

**PNG-METT-2: The Management Effectiveness Tracking Tool for**

**Papua New Guinea**

**Workbook for Protected Area Participants**

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**The Management Effectiveness Tracking Tool for Papua New Guinea**

Prepared by:

Fiona Leverington, Ann Peterson, Gregory Peterson and Maureen Ewai

For PNG Conservation and Environment Protection Authority (CEPA).

This version of the METT is adapted from:

Leverington F, Peterson A, Peterson G 2017. The PNG-METT. A method for assessing effectiveness in Papua New Guinea’s protected areas, SPREP, Apia. Available at: <http://www.pg.undp.org/content/dam/papua_new_guinea/docs/Publications/GEF%20Publications/5.%20PNG%20METT_Low_res.pdf>.

Stolton S, Hockings M & Dudley N. 2020. Management Effectiveness Tracking Tool. Reporting progress at protected area sites: Fourth Edition. Excel workbook and guidance. Available at: <https://www.protectedplanet.net/en/thematic-areas/protected-areas-management-effectiveness-pame>.

Booker F & Franks P 2019. Governance Assessment for Protected and Conserved Areas (GAPA) Methodology manual for GAPA facilitators. IIED, London.

**Affiliations**

Fiona Leverington, Ann Peterson, Gregory Peterson and Maureen Ewai conducted this project through Protected Area Solutions Pty Ltd. under contract to UNDP.

In addition Ann is an Honorary Associate Professor with The University of Queensland, School of Earth and Environmental Sciences. This author appreciates the University’s continuing support.

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# Part 1: Basic information about the protected area

Table 1 outlines key information about the protected area. Some of this information has already been inserted by the PNG-METT team. Hard copies of Table 1 are available for you to check. Please inform the METT facilitator and recorder of any changes or additional information.

# Part 2: What makes this protected area special and important?

## What do you like about your protected area?

Here we will undertake a group task to help identify and draw these ‘values’ for your protected area. You can write or draw some ideas here.

## Checklist of benefits

**Table 2: Checklist of benefits**

| **Does your protected area….** | **A lot**  (Planti) | **Some**  (Namel/ Liklik) | **None**  (No gat) | **Don't know**  (mi no save) | **Comments**  **(Tick one of the boxes)** |
| --- | --- | --- | --- | --- | --- |
| 1. Provide for biodiversity (i.e. have many different kinds of plants, animals and ecosystems)? |  |  |  |  |  |
| 1. Have species of plants and animals listed as vulnerable, endangered or critically endangered? |  |  |  |  |  |
| 1. Have species of plants or animals found only in the protected area or nearby locations? |  |  |  |  |  |
| 1. Contain important ecosystems (e.g. wetlands, grasslands, coral reefs etc)? |  |  |  |  |  |
| 1. Protect clean, fresh water? |  |  |  |  |  |
| 1. Have religious or spiritual significance (e.g. tambu places, sacred sites)? |  |  |  |  |  |
| 1. Have scientific value? |  |  |  |  |  |
| 1. Provide a source of employment for local communities? |  |  |  |  |  |
| 1. Provide resources for local subsistence (e.g. food, building materials, medicines etc)? |  |  |  |  |  |
| 1. Provide resources for sale, with the benefits used to enable community development and enhance well-being? |  |  |  |  |  |
| 1. Foster and attract community development projects to enhance community well-being? |  |  |  |  |  |
| 1. Provide a place where culture, language and traditional practices can be practiced? |  |  |  |  |  |
| 1. Have people who pass on traditional knowledge to future generations? |  |  |  |  |  |
| 1. Have plant species of high cultural or economic importance? |  |  |  |  |  |
| 1. Have animal species of high cultural or economic importance? |  |  |  |  |  |
| 1. Have historical sites? |  |  |  |  |  |
| 1. Have nice scenery (naispela hap long lukim)? |  |  |  |  |  |
| 1. Have any tourism activities now? |  |  |  |  |  |
| 1. Have the potential for tourism activities in the future? |  |  |  |  |  |
| 1. Have a role in providing educational opportunities? |  |  |  |  |  |

## Main values of your protected area

**Table 3: Protected area key values**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Key values**  (e.g. only known breeding area for the PNG Heron) | **Brief description**  (e.g. large freshwater wetland areas immediately above high tide provide nesting sites and food for rearing chicks) | ***Note if endangered species or ecosystem*** |
| 1 |  |  |  |
| 2. |  |  |  |
| 3. |  |  |  |
| 4. |  |  |  |
| 5. |  |  |  |

