

WETLANDS LISTED SITES IN PAPUA NEW GUINEA

The 33 WETLANDS listed below as described in the “Directory of Asian Wetlands”

(From: Draft Inventory of Wetlands in Papua New Guinea by PADDY OSBORNE, 1987 for the Department of Environment and Conservation, 1987)

A. Listed as RAMSAR SITE/Protected Area – Protected under Fauna Protection and Control ACT 1966 Priority Sites for re-evaluation of their status

RANK	SITE NAME	PROTECTION STATUS (LEGISLATION)		IMPORTANCE OF SITE (endemism, vulnerability, etc)	HABITAT TYPE	OTHER COMMENTS
		Size	PA Status			
1	Bensback and Tonda Wildlife Management Area	590,000ha 1975 Western Province	6 th Feb Western Province	Flyway, Archeological site, High biodiversity	Wetlands, Grass land	Nominated for World Heritage Listing
2 (1)	Lake Kutubu WMA	4924 ha Southern Highlands Province	25 th Jun 1992 Southern Highlands Province	High endemism of fish spp, invertebrates	Large body of fresh water	High Impact Oil & Gas field development Area

Issues:

- Overall Management Plan (e.g., feasibility study on the ecosystems values and services that are already present)
- Review and update biodiversity Information
- Impact Assessment on the Status of the RAMSAR site, eg., social issues, invasive species, trans-border migrations susceptibility of transfer of wildlife diseases

Note: Information needs updating. Listing done over 20years ago.

B: Check listing of all WETLANDS in PNG Listed in the Asian Wetlands Directory in order of priority

(Key: np - not protected)

RANK	SITE NAME	PROTECTION STATUS (LEGISLATION)	IMPORTANCE OF SITE (endemism, vulnerability, etc)	HABITAT TYPE	OTHER COMMENTS
		Size Status PA			
1(3)	Kikori Wetlands & Purari River	1,331,300ha np Gulf Province	Flyway for migratory spp High biodiversity Ext Mangrove habitat Sago Swamps	Large waterways in Gulf of Papua Swamp and Oxbow lakes	
2 (4)	Fly River Flood Plains (incl) <ul style="list-style-type: none"> Lake Murray 64,700ha Boset lagoon 1680ha Lake Daviumbu 1168ha 	4,500,000ha np Western Province	Food sources Biologically significant for lake systems	River system Sago swamp Oxbow and swamp lakes	OK Tedi Mine dumps waste into the Fly
3 (5)	Wetlands of		Food source	Wetlands	High Impact development – LNG

	<p>Central Province</p> <ul style="list-style-type: none"> • Waigani Swamp • Lealea Salt Flats • Lake Iaraguma • Kanosia Lagoon • Aroa Lagoon • Hisiu Lagoon 	<ul style="list-style-type: none"> • 120ha proposed • Unknown proposed • 200ha np • 30ha np • 150ha np • 50ha np 	<p>Fishing grounds Flyway for migratory spp birds High biodiversity</p>	<p>Mangrove Estuarine / tidal flats</p>	<p>Gas project construction Logging Concessions</p>
4 (6)	Sepik and Ramu Floodplains	1,200,000ha np WS, ES, & Madang	Food sources Waterway for transport Crocodile habitat supporting industry	Ext Wetlands Oxbow lakes	Invasive spp of plant Pop Increase
5	Markham Floodplains	196,400ha np Morobe Province	High biodiversity Major	Sago swamp Ext Wetland waterways	
6	Lake Wisdom	8592ha 30 th Jun 1977 WMA Crown Island	High endemism of fishes	Volcanic crater lake	Unique case of an island in a Crater lake
7	Mambare Wetland	344,100ha np Oro Province	Food source High Biodiversity	Sago swampland Ext wetlands	

8	Lake Lavu	264 ha 5 th Mar 1981 Milne Bay province	Food Source High Endemism – invertebrate	Fresh water lake
9	Lake Kopiago	150ha np Southern Highlands	Food source High endemism - invertebrates	Fresh water lake
10	Lake Dakataua	4920ha np West New Britain	Food source High Biodiversity	Large fresh water lake
11	Lake Birip	2.9ha np Enga Province		
12	Lake Ipea and Sirunki Basin	2900ha np Enga Province		
13	Lake Hargy	930ha np East & West New Britain		
14	Sawataetae WMA	700ha 30 th Jun 1977 WMA Milne Bay Province		
15	Lake Wanum	404ha np Morobe Province		
16	Red Hill Swamp	320ha np Morobe Province		
17	Musa Wetlands	179,700ha np Oro Province		
18	Lake Yanamugi	350ha np		

