ranger and Coordinator Also record recommendations for review/revision | SQ RR | 6 month |
| External support for Marine IPA | No. | Review public Stakeholder Meeting, record number of assenting parties If Marine IPA established, review No. of stakeholders attending annual IPA Steering Committee meetings | RR | Annual |

***Facility refers to the tools required to complete the monitoring.**

IT – I-Tracker sequence (existing or required)

FR – Financial Review or Audit

SQ – standardised questionnaire

SS – established medium to long-term monitoring site

RR – Review of records (a spreadsheet is required)

EX – Required External Agency support

Attachment 3. MERI Report

Project: *Marthakal Indigenous Protected Area*

Period: *2011 -2016*

Project ID #:

Manage Threats to Environmental Values

| Indicator | Measurement Metric | Result | Comments |
|--|-------------------------------------|--------|----------|
| Density of grassy weed species at monitored sites in Zone 2 | % ground cover | | Trend: |
| Area of infestation(s) of grassy weed species in Zone 2 | No. of sites | | Trend: |
| Area of major infestation(s) of grassy weed species in Zone 2 | Hectares | | Trend: |
| Density of feral buffalo at key mainland sites | No. /No. of survey sites | | Trend: |
| Impact of feral buffalo on homeland areas | % of positive respondents | | |
| Incidence of late dry-season fire | % divergence from historic average? | | Trend: |

Maintain and Enhance Environmental Values

| Indicator | Measurement Metric | Result | Comments |
|---|--|--------|----------|
| Incidence of Group 1 weeds on Zone 3 islands | No. of new infestations No. weed spp./No. of islands No. of infested Islands/number of islands surveyed) | | Trend: |

| | | | |
|---|--|--|---------------------------------------|
| Incidence of cane toads on Zone 3 islands | No. (of islands) | | Total No. of Zone 3 islands surveyed? |
| Incidence of black rats on Zone 3 islands | No. (of islands) | | Total No. of Zone 3 islands surveyed? |
| Population sizes of Island Ark species | No. (per species, per island) | | Trend: |
| Population health of Island Ark species | Rank (observed health 1-10, per species) | | Aggregate Trend: |
| New IPA records for rare or threatened species | No. of spp. No. of spp. /No. of loci | | |
| IPA role in keeping TEK alive in community | Recommendation Y/N? | | Yes No |

Gumurr Rangers: Increase Capacity, Improve Safety

| Indicator | Method of Measurement | Result | Comments |
|---|------------------------------------|--------|----------|
| Coincidence of Gumurr Rangers activities with PoM Objectives | % of PoM objectives addressed | | Trend: |
| Identified & developed research proposals | No. of research opportunities | | Trend: |
| Projects with external partners | No. of collaborative projects/year | | Trend: |
| Extent of Gumurr Rangers skills-base | No. of attainments/level | | Trend: |
| Days lost to workplace injury or illness | No. | | Trend: |
| Days claimed via Workers Compensation | No. | | |

Ensure Adequate Infrastructure and Resources

| Indicator | Method of Measurement | Result | Comments |
|--|-------------------------------|--------|------------|
| No. of IPA Priority Actions completed | Review activities against PoM | | Trend: |
| No. of IPA activities impacted by funding or equipment shortfalls | Review work-plan/budget | | Trend: |
| No. of uncompleted IPA activities due to staff shortages | No. | | Trend: |
| Opportunity for gains in efficiency | Aggregate unspent grant funds | \$ | |
| No. of areas where gains in efficiency may be made | \$ (per budget item) | \$ | Line item: |
| Extent of Commercial (non-grant, non-welfare) revenue | % of overall budget | | Trend: |

Enhanced Community responsibility, engagement and respect

| Indicator | Method of Measurement | Result | Comments |
|---|----------------------------|----------|----------|
| Success of IPA Management Committee meetings | Number of attendees | Yes / No | |
| | Meeting Quorum | Yes / No | |
| Success of IPA Management Committee Governance | No. of Actions implemented | | |

| | | | |
|--|---|--|-----------------|
| Unpaid landowner engagement in IPA project activities | No. of Yolngu volunteers | | Trend: |
| Engagement in IPA Stewardship activities | No. of payees | | Trend: |
| Scope of IPA Stewardship activities | \$ expenditure/ Activity Fire Weeds Feral Animals Survey /Surveillance Cultural/Enterprise | | |
| Is PoM a useful guide for Gumurr Rangers? | Yes/ No Constructive Response | | Recommendation: |
| External stakeholder support for Sea Country IPA | No. (of assenting parties) | | Trend: |