

12th Meeting of the Conference of the Parties to the Convention on Wetlands (Ramsar, Iran, 1971)

Punta del Este, Uruguay, 1-9 June 2015

Resolution XII.15

Evaluation of the management and conservation effectiveness of Ramsar Sites

- THANKING the Government of Thailand, the Republic of Korea, Gyeongnam Province (R.O. Korea) and the Ramsar Regional Center East Asia for their generous sponsorship and organization of a workshop in Bangkok in June 2014 that laid the ground for the text of this Resolution;
- 2. RECALLING Article 3.1 of the Convention, which states that "Contracting Parties shall formulate and implement their planning so as to promote the conservation of the wetlands included in the List" of Wetlands of International Importance;
- RECALLING that the designation of a wetland for inclusion in the List of Wetlands of International Importance (Ramsar Sites) is one of the various components of a long-term international commitment to its conservation and wise use, through the maintenance of its ecological character as well as the ecosystem services and benefits it provides;
- 4. RECOGNIZING the important role played by indigenous peoples and local communities subject to the respective national laws of the Contracting Parties in the management and wise use of wetlands and the Guidelines for establishing and strengthening local communities' and indigenous people's participation in the management of wetlands (Resolution VII.8, Annex);
- RECALLING that Resolution 5.7 Management planning for Ramsar sites and other wetlands
 called for Contracting Parties to establish appropriate legal and administrative structures for the
 application of management planning, funding for the implementation of the plans, and training
 of the necessary staff;
- 6. APPRECIATING the guidance detailed in Resolution VIII.14 New Guidelines for management planning for Ramsar sites and other wetlands, which calls for the development of management plans or management planning processes with clear objectives using simple and measurable indicators for each Ramsar Site, and which also highlights the importance of adaptive management, including both planning and evaluation, to create effective management outcomes;
- RECALLING the publication by the Scientific and Technical Review Panel (STRP), WWF and IUCN in 2008 of Wetland Management Planning a guide for site managers, a practical guide to Ramsar's management planning based on Resolution VIII.14¹;

¹ http://assets.panda.org/downloads/wetlands management guide 2008.pdf

- 8. RECALLING that Strategy 2.5 of the Ramsar Strategic Plan 2009 2015 (Resolution X.1) called on Contracting Parties to "Review all existing Ramsar Sites to determine the effectiveness of management arrangements, in line with the Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance";
- 9. NOTING however that not all Contracting Parties have tools in place for effective management planning;
- 10. RECALLING that Annex E of Resolution IX.1 provided an integrated framework for wetland inventory, assessment and monitoring, but AWARE that there is currently no agreed process for evaluating the effectiveness of Ramsar Site management and its outcomes;
- 11. NOTING the adoption and use of Protected Area Management Evaluation (PAME) tools by networks of protected areas such as World Heritage Sites and ASEAN Heritage Parks, and by institutions with a role in supporting their effective management, such as the World Bank and the Global Environment Facility:
- 12. FURTHER NOTING the Convention on Biological Diversity's Decision X/31 of 2010, that called for the institutionalization of management effectiveness assessment, for 60% of the total area of protected areas to be assessed by 2015, and for the results of the assessments to be implemented; and
- 13. ALSO RECALLING CBD Decision XI/24 which invited the Ramsar Convention and other partners to align their activities to best support the implementation of national work programmes on protected areas;

THE CONFERENCE OF THE CONTRACTING PARTIES

Ramsar Site management planning:

- 14. ENCOURAGES Contracting Parties to promote and support the Ramsar Site authorities responsible for management to develop an integrated planning, management and evaluation system which promotes the wise use of all their Sites in close alignment with the targets of the Strategic Plan 2016-2024;
- 15. INVITES Ramsar Site management authorities to assess and measure the services that their Site provides (such as the storage, treatment and provision of water, support to the livelihoods and health of human communities, disaster risk reduction, climate regulation, biodiversity conservation, tourism and education) and ensure the maintenance of these services in their management processes;
- 16. INVITES Contracting Parties to support the translation of *Wetland Management Planning a Guide for Site Managers* into languages which are not official languages of the Ramsar Convention;
- 17. REAFFIRMS the long-term value of taking a participatory approach involving indigenous peoples and local communities subject to the respective national laws of the Contracting Parties when designating and managing Ramsar Sites;
- 18. ENCOURAGES Contracting Parties to support or establish appropriate mechanisms or modes of interactions between different Ramsar Site management authorities in order to allow them to