		Morobe Province
19	Mullins Harbor Wetlands	127,700ha np
		Milne Bay Province
20	Rakua Wetlands	59,000ha np
		Milne Bay Province
21	Lake Parago	36ha np
		Enga Province
22	Empress Augusta bay wetlands	90,100ha np
		North Solomons
23	Abia Wetlands and Lahala Lake	29,700ha np
		North Solomons
24	Toriu Wetlands	82,300ha np
		East New Britain
25	Namo Wetlands and Lake Namu	100,000ha np
		West New Britian
26	Kelaua Wetlands	10,000ha np
		Manus Province
27	Malai Wetlands	14,700ha np
		Manus Province
28	Lake Wongabi	4ha np
		Southern Highlands
29	Lake Wololo	4ha np
		Southern Highlands
30	Lake Onim	16ha

		np Southern Highlands
31	Lake Papapli	120ha np Enga Province

C: Proposed Protected Area and listed Wetland Site in the Asian Directory of Wetlands

RANK	SITE NAME	PROTECTION STATUS (LEGISLATION)		IMPORTANCE OF SITE (endemism, vulnerability, etc)	HABITAT TYPE	OTHER COMMENTS
		Size	PA Status			
1	Kikori / Purari River Marine Park/Reserve	1,331,300ha	Proposed	Food source High Biodiversity Flyway for birds	Wetlands Waterways	LNG gas project
2	Waigani Swamp	120ha	Proposed	Food source Flyway for birds	Sago swampland	City sewerage dump
3	Lea lea Salt Flats	Unknown	Proposed	Natural salt pans Mangrove system		
4	Lake Hargy	930ha	Proposed			
5	Chambri Lakes – Sepik/Ramu flood plains	Unknown	Proposed		Tributary & Oxbow sago swamp lakes	
6	Lake Dakataua	4920ha	Proposed		Large inland lake	
7	Mullin Harbor Wetlands (Milne Bay Seascape)	127,700ha	Proposed		Seascape for corals and mangroves	

Data Sheet 1a: Contextual Information

This Sheet records basic information about the Site, such as its name, size and location.

Name, affiliation and contact details for person responsible for completing the METT (email etc.)				
Date assessment carried out				
Name of Ramsar Site		Country:		
Date when Ramsar Site listed:		Total Area of Ramsar Site (ha):		
Ramsar Site number (see http://ramsar.wetlands.org/Database)				
Location of Ramsar Site (province and if possible map reference of centre point)				
List any other International Designations e.g. World Heritage (and fill in section 2 where relevant):				
Ownership details (please tick all that apply):	State	Private	Community	Other
Management Authority:				
Number of staff:	Permanent		Temporary	
Total annual budget (US\$) for Ramsar Site– excluding staff salary costs:	Recurrent (operational) funds:		Project/ other supplementary funds:	
Under which Ramsar criteria was the site designated?				
List the management objectives of the Ramsar Site	Management objective 1: Management objective 2: etc.			

No. of people involved in completing assessment				
Including: (tick boxes)	PA manager <input type="checkbox"/>	PA staff <input type="checkbox"/>	Other PA agency staff <input type="checkbox"/>	NGO <input type="checkbox"/>
	Local community <input type="checkbox"/>	Donors <input type="checkbox"/>	External experts <input type="checkbox"/>	Other <input type="checkbox"/>
	Ramsar Site manager <input type="checkbox"/>		Government representative <input type="checkbox"/>	
Please note if assessment was carried out in association with a particular project, on behalf of an organisation or donor.				