(Please try to rank these values)

## Main benefits or positive impacts and changes arising from your protected area?

**Table 4. Protected area main positive impacts, benefits changes**

|  |  |  |
| --- | --- | --- |
| **No.** | **Key benefits**  (e.g. pride in establishing the PA etc) | **Brief description**  (e.g. we have prevented the logging of our forests). |
| 1. |  |  |
| 2. |  |  |
| 3. |  |  |
| 4. |  |  |
| 5. |  |  |

(Please try to rank these benefits)

## Main negative impacts resulting from your protected area?

**Table 5. Negative impacts from our Protected Area**

|  |  |  |
| --- | --- | --- |
| **No.** | **Negative impact**  (e.g. restrictions on fishing) | **Brief description**  (explain why this is a negative) |
| 1 |  |  |
| 2. |  |  |
| 3. |  |  |
| 4. |  |  |
| 5. |  |  |

(Please try to rank these negative impacts)

# Part 3: What are the threats to the protected area?

**How to rate the threats**

Please refer to Figure 1 in Attachment 1 (at the end of this workbook). This provides detailed information on the steps to undertake to complete the threat assessment.

‘**Table 6: Protected Area Threats**

1. **Housing and commercial development within a protected area**

Threats from human settlements or other non-agricultural land uses.

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| * 1. Housing and settlement |  |
| * 1. Commercial and industrial areas |  |
| * 1. Tourism and recreation infrastructure (e.g. structures) |  |
| * 1. Population increase in the protected area community |  |

**2. Agriculture and aquaculture within a protected area**

Threats to the protected area from all kinds of farming and grazing, including plantations, forestry and fish-farming.

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 1. Customary landowner and community gardens and small crops |  |
| 1. Drug cultivation |  |
| 1. Wood and pulp plantations |  |
| 1. Livestock farming and grazing |  |
| 1. Marine and freshwater aquaculture |  |
| 1. Commercial plantations |  |

**3. Energy production and mining within a protected area**

Threats from production of non-biological resources.

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 1. Oil and gas drilling and pipeline construction |  |
| 1. Mining and quarrying |  |
| 1. Energy generation |  |

**4. Transportation and service corridors within a protected area**

Threats from long narrow transport corridors and the vehicles (and people) that use them

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 4.1 Roads, railroads and paths/tracks |  |
| 4.2 Utility and service lines (e.g. electricity cables, telephone lines) |  |
| 4.3 Shipping lanes and canals |  |
| 4.4 Flight paths |  |

**5. Biological resource use and harm within a protected area**

Threats from the use of "wild" biological resources including both deliberate and unintentional harvesting effects (Note this includes hunting and killing of animals). ***Only include if the activity is a threat to the protected area values.***

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 5.1 Hunting, killing and collecting **terrestrial animals** (including for ceremonial purposes and commercial use) |  |
| 5.2 Gathering terrestrial plants or plant products (non-timber) (including for ceremonial purposes and commercial use) |  |
| 5.3a Logging and wood harvesting for **local/customary use** |  |
| 5.3b Logging and wood harvesting – **commercial logging** |  |
| 5.4a Fishing, killing and harvesting **aquatic resources for local/customary use** |  |
| 5.4b Fishing, killing & harvesting **aquatic resources for commercial use** |  |

**6. Human intrusions and disturbance within a protected area**

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

| **Threat type** | ***Comments*** |
| --- | --- |
| 6.1 Recreational and tourism activities |  |
| 6.2 War, civil unrest and military exercises |  |
| 6.3 Research, education and other work-related activities in protected areas |  |
| 6.4 Activities of the protected area managers (e.g. construction or vehicle use) |  |
| 6.5 Deliberate destructive activities or threats to protected area staff and visitors |  |
| 6.6 Impacts from cultural and religious tourism |  |

**7. Changes to natural systems**

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

| **Threat type** | ***Comments*** |
| --- | --- |
| 7.1 Habitat clearing |  |
| 7.2 Fire and fire management suppression (including deliberate fires) |  |
| 7.3 Dams, water flow modification and water management/use |  |
| 7.4 Increased fragmentation within protected area |  |
| 7.5 The protected area is separated from other natural habitat (e.g. deforestation) |  |
| 7.6 Other ‘edge effects’ (impacts) happening on the boundary of the PA |  |
| 7.7 Loss of keystone species (e.g. top predators, pollinators etc.) |  |

**8. Invasive and other problematic species and genes**

Threats from 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.