- communicate on issues of common interest and to coordinate with the Ramsar Administrative Authorities;
- 19. URGES Contracting Parties to encourage Ramsar Site management authorities to use Ramsar communication tools including websites and social media to exchange and promote good practice on wetland management practice more widely;
- 20. ENCOURAGES Parties when monitoring the condition of Ramsar Sites to ensure that such assessments not only include biological and hydrological components but also consider the socio-economic status of any indigenous peoples and local communities, subject to the respective national laws of the Contracting Parties;

Evaluating the effectiveness of Ramsar Site management:

- 21. EMPHASIZES the importance of evaluating the management effectiveness of Ramsar Sites and, where mechanisms are not already in place, that some Contracting Parties on a voluntary basis may find it useful to refer to appropriate Protected Area Management Evaluation (PAME) tools for effective management over time; and URGES the Ramsar Secretariat, STRP, International Organization Partners (IOPs), Ramsar Regional Centres and other partners to consider supporting the Contracting Parties in their efforts, including capacity building to apply management effectiveness tools;
- 22. APPROVES the Ramsar Site Management Effectiveness Tracking Tool (R-METT) annexed to this Resolution, as a voluntary self-assessment tool for evaluating the management effectiveness of Ramsar Sites and other wetlands; ENCOURAGES Contracting Parties that do not already have effective mechanisms in place for effective management planning of their Ramsar Sites, to consider using the R-METT; and CONFIRMS that this Resolution does not create additional reporting obligations for Parties;
- 23. ENCOURAGES Ramsar Site management authorities to evaluate the effectiveness of the management of each of their Ramsar Sites in collaboration with relevant stakeholders as appropriate;
- 24. ENCOURAGES Parties when undertaking voluntary management effectiveness assessments to use the data and information so gathered to update the relevant sections of the Ramsar Information Sheet (RIS) for the Site concerned so as to inform these RIS updates;
- 25. ENCOURAGES those Ramsar Site management authorities who use the R-METT to also refer to the *Integrated Framework for wetland inventory, assessment and monitoring* approved as Annex E of Resolution IX.1, and other relevant Ramsar guidelines, when making these assessments;
- 26. ALSO ENCOURAGES Contracting Parties, where appropriate, to utilise R-METT when preparing their National Reports and describing the status of Sites on the List; and
- 27. INVITES Contracting Parties to seek opportunities to report the results of any evaluation of the effectiveness of Ramsar Site management to UNEP World Conservation Monitoring Centre (WCMC), who host of the global database on protected area management effectiveness, so they may summarize global and regional trends in protected area management effectiveness.

Annex 1

Ramsar Site Management Effectiveness Tracking Tool (R-METT)