Data Sheet 1b: Identifying and describing values from the Ecological Character Description and the Ramsar Information Sheet

PART A: RAMSAR CRITERIA – reflects the criteria used for site designation			
No.	Key values	Description	Ramsar Criterion
li	e.g. Only known breeding area for the New Zealand crane	e.g. Large freshwater wetland areas immediately above high tide provide nesting sites and food for rearing chicks. Island location means no interference from feral animals or from vehicles.	e.g. Criterion 2
PART B - OTHER IMPORTANT FEATURES – from the Ecological Character Description or other knowledge of site managers.			
Vn°	Key values	Description	ECD group
Vx	Key area for community- based fishing industry	Provides primary food source for local population of approx. 2000 villagers	Ecological services and benefits

Data Sheet 2: National and International Designations

Nationally designated Protected Areas which fall within the boundaries of the Ramsar Site (add extra columns as required):					
Name	Designation	IUCN category	Area (ha)	Date of Establishment	WDPA code

UNESCO World Heritage site (see: whc.unesco.org/en/list)				
Site name	Site area (ha)	Date Listed	Geographical co-ordinates	WDPA Code
Criteria for designation (i.e. criteria i to x)				
Statement of Outstanding Universal Value				

UNESCO Man and Biosphere Reserves (see: www.unesco.org/mab/wnbrs.shtml)						
Site name	Date listed	Site area (ha):				Geographical co-ordinates
		Total:	Core:	Buffer:	Transition	
Criteria for designation						
Fulfillment of three functions of MAB (conservation, development and logistic support.)						

Please list other designations (i.e. ASEAN Heritage, Natura 2000) and any supporting information below	
Name:	Details:

Data Sheet 3: Ramsar Sites Threats

Please tick all relevant threats (both current and potential) as either of high, medium or low significance. Note that some of the activities listed are not always threats – only tick them if they threaten the site’s integrity in some way. Threats ranked as of high significance are those which are seriously degrading values; medium are those threats having some negative impact and those characterized as low are threats which are present but not seriously impacting values or N/A where the threat is not present or not applicable in the Ramsar Site.

1. Residential and commercial development within a Ramsar Site

Threats from human settlements or other non-agricultural land uses with a substantial footprint

High	Medium	Low	N/A	Threat	Notes
				1.1 Housing and settlement	
				1.2 Commercial and industrial areas	
				1.3 Tourism and recreation infrastructure	

2. Agriculture and aquaculture within a Ramsar Site

Threats from farming and grazing as a result of agricultural expansion and intensification, including silviculture, mariculture and aquaculture

High	Medium	Low	N/A	Threat	Notes
				2.1 Annual and perennial non-timber crop cultivation	
				2.1a Drug cultivation	
				2.2 Wood and pulp plantations	
				2.3 Livestock farming and grazing	
				2.4 Marine and freshwater aquaculture	

3. Energy production and mining within a Ramsar Site

Threats from production of non-biological resources

High	Medium	Low	N/A	Threat	Notes
				3.1 Oil and gas drilling	
				3.2 Mining and quarrying	
				3.3 Energy generation, including from hydropower dams, wind farms and solar panels	

4. Transportation and service corridors within a Ramsar Site

Threats from long narrow transport corridors and the vehicles that use them including associated wildlife mortality

High	Medium	Low	N/A	Threat	Notes
				4.1 Roads and railroads (include road-killed animals)	
				4.2 Utility and service lines (e.g. electricity cables, telephone lines,)	
				4.3 Shipping lanes and canals	
				4.4 Flight paths	
				4.5 Ports with large scale loading and unloading of products	

5. Biological resource use and harm within a Ramsar Site

Threats from consumptive use of "wild" biological resources including both deliberate and unintentional harvesting effects; also persecution or control of specific species (note this includes hunting and killing of animals)

High	Medium	Low	N/A	Threat	Notes
				5.1 Unsustainable and illegal hunting, killing and collecting terrestrial (native) animals (including killing of animals as a result of human/wildlife conflict)	
				5.2 Gathering terrestrial (native) plants or plant products (non-timber)	
				5.3 Logging and wood harvesting	
				5.4 Fishing, killing and harvesting (native) aquatic resources	

6. Human intrusions and disturbance within a Ramsar Site

Threats from human activities that alter, destroy or disturb habitats and species associated with non-consumptive uses of biological resources

High	Medium	Low	N/A	Threat	Notes
				6.1 Recreational activities and tourism	
				6.2 War, civil unrest and military exercises	
				6.3 Research, education and other work-related activities in Ramsar Site	
				6.4 Activities of site managers (e.g. construction or vehicle use, artificial watering points and dams)	
				6.5 Deliberate vandalism, destructive activities or threats to protected area staff and visitors	

7. Natural system modifications

Threats from other actions that convert or degrade habitat or change the way the ecosystem functions.

