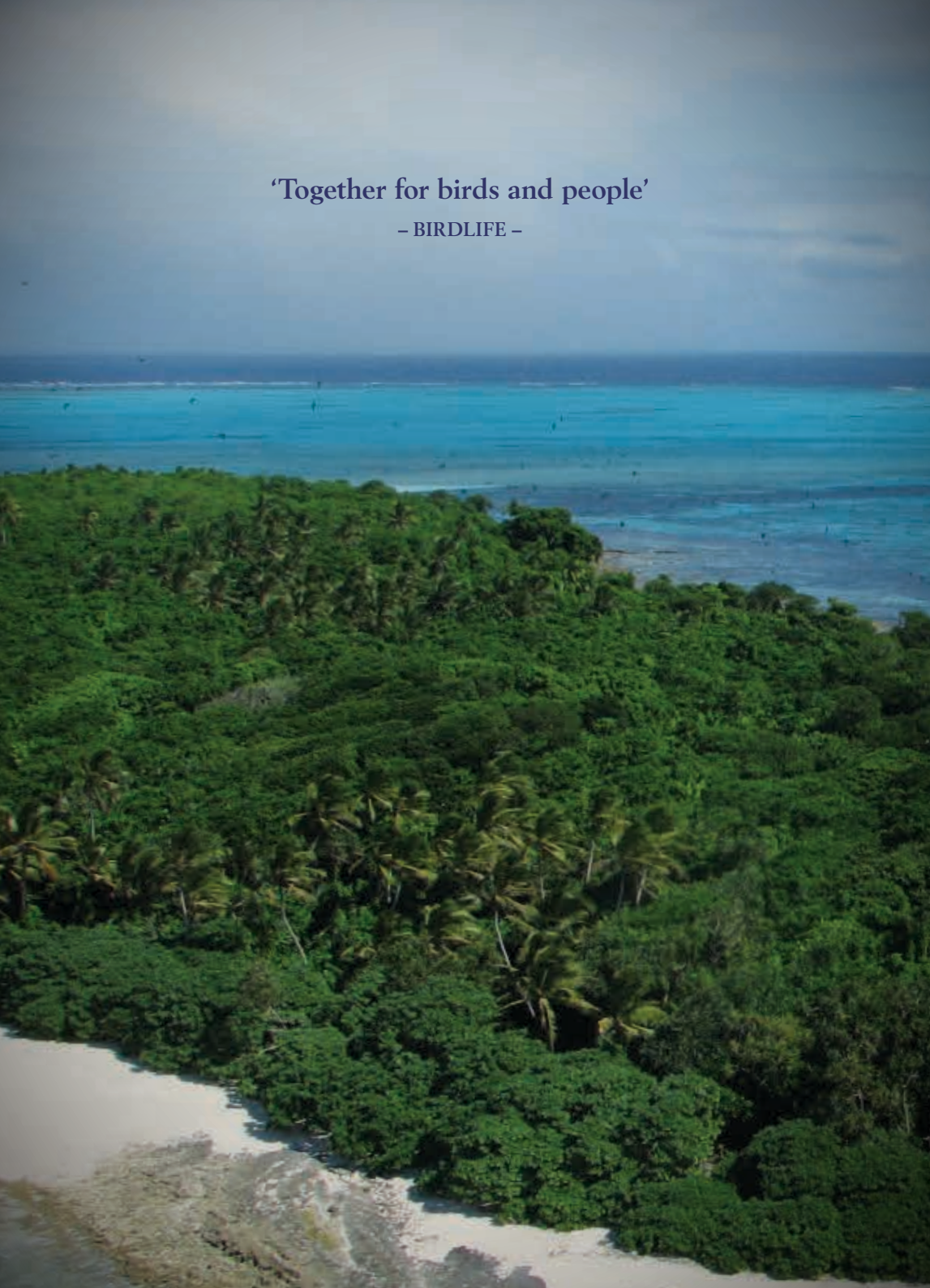
A Guide to

MONITORING IMPORTANT BIRD AREAS IN FIJI

TUVEREA TUAMOTO
in collaboration with
MILIANA RAVUSO and **MARK O'BRIEN**



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Sponsored by

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Cover photograph: The Forests of Monasavu within the Rairaimatuku Highlands IBA FJ08 is a large area of montane forest that supports threatened and endemic species from Viti Levu including the Black–faced Shrikebill, Friendly Ground-Dove, and Pink-billed Parrotfinch. The critically endangered Red-throated Lorikeet may survive here in small numbers. Photograph by Vilikesa Masibalavu.

Foreword

The identification of the first tranche of Fiji's Important Bird Areas (IBAs) was completed in 2005. This project was the key component in establishing and identifying sites of global importance for bird conservation in the country. With ever-increasing threats to birds and other native wildlife from logging, alien invasive species and agricultural encroachment, these IBAs, special places for birds, biodiversity and people, require monitoring to assess the levels of change of bird populations and habitats and any actions needed to conserve these most important places. At present, little information has been gathered to assess the condition of each site.

Though other countries have begun or completed the first stages of monitoring for their IBAs, developing a monitoring framework for Fiji's IBAs is new, and also the first for the Region. This report provides a framework to assess the **state** of Fiji's IBAs, **threats** that may affect them, and any **conservation actions** being undertaken to protect these IBAs.

Birds are a good indicator of a healthy ecosystem; monitoring of IBAs will assist in shaping future conservation efforts and help to target resources where they are most effective to preserve Fiji's birds and biodiversity for the future.

Don Stewart

Regional Director

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1 Executive Summary

Fourteen Important Bird Areas (IBAs) were identified in Fiji, covering about 17 percent of the country's land area and about 40 percent of its remaining natural forest as the first stage in assessing the priority sites in the country. These sites have met the global criteria for identification as IBAs. Site identification was based on three years of research, fieldwork and data analysis, was completed in 2005 and culminated in the publication of *Important Bird Areas in Fiji* (Masibalavu & Dutson 2006). The objective of the work was to guide priorities for long-term sustainable management of these sites for the benefit of birds, biodiversity and people. A further five sites, mostly focused on marine species, have since been proposed.

IBAs are promoted globally by the BirdLife International Partnership as conservation priorities for birds and other biodiversity. Although not a statutory designation, IBAs are a means of focusing local and national support for site-based conservation. The BirdLife Partnership has developed a number of tools to support national stakeholders including Partners, NGOs, Government agencies and communities to manage and share information on Important Bird Areas including developing networks of Site Support Groups and designing a Monitoring Framework.

Fiji's IBAs face many and diverse threats: 11 of the 14 sites are on larger islands and face threats of poorly planned and implemented logging, clearance for agriculture, fire and the long-term impact of invasive alien species (IAS). Whilst many of the threats are broadly known, few are described or documented in detail and this is why monitoring forms a central part of any IBA conservation strategy. Monitoring will act as an early warning system to growing problems, assess the effectiveness of conservation measures and because it is standardised globally, provides credible information for national reporting to the CBD and for advocacy purposes.

These guidelines (adapted from the *Global Framework BirdLife International* (2006)) present a framework to monitor and assess the status of Fiji's IBAs. This model will be used to assess and evaluate current and future changes in condition, threats and

conservation actions. The framework has the potential to be used as a standard set of guidelines for monitoring IBAs in the Pacific Region.

2 Introduction

2.1 Threatened birds of Fiji

According to IUCN Red List criteria, there are 12 species of bird found in Fiji under threat of global extinction. All these species except Bristle-thighed Curlew (non breeder) and Polynesian Storm Petrel (no known currently-occupied breeding sites) are covered by Fiji's IBAs. Eight are endemic to Fiji; a ninth, the Friendly Ground Dove, is a restricted-range species.