- The process by which Ramsar Contracting Parties identify wetlands within their territories for inclusion in the List of Wetlands of International Importance, and then ensure the long-term management and conservation of those 'Ramsar Sites', is one of the cornerstones of the implementation of the Convention. As of 2015, over 2,200 Sites had been designated, making this the largest network of wetland conservation areas worldwide.
- 2. For the wise use of Ramsar Sites to be ensured, Site managers must be able to anticipate new issues and to respond to them rapidly and effectively. To make this possible, they should conduct regular and open assessments of the effectiveness of the management of the Site, and learn from both successes and failures. The Ramsar Convention acknowledges the importance of management effectiveness evaluation through Resolution IX.1 Annex D, which provides ecological 'outcome-oriented' indicators for assessing the implementation effectiveness of the Convention.
- 3. A range of Protected Area Management Effectiveness (PAME) assessment tools are available. One of the longest-serving of these is the Management Effectiveness Tracking Tool (METT) published by WWF and the World Bank in 2003². In 2005³ and 2008⁴, studies found the METT suitable to evaluate the management effectiveness of Ramsar Sites.
- 4. In June 2014, a workshop was held in Bangkok, Thailand, to look further into the Ramsar Convention adopting a PAME tool for use at Ramsar Sites. It was hosted by the Government of Thailand and supported by the Government of the R.O. Korea, Gyeongnam Province (R.O. Korea) and the Ramsar Regional Center East Asia; participants from each of the Ramsar regions as well as STRP Focal Points and other Ramsar partners. They acknowledged that certain Contracting Parties had already adopted a PAME tool, and recommended that others adopt a Ramsar-adapted version of the METT for use at their Ramsar Sites.
- 5. The METT is designed to be a simple and rapid site assessment system that over time has been adapted for use by different organizations depending on the national or regional circumstances. It contains a set of questions that have been designed to be easily answered by the management authority without any additional research. Usually, the questions in the METT would be answered by a group consisting of staff from the management authority and other stakeholders with an interest in the conservation and wise use of the wetland.
- 6. The Ramsar-adapted METT, or R-METT, comprises the following sections:
 - Data Sheet 1a: Contextual Information. This records basic information about the Site, such as its name, size and location.

² Anon., 2007. *Management Effectiveness Tracking Tool Reporting Progress at Protected Area Sites:* Second Edition. WWF International and World Bank.

³ Chatterjee, A. and Pittock, J. 2005. *Piloting the management effectiveness tracking tool in Ramsar sites. A report from WWF to the Ramsar Convention and its Scientific and Technical Review Panel*. WWF. Gland, Switzerland.

⁴ UNEP-WCMC, 2008. *Effectively managing the world's wetlands: An analysis of applications of the Management Effectiveness Tracking Tool in Ramsar sites*. UNEP-WCMC. Cambridge, U.K.

- Data Sheet 1b: Identifying and describing values from the Ecological Character Description and the Ramsar Information Sheet. This provides information on the ecological character of the Site including the ecosystem services that it provides, and the Criteria under which the Site qualifies as a Wetland of International Importance.
- Data Sheet 2: National and International Designations. This records information on international designations: i.e. UNESCO World Heritage, Man and Biosphere sites and Ramsar wetland sites.
- Data Sheet 3: Ramsar Sites Threats. This provides a generic list of threats which Ramsar Sites can face with an indication of the relative extent of that threat to the ecological character of the Site.
- Data Sheet 4: Assessment form. The assessment is structured around 33 questions
 presented in table format which includes three columns for recording details of the
 assessment.

Further explanation on the application of Data Sheet 4

<u>Questions and scores</u>: the assessment is made by **assigning a simple score ranging between 0 (poor) to 3 (excellent)**. A series of four alternative answers are provided against each question to help assessors to make judgements as to the level of score given. In addition, there are supplementary questions which elaborate on key themes in the previous questions and provide additional information and points.

This is, inevitably, an approximate process and there will be situations in which none of the four alternative answers appear to fit conditions in the protected area very precisely. You should choose the answer that is nearest and use the comment/explanation section to elaborate. *Questions that are not relevant to a particular protected area should be omitted*, with a reason given in the comment/explanation section (for example questions about use and visitors will not be relevant to a protected area managed according to the IUCN protected area management Category Ia).

The maximum score of the 33 questions and supplementary questions is 101. A final total of the score from completing the assessment form can be *calculated as a percentage of 101 or of the total score from those questions that were relevant to a particular protected area*. (As noted above if questions are believed to be irrelevant, this should be noted in the comment/explanation column). Thus if a protected area scores 65 out of a maximum score of 87 the percentage can be calculated by dividing 65 by 87 and multiplying by 100 (i.e. $65 \div 87 \times 100 = 75\%$).

The whole concept of "scoring" progress is however fraught with difficulties and possibilities for distortion. The current system assumes, for example, that all the questions cover issues of equal weight, whereas this is not necessarily the case. Scores will therefore provide a better assessment of effectiveness if calculated as a percentage for each of the six elements of the IUCN World Commission on Protected Area (WCPA) Framework (i.e. context, planning, inputs, process, outputs and assessments).