High	Medium	Low	N/A	Threat	Notes
				7.0 Habitat clearing	
				7.1 Fire and fire suppression (including arson)	
				7.2 Dams, hydrological modification and water management/use	
				7.3a Increased fragmentation within Ramsar Site	
				7.3b Isolation from other natural habitat (e.g. deforestation, dams without effective aquatic wildlife passages)	
				7.3c Other 'edge effects' on wetland values	
				7.3d Loss of keystone species (e.g. top predators, pollinators etc)	

7a. Hydrological change

High	Medium	Low	N/A	Threat	Notes
				7a.1 Dams within or upstream of site altering hydrological regime	
				7a.2 Water extraction/diversion within site or catchment	
				7a.3 Excess ponding of water in site (e.g. for flood storage)	
				7a.4 Loss of hydrological connectivity (e.g. via stop banks)	
				7a.5 Drought conditions	
				7a.6 Desertification	

8. Invasive and other problematic species and genes

Threats from terrestrial and aquatic non-native and native plants, animals, pathogens/microbes or genetic materials that have or are predicted to have harmful effects on biodiversity following introduction, spread and/or increase

High	Medium	Low	N/A	Threat	Notes
				8.1 Invasive non-native/alien plants (weeds)	
				8.1a Invasive non-native/alien animals	
				8.1b Invasive native species (plants or animals)	
				8.1c Pathogens (non-native or native but creating new/increased problems)	
				8.2 Introduced genetic material (e.g. genetically modified organisms)	

9. Pollution entering or generated within Ramsar Site

Threats from introduction of exotic and/or excess materials or energy from point and non-point sources

High	Medium	Low	N/A	Threat	Notes
				9.1 Household sewage and urban waste water from outside the Ramsar Site	
				9.1a Sewage and waste water from Ramsar Site facilities (e.g. toilets, hotels etc)	
				9.2 Industrial, mining and military effluents and discharges (e.g. unnatural temperatures, de-oxygenated, higher salinity, other pollution)	
				9.3 Agricultural and forestry effluents (e.g. excess fertilizers or pesticides)	
				9.4 Garbage and solid waste	
				9.5 Air-borne pollutants	
				9.6 Excess energy (e.g. heat pollution, lights etc)	

10. Geological events

Geological events may be part of natural disturbance regimes in many ecosystems but they can be a threat if a species or habitat is damaged and has lost its resilience and is vulnerable to disturbance. Management capacity to respond to some of these changes may be limited.

High	Medium	Low	N/A	Threat	Notes
				10.1 Volcanoes	
				10.2 Earthquakes/Tsunamis	
				10.3 Avalanches/ Landslides	
				10.4 Erosion and siltation/ deposition (e.g. shoreline or riverbed changes)	

11. Climate change and severe weather

Threats from long-term climatic changes which may be linked to global warming and other severe climatic/weather events outside of the natural range of variation

High	Medium	Low	N/A	Threat	Notes
				11.1 Habitat shifting and alteration	
				11.2 Droughts	
				11.3 Temperature extremes	
				11.4 Storms and flooding	

12. Specific cultural and social threats

High	Medium	Low	N/A	Threat	Notes
				12.1 Loss of cultural links, traditional knowledge and/or management practices	
				12.2 Natural deterioration of important cultural site values	
				12.3 Destruction of cultural heritage buildings, gardens, sites etc	

Data Sheet 4: Assessment form

Answer all questions that relate to the Site. Do not answer questions that are not relevant to the Site.