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 8.1 Introduced (pest) plants |  |
| 8.2 Introduced (pest) animals |  |
| 8.3 Diseases such as fungus or viruses that make native plants or animals sick |  |
| 8.4 Introduced genetic material (i.e. genetically modified organisms) |  |

**9. Pollution entering or generated within protected area**

Threats from pollution and/or excess materials or energy from specific or general sources.

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 9.1 Household sewage and urban/village waste water |  |
| 9.2 Sewage and waste water from protected area facilities |  |
| 9.3 Industrial, mining & military effluents and discharges (current and past) |  |
| 9.4 Agricultural and forestry effluents (e.g. fertilizers or pesticides) |  |
| 9.5 Garbage and solid waste |  |
| 9.6 Air-borne pollutants |  |
| 9.7 Excess energy (e.g. heat pollution, lights etc.) |  |
| 9.8 Sound pollution (e.g. from roads). |  |

**10. Geological events**

Geological events may be part of natural disturbance regimes in many ecosystems. However, 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.

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 10.1 Volcanoes (ash and lava) |  |
| 10.2 Earthquakes / Tsunamis |  |
| 10.3 Avalanches / Landslides |  |
| 10.4 Erosion and 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 climate or weather events outside the natural range of variation.

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 11.1 Habitat shifting and alteration |  |
| 11.2 Droughts (changes in how often they occur, how intense and how long they last) |  |
| 11.3 Temperature extremes |  |
| 11.4 Storms and flooding (changes in number, intensity and variability) |  |
| 11.5 Ocean acidification |  |
| 11.6 Sea level rise |  |
| 11.7 Coral bleaching |  |
| 11.8 Saltwater coming into the protected area |  |
| 11.9 Other climate changes (please list and explain) |  |

**12. Specific cultural and social threats**

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 12.1 Loss of cultural links, traditional knowledge, language, dress, sing sings, respect and/or management practices |  |
| 12.2 Natural deterioration of important cultural site values |  |
| 12.3 Destruction of cultural heritage buildings, gardens, sites etc. |  |
| 12.4 Loss of land tenure (including land grabbing) |  |
| 12.5 Other cultural/social threats (please list and explain) |  |

**13. Governance problems**

|  |  |
| --- | --- |
| **Threat type** | ***Comments*** |
| 13.1 Conflicting policies across sectors |  |
| 13.2 Confusion about government roles and responsibilities |  |
| 13.3 Lack of coordination across all levels of government |  |

**What are the worst threats?**

Now that you have finished the threat list, please tell us **which three (3) threats are the worst in your protected area**. You may include threats that are not included in the list above. Start with the most significant threat.

**Table 7: Threat ranking**

|  |  |  |
| --- | --- | --- |
| **Threat**  (most significant first) | **Threat number or name**  (copy from Table 4) | **Please explain the nature of the threat and what impact it is causing and how to reduce the impacts of the threat.** |
| 1 Highest threat |  |  |
| 2 |  |  |
| 3 |  |  |