Table 1: Threatened birds in Fiji (IUCN 2011)

Species	IUCN listing
Red-throated Lorikeet (*Charmosyna amabilis*)	Critically Endangered (CR)
Fiji Petrel (*Pseudobulweria macgillivrayi*)	Critically Endangered (CR)
Long-legged Warbler (*Trichocichla rufa*)	Endangered (EN)
Pink-billed Parrotfinch (*Erythrura kleinschmidti*)	Vulnerable (VU)
Friendly Ground Dove (*Gallicolumba stairii*)	Vulnerable (VU)
Kadavu-Shining Parrot (*Prosopeia splendens*)	Vulnerable (VU)
Ogea Monarch (*Mayrornis versicolor*)	Vulnerable (VU)
Black-faced Shrikebill (*Clytorhynchus nigrogularis*)	Vulnerable (VU)
Rotuman Myzomela (*Myzomela chermesina*)	Vulnerable (VU)
Bristle-thighed Curlew (*Numenius tahitiensis*)	Vulnerable (VU)
Polynesian Storm Petrel (*Nesofregetta fuliginosa*)	Vulnerable (VU)
Collared Petrel (*Pteredroma brevipes*)	Vulnerable (VU)

2.2 Fiji's Important Bird Areas

IBAs are internationally recognised sites critical for the conservation of birds and other biodiversity. IBAs are identified using a standard set of four global selection criteria and sites must meet or exceed one or more of these criteria to qualify.

Table 2: IBA categories and criteria

Category	Criteria	Notes
A1. Globally threatened species	The site is known or thought to hold significant numbers of a globally threatened bird species (in Fiji, 17 species meet the IUCN Red List criteria).	The site qualifies if it is known (or thought) to support a bird species categorised as Critically Endangered or Endangered ('regular presence') or as Vulnerable (more than 10 pairs or 30 individuals). A site can qualify based on Near Threatened or Data Deficient species if these are not adequately represented elsewhere.
A2. Restricted-range species	The site is known or thought to hold a significant component of the restricted-range bird species comprising the Fiji or Rotuma Endemic Bird Areas (in Fiji, 36 species have restricted geographical ranges of <50,000 km^2).	The site qualifies if it forms one of a set selected to ensure that all restricted-range bird species are present in significant numbers within at least three sites. Any site holding >5% of the population of any restricted-range species, or greatly adding to its geographic spread, is more likely to qualify.
A3. Biome-restricted assemblages	The site is known or thought to hold a significant component of the group of bird species whose distributions are largely or wholly confined to one biome.	Not applicable to Fiji or the Pacific Islands.
A4. Congregations	(i) The site is known or thought to hold: ≥1% of a biogeographic population of a congregatory waterbird species, on a regular basis or	This applies to waterbird species as defined by Wetlands International for the Ramsar Convention (to which Fiji is a signatory) and listed in the book *Waterbird Population Estimates*. Biogeographic populations are defined for each species and population sizes are estimated.
	(ii) ≥1% of the global population of a congregatory seabird (or terrestrial species), on a regular basis or	This applies to those seabird species not covered in *Waterbird Population Estimates*. Global populations are estimated.
	(iii) a total of ≥20,000 waterbirds or ≥10,000 pairs of seabirds, on a regular basis or	This is based upon one of the criteria used to identify wetlands of international importance under the Ramsar Convention.
	(iv) threshold numbers set for migratory species at bottleneck sites.	Not applicable to Fiji or the Pacific Islands.

The 14 IBAs include parts of the largest remaining areas of natural forests on the four main islands of Viti Levu, Vanua Levu, Taveuni and Kadavu. Three IBAs are on the small islands of Gau, Rotuma and Ogea, which each contain globally threatened bird species. Vatu-i-ra is the only IBA from the original selection that supports seabird breeding colonies. Of the 14 IBAs designated, 11 are mostly forested, one is a seabird island and two are small islands with mixed vegetation. A further five candidate IBAs have been identified on the basis of seabird populations (BirdLife International 2008; O'Brien and Waugh 2010). These are not formally included in the list of IBAs to date, although current seabird numbers justify their inclusion, and they still require stakeholder confirmation.

Table 3: Summary of Fiji's IBAs and their key bird species

IBA Code	Name of Site	Area (km^2)	Key Bird Species	Protection Status	Key Existing Threats
FJ01	Rotuma	42	• Rotuman Myzomela	Unprotected. Site of National Significance	Agriculture
FJ02	Wailevu/ Dreketi Highlands	720	• Long-legged Warbler	Unprotected (except the Waisali Forest Amenity Reserve <1%)	Logging and mahogany plantations
FJ03	Natewa/ Tunuloa Peninsula	180	• Silktail	Community-managed Protected. Area (c 37% of the IBA)	Logging and mahogany plantations
FJ04	Taveuni Highlands	290	• Silktail • Tahiti Petrel	Nature reserve, Forest Reserve and National Heritage Park (c 50%)	Agriculture and logging
FJ05	Vatu-i-ra	0.02	• Black Noddy	Unprotected. Site of National Significance	Hunting

FJ06	Koroyanitu/ Vaturu	170	• Friendly Ground-Dove	National Heritage Park and water catchment	Logging and agriculture
FJ07	Tomaniivi	180	• Red-throated Lorikeet • Long-legged Warbler	Nature Reserve and Forest Reserve (c 15%)	Rats, logging and agriculture
FJ08	Rairaimatuku Highlands	290	• Long-legged Warbler • Pink-billed Parrotfinch	Unprotected. Site of National Significance	Rats, logging and Agriculture
FJ09	Sovi basin	410	• Long-legged Warbler • Pink-billed Parrotfinch	Community managed protected area	Rats and Logging
FJ10	Viti Levu Southern Highlands	690	• Long-legged Warbler • Pink-billed Parrotfinch	Garrick Reserve, Savura water catchment (<2%). Upper Navua Gorge is a Ramsar site	Rats, logging and agriculture
FJ11	Gau Highlands	52	• Fiji Petrel • Collared Petrel	Unprotected	Rats, cats
FJ12	Nabukelevu	29	• Kadavu-Shining Parrot • Whistling Dove • Kadavu Fantail	Community-managed Protected Area (c 50% of the IBA)	Agriculture, rats and cats
FJ13	East Kadavu	78	• Friendly Ground-Dove • Kadavu-Shining Parrot • Whistling Dove • Kadavu Fantail	Unprotected	Agriculture and fire
FJ14	Ogea	28	• Ogea Monarch	Unprotected	Unknown

(Source: Birdlife International 2006)

Figure 1: Location of Fiji's 14 IBAs (Source: BirdLife International, 2006).

With Important Bird Areas in Fiji now identified and recognised, it is important to move to the next stages of the process which involves action, conservation advocacy and monitoring, to enable the full protection and safeguard of these species and the sites upon which they depend in perpetuity.

2.3 Monitoring of IBAs globally

The BirdLife International IBA Programme began in Europe in 1981, has since become global and is aimed at identifying, monitoring and protecting a network of critical sites for the world's birds. The early stages of the IBA programme involved identifying and documenting sites, with later work including the monitoring and safeguarding of these areas (BirdLife, 2007).

Monitoring is a fundamental and essential component to the IBA process. It is required to assess both the effectiveness of conservation measures and to provide an early warning of problems that may occur at any particular site. Monitoring of IBAs is part of a broader monitoring strategy implemented by BirdLife International Partners which includes monitoring globally threatened birds, and detecting habitat-

level changes for common bird species.

The Global IBA Monitoring Framework, developed with the input of many BirdLife Partners, addresses the:

- **State**, or current condition of the site in terms of its ecological values
- **Pressures**, or threats that a site may face
- **Response**: what conservation actions are in place or are needed, to respond to the pressures and improve or maintain the state.