<u>Comment/explanation</u>: a box next to each question allows for **qualitative judgements to be explained** in more detail. This could range from local staff knowledge (in many cases, staff knowledge will be the most informed and reliable source of knowledge), a reference

document, monitoring results or external studies and assessments – the point being to give anyone reading the report an idea of why the assessment was made.

It is **very important** that this box be completed – it can provide greater confidence in the results of the assessment by making the basis of decision-making more transparent. More importantly, it provides a reference point and information for local staff in the future. This column also allows for **comments**, such as why a particular question was not answered, to be included when completing the questionnaire.

<u>Next Steps</u>: for each question respondents are also asked to identify any intended actions that will improve management performance.

- Data Sheet 5: Trends in Ramsar Ecological Character (including ecosystem services and community benefits)⁴ This section provides information on trends over the past five years in the ecological character of the Site including the ecosystem services that it provides, and the Criteria under which the Site qualifies as a Ramsar Site.
- 7. Data Sheets 1 to 4 are adapted from the METT¹, but Data Sheet 5 is adapted from the IUCN Conservation Assessment⁵ for World Heritage Sites. While Data Sheets 1 to 4 focus mainly on the **context**, **planning**, **inputs**, **process** and **outputs** sections of the management effectiveness cycle⁶, Data Sheet 5 focuses on **outcomes**.
- 8. Note that Data Sheets 1a, 1b, 2 and 3 contain information that is common with elements of the Ramsar Information Sheet, which may provide a valuable resource for informing a more detailed RIS assessment.

⁵ IUCN, 2012, *IUCN Conservation Outlook Assessments - Guidelines for their application to natural World Heritage Sites. Version 1.3.* IUCN. Gland, Switzerland.

⁶ Hockings, M., Stolton, S., Dudley, N., Leverington, F. and Courrau, J., 2006. *Evaluating effectiveness: a framework for assessing the management of protected areas.* Second edition. IUCN, Gland, Switzerland and Cambridge, UK.

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 | | | Cou | ntry: | | |
| Date when Ramsar Site listed: | | | | l Area of Ramsar (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: | | | | | 1 | |
| Number of staff: | Permanent | | | Temporary | | |
| Total annual budget (US\$) for Ramsar Site– excluding staff salary costs: | Recurrent (opera | tional) funds: | | Project/ other su | pplementary | funds: |
| Under which Ramsar criteria was the site designated? | | | | | | |
| List the management objectives of the Ramsar Site | Management obj | ective 1: | | | | |
| | Management obj | ective 2: | | | | |
| No. of people involved in completing assessment | etc. | | | | | |
| Including: (tick boxes) | PA manager | PA staff | | her PA ency staff | NGO | |
| | Local community | Donors | Ex | ternal experts | Other | |
| | Ramsar Site man | ager | Go | overnment represe | ntative 🗖 | |
| 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 | A: RAMSAR CRITERIA – reflects the | e criteria used for site designation | |
|--------|--|--|--|
| No. | Key values | Description | Ramsar Criterion |
| 1i | 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 |
| | | | |
| | | | |
| | 3 - OTHER IMPORTANT FEATURE lge of site managers. | S – from the Ecological Character Description or other | |
| 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