**Table 6: Management Effectiveness**

| **Issue** | **Criteria** |
| --- | --- |
| **1. Legal status**  Does the protected area have **legal status or is it established under “other effective means”?** (e.g. in the case of private reserves is it covered by a covenant or similar)? | 1. The protected area is ***not gazett*ed*/approved*** by national or provincial government or has not been established through ‘other effective means’ |
| 1. There is ***agreement*** that the protected area should be established ***but the process has not begun*** |
| 1. The protected area is ***in the process of being*** established, but the process is ***incomplete*** (includes sites designated under international conventions, or local/traditional law such as community conserved areas, which do not yet have national legal status) |
| 1. The protected area has been ***formally gazetted/approved*** *by the national or provincial government* or established through ‘other effective means’ |
| **2. Protected area objectives**  Is protected area management **based on agreed objectives**? | 1. ***No firm objectives*** have been agreed for the protected area to guide management |
| 1. The protected area has ***agreed objectives, but is not managed according to these objectives*** |
| 1. The protected area has ***agreed objectives, and is only partly managed according to these objectives*** |
| 1. The protected areahas ***agreed objectives and is fully managed to meet these objectives*** |
| **3. Protected area regulations or customary laws/rules**  Are laws, rules or agreements in place to manage land or marine use and activities in the protected area in accordance with the management objectives (includes hunting, logging, mining, fishing)? | 1. There are ***no regulations or customary laws/*** rules or agreements for managing land and marine use and activities in the protected area |
| 1. ***Some regulations* *or customary laws/***rules for managing land/sea use and activities in the protected area exist but there are ***many weaknesses*** |
| 1. ***Regulations or customary laws/***rules for managing land use and activities in the protected area ***exist, but there are some weaknesses or gaps*** |
| 1. ***Regulations or customary laws/***rules for managing land use and activities in the protected area ***exist and provide an excellent basis for management*** |
| **3a. Clearly defined rules**  Are the **rules/laws /regulations relating to the protected area clearly defined and documented**? | 1. Protected area-related rules/laws/regulations are ***not clearly defined and documented*** |
| 1. ***Some*** protected area-related rules/laws/ regulations are *clearly defined and documented*, but there are ***some important gaps*** |
| 1. ***Most*** protected area-related rules/laws/ regulations are *clearly defined and documented*, with ***no important gaps*** |
| 1. ***Most*** protected area-related rules/laws/ regulations are *clearly defined and documented* and ***anyone who wants to see/review/or know this information is able to do so*** |
| **3b. Clearly defined user/access rights**  Are the **rights of people to use** the protected area and its resources **clearly defined and documented**? | 1. The customary landowners/local community ***do not have any*** protected area-related user/access rights relating to accessing resources from the protected area (i.e. ability to hunt, fish or gather) |
| 1. ***Some*** of the rights to use/access resources from the protected area ***are clearly defined and documented, but others are not*** |
| 1. ***Most*** of the user/access rights to access resources from the protected area ***are clearly defined and documented*** |
| 1. ***Most*** of the user/access rights to access resources from the protected area are ***clearly defined and documented, and anyone who wants to see or learn about this information is able to do so*** |
| **3c. Awareness of user/access rights**  What percentage of adults in the protected area and local community are **aware of their user/access rights** (e.g. to hunt, collect, fish etc) | 1. Very few (less than 25%) |
| 1. Some (25-50%) |
| 1. Many (51-75%) |
| 1. Most (more than 75%) |
| **4. Planning for land use or coastal/marine activities that occur outside the protected area**  Does planning for land and coastal/marine uses outside the protected area **recognise the protected area and contribute to achieving the management objectives**? | 1. ***Planning*** for the land/marine uses that occur outside the protected area ***does not take into account*** the needs of the protected area and the resulting ***land/sea uses and policies harm the protected area*** |
| 1. ***Planning*** for the land/marine uses that occur outside the protected area ***does not take into account*** the long-term needs of the protected area, but the resulting ***land/sea uses do not harm the protected area*** |
| 1. ***Planning*** for the land/marine uses that occur outside the protected area takes into account ***some*** of the long-term needs of the protected area, and the resulting ***land/sea uses partially support the protected area*** |
| 1. ***Planning*** for land/marine uses that occur outside the protected area ***fully*** takes into account the long-term needs of the protected area and ***seeks to support the protected area*** |
| **4a. Land and water planning for habitat conservation** | Planning and management in the wider catchment or landscape containing the protected area incorporates **provisions for adequate environmental conditions** (e.g. air/water/noise pollution levels etc) to sustain relevant habitats (Y or N) |