These guidelines provide a standard method to assess the overall condition of IBAs. They are designed to provide a framework that is sufficiently flexible to be applied to any country by any proponents, and collect variable qualitative or quantitative data, ranging from detailed scientific assessments to verbal reports from landowning communities. This can be collated and analysed to provide comparable results. The framework gives guidelines on the scoring system and outlines the principles for designing and implementing a sustainable monitoring process.

A two-tier approach is advocated:

1. Basic level applied to all IBAs if possible, requiring qualitative data collected on-site by Site Support Groups (SSGs), villagers, researchers and other volunteers.
2. Detailed monitoring including scientific information on bird populations is generally only likely to be feasible at a small subset of priority sites.

The methods set out in the Global Monitoring Framework allow information about status of IBAs to be compared across different geographic regions. Data is contributed directly to the Conference of Parties of the Convention on Biological Diversity (CBD) and the World Bird Database (WBDB).

2.4 IBA monitoring in Fiji

Fiji's IBAs are critical for conserving the nation's globally important avifauna and all IBAs represent biodiversity priorities. Up-to-date information on what is happening within these special sites is essential to provide informed decisions on their future conservation. Monitoring can show effectiveness of conservation effort at sites and demonstrate whether conservation measures are being successful. It can also help detect problems at an early stage, enable conservation action to take place before it is too late and can provide credible evidence for decision-makers and donors. Sharing

data from monitoring with communities to promote conservation at both local and national levels is vital for Fiji's wildlife.

A monitoring programme may allow more on-site data for other species to be collected from each IBA. Establishing monitoring programmes will provide justification for the formation of Site Support Groups (SSG) at each IBA and will help develop and build the capacity of existing SSGs. Monitoring will record the impact of, and any increase in, logging, agricultural encroachment and development on to IBAs in Fiji. In some circumstances it may facilitate the revision of IBAs, particularly boundaries and status, and will produce relevant data to justify making changes to existing management plans at sites.

3 Developing an IBA Monitoring Framework

The monitoring framework sets standard guidelines for local and regional monitoring. Monitoring is much more likely to be successful over time if guidelines are designed and followed systematically.

The main considerations of a monitoring programme are:

1. Why monitor?
2. What should be monitored?
3. How will monitoring take place?
4. Who should monitor?
5. Who will co-ordinate?
6. How often should monitoring take place?
7. What happens to the data?

3.1 Why monitor IBAs?

IBAs are internationally important places for bird conservation and therefore biodiversity conservation too. We need to understand what is happening at these sites and adopt appropriate conservation measures to best use finite resources and capacity.

Local level benefits of monitoring:

- Detect and act on threats in good time
- Review changes to the conservation values of the site due to real change or the availability of more information
- Provides data for advocacy and information for designing interventions
- Assess the effectiveness of conservation efforts to find out if investment in conservation has brought about an improvement or whether efforts are being directed at the most pressing issues

- Can be used to assess whether sites still qualify as IBAs or if they have lost their features of interest, or whether the boundaries should be changed
- Inform community members, landowners or SSG members of the condition of the site, often through first-hand experience and galvanise support for enhanced management

Additional national and regional benefits of IBA monitoring

- IBA monitoring provides information on national biodiversity trends and this can be used to report to the CBD and potentially to inform on the impacts of policies
- The information can be used by stakeholders at a national level for advocacy purposes or to attract support or donors

Indicators are units of information measured over time that document changes in a specific condition (Valencia and Duncan, (2006)). Identifying indicators that can give valid general impressions about a site, rather than precise measurements, are key. They should be able to evaluate the state of a site and also be sensitive to change within the attribute being assessed.

3.2 What should be monitored?

It is unlikely that monitoring can be done on every relevant attribute of an IBA, for example every endemic bird species recorded. It is therefore important to choose simple indicators that are appropriate for the monitoring process.

It is easy to think of indicators as fitting in to a model known as the '**Pressure-State-Response**' Framework in monitoring status and trends within IBAs. This model has been used and adopted by the Convention on Biological Diversity (CBD) and the BirdLife Partnership in Europe and Africa. This is a simple and relatively inexpensive model that can be applied to assess IBAs.

Case Study

On the Fijian island of Vatu-i-Ra, BirdLife International Fiji Programme carried out an IBA assessment visit in 2003, followed by a survey in 2004 which subsequently identified it as an IBA due to large colonies of seabirds. The 2004 surveys indicated

that Pacific rat (*Rattus exulans*) was present in high densities. Evidence from other islands suggests that when rats are present in high densities they are, through nest predation, a significant threat to seabird populations **[PRESSURE]**.

The survey provided evidence of depletion of ground-nesting seabird species compared to tree-nesting species (30-200 pairs of ground-nesting species compared with about 27,000 pairs of tree-nesting black noddies) **[STATE]**.

Together with landowning communities, a Site Support Group was established and with a team from BirdLife Fiji and Pacific Invasives Initiative, rat eradication was conducted on the island. In mid-2008, the island was declared rat-free and communities have since declared the island a community-managed area with the development of a management plan **[RESPONSE]**.

3.2.1 Pressure-State-Response framework

This simple framework states that human activities exert pressures (such as introduction of invasive alien species or logging) on the environment (change in biodiversity, habitat extent). Society then responds to changes in pressures or state with environmental and economic policies and programmes intended to prevent, reduce or mitigate pressures and/or environmental damage. (Valencia and Duncan, 2006).

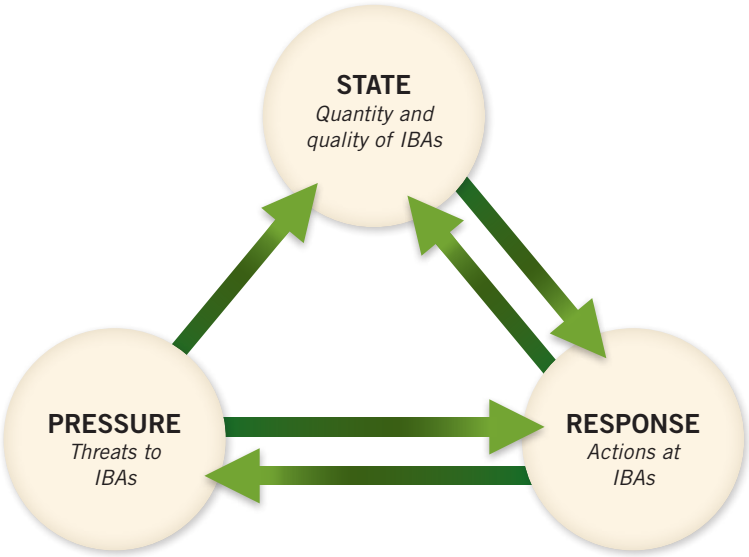


Figure 2: The relationship between indicators of Pressure, State and Response

Pressure (Threats)

These are indicators that identify and track major threats to an IBA. Threats can be indirect or direct human-induced pressures that affect biological diversity. Indirect pressures include technology, economy, demography and governance. Direct pressures can be increased human population, agricultural encroachment, over-exploitation and pollution.

Commercial logging continues to be a threat at IBAs.