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
1. Legal status Does the Ramsar Site have legal status (or in the case of private reserves is covered by a covenant or similar)? <i>Context</i>	The Ramsar Site is not legally protected	0			
	There is agreement that the Ramsar Site should be legally protected but the process has not yet begun	1			
	The Ramsar Site is in the process of being legally protected but the process is still incomplete (includes sites designated under international conventions, such as Ramsar, or local/traditional law such as community conserved areas, which do not yet have national legal status or covenant)	2			
	The Ramsar Site has been formally legally protected	3			
2. Ramsar Site regulations Are regulations in place to control land use and activities (e.g. hunting)? <i>Planning</i>	There are no regulations for controlling land use and activities in the Ramsar Site	0			
	Some regulations for controlling land use and activities in the Ramsar Site exist but these are major weaknesses	1			
	Regulations for controlling land use and activities in the Ramsar Site exist but there are some weaknesses or gaps	2			
	Regulations for controlling inappropriate land use and activities in the Ramsar Site exist and provide an excellent basis for management	3			
3. Law enforcement Can staff (i.e. those with responsibility for managing the site) enforce Ramsar Site rules well enough? <i>Input</i>	The staff have no effective capacity/resources to enforce Ramsar Site legislation and regulations	0			
	There are major deficiencies in staff capacity/resources to enforce Ramsar Site legislation and regulations (e.g. lack of skills, no patrol budget, lack of institutional support)	1			
	The staff have acceptable capacity/resources to enforce Ramsar Site legislation and regulations but some deficiencies remain	2			
	The staff have excellent capacity/resources to enforce Ramsar Site legislation and regulations	3			
4. Ramsar Site objectives Is management undertaken according	No firm objectives have been agreed for the Ramsar Site	0			
	The Ramsar Site has agreed objectives, but is not managed according to these objectives	1			
	The Ramsar Site has agreed objectives, but is only partially managed according to these objectives	2			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
to agreed objectives? <i>Planning</i>	The Ramsar Site has agreed objectives and is managed to meet these objectives	3			
5. Ramsar Site design Is the Ramsar Site the right size and shape to protect species, habitats, ecological processes and water catchments of key conservation concern? <i>Planning</i>	Inadequacies in Ramsar Site design mean achieving the major objectives of the Ramsar Site is very difficult	0			
	Inadequacies in Ramsar Site design mean that achievement of major objectives is difficult but some mitigating actions are being taken (e.g. agreements with adjacent land owners for wildlife corridors or introduction of appropriate catchment management)	1			
	Ramsar Site design is not significantly constraining achievement of objectives, but could be improved (e.g. with respect to larger scale ecological processes)	2			
	Ramsar Site design helps achievement of objectives; it is appropriate for species and habitat conservation; and maintains ecological processes such as surface and groundwater flows at a catchment scale, natural disturbance patterns etc	3			
6. Ramsar Site boundary demarcation Is the boundary known and demarcated? <i>Process</i>	The boundary of the Ramsar Site is not known by the management authority or local residents/neighbouring land users	0			
	The boundary of the Ramsar Site is known by the management authority but is not known by local residents/neighbouring land users	1			
	The boundary of the Ramsar Site is known by both the management authority and local residents/neighbouring land users but is not appropriately demarcated	2			
	The boundary of the Ramsar Site is known by the management authority and local residents/neighbouring land users and is appropriately demarcated	3			
7. Management plan Is there a management plan and is it being implemented? <i>Planning</i>	There is no management plan for the Ramsar Site	0			
	A management plan is being prepared or has been prepared but is not being implemented	1			
	A management plan exists but it is only being partially implemented because of funding constraints or other problems	2			
	A management plan exists and is being implemented	3			
Additional points: <i>Planning</i>					
7a. Planning process	The planning process allows adequate opportunity for key stakeholders to influence the management plan	+1			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
7b. Planning process	There is an established schedule and process for periodic review and updating of the management plan	+1			
7c. Planning process	The results of monitoring, research and evaluation are routinely incorporated into planning	+1			
8. Regular work plan	No regular work plan exists	0			
Is there a regular work plan and is it being implemented <i>Planning/Outputs</i>	A regular work plan exists but few of the activities are implemented	1			
	A regular work plan exists and many activities are implemented	2			
	A regular work plan exists and all activities are implemented	3			
9. Resource inventory	There is little or no information available on the critical habitats, species and cultural values of the Ramsar Site	0			
Do you have enough information to manage the area? <i>Input</i>	Information on the critical habitats, species, ecological processes and cultural values of the Ramsar Site is not sufficient to support planning and decision making	1			
	Information on the critical habitats, species, ecological processes and cultural values of the Ramsar Site is sufficient for most key areas of planning and decision making	2			
	Information on the critical habitats, species, ecological processes and cultural values of the Ramsar Site is sufficient to support all areas of planning and decision making	3			
10. Protection systems	Protection systems (patrols, permits etc) do not exist or are not effective in controlling access/resource use	0			
Are systems in place to control access/resource use in the Ramsar Site? <i>Process/Outcome</i>	Protection systems are only partially effective in controlling access/resource use	1			
	Protection systems are moderately effective in controlling access/resource use	2			
	Protection systems are largely or wholly effective in controlling access/resource use	3			
11. Research	There is no survey or research work taking place in the Ramsar Site	0			
Is there a programme of management-orientated survey and research work? <i>Process</i>	There is a small amount of survey and research work but it is not directed towards the needs of Ramsar Site management	1			
	There is considerable survey and research work but it is not directed towards the needs of Ramsar Site management	2			
	There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs	3			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
12. Habitat management Is active habitat management being undertaken? <i>Process</i>	No active management of critical habitats, species, ecological processes and/or cultural values is being undertaken	0			
	Very few of the requirements for active management of critical habitats, species, ecological processes and/pr cultural values are being implemented	1			
	Many of the requirements for active management of critical habitats, species, ecological processes and/or cultural values are being implemented but some key issues are not being addressed	2			
	Requirements for active management of critical habitats, species, ecological processes and/or cultural values are being substantially or fully implemented	3			
13. Staff numbers Are there enough people employed to manage the Ramsar Site? <i>Inputs</i>	There are no staff	0			
	Staff numbers are inadequate for critical management activities	1			
	Staff numbers are below optimum level for critical management activities	2			
	Staff numbers are adequate for the management needs of the Ramsar Site	3			
14. Staff training Are staff adequately trained to fulfil management objectives? <i>Inputs/Process</i>	Staff lack the skills needed for Ramsar Site management	0			
	Staff training and skills are low relative to the needs of the Ramsar Site	1			
	Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management	2			
	Staff training and skills are aligned with the management needs of the Ramsar Site	3			
15. Current budget Is the current budget sufficient? <i>Inputs</i>	There is no budget for management of the Ramsar Site	0			
	The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage	1			
	The available budget is acceptable but could be further improved to fully achieve effective management	2			
	The available budget is sufficient and meets the full management needs of the Ramsar Site	3			