| **4b. Land and water planning for connectivity** | Management of **corridors** linking the protected area **provides for wildlife passage to key habitats outside** the protected area (Y or N) |
| **4c. Land and water planning for ecosystem services and species conservation** | Planning addresses **ecosystem-specific** needs and/or the needs of particular **species of concern** at an ecosystem scale (Y or N) |
| **5. Protected area design**  Is the protected area the right size and shape to protect species, habitats, ecosystems and water catchments? | 1. The protected area is ***too small, or the boundaries are not a good shape (i.e. poor design)***, and this ***makes achieving the major management objectives very difficult*** |
| 1. The protected area is ***too small, or the boundaries are not a good shape (i.e. poor design)***, but ***we are working to make it better*** (e.g. agreements with adjacent land/sea owners for wildlife corridors, or improving water catchment management) |
| 1. The protected area size and boundaries (i.e**. the design)** are ***okay and allow us to achieve our objectives, but could be better*** (e.g. in relation to large-scale ecological processes or minimising threats) |
| 1. Protected area size and the boundaries (i.e. **the design**) are **very** ***good*** and we can ***achieve our objectives*** (e.g. it supports species and habitat conservation and maintains ecological processes such as surface and groundwater flows at a catchment scale etc) |
| **6a. On ground boundary marking of protected area**  Is the protected area boundary **marked on the ground** (land/sea)? (includes physical, geographical or natural landmarks or GPS coordinates that indicate the boundary) | 1. ***None or only a small section*** of the protected area boundary ***is marked on the ground*** (land/sea) |
| 1. ***Some*** of the protected area boundary is marked on the ground (land/sea) |
| 1. ***Most*** of the protected area boundary is marked on the ground (land/sea) |
| 1. ***All*** of the protected area boundary is marked on the ground (land/sea) |
| **6b. Map of protected area boundaries** | The boundaries of the protected area are ***marked on a map*** (Y or N) |
| **6c. GIS mapping of protected area boundaries** | The boundaries of the protected area are ***recorded in a GIS format*** (Y or N) |
| **6d. Boundary awareness of people who own the protected area**  What proportion of landowners (e.g. **customary landowning adults) are aware of** the protected area **boundaries**? | 1. Very few (less than 25%) |
| 1. Some (25-50%) |
| 1. Many (51-75%) |
| 1. Most (more than 75%) |
| **6e. Boundary awareness among surrounding communities**  What proportion of adults living around or near the protected area know the location of the boundary? | 1. Very few (less than 25%) |
| 1. Some (25-50%) |
| 1. Many (51-75%) |
| 1. Most (more than 75%) |
| **6f. Respect of boundary by surrounding communities**  What proportion of adults living around or near the protected area respect the boundary? | 1. Very few (less than 25%) |
| 1. Some (25-50%) |
| 1. Many (51-75%) |
| 1. Most (more than 75%) |
| **6g. Respect of boundaries by Local Level Government** | Most or all relevant Local Level Governments are aware of the boundaries of the protected area (Y or N) |
| **6h. Respect of boundaries at the District level** | Most or all of the relevant District level representatives are aware of the boundaries of the protected area (Y or N) |
| **7. Management planning**  Is there a management plan or similar and is it being implemented? | 1. ***There is no management plan*** for the protected area, or the ***management plan was produced a long time ago and is not being implemented*** |
| 1. A management plan or similar is ***being prepared or has been prepared but is not being implemented*** |
| 1. A management plan or similar ***exists but it is being partly implemented*** because of funding constraints or other problems |
| 1. A management plan or similar ***exists and is being fully implemented*** |
| **7a. Community/key people input into management plan** | The management planning process for the protected area provides adequate and equal ***opportunity for key people*** (i.e. includes government, NGO, business etc) to have ***input into*** the management plan ***and to*** ***influence* it** (***Do not include customary landowners in this question*)** (Y or N) |
| **7b. Plan review of the management plan** | There is an established schedule and process for people to ***regularly review and update*** the management plan (i.e. including agreed vision, objectives, actions etc) (Y or N) |
| **7c. Functioning protected area Management Committee** | The Management Committee is formed and meets to discuss issues related to protected area management (Y or N) |
| **7d. Clear decision-making structures and processes in relation to the Management Committee** | Structures and processes in relation to the Management Committee and related protected area decision making are ***clearly documented*** (Y or N) |
| **7e. Decision-making structures and processes in relation to the Management Committee**  Are the **structures and processes** for decision-making in the protected area **well understood**? | 1. Structures and processes in relation to the Management Committee and related protected area *decision-making* are ***not known or understood*** by the protected area owners |
| 1. Structures and processes in relation to the Management Committee and related protected area *decision-making* are ***little known or understood*** by the protected area owners |
| 1. Structures and processes in relation to the Management Committee and related protected area *decision-making* are ***mostly known and understood*** by the protected area owners |