Threats are assessed according to their **timing**, **scope** and **severity**, i.e. how likely they will affect the important bird species at the IBA. (See Section 4)

Timing of Threat – is it happening now, likely in the short, long term or already happened?
- Likely in short term 2

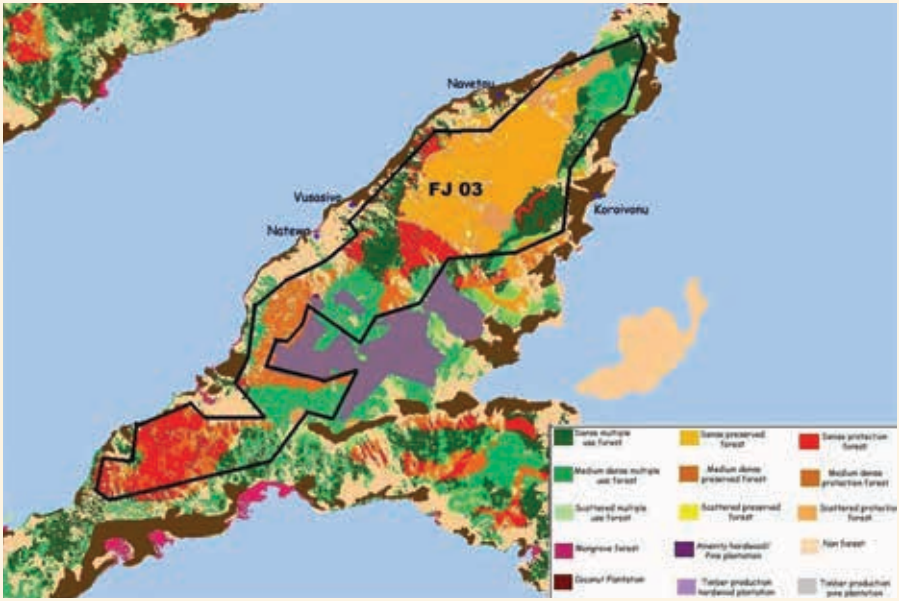
Scope of Threat – what percentage of the IBA has/is facing this threat?
- Some of population/area (10-50%) 1

Severity of Threat – is the threat diminishing or increasing and at what rate?
- Rapid deterioration 3

Impact score of threat **2+1+3 = 6**

State (Condition)

State indicators refer to the changes in the condition of the site and its biodiversity value. State indicators might be population counts of the birds themselves. They might also be measures of the extent and quality of the habitat required by these birds.



The state of the Natewa Tunuloa IBA during the first survey showed that 50 percent of the forest cover was 'medium dense protection forest'. This was evident in the high population of endemic silktail found during the survey. The state of the forests also provides a mechanism for the development of a community protected area. (Map courtesy of Department of Forestry).

Response (Conservation Action)

These are variables that identify and track conservation actions, such as changes in legal status of a site, establishment of site support groups, funding of conservation programmes, etc.

Successful conservation action has been undertaken at some of the IBAs in Fiji, including the establishment and development of Site Support Groups, community action planning workshops, biosecurity and island monitoring training, development of community-managed areas and building capacity of SSGs to sustain conservation activities. These actions attempt to minimise threats at IBAs.

3.3 How can IBAs in Fiji be monitored?

The BirdLife Global Framework provides a means whereby threats, condition and conservation action can be assessed, monitored, and scored (see Section 4.1 for details). Monitoring in Fiji can be carried out using this scoring system.

For monitoring Fiji's IBAs, the focus is on the direct threats to each site and not the indirect threats. Threats are scored according to the timing, scope and severity at each site. Threats include those that occur in the IBA as well as those that are located outside the site, but could have an impact on the site (e.g. a dam upstream). Future threats and also natural phenomena such as drought or hurricane can also be included.

This simple monitoring scheme is more sustainable as it is relatively inexpensive to carry out and capable of producing good quality data.

Monitoring must produce results that can be interpreted meaningfully. Thus it must be:

- Soundly designed
- Systematic
- Regular (not necessarily frequent)
- Sustained

The monitoring techniques should be kept simple, robust and inexpensive, rather than adopting more ambitious techniques that would soon collapse. Data collection must be cost-effective, easy to measure and results obtained should be easily interpreted.

The second tier of this process, in-depth monitoring, will only be carried out across a subset of sites in Fiji. When conducting in-depth monitoring, it should be consistent, i.e. carried out by the same method, in the same season and by people with similar expertise and experience. Resourcing detailed monitoring is more onerous and costly, so careful planning is required including using the best available skilled people and ensuring precise quantitative indicators for data, to yield accurate information. The framework strongly suggests that initial stages should be devoted to basic monitoring.

3.4 Who should monitor?

Stakeholders within or connected to Fiji's IBAs will be best placed to carry out monitoring. These could include Site Support Groups (SSG), Government Departments, Non-Governmental Organisations (NGOs) and other statutory bodies. Ideally monitoring programmes should include a range of skills or expertise.

Site Support Groups that have been established at IBAs, such as the Sisi Initiative in Natewa Tunuloa and the Nabukelevu Conservation Committee in Nabukelevu, Kadavu, are vital in providing valuable information to update the database of these IBAs.

Using skilled and experienced people from Government departments and NGOs is a costly exercise, but data gathered would be more quantitative. By including local unskilled people from the start, it is possible to build capacity and give training and experience to interested and able people from the local communities in or surrounding an IBA. Many organisations have similar work within IBA's so it is also possible to co-ordinate work to save time and expense.

Involving the local community in the monitoring process is cost-effective and data gained is likely to have more weight and quality since they are the people living at these sites. This monitoring programme will also share responsibility and build trust with the communities, creating new skills for them to use in other ways too. If the monitoring programme cannot readily involve highly skilled people, it should still look to strengthen or establish close links with local communities.

Volunteers, SSGs, and other stakeholders involved in the monitoring process might have limited time to carry out site assessments and monitor change. This feasibility has to influence development of the framework – if it can't get done then it is not the right framework. Striking the right balance between information required, existing reporting structures, and the simplicity of the framework means the least burden on the on-site monitors.

3.5 Who will co-ordinate?

BirdLife International as the initiator of the IBA programme would have the central role of co-ordinating and initiating the monitoring programme but ideally build the capacity of local partners to take over in time. Although not practical every time, the initiation would normally come from a central institution, that would co-ordinate the technical aspects of the monitoring, check the quality of the data, assess the scores of each site and enter data into the WBDB. BirdLife will also produce reports for the CBD and national reporting for regional and global analysis of the status and trends of IBAs.

3.6 How often should monitoring take place?

Monitoring should be carried out at a minimum four years interval, more often if possible. It is important that the monitoring interval is set where it can be sustained without any delays and lapses.

In Europe, where there are large numbers of IBAs, the BirdLife Partnership has agreed to monitor at least once every two years (Birdlife, 2006). In Fiji, since there are 14 IBAs and with the limited resources available, it would be viable for monitoring to be carried out on a four-yearly cycle.

3.7 What happens to the data?

Monitoring is a process and a means of achieving conservation goals. For a monitoring scheme to be sound and effective, it needs to have appropriate feedback loops built in at each stage. Data gained from monitoring IBAs in Fiji will be analysed and reported so that it can be disseminated to various stakeholders for action and advocacy. The results will feed into the Convention on Biological Diversity (CBD) report and also the World Bird Database (WBDB). The analysis of results can complement initiatives such as Species Action Plans, which help with advocacy and projects to address issues affecting wildlife at sites.

Co-ordination, communication and feedback between local, national and regional teams of interested parties are important in working out an effective IBA monitoring strategy. This would enable data and information gained from monitoring to be analysed and disseminated to various stakeholders for national level advocacy and also to stimulate conservation action.

4 Developing a Monitoring Methodology for Fiji

4.1 Basic monitoring

Basic monitoring is a simple technique that should take place at all sites. This involves scoring of pressure, state and response trends using information submitted on simple forms.

This data can be collected on-site by Site Support Groups, BirdLife International Fiji Programme staff, or volunteers. Data derived from remote sensing can also be used. Data is compiled to give an overall rating for each site.

4.1.1 Principals of assessing and scoring

There are certain methods used to assess and assign scores of threats, condition, and the conservation action undertaken at each IBA. This involves assigning simple scores to each indicator for pressure (threats), state (condition) and response (actions). These indicator scores are then used to obtain overall IBA status and trend scores.