16. Security of budget Is the budget secure?	There is no secure budget for the Ramsar Site and management is wholly reliant on outside or highly variable funding	0			
	There is very little secure budget and the Ramsar Site could not function adequately without outside funding	1			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
<i>Inputs</i>	There is a reasonably secure core budget for regular operation of the Ramsar Site but many innovations and initiatives are reliant on outside funding	2			
	There is a secure budget for the Ramsar Site and its management needs	3			
17. Management of budget	Budget management is very poor and significantly undermines effectiveness (e.g. late release of budget in financial year)	0			
Is the budget managed to meet critical management needs?	Budget management is poor and constrains effectiveness	1			
	Budget management is adequate but could be improved	2			
	Budget management is excellent and meets management needs	3			
<i>Process</i>					
18. Equipment	There are little or no equipment and facilities for management needs	0			
Is equipment sufficient for management needs?	There are some equipment and facilities but these are inadequate for most management needs	1			
	There are equipment and facilities, but still some gaps that constrain management	2			
	There are adequate equipment and facilities	3			
<i>Input</i>					
19. Maintenance of equipment	There is little or no maintenance of equipment and facilities	0			
Is equipment adequately maintained?	There is some <i>ad hoc</i> maintenance of equipment and facilities	1			
	There is basic maintenance of equipment and facilities	2			
	Equipment and facilities are well maintained	3			
<i>Process</i>					
20. Education and awareness	There is no education and awareness programme	0			
Is there a planned education programme linked to the objectives and needs?	There is a limited and <i>ad hoc</i> education and awareness programme	1			
	There is an education and awareness programme but it only partly meets needs and could be improved	2			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
<i>Process</i>	There is an appropriate and fully implemented education and awareness programme	3			
21. Planning for land and water use	Adjacent land and water use planning does not take into account the needs of the Ramsar Site and activities/policies are detrimental to the survival of the area	0			
Does land and water use planning recognise the Ramsar Site and aid the achievement of objectives?	Adjacent land and water use planning does not take into account the long term needs of the Ramsar Site, but activities are not detrimental the area	1			
	Adjacent land and water use planning partially takes into account the long term needs of the Ramsar Site	2			
	Adjacent land and water use planning fully takes into account the long term needs of the Ramsar Site	3			
<i>Planning</i>					
Additional points: Land and water planning					
21a: Land and water planning for habitat conservation	Planning and management in the catchment or landscape containing the Ramsar Site incorporates provision for adequate environmental conditions (e.g. volume, quality and timing of water flow, air pollution levels etc) to sustain relevant habitats.	+1			
21b: Land and water planning for connectivity	Management of corridors linking the Ramsar Site provides for wildlife passage to key habitats outside the Ramsar Site (e.g. to allow migratory fish to travel between freshwater spawning sites and the sea, or to allow animal migration).	+1			
21c: Land and water planning for ecosystem services & species conservation	"Planning addresses ecosystem-specific needs and/or the needs of particular species of concern at an ecosystem scale (e.g. volume, quality and timing of freshwater flow to sustain particular species, fire management to maintain savannah habitats etc.)"	+1			
22. State and commercial neighbours	There is no contact between managers and neighbouring official or corporate land and water users	0			
Is there co-operation with adjacent land and water users?	There is contact between managers and neighbouring official or corporate land and water users but little or no cooperation	1			
	There is contact between managers and neighbouring official or corporate land and water users, but only some co-operation	2			
	There is regular contact between managers and neighbouring official or corporate land and water users, and substantial co-operation on management	3			
<i>Process</i>					
23. Indigenous peoples	Indigenous peoples have no input into decisions relating to the management of the Ramsar Site	0			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
Do indigenous peoples resident or regularly using the Ramsar Site have input to management decisions? <i>Process</i>	Indigenous peoples have some input into discussions relating to management but no direct role in management	1			
	Indigenous peoples directly contribute to some relevant decisions relating to management but their involvement could be improved	2			
	Indigenous peoples directly participate in all relevant decisions relating to management, e.g. co-management	3			
24. Local communities Do local communities resident or near the Ramsar Site have input to management decisions? <i>Process</i>	Local communities have no input into decisions relating to the management of the Ramsar Site	0			
	Local communities have some input into discussions relating to management but no direct role in management	1			
	Local communities directly contribute to some relevant decisions relating to management but their involvement could be improved	2			
	Local communities directly participate in all relevant decisions relating to management, e.g. co-management	3			
<i>Additional points Indigenous peoples and local communities</i>					
24 a. Impact on communities	There is open communication and trust between indigenous peoples and local communities, stakeholders and Ramsar Site managers	+1			
24b. Impact on communities	Programmes to enhance community welfare, while conserving Ramsar Site resources, are being implemented	+1			
24c. Impact on communities	Indigenous peoples and local communities actively support the Ramsar Site	+1			
25. Economic benefit Is the Ramsar Site providing economic benefits to local communities, e.g. income, employment, payment for environmental services? <i>Outcomes</i>	The Ramsar Site does not deliver any economic benefits to local communities	0			
	Potential economic benefits are recognised and plans to realise these are being developed	1			
	There is some flow of economic benefits to local communities	2			
	There is a major flow of economic benefits to local communities from activities associated with the Ramsar Site	3			
26. Monitoring and evaluation	There is no monitoring and evaluation in the Ramsar Site	0			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
Are management activities monitored against performance? <i>Planning/Process</i>	There is some <i>ad hoc</i> monitoring and evaluation, but no overall strategy and/or no regular collection of results	1			
	There is an agreed and implemented monitoring and evaluation system but results do not feed back into management	2			
	A good monitoring and evaluation system exists, is well implemented and used in adaptive management	3			
27. Visitor facilities Are visitor facilities adequate? <i>Outputs</i>	There are no visitor facilities and services despite an identified need	0			
	Visitor facilities and services are inappropriate for current levels of visitation	1			
	Visitor facilities and services are adequate for current levels of visitation but could be improved	2			
	Visitor facilities and services are excellent for current levels of visitation	3			
28. Commercial tourism operators Do commercial tour operators contribute to Ramsar Site management? <i>Process</i>	There is little or no contact between managers and tourism operators using the Ramsar Site	0			
	There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters	1			
	There is limited co-operation between managers and tourism operators to enhance visitor experiences and maintain Ramsar Site values	2			
	There is good co-operation between managers and tourism operators to enhance visitor experiences, and maintain Ramsar Site values	3			
29. Fees If fees (i.e. entry fees or fines) are applied, do they help Ramsar Site management? <i>Inputs/Process</i>	Although fees are theoretically applied, they are not collected	0			
	Fees are collected, but make no contribution to the Ramsar Site or its environs	1			
	Fees are collected, and make some contribution to the Ramsar Site and its environs	2			
	Fees are collected and make a substantial contribution to the Ramsar Site and its environs	3			
30. Condition of key management targets What is the condition of the important values of the Ramsar	Many important biodiversity, ecological or cultural values are being severely degraded	0			
	Some biodiversity, ecological or cultural values are being severely degraded	1			
	Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted	2			