| 1. Structures and processes in relation to the Management Committee and related protected area *decision-making* are ***fully known and understood*** by the protected area owners |
| **7f. Access to Management Committee decisions** | The ***decisions*** of the Management Committee/managers are ***made available to all people*** in the protected area community (Y or N) |
| **8. Regular work plan**  Is there a regular work plan and is it being implemented? | 1. ***No regular work plan exists*** |
| 1. A regular work plan ***exists but only some of the activities are implemented*** |
| 1. A regular work plan ***exists, and many activities are implemented*** |
| 1. A regular work plan ***exists, and all activities are implemented*** |
| **9. Resource inventory**  Do you have **enough information** to manage the area? | 1. There is ***little o***r ***no information*** available about the protected area (e.g. critical habitats, species, ecological process and cultural values) and this makes management difficult |
| 1. There is ***poor*** *information* about the protected area (e.g. critical habitats, species, ecological processes and cultural values) and this makes management difficult |
| 1. There is ***good*** Information about the protected area (e.g. critical habitats, species, ecological processes and cultural values) ***for most areas*** of planning and decision making |
| 1. There is ***very good*** Information on the protected area (e.g. critical habitats, species, ecological processes and cultural values) ***to support all areas*** *of planning and decision making* |
| **10.** **Staff numbers**  Are there enough people **employed or paid** to manage the protected area? | 1. There are ***no staff/people paid*** to work on the protected area, but they are ’needed |
| 1. There are ***some*** paid*staff/people* who are responsible for important management activities, but this is ***inadequate*** to meet management needs |
| 1. Paid staff numbers are ***good*** and support management of the protected area, but this is ***below what is required*** to meet management needs |
| 1. Paid staff/people numbers are ***very good*** and ***fully meet*** the management needs of the protected area |
| **10a. Other unpaid people working on the protected area**  Are there **enough unpaid people** (community or customary landowners) helping **to manage** the protected area? | 1. There are ***no*** community members or customary landowners helping to manage the protected area, but they are needed |
| 1. There are ***a few*** people to do important management activities in the protected area, but this is inadequate to meet management needs |
| 1. There are ***some*** people to do important management activities in the protected area, but this is ***below what is required*** to fully meet management needs |
| 1. There are ***plenty*** of people helping to manage the protected area and ***fully meet*** the management needs of the protected area |
| **11. Knowledge and skills**  Do the people involved in managing the protected area have the necessary knowledge and skills? | 1. ***Knowledge and skills*** needed to manage the protected area are ***very poor or inadequate*** |
| 1. Knowledge and skills are ***poor* *relative to the needs*** of the protected area |
| 1. Knowledge and skills are ***good***, but ***could be improved*** to better manage the protected area |
| 1. Knowledge and skills to manage the protected area are ***very good*** and they ***meet the management needs*** of the area |
| **12. Current budget**  Is the current budget **sufficient** (from any source)? | 1. There is ***no*** money ***from any source*** to manage the protected area |
| 1. There is ***some***money, but this is a ***serious problem*** that limits management effectiveness and should be increased to fully meet management needs |
| 1. The available budget is ***acceptable***but could be increased to fully meet management needs |
| 1. The available budget is ***sufficient*** and ***fully meets the management needs*** of the protected area |
| **13. Security of budget**  **Is the budget secure** (e.g. over the next 2-5 years)? | 1. There is ***no*** secure budget to manage the protected area and management is wholly reliant on outside or highly variable funding |
| 1. There is ***very little***budgetsecurity, and the protected area could not meet its management needs without outside funding |
| 1. There is a ***reasonably secure*** budget for regular operation of the protected area to enable it to meet its management needs, but many initiatives are reliant on outside funding |
| 1. There is a ***secure*** budget for the protected area and its management needs |
| **14. Management of budget**  Is the budget managed to meet important management needs? | 1. Budget management is ***very poor***and significantly ***undermines management*** ***effectiveness*** |
| 1. Budget management is ***poor*** *and* **constrains management effectiveness** |
| 1. Budget management is ***good*** *but* ***could be improved*** |
| 1. Budget management is ***very good*** and **meets management needs** |
| **15a. Equipment and facilities**  Are equipment and facilities sufficient for management needs? | 1. There are ***little or*** ***no*** equipment and facilities for management needs |
| 1. There are ***some*** equipment and facilities, *but these are* ***inadequate*** for most management needs |
| 1. There are ***sufficient*** equipment and facilities, and these enable ***us to undertake most management tasks***, but there are ***some gaps*** |
| 1. There are ***very good*** equipment and facilities, and these enable us to ***undertake all*** management tasks |