| Name | Des | ignation | | IUCN category | Area (ha) | Date of | Establishment | WDPA code |
|--|---|-----------------|-------------------|---------------|------------------|------------|---------------|----------------|
| | | <u> </u> | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| JNESCO World Heri | tage site (see: whc.uneso | co.org/en/list) | | | | | | |
| Site name | Site area (ha) | | Date Listed | | Geographical co- | ordinates | WDPA Code | |
| | | | | | | | | |
| 7:4 : 6 1 : 4: | <i>(</i> : · · · · · · · · · · · · · · · · · · · | | | | | | | |
| Criteria for designation | (i.e. criteria i to x) | | | | | | | |
| Statement of Outstandin | ng Universal Value | | | | | | | |
| | | | | | | | | |
| UNESCO Man and Bi | iosphere Reserves (see: | www.unesco.org | /mab/wnbrs.shtml) | | | | | |
| Site name | Date listed | | Site area (ha): | | | | Geographica | l co-ordinates |
| | | | T-4-1. | Core: | Buffer: | Transition | | |
| | | | Total: | Corc. | 2011011 | Transmon | | |
| | | | Total: | Core. | Bullett | Transition | | |
| Criteria for designation | | | Total: | Corc. | | Transition | | |
| | | tion, | Total: | Coic. | | Transition | | |
| Fulfillment of three fun | actions of MAB (conserva | tion, | Total: | Corc. | | Transition | | |
| Fulfillment of three fun development and logist | actions of MAB (conservatic support.) | | | | | Transition | | |
| Fulfillment of three fun development and logist | actions of MAB (conserva | | | | | Transition | | |
| Fulfillment of three fundevelopment and logist | actions of MAB (conservatic support.) | | | | | Transition | | |
| Fulfillment of three fun development and logist | nctions of MAB (conservation support.) nations (i.e. ASEAN Her | | | | | Transition | | |

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 |
|------|--------|-----|-----|---|-------|
| 8 | | | | 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 genesThreats 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, deoxygenated, 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.

| | Modium | | NT/A | Threat | Notes |
|------|--------|-----|------|---|-------|
| 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

| | 12. Specific cultural and specific and culti- | | | | |
|------|---|-----|-----|---------------------------------------|-------|
| 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 | | ck only one | Comment/Explanation | Next steps |
|---|---|---|-------------|---------------------|------------|
| 1. Legal status | The Ramsar Site is not legally protected | 0 | 4 | | |
| Does the Ramsar Site have legal status (or in | There is agreement that the Ramsar Site should be legally protected but the process has not yet begun | 1 | | | |
| the case of private reserves is covered by a covenant or similar)? | 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 | | | |
| Context | The Ramsar Site has been formally legally protected | 3 | | | |
| 2. Ramsar Site regulations | There are no regulations for controlling land use and activities in the Ramsar Site | 0 | | | |
| Are regulations in | Some regulations for controlling land use and activities in the Ramsar Site exist but these are major weaknesses | 1 | | | |
| place to control land use and activities (e.g. | Regulations for controlling land use and activities in the Ramsar Site exist but there are some weaknesses or gaps | 2 | | | |
| hunting)? Planning | Regulations for controlling inappropriate land use and activities in the Ramsar Site exist and provide an excellent basis for management | 3 | | | |
| 3. Law enforcement | The staff have no effective capacity/resources to enforce Ramsar Site legislation and regulations | 0 | | | |
| Can staff (i.e. those with responsibility for | 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 | | | |
| managing the site) enforce Ramsar Site | The staff have acceptable capacity/resources to enforce Ramsar Site legislation and regulations but some deficiencies remain | 2 | | | |
| rules well enough? Input | The staff have excellent capacity/resources to enforce Ramsar Site legislation and regulations | 3 | | | |
| 4. Ramsar Site | No firm objectives have been agreed for the Ramsar Site | 0 | | | |
| objectives | The Ramsar Site has agreed objectives, but is not managed according to these objectives | 1 | | | |

| Issue | Criteria | | ick only one r question | Comment/Explanation | Next steps |
|--|--|---|----------------------------|---------------------|------------|
| Is management undertaken according | The Ramsar Site has agreed objectives, but is only partially managed according to these objectives | 2 | | | |
| to agreed objectives? Planning | The Ramsar Site has agreed objectives and is managed to meet these objectives | 3 | | | |
| 5. Ramsar Site design Is the Ramsar Site the | Inadequacies in Ramsar Site design mean achieving the major objectives of the Ramsar Site is very difficult | 0 | | | |
| right size and shape to protect species, habitats, ecological processes and water | 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 | | | |
| catchments of key conservation concern? | Ramsar Site design is not significantly constraining achievement of objectives, but could be improved (e.g. with respect to larger scale ecological processes) | 2 | | | |
| Planning | 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 | The boundary of the Ramsar Site is not known by the management authority or local residents/neighbouring land users | 0 | | | |
| Is the boundary | The boundary of the Ramsar Site is known by the management authority but is not known by local residents/neighbouring land users | 1 | | | |
| known and demarcated? | 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 | | | |
| Process 7. Management plan | There is no management plan for the Ramsar Site | 0 | | | |
| Is there a management plan and is it being | A management plan is being prepared or has been prepared but is not being implemented | 1 | | | |
| implemented? | A management plan exists but it is only being partially implemented because of funding constraints or other problems | 2 | | | |
| Planning | A management plan exists and is being implemented | 3 | | | |