Issue	Criteria	Score: Tick only one box per question		Comment/Explanation	Next steps
Site as compared to when it was first designated? (this answer should be a conclusion from datasheet 5) <i>Outcomes</i>	Biodiversity, ecological and cultural values are predominantly intact	3			
Additional questions specific to Ramsar Sites					
31: Ecological Character Description	Work on the description of the ecological character of the Ramsar Site has not begun	0			
	Work has begun to create a description of the ecological character of the Ramsar Site, but no draft is yet available	1			
	A description of the ecological character of the site has been drafted, but is incomplete or out of date	2			
	A description of the ecological character of the site has been completed	3			
32: Cross sectorial Management Committee	No cross-sectorial management committee is in place	0			
	Potential stakeholders for the creation of a cross-sectorial management committee have been identified, but no management committee has been established	1			
	A management committee has been established, but is not significantly involved in the management of the site	2			
	A functioning cross-sectorial management committee is in place	3			
33. Communication mechanisms with Ramsar administrative authority	There are no mechanisms in place for communication between the Ramsar Administrative authority and site managers	0			
	Communication between the Ramsar Administrative authority and site managers exists but is ad-hoc and poorly developed	1			
	Communication mechanisms are in place but could be improved	2			
	Mechanisms are in place for communication between the Ramsar Administrative authority and site managers and function well	3			