| **15b. Maintenance of equipment and facilities**  Are equipment and facilities adequately maintained? | 1. There is ***no*** maintenance of equipment and facilities |
| 1. There is ***some occasional*** maintenance of equipment and facilities |
| 1. There is ***much*** ***ongoing,******basic*** maintenance of equipment and facilities |
| 1. Equipment and facilities are ***fully maintained*** |
| **16. Law enforcement**  Can people (e.g. rangers or customary landowners – those with responsibility for managing the area) **enforce protected area rules well enough**? | 1. There is ***no effective human capacity, resources or authority to enforce*** protected area legislation and regulations OR community agreements |
| 1. There is ***some*** human capacity, resources or authority to enforce protected area legislation and regulations OR community agreements, ***but there are big gaps*** or deficiencies |
| 1. There is ***acceptable*** *human capacity, resources or authority*to enforce protected area legislation and regulations OR community agreements, ***but there are a few gaps or deficiencies*** |
| 1. There is ***excellent*** *human capacity, resources or authority* to enforce protected area legislation and regulations OR community agreements |
| **16a. Coordination of law enforcement**  **How good is the coordination** between the protected area Management Committee/managers and other groups who assist with law enforcement? | 1. There is ***no coordination*** |
| 1. There is***some effort to coordinate****,* but this does not work well |
| 1. ***Coordination is good***, but with some occasional problems |
| 1. ***Coordination is very good*** |
| **16b*. Solving disputes or disagreements - d*ocumentation of processes**  **Are there** **processes** to solve disputes related to the protected area, and **do people know about these processes**? | 1. There are ***no processes*** for dispute resolution and hence no documentation |
| 1. ***Some*** of the relevant dispute resolution processes are ***clearly documented or known, but others are not*** |
| 1. ***Most*** of the relevant dispute resolution processes are ***clearly documented or known*** |
| 1. ***Mos***t of the relevant dispute resolution processes are ***clearly documented or known and anyone who wants to see and review/discuss this information is able to do so*** |
| **16c. Solving disputes or disagreements – suitability of the process**  **How suitable** are the processes **for resolving disputes or disagreements** related to the protected area? | 1. There are ***no processes*** for dispute resolution |
| 1. Dispute resolution processes are ***not suitable*** for solving protected area-related disputes |
| 1. Dispute resolution processes are ***suitable for some*** protected area-related disputes, but not others |
| 1. Dispute resolution processes are ***suitable for most or all*** types of protected area-related disputes |
| **16d. Solving disputes or disagreements - success**  How often do dispute resolution processes **succeed in resolving** protected area-related disputes? | 1. ***Almost never*** as very few people are aware of the processes and are able to use them |
| 1. ***Some*** disputes are resolved (e.g. up to one-third of disputes), ***but most remain unresolved*** |
| 1. ***Most*** disputes are resolved, ***but often there are some people who remain dissatisfied*** |
| 1. ***Almost all*** disputes are resolved and normally all people in the dispute are ***satisfied with the outcome*** |
| **16e. Prosecution of law breakers**  Are incidents of law breaking **dealt with according to the rules/** law/ regulations? | 1. Prosecution/dealing with law ***often does not follow the rules/law/regulations*** |
| 1. ***Some*** incidents are ***handled according to the rules/law/regulations, but irregularities are common*** |
| 1. ***Most*** incidents are handled according to the rules/law/regulations, but there are ***occasional irregularities*** |
| 1. ***All incidents are properly handled*** according to the rules/law/regulations |
| **16f. Prosecution of law breakers** | All people are ***treated equally*** in relation to charges/prosecution for breaching protected area rules/laws/regulations (Y or N) |
| **17. Protection systems/law enforcement - effectiveness**  Are systems (e.g. patrols, permits, signage etc) in place to **control access by ‘outsiders’** and resource use in the protected area? | 1. Protection systems/law enforcement (patrols, permits etc**) *do not exist or are not effective*** in controlling access/ resource use by ‘outsiders’, but are required |
| 1. Protection systems/law enforcement are ***partially effective*** in controlling access/ resource use by ‘outsiders’, but law breaking is still common |
| 1. Protection systems/law enforcement are ***moderately effective*** in controlling access/resource use by ‘outsiders’, but there are still ***occasional cases of law breaking*** |
| 1. Protection systems/law enforcement are ***largely or wholly effective*** in controlling access/resource use by ‘outsiders’, so ***law breaking is very rare*** |
| **17a*.* Reporting incidents**  If people know of a threat to the protected area **do they report this to the Management Committee/ authority?** | 1. ***No*** – they keep quiet |
| 1. ***Sometime***s it is reported, but most times not |
| 1. ***Most times*** it is reported, although sometimes not |
| 1. ***Almost always*** reported in a timely manner, with very few exceptions |
| 1. **Staff safety**   Do protected area staff/people doing work or looking after the area have **safe working conditions and does management prioritise safety**? | 1. ***The working environment for*** staff and community members is **very poor** |