| Issue | Criteria | Score: Tick only one box per question | | Comment/Explanation | Next steps |
|--|---|---------------------------------------|--|---------------------|------------|
| Additional points: Plans | ning | - | | | |
| 7a. Planning process | The planning process allows adequate opportunity for key stakeholders to influence the management plan | +1 | | | |
| 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 | A regular work plan exists but few of the activities are implemented | 1 | | | |
| implemented | A regular work plan exists and many activities are implemented | 2 | | | |
| Planning/Outputs | 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? | 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 | | | |
| Input | 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 | Protection systems are only partially effective in controlling access/resource use | 1 | | | |
| access/resource use in the Ramsar Site? | Protection systems are moderately effective in controlling access/resource use | 2 | | | |
| Process/Outcome | 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 | | | |

| Issue | | | only one uestion | Comment/Explanation | Next steps |
|---|---|---|---------------------|---------------------|------------|
| Is there a programme | There is a small amount of survey and research work but it is not directed towards the needs of Ramsar Site management | 1 | | | |
| of management- orientated survey and research work? | There is considerable survey and research work but it is not directed towards the needs of Ramsar Site management | 2 | | | |
| Process | There is a comprehensive, integrated programme of survey and research work, which is relevant to management needs | 3 | | | |
| 12. Habitat management | No active management of critical habitats, species, ecological processes and/or cultural values is being undertaken | 0 | | | |
| Is active habitat | Very few of the requirements for active management of critical habitats, species, ecological processes and/pr cultural values are being implemented | 1 | | | |
| management being undertaken? | 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 | | | |
| Process | Requirements for active management of critical habitats, species, ecological processes and/or cultural values are being substantially or fully implemented | 3 | | | |
| 13. Staff numbers | There are no staff | 0 | | | |
| Are there enough people employed to | Staff numbers are inadequate for critical management activities | 1 | | | |
| manage the Ramsar Site? | Staff numbers are below optimum level for critical management activities | 2 | | | |
| Inputs | Staff numbers are adequate for the management needs of the Ramsar Site | 3 | | | |
| 14. Staff training | Staff lack the skills needed for Ramsar Site management | 0 | | | |
| Are staff adequately | Staff training and skills are low relative to the needs of the Ramsar Site | 1 | | | |
| trained to fulfil management objectives? | Staff training and skills are adequate, but could be further improved to fully achieve the objectives of management | 2 | | | |
| Inputs/Process | Staff training and skills are aligned with the management needs of the Ramsar Site | 3 | | | |
| 15. Current budget | There is no budget for management of the Ramsar Site | 0 | | | |
| Is the current budget sufficient? | The available budget is inadequate for basic management needs and presents a serious constraint to the capacity to manage | 1 | | | |