The 'weakest link' approach to the scoring system is advocated. This means that the IBA scores are based on the 'worst' case indicator score (e.g. the most threatened species or the least intact habitat). The scores can then be analysed and entered into the WBDB where results can be compared.

Status scores are assigned on a simple 4 point scale, from 0-3. Trend scores can be calculated by comparing status scores between assessments, on a scale of -3 to 3. The first set of monitoring data will be used as the baseline record. To assess a trend for a species or habitat status, two comparable data sets are required from previous and recent time periods. Therefore these trend scores only relate to a site where an ongoing monitoring programme has been put in place.

Assessing and scoring *Threats* (Pressure)

Threats are assessed and scored according to their **timing**, **scope** and **severity** in relation to how likely they are to affect the important bird species at the site.

The threat assessment may be based on:

- Information regarding the threats to the bird species present or each bird species is assessed individually
- Knowledge of the site, especially regarding the habitat upon which the key species depends

The impact score is calculated by adding the timing, scope and severity scores.

Timing of Threat	Timing Score
Happening now	3
Likely in short term (within 4 years)	2
Likely in long term (beyond 4 years)	1
Past (and unlikely to return) and no longer limiting	0

Scope of Threat	Scope score
Whole population/area (>90%)	3
Most of population/area (50-90%)	2
Some of population/area (10-50%)	1
Few individuals/small area (<10%)	0

Severity of Threat	Severity score
Rapid deterioration (>30% over 10 years or 3 generations, whichever is the longer)	3
Moderate deterioration (10-30% over 10 years or 3 generations)	2
Slow deterioration (1-10% over 10 years or 3 generations)	1
No or imperceptible deterioration (<1% over 10 years)	0

There are various threats which are likely to affect a site and these are shown in the table:

Table 4: Examples of scoring *Threats*

Threat Type	Impact Score (Year 1)	Timing Score	Scope Score	Severity Score	Impact Score (Year 2)
Logging	6	3	2	2	7
Agricultural Encroachment	7	3	1	2	6
Grazing by Livestock	3	3	0	1	0
Water Pollution	2	2	1	1	4
Invasive Alien Species	6	3	2	3	8
Harvesting & Hunting of eggs and chicks	2	0	1	1	0

The table indicates the *Impact Score* of threats derived from an initial survey (Year 1) at this IBA, with agricultural encroachment being the highest level of threat.

However, after some conservation work at the site, each of the threats was reassessed and the *Timing, Scope* and *Severity* have created an *Impact Score* to compare with the previous finding. The *Impact Score* is calculated by adding the *Timing, Scope* and *Severity* scores, for e.g. logging has increased in threat level and invasive alien species is now the biggest type of threat at the site.

Assessing and scoring *Condition* (State)

Assessment on the condition of the IBA may be based on:

- The populations of the important bird species present in the IBA
- Quality of the habitats for the trigger bird species; are they improving or deteriorating?

One possibility is that trigger bird species depend on the quality of habitat. Habitat quality is, therefore, a direct measure of their population size. If the habitat is deteriorating then it will directly affect the population.

In scoring condition, comparisons of the population size of the trigger species should be compared to either:

- the population size when the IBA was identified, or
- the optimum for the site, based on the estimated extent of the potential habitat and population density in undisturbed conditions

Table 5: Example of scoring *State*

Habitat Class	Rainforest	Dry Forest	Beach Forest
Calculated Optimum Area for IBA (ha)	28,700	17,100	200
Remaining Area (Year 1)	28,000	16,500	180
Quality (Year 1)	Good	Good	Good
Adjusted % Habitat Remaining (Year 1)	97	96	90
Remaining Area (Year 2)	28,000	16,500	180
Quality (Year 2)	Good	Good	Good
Adjusted % Habitat Remaining (Year 2)	>90	>90	>90
IBA Condition Status Score	3	3	3

The table illustrates the existing forest areas at an IBA and takes into account the existing areas and quality of key habitats compared to the estimated potential optimum for the site. These comparisons are used to calculate or estimate the percentage of habitat remaining:

% habitat remaining = (remaining area/calculated optimum area) x 100.

IBAs that are assessed to have >90% of their potential trigger species population or in this example, habitat remaining are scored as '3' (='Good').

Assessing and scoring *Actions* (Response)

The scoring and the assessment of conservation actions will be completed by the IBA Monitoring Co-ordinator after collecting data from on-site IBA monitors.

There are three measures of Response assessed on a 4-point scale from 0-3:

- Conservation designation (if any form of legal protection covers the IBA)
- Management planning
- Conservation action

Scores of each measure of conservation action are drawn up in a table according to the year of monitoring for comparisons to be made. An example of the table is shown below:

Conservation Designation	**Score**
Whole area of IBA covered by appropriate conservation designation (>90%)	3
Most of IBA covered (including most critical parts for trigger species) (50-90%)	2
Some of IBA covered (10-50%)	1
Little/none of IBA covered (<10%)	0
Management Planning	
Comprehensive and appropriate management plans exist with aims to maintain or improve the population of qualifying species	3
A management plan exists but is out of date or not comprehensive	2
No management plan exists but the management planning process has begun	1
No management planning has taken place	0
Conservation Action	
Conservation measures are being comprehensively and effectively implemented	3
Substantive conservation measures are being implemented but these are not comprehensive and are limited by resources and capacity	2
Some limited conservation initiatives are in place (e.g. action by LCGs)	1
Very little or no conservation action is taking place	0

Table 6: Example of scoring *Response*

Action Type	Status Score (Year 1)	Status Score (Year 2)
Conservation Designation	0	1
Management Planning	0	1
Conservation Action	2	3
Total	**2**	**5**

This example indicates that at the time of baseline recording, little or no percentage of the IBA was designated, no management planning had ever taken place within the IBA and very little or no conservation action at all was being implemented.

However, after some years of conservation effort at the site, there was some improvement, in that some of the IBA was designated, a management planning process had been established and some conservation efforts had being developed and were being implemented. Change in total score indicates an improved conservation status of the site.

Although the details of scoring Pressure, State and Response differ, the resulting scales are the same for each. **Status scores** are assigned on a 4-point scale, from 0 to 3 (or -3 in the case of Pressure). **Trend scores** can be calculated by comparing status scores between assessments, on a scale of -3 to 3.

Table 7: Scoring overview (Birdlife, 2006)

Variable	Status	Trend		
Timing + Scope + Severity = Total Impact	**Pressure Scores** 0,1,2,3 + 0,1,2,3 + 0,1,2,3 = 0-9	**Status Scores** 0,-1,-2,-3	Status score from Year 1-Year 2	**Trend Scores** -3,-2,-1,0,1,2,3
Populations or habitats	**State Percentage remaining** <40, 40-70, 70-90, >90	0,1,2,3	Status score from Year 2-Year 1	-3,-2,-1,0,1,2,3
Designation + Planning + Action = Total	**Response Scores** 0,1,2,3 + 0,1,2,3 + 0,1,2,3 = 0-9	0,1,2,3	Status score from Year 2-Year 1	-3,-2,-1,0,1,2,3

4.2 In-depth monitoring

Detailed monitoring involves more intensive measurement of particular variables. This should take place at top priority sites where it is important to track and understand changes in more detail. Although all IBAs are priority sites for conservation, sites or species that are most threatened should be prioritised for in-depth monitoring. These sites can be determined by setting scores for each IBA to select for in-depth monitoring.

4.2.1 Why do in-depth monitoring in Fiji?

Detailed monitoring should be adopted in Fiji because not all threats or state changes may be detected by basic monitoring, in particular the impact on native wildlife of invasive species. Detailed monitoring focuses mainly on state variables such as the biodiversity value of the site and other condition measures likely to affect the species of concern. However an assessment of pressure and response may also be needed.