34. Of the 33 questions above, please list in order of importance	Question number	Why is this a major constraint to effective management

the five that reflect the major constraints to effective management of your Ramsar Site		

35. Of the 33 questions above, please list in order of importance the five greatest strengths of your current management of your Ramsar Site	Question number	Why do you think this has become a strength of current management? (e.g. due to manager's efforts or government commitment?)

Data Sheet 5: Trends in Ecological Character

Key values for the Ramsar Site should be copied from Datasheet 1b. This section provides information on trends at the site since the last evaluation concerning the criteria under which the site was designated as a Ramsar Site and the services that it provides

Note: The current state of values is assessed against five ratings: **Good, Low Concern, High Concern, Critical** and **Data Deficient**. The baseline for the assessment should be the condition at the time of designation, with reference to the best-recorded historical conservation state. Trend is assessed in relation to whether the condition of a value is **Improving, Stable, Deteriorating** or **Data Deficient**, and is intended to be snapshot of recent developments over the last three years.

PART A: RELEVANT QUALIFYING FEATURE RELATED TO RAMSAR CRITERIA – reflects the criteria used for site designation	Assessment					Trend				Justification for Assessment
	Good	Low Concern	High Concern	Critical	Data Deficient (DD)	I ↑	S ↔	D ↓	DD	
Relevant qualifying feature related to Ramsar Criteria including brief description of how the site fulfills each Criterion (from RIS)										Brief description to explain the basis of the <i>Assessment</i> and <i>Trend</i> columns
PART B - OTHER IMPORTANT FEATURES – from the Ecological Character Description or other knowledge of site managers.										
Assessment of the overall current state and trend of Ramsar Site ecological character:										