| Issue | Criteria | | ick only one r question | Comment/Explanation | Next steps |
|------------------------------------|---|---|----------------------------|---------------------|------------|
| | The available budget is acceptable but could be further improved to fully achieve effective management | 2 | | | |
| Inputs | The available budget is sufficient and meets the full management needs of the Ramsar Site | 3 | | | |
| 16. Security of budget | There is no secure budget for the Ramsar Site and management is wholly reliant on outside or highly variable funding | 0 | | | |
| Is the budget secure? | There is very little secure budget and the Ramsar Site could not function adequately without outside funding | 1 | | | |
| | 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 | | | |
| Inputs | 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 | Budget management is poor and constrains effectiveness | 1 | | | |
| to meet critical management needs? | Budget management is adequate but could be improved | 2 | | | |
| Process | Budget management is excellent and meets management needs | 3 | | | |
| 18. Equipment | There are little or no equipment and facilities for management needs | 0 | | | |
| Is equipment sufficient for | There are some equipment and facilities but these are inadequate for most management needs | 1 | | | |
| management needs? | There are equipment and facilities, but still some gaps that constrain management | 2 | | | |
| | There are adequate equipment and facilities | 3 | | | |
| Input | | | | | |
| 19. Maintenance of equipment | There is little or no maintenance of equipment and facilities | 0 | | | |
| Is equipment | There is some <i>ad hoc</i> maintenance of equipment and facilities | 1 | | | |
| adequately maintained? | There is basic maintenance of equipment and facilities | 2 | | | |

| Issue | Criteria | | ck only one question | Comment/Explanation | Next steps |
|--|--|----|-------------------------|---------------------|------------|
| | Equipment and facilities are well maintained | 3 | | | |
| Process | | | | | |
| 20. Education and awareness | There is no education and awareness programme | 0 | | | |
| Is there a planned | There is a limited and <i>ad hoc</i> education and awareness programme | 1 | | | |
| education programme linked to the objectives and needs? | There is an education and awareness programme but it only partly meets needs and could be improved | 2 | | | |
| Process | 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 | 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 | | | |
| the Ramsar Site and aid the achievement of | Adjacent land and water use planning partially takes into account the long term needs of the Ramsar Site | 2 | | | |
| objectives? Planning | Adjacent land and water use planning fully takes into account the long term needs of the Ramsar Site | 3 | | | |
| 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 | There is no contact between managers and neighbouring official or corporate land and water users | 0 | | | |

| Issue | Criteria | | ick only one r question | Comment/Explanation | Next steps |
|---|---|----|----------------------------|---------------------|------------|
| neighbours | There is contact between managers and neighbouring official or corporate land and water users but little or no cooperation | 1 | | | |
| Is there co-operation with adjacent land and | There is contact between managers and neighbouring official or corporate land and water users, but only some co-operation | 2 | | | |
| water users? Process | There is regular contact between managers and neighbouring official or corporate land and water users, and substantial co-operation on management | 3 | | | |
| 23. Indigenous peoples | Indigenous peoples have no input into decisions relating to the management of the Ramsar Site | 0 | | | |
| Do indigenous peoples resident or regularly using the Ramsar Site | Indigenous peoples have some input into discussions relating to management but no direct role in management | 1 | | | |
| have input to management decisions? | Indigenous peoples directly contribute to some relevant decisions relating to management but their involvement could be improved | 2 | | | |
| Process | Indigenous peoples directly participate in all relevant decisions relating to management, e.g. co-management | 3 | | | |
| 24. Local communities | Local communities have no input into decisions relating to the management of the Ramsar Site | 0 | | | |
| Do local communities | Local communities have some input into discussions relating to management but no direct role in management | 1 | | | |
| resident or near the Ramsar Site have | Local communities directly contribute to some relevant decisions relating to management but their involvement could be improved | 2 | | | |
| input to management decisions? Process | Local communities directly participate in all relevant decisions relating to management, e.g. co-management | 3 | | | |
| Additional points Indige | enous peoples and local communities | | | | |
| 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 | The Ramsar Site does not deliver any economic benefits to local communities | 0 | | | |