Some sites may have particular threats that need to be tracked using very detailed

monitoring. One example is the requirement for detailed monitoring of the habitat and behavioral patterns of the Fiji Petrel, a species for which there is very little data. Further information is needed to assess the status and threats (believed to be feral cats, rats and pigs predating nests) of this critically endangered bird. Detailed monitoring is also required for other Fijian birds which could be in danger of extinction, such as the Red-throated Lorikeet, Pink-billed Parrotfinch and Long-legged Warbler.

4.2.2 What to monitor?

Birds are one example, where monitoring can focus on either key species' diversity, density of bird assemblages or perhaps estimates of relative abundance and population trends.

The severity and urgency of threats to IBAs and their key species can be monitored in detail, such as the presence of invasive species (mongoose, rats, feral cats and also plants such as African tulip trees).

CASE STUDY

The Natewa Tunuloa Peninsula is located on the southeastern side of Vanua Levu, the second-largest island of Fiji. This IBA contains one of the last remaining large forest tracts on southeast Vanua Levu and is home to the local subspecies of the near-threatened Silktail. Other bird species endemic to Vanua Levu are also found in this IBA such as the Orange Dove and Red-Shining Parrot, along with five other endemic subspecies.

This IBA has suffered extensive logging over the last decade which is continuing on some patches of forest on the edge of the IBA. Forest has been cleared for agriculture, bringing with it invasive alien species such as mongoose and rats.

Detailed monitoring is needed to assess the effects of invasive alien species on the population of the Silktail. There has been no detailed monitoring or survey work on the Silktail and a detailed monitoring would provide an opportunity to survey its population range, habitat, foraging patterns etc. Information gathered can be used as a basis for getting the entire IBA formally protected.

5 Proposed Approach for IBA Monitoring in Fiji

	Broad scale monitoring				In-depth monitoring			
	What to monitor							
Site Name	State	Pressure	Response	Stakeholders	Need (Hi/ Med/ Low)	Reasons	What to monitor	Stakeholders
Rotuma	1. Extent of shrub/ forest	1. Invasive alien species 2. Shifting agriculture	1. Community awareness	1. WWF[1] 2. Laje Initiative	High	Assess status and/or change in status of key bird species	Population of Rotuman Myzomela; Rat population	Laje initiative
Wailevu/ Dreketi	1. Forest extent	1. Unsustainable logging 2. Agricultural expansion	1. Conservation designation for part of the IBA[2] 2. Community awareness 3. PFEs established	1. WCS[3] 2. National Trust 3. DoF[4]	Low	Less priority for monitoring in detail but could include other biodiversity	Forest bird survey	1. National Trust 2. BirdLife
Natewa/ Tunuloa	1. Key bird populations 2. Forest extent	1. Agriculture 2. Logging 3. Invasive alien species	1. SSG established 2. Management plan developed 3. Conservation designation for part of the IBA[5]	1. CYMST[6] 2. SSG 3. DoF	High	Very little information exists on the Silktail subspecies of Natewa/ Tunuloa	Detailed survey/ monitoring of population and ecology of Silktail subspecies	1. SSG
Taveuni	1. Forest extent	1. Agriculture 2. Invasive alien species	1. PA designations[7] 2. Community conservation group established	1. National Trust 2. CYMST 3. NFMV[8]	Med	Most of IBA well protected and free of mongoose	Monitor endemic and native birds Monitor Fiji Flying fox	1. CYMST 2. National Trust 3. BirdLife 4. NFMV

Vatu-i-Ra	1. Population of seabirds	1. Rats	1. Rat eradication 2. Biosecurity 3. SSG established	1. Birdlife 2. RYMST[9] 3. SSG	High	Urgent need to monitor seabird colonies on the island	Seabird population	1. RYMST 2. BirdLife
Koroyanitu	1. Forest extent	1. Unsustainable agriculture	1. Conservation group established 2. PA designation 3. Management plan developed	1. National Trust 2. Fiji Pine 3. DoF	Low	IBA protected by community based conservation group	Monitor forest birds Further research on the impact of alien invasive species	National Trust
Tomaniivi	1. Forest extent	1. Invasive alien species 2. Logging	1. Conservation group required 2. Management plan required 3. PA designation	1. DoF 2. USP 3. NFMV	High	IBA is one of last known sites for the critically endangered Red-throated Lorikeet	Survey/ monitor for 1. RTL 2. Long-legged Warbler	1. DoF 2. BirdLife 3. NFMV
Rairaimatuku Highlands	1. Forest extent	1. Unsustainable logging 2. Invasive alien species	1. Community conservation group required 2. Management plan required 3. PA designation	1. DoF 2. FEA[10]	High	This site may hold small numbers of Red-throated Lorikeet	1. Survey/ monitor for Red-throated Lorikeet & LLW	1. DoF 2. BirdLife
Sovi Basin	1. Forest extent & landuse	1. Mining 2. Invasive Alien Species	1. Community conservation group 2. Management plan 3. PA designation	1. IAS[11] 2. DoF 3. CI[12]	Med	IBA has some form of community protection	Any detailed monitoring could include Peregrine Falcon	1. CI 2. BirdLife 3. IAS

1. WWF: World Wide Fund for Nature. **2.** Waisali Forest Reserve: managed by the National Trust of Fiji as an ecotourism site that offers pools, forest, birdwatching and the Dakua trees. **3.** WCS: Wildlife Conservation Society. **4.** DoF: Department of Forestry. **5.** MOU with communities for Community-Managed Protected Area. **6.** CYMST: Cakaudrove Yaubula Management Support Team. **7.** The Taveuni Forest Reserve and Ravilevu Nature Reserve are managed by the Forestry Department while the Bouma National Heritage Park is a community based initiative. **8.** NatureFiji-MareqetiViti. **9.** RYMST: Ra Yaubula Management Support Team. **10.** Fiji Electricity Authority. **11.** Institute of Applied Sciences. **12.** CI: Conservation International.

	Broad scale monitoring				In-Depth monitoring			
	What to monitor							
Site Name	State	Pressure	Response	Stakeholders	Need (Hi/ Med/ Low)	Reasons	What to monitor	Stakeholders
Viti Levu Southern Highlands	1. Forest extent	1. Logging 2. Mining 3. Agricultural encroachment	1. Community conservation group 2. Management plan 3. PA designation[13]	1. DoF 2. NFMV 3. National Trust	Med	IBA has been surveyed and monitored by other stakeholders	Ecology and population studies of Pink-billed Parrotfinch	1. DoF 2. BirdLife
Gau Highlands	1. Key bird populations 2. Forest extent	1. Agricultural encroachment 2. Invasive Alien Species	1. Community conservation group 2. Management plan 3. PA designation	1. NFMV	High	Only known breeding site for the critically endangered Fiji Petrel	Locate and monitor the population of Fiji Petrel	1. NFMV
Nabukelevu	1. Forest extent	1. Agricultural encroachment 2. Invasive alien species 3. Bird trade	1. SSG 2. Management plan 3. Conservation designation for part of the IBA[14] 4. Forest expansion	1. KYMST[15] 2. BirdLife 3. SSG	High	Need to understand conservation needs for Collared Petrel	Monitor population of Collared Petrel	1. BirdLife 2. SSG
East Kadavu	1. Forest extent	1. Agricultural encroachment 2. Invasive alien species	1. Conservation group established 2. Management plan required	1. KYMST 2. BirdLife	Low	Basic monitoring suitable	Monitor population of Collared Petrel	KYMST
Ogea	Extent of shrub/ forest	1. Invasive alien species	1. Conservation group established 2. Management plan required	1. BirdLife 2. IAS	Med	Basic monitoring suitable	Assess impacts of Black rats/ feral cats on Ogea	BirdLife

13. Upper Navua Gorge is a proposed Ramsar Site & Garrick Reserve is owned by the National Trust. **14.** MOU with landowning communities for Community-Managed Protected Area. **15.** KYMST: Kadavu Yaubula Management Support Team.

6 Conclusion

Monitoring of Fiji's IBAs is crucial for the future conservation of birds, other wildlife and the habitats upon which they depend. Putting in place a monitoring programme that provides a regular assessment of the pressures, state and actions that affect species and habitats in Fiji's IBAs will help to provide valuable data to:

- review changes at IBAs that may affect birds and the habitats on which they depend
- detect problems early and allow prompt action to conserve species and habitats
- assess effectiveness of conservation measures
- enable stakeholders to work together more efficiently
- provide information to policy and decision-makers to help address common issues of concern within many IBAs
- encourage Government to adopt new conservation policies or make adjustments to existing legislation
- advocate and raise awareness to communities within IBAs as well as the wider public.

The data from the monitoring programme will be used by BirdLife International to detect and identify changes occurring that may threaten the 14 IBAs. Advice on conservation actions will then follow. The data will be incorporated into the World Bird Database (WBDB) for regional and global analysis of the status and trends of all IBAs, and to help stimulate conservation actions at threatened IBAs.

For the monitoring scheme to be effective, it needs the support and collaboration of many and various stakeholders and interested parties from local communities to Government.

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Appendix 1:
Basic Monitoring Requirements for IBAs in Fiji

IBA Monitoring Inventory

This inventory indicates the total types of threat, conditions and actions undertaken across the IBAs in Fiji. A monitoring form for a particular IBA would be comprised of a subset of the inventory (see Annex 2).

PART I: Essential Information		
Name of the IBA		
Date		
Your Name		
Postal Address		
Telephone contact		
What will you monitor? (✔) the appropriate	(1) Whole of the IBA	
	(2) Part of the IBA	
	If (2) which part and how much of the whole area (ha)?	
Are you a resident at the IBA? (✔) the appropriate	(1) Yes	
	(2) No	
	If (2) what were the dates, duration and purpose of the visit to the IBA?	

PART II: Basic Monitoring

THREATS TO THE IBA ('PRESSURE')
General comments on threats to the site and any changes since your last assessment?

Threat Types		Scores: Timing	Scores: Scope	Scores: Severity	Details
1. Agricultural encroachment and intensification					**Give specific details of each crop, cattle, or other issues**
Annual crops *(e.g. dalo, vudi cassava)*	Shifting agriculture				
	Smallholder farming				
	Agro-industry farming				
Perennial crops *(e.g. Yaqona)*	Smallholder plantations				
	Agro-industry plantations				
Pine or mahogany plantations	Smallholder plantations				
	Agro-industry plantations				
Livestock farming	Smallholder grazing				
	Agro-industry grazing				
If more than one threat is scored in this section, please also score here their Timing, Scope & Severity in combination					
2. Over-exploitation					**Give details of specific threats**
Habitat effects	Logging				
	Gathering plants				
	Hunting				
If more than one threat is scored in this section, please also score here their Timing, Scope & Severity in combination					
3. Invasive alien species					**Give details of the invasive species**
Invasive alien species					

4. Commercial development				**Give details of each type of development and issue**
Commercial & industrial areas				
Tourism and recreation areas				
Housing				
If more than one threat is scored in this section, also score here their Timing, Scope & Severity in combination				
5. Mining				**Give details of specific resource & issue**
Mining & quarrying				
6. Natural Disasters				**Give details of specific events & issues**
Fire				
Cyclone				
Drought				
Other issues				
If more than one threat is scored in this section, also score here their Timing, Scope & Severity in combination				
7. Pollution				**Give details of specific pollutant**
Domestic & urban waste water				
Industrial				
Garbage & solid waste				
If more than one threat is scored in this section, also score here their Timing, Scope & Severity in combination				
8. Transportation				**Give details of specific type of transport & issue**
Roads				
9. Other				**Give details**
If more than one threat is scored in this section, also score here their Timing, Scope & Severity in combination				

Condition of Bird Populations and Habitat ('State')

General comments on condition of the site and any changes since your last assessment (if relevant).

Summarise in the table below any estimates or counts made of bird populations, or other information on key bird species in the IBA.

Bird species	Population estimate (state whether individuals or pairs)	Details / other comments

Summarise in the table below if you have information on the area of the natural habitats important for bird populations in the IBA.

Habitat	Current area if known (include units, e.g. ha, km, acres) or codes*	Details / comments / major changes

*habitat area codes: choose from Good (overall >90% of optimum), Moderate (70-90%), Poor (40-70%) or Very poor (<40%). If you do not know the actual habitat area, give your best assessment of the current habitat area at the site, in relation to its potential optimum if the site was undisturbed. The percentages are given as guidelines only, but you could estimate the exact percentage of the site.

Summarise in the table below if you have information on the area of the natural habitats important for bird populations in the IBA.

Habitat	Quality rating**	Details / comments / major changes

**habitat quality rating: choose from Good (overall >90% of optimum), Moderate (70-90%), Poor (40-70%) or Very poor (<40%). If possible to give the best assessment of the average habitat quality across the site with regards to its suitability for the important bird species. The percentage ranges relate to the population density of the 'trigger species' in its key habitat.

Conservation Actions taken at IBA ('Response')

Do you have any general comments on actions taken at the site, including recent changes or developments?

_____

_____

_____

Tick (✔) the appropriate box

1. Conservation Designation

- ☐ whole area of IBA (>90%) covered by appropriate conservation designation
- ☐ most of IBA (50-90%) covered (including the critical parts of the important bird species)
- ☐ some of IBA covered (10-49%)
- ☐ little/none of IBA covered

Details and explanation

_____

_____

_____

2. Management Planning

- ☐ comprehensive/appropriate management plan(s) exists to maintain/improve populations of birds
- ☐ management plan(s) exists but it is out of date or not comprehensive
- ☐ no management plan exists but management planning process has begun
- ☐ no management planning has taken place

Details and explanation

_____

_____

_____

3. Conservation Action

- ☐ conservation measures are being effectively implemented
- ☐ substantive conservation measures are being implemented but not comprehensive with limited resources and capacity
- ☐ some limited conservation initiatives are in place
- ☐ little or no conservation action is taking place

Details and explanation

_____

_____

_____

PART III: Information on Stakeholders and their Activities

In the table below, record details of any Site Support Groups established at the site.

LCG name	Total members	Male members	Female members	Other information

PART IV: Activities Undertaken at the IBA

In the table below, please indicate the activities undertaken by any non-governmental organisations or Government departments at the IBA now and during the last 4 years.

Action types	Action being undertaken by:					Details
	SSG	Other CBO	BirdLife Partner	Government	Other (specify)	
1. Land/water protection						
Site and area protection						
Resource and habitat protection						
2. Land/water management						
General site/area management						
Invasive/problem species control						
Habitat & natural processes restoration						
3. Species management						
General species management						
Species recovery						
Species reintroduction						
4. Education & awareness						
Formal education						
Training						
Awareness & publicity						
5. Law & policy						
Public legislation						
Policies & regulations						
Private sector standards						
Compliance, enforcement & policing						

6. Livelihood, economic & other incentives						
Alternative livelihood & linked enterprises (e.g. ecotourism)						
Substitution (alternative products to reduce pressure)						
Market forces (e.g. certification)						
Conservation payments						
Non-monetary values (e.g. spiritual, cultural)						
7. Capacity building						
Institutional & civil society development						
Alliance & partnership development						
Conservation finance						
8. Other (e.g. research, surveys, EIA)						

PART V: Additional Information

In the space below, give any other information regarding the site which you think may be helpful such as details of other fauna and flora and other cultural and biological importance of the site.