| Issue | Criteria | | k only one question | Comment/Explanation | Next steps |
|---|---|---|------------------------|---------------------|------------|
| Is the Ramsar Site | Potential economic benefits are recognised and plans to realise these are being developed | 1 | | | |
| providing economic benefits to local | There is some flow of economic benefits to local communities | 2 | | | |
| communities, e.g. income, employment, payment for environmental services? | There is a major flow of economic benefits to local communities from activities associated with the Ramsar Site | 3 | | | |
| Outcomes | | | | | |
| 26. Monitoring and evaluation | There is no monitoring and evaluation in the Ramsar Site | 0 | | | |
| Are management | There is some <i>ad hoc</i> monitoring and evaluation, but no overall strategy and/or no regular collection of results | 1 | | | |
| activities monitored against performance? | There is an agreed and implemented monitoring and evaluation system but results do not feed back into management | 2 | | | |
| Planning/Process | A good monitoring and evaluation system exists, is well implemented and used in adaptive management | 3 | | | |
| 27. Visitor facilities | There are no visitor facilities and services despite an identified need | 0 | | | |
| Are visitor facilities | Visitor facilities and services are inappropriate for current levels of visitation | 1 | | | |
| adequate? | Visitor facilities and services are adequate for current levels of visitation but could be improved | 2 | | | |
| Outputs | Visitor facilities and services are excellent for current levels of visitation | 3 | | | |
| 28. Commercial tourism operators | There is little or no contact between managers and tourism operators using the Ramsar Site | 0 | | | |
| Do commercial tour | There is contact between managers and tourism operators but this is largely confined to administrative or regulatory matters | 1 | | | |
| operators contribute to Ramsar Site | There is limited co-operation between managers and tourism operators to enhance visitor experiences and maintain Ramsar Site values | 2 | | | |
| management? Process | There is good co-operation between managers and tourism operators to enhance visitor experiences, and maintain Ramsar Site values | 3 | | | |
| 29. Fees | Although fees are theoretically applied, they are not collected | 0 | | | |

| Issue | Criteria | Score: Tick only one box per question | | Comment/Explanation | Next steps | |
|---|--|---------------------------------------|--|---------------------|------------|--|
| If fees (i.e. entry fees | Fees are collected, but make no contribution to the Ramsar Site or its environs | 1 | | | | |
| or fines) are applied, do they help Ramsar Site management? | Fees are collected, and make some contribution to the Ramsar Site and its environs | 2 | | | | |
| Inputs/Process | Fees are collected and make a substantial contribution to the Ramsar Site and its environs | 3 | | | | |
| 30. Condition of key management targets | Many important biodiversity, ecological or cultural values are being severely degraded | 0 | | | | |
| What is the condition of the important | Some biodiversity, ecological or cultural values are being severely degraded | 1 | | | | |
| values of the Ramsar Site as compared to | Some biodiversity, ecological and cultural values are being partially degraded but the most important values have not been significantly impacted | 2 | | | | |
| when it was first designated? (this answer should be a conclusion from datasheet 5) | Biodiversity, ecological and cultural values are predominantly intact | 3 | | | | |
| Outcomes | | | | | | |
| | | | | | | |
| Additional questions s | pecific 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 | No cross-sectorial management committee is in place | 0 | | | | |
| Management Committee | Potential stakeholders for the creation of a cross-sectorial management committee have been identified, but no management committee has been established | 1 | | | | |

| Issue | Criteria | Score: Tick only one box per question | | Comment/Explanation | Next steps | | |
|---|--|---------------------------------------|--|---------------------|------------|--|--|
| | 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, | Question number | Why is this a major constraint to effective management |
|---|-----------------|---|
| please list in order of importance | | |
| the five that reflect the major | | |
| constraints to effective | | |
| management of your Ramsar Site | | |
| | | |
| | | |
| | | |
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| | | |
| | | |
| | | |
| 35. Of the 33 questions above, | Question number | Why do you think this has become a strength of current management? (e.g. due to manager's efforts or government |
| please list in order of importance | | commitment? |
| the five greatest strengths of your | | |
| current management of your Ramsar Site | | |
| Kamsar Site | | |
| | | |
| | | |
| | | |
| | | |

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 | | |
|---|--|----------------|-----------------|----------|---------------------------|-----|---------|------------------------------|----|--|
| Relevant qualifying feature related to Ramsar Criteria including brief description of how the site fulfills each Criterion (from RIS) | Good | Low Concern | High Concern | Critical | Data Deficient (DD) | I \ | s ←→ | D | DD | Brief description to explain the basis of the Assessment and Trend columns |
| | | | | | | | | | | |
| | | | | | | | | | | |
| PART B - OTHER IMPORTANT FEATURES - | 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: | | | | | | | | | | |