Vinaka

Please return this form to **BirdLife International Pacific Partnership Secretariat** or the **Fiji Programme** at 10 McGregor Rd, GPO Box 18332, Suva. Ph 331 3492, Fax 331 9658

Appendix 2:
Sample Monitoring Form for Vatu-i-Ra IBA

PART I: Essential Information		
Name of the IBA	Vatu-i-Ra	
Date	27/01/11	
Your Name	John Sing	
Postal Address	GPO Box 182, Suva	
Telephone Contact	+679 813 4521	
What will you monitor? (✔) the appropriate	(1) Whole of the IBA	✓
	(2) Part of the IBA	
	If (2) which part and how much of the whole area (ha)?	
Are you a resident at the IBA? (✔) the appropriate	(1) Yes	
	(2) No	✓
	If (2) what were the dates, duration and purpose of the visit to the IBA?	Whole day (7 hours) 27/01/2011 Bird watching

PART II: Basic Monitoring

THREATS TO THE IBA ('PRESSURE')
General comments on threats to the site and any changes since your last assessment? There is no evidence of rats on the island or dead chick eggs.

Threat Types		Scores: Timing	Scores: Scope	Scores: Severity	Details
1. Over-exploitation					**Give details of specific threats**
Habitat Effects	Gathering plants	2	1	1	There's no evidence of rats on the island or dead chick eggs
	Hunting	2	0	0	
If more than one threat is scored in this section, please also score here their Timing, Scope & Severity in combination.		2	1	1	
Impact Score		4			
2. Invasive alien species					**Give details of the invasive species**
Invasive alien species		0	0	0	
Impact Score		0			
3. Commercial development					**Give details of each type of development and issue**
Tourism and recreation areas		3	3	1	
Impact Score		7			
4. Natural Disasters					**Give details of specific events and issues**
Fire		1	0	1	
Cyclone		1	3	0	
Drought		1	1	0	
If more than one threat is scored, please also score here their Timing, Scope & Severity in combination		1	3	1	
Impact Score		5			
5. Pollution					**Give details of specific pollutant**
Garbage & solid waste		2	2	1	

Condition of Bird Populations and Habitat ('State')

General comments on condition of the site and any changes since your last assessment (if relevant).

There seems to be more seabirds on the island and more nests visible.

Summarise in the table below any estimates or counts made of bird populations, or other information on key bird species in the IBA.

Bird species	Population estimate (state whether individuals or pairs)	Details / other comments
Black noddy	*21,296 (nests)*	
Crested Tern	*250 (pairs)*	

Conservation Actions taken at IBA ('Response')

General comments on actions taken at the site, including recent changes or developments.

I see bait stations around the island; there is a big warning signboard on the beach to warn fishermen, picnickers, etc

Tick (✔) the appropriate box

1. Conservation Designation

- [x] whole area of IBA (>90%) covered by appropriate conservation designation
- [ ] most of IBA (50-90%) covered (including the critical parts of the important bird species)
- [ ] some of IBA covered (10-49%)
- [ ] little/none of IBA covered

Details and explanation

A MOU has been signed between the landowning clan and BirdLife for the protection of the island.

2. Management Planning

- [x] comprehensive/appropriate management plan(s) exists to maintain/improve populations of birds
- [ ] management plan(s) exists but it is out of date or not comprehensive
- [ ] no management plan exists but management planning process has begun
- [ ] no management planning has taken place

Details and explanation

Communities committed to management actions during a Resource Action Planning Workshop. The SSG is now working with communities to ensure that the management plan is being implemented.

3. Conservation Action

- [ ] conservation measures are being effectively implemented
- [x] substantive conservation measures are being implemented but not comprehensive with limited resources and capacity
- [ ] some limited conservation initiatives are in place
- [ ] little or no conservation action is taking place

Details and explanation

SSG are currently monitoring the island but at irregular intervals, due to the lack of resources (boat). Plans are underway for the SSG to be able to sustain its activities.

PART III: Information on Stakeholders and their Activities

In the table below, record details of any Site Support Groups established at the site.

LCG name	Total members	Male members	Female members	Other information
Seabama Seabird Group	*6*	*6*	*1*	*All are members of the landowning clan that owns the island*

PART IV: Activities Undertaken at the IBA

In the table below, please indicate the activities undertaken by any non-governmental organisations or Government departments at the IBA now and during the last 4 years.

Action types	Action being undertaken by: SSG	Other CBO	BirdLife Partner	Government	Other (specify)	Details
1. Land/water protection						
Site and area protection	✓					
Resource and habitat protection	✓					
2. Land/water management						
Invasive/problem species control	✓		✓			BirdLife & NFMV conducted the last monitoring at the IBA
3. Education & awareness						
Formal education				✓		Government schools in the area
Training				✓		Through the Dept of Co-operatives, communities at the IBA have been trained in small business enterprises
Awareness & publicity	✓					Conducted at the request of communities
4. Law & policy						
Public legislation				✓		
Policies & regulations				✓		
Private sector standards					✓	Dive companies have their own policies for bringing divers there
Compliance, enforcement & policing	✓					

5. Livelihood, economic & other incentives						
Alternative livelihood & linked enterprises (e.g. ecotourism)	✓					Production of coconut oil
Non-monetary values (e.g. spiritual, cultural)						Not yet. BirdLife has plans to develop this.
6. Capacity building						
Institutional & civil society development					✓	Other NGOs are also working in Ra Province and include landowning communities in these workshops.
Alliance & partnership development	✓			✓		SSG works in close collaboration with the Ra Provincial Council
Conservation finance						
7. Other (e.g. research, surveys, EIA)						

PART V: Additional Information

In the space below, give any other information regarding the site that you think may be helpful such as details of other fauna and flora and other cultural and biological importance of the site.

Vinaka

Please return this form to **BirdLife International Pacific Partnership Secretariat** or the **Fiji Programme** at 10 McGregor Rd, GPO Box 18332, Suva. Ph 331 3492, Fax 331 9658

Notes

BirdLife
IBA
VANUA NI
MANUMANU VUKA

The Important Bird Area Programme of BirdLife International

- The function of the Important Bird Area (IBA) Programme is to identify, protect and manage a network of sites that are important for the long-term viability of naturally occurring bird populations, across the geographical range of those bird species for which a site-based approach is appropriate.
- The continued ecological integrity of these sites will be decisive in maintaining and conserving such birds. Legal protection, management and monitoring of these crucial sites will all be important targets for action, and many (but not all) bird species may be effectively conserved by these means. Patterns of bird distribution are such that, in most cases, it is possible to select sites that support many species.
- The IBA Programme is global in scale and more than 10,000 IBAs have already been identified worldwide, using standard, internationally recognised criteria for selection.
- The sites are identified on the basis of the bird numbers and species' complements that they hold, and are selected such that, taken together, they form a network throughout the species' biogeographic distributions.
- This network may be considered as a minimum essential to ensure the survival of these species across their ranges, should there occur a net loss of remaining habitat elsewhere through human, or other, modification. Therefore, the consequences of the loss of any one of these sites may be disproportionately large.
- The programme aims to guide the implementation of national conservation strategies, through the promotion and development of national protected-area programmes. It is also intended to assist the conservation activities of international organisations and to promote the implementation of global agreements and regional measures.

BirdLife
INTERNATIONAL

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BirdLife
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Together for birds and people

This book provides guidelines for monitoring Important Bird Areas (IBAs) in Fiji. IBA monitoring is essential for tracking and responding to threats, understanding the status and trends of biodiversity, and for assessing the effectiveness of conservation efforts. Although the IBA monitoring framework provides a standardised way of assigning scores for the threats to IBAs, it has been designed and synthesised so minimal data, simple and mainly qualitative, can be collected onsite by management authority or project staff, Site Support Group (SSG) members, community members and other volunteers. A standardised system will allow national data to be compiled regionally and globally and this provides a powerful tool for international conservation advocacy and fundraising.

DARWIN
INITIATIVE

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