| 1. The working environment for staff and community members is ***poor*** |
| 1. The working environment for staff and community members is **good**, ***but improvements could be made*** |
| 1. The working environment for staff and community members is **very good** as it is an important consideration for the protected area managers |
| **19. Research**  Is there a **programme of management-orientated survey, inventory and research work**? | 1. There is ***no*** survey, inventory or research work taking place in the protected area |
| 1. There is ***some*** survey, inventory or research work but it is not directed towards the needs of protected area management |
| 1. There is survey, inventory or research work ***but it is only partly directed towards the needs of protected area management*** |
| 1. There is a ***comprehensive, integrated programme*** of survey, inventory or research work, which is relevant to management needs |
| **20. Monitoring and evaluation (of management activities)**  Are **management activities** **monitored, evaluated** and **acted on** (or adapted)? | 1. There is ***no*** monitoring and evaluation in the protected area |
| 1. There is ***some unplanned and irregular*** monitoring and evaluation **of the performance of management activities**, but ***no overall strategy and/or no regular collection of results*** |
| 1. There is ***agreed and implemented*** monitoring and evaluation, ***but results do not feed back into management*** |
| 1. A ***good*** system ofmonitoring and evaluation exists, is well implemented and is ***used to adapt and improve management*** |
| **21. Resource management**  Is **active resource management** of biodiversity and cultural activities (e.g. gardens, fishing areas, resource extraction sites) being undertaken? | 1. There is ***no active resource management*** of critical habitats, species, ecological processes and cultural values, but it is needed |
| 1. ***Some*** active management of the protected area is being implemented |
| 1. ***Many*** *o*f the requirements for active management of the protected area are being implemented ***but some key issues are not being addressed*** |
| 1. Requirements for active management of the protected area are *being* ***fully implemented*** |
| **22. Climate change**  Is the protected area consciously managed to adapt to climate change? | 1. There have been ***no efforts*** to consider adaptation to climate change in management of the protected area |
| 1. ***Some initial thought*** has taken place about likely impacts of climate change, ***but his has yet to be translated into management plans or actions*** |
| 1. ***Limited plans*** have been drawn up about how to adapt management to predicted climate change, which ***may or may not be implemented***. |
| 1. ***Detailed plans*** have been drawn up about how to adapt management to predicted climate change, and these are ***already being implemented***. |
| **23a. Carbon capture**  Is the protected area being **consciously managed to prevent carbon loss**? | 1. Preventing carbon loss ***has not been considered*** in protected area management |
| 1. Preventing carbon loss ***has been considered*** in general terms, but is ***not reflected in managemen***t of the protected area |
| 1. There ***are*** ***some measures to*** prevent carbon loss |
| 1. There are ***several active measures in place*** to prevent carbon loss |
| **23b. Carbon storage**  Is the protected area being **consciously managed to encourage carbon storage**? | 1. Carbon storage ***has not been considered*** in management of the protected area. |
| 1. Carbon storage ***has been considered*** in general terms, but is ***not significantly reflected in managemen***t of the protected area |
| 1. There ***are some measures in place*** to increase carbon dioxide storage |
| 1. There are several ***active measures in place*** to increase carbon dioxide storage |
| **24. Ecosystem services – benefits are known** | The ecosystem services provided by the protected area are **well known** (Y or N) |
| **24a. Ecosystem services**  Does management of the protected area take into account actions to enhance the protected area’s provision of ecosystem services? | 1. **No ecosystem services** delivered by the protected area are ***managed*** |
| 1. A ***few*** ecosystem services delivered by the protected area are ***managed*** to ensure their continued delivery |
| 1. ***Most*** ecosystem services delivered by the protected area are ***managed*** to ensure their continued delivery |
| 1. ***All*** ecosystem services delivered by the protected area are ***managed*** to ensure their continued delivery |
| **25. Education and awareness**  Is there a **planned education and awareness programme** about the protected area and linked to its objectives and needs? | 1. There is ***no*** education and awareness programme linked to the protected area’s objectives and needs |
| 1. There is a ***limited and irregular*** education and awareness programme linked to the protected area’s objectives and needs |
| 1. There ***is an education and awareness programme,*** but it only ***partly meets the needs of protected area management and could be improved*** |
| 1. There is an ***appropriate and effective*** education and awareness programme linked to achieving the protected area’s objectives and needs |
| **26. Government and commercial neighbour cooperation**  Is there co-operation with adjacent government land/water users and commercial land/water users? | 1. There is ***no contact*** between the Management Committee/managers and neighbouring government and commercial land/water users |
| 1. There ***is contact*** between the Management Committee/managers and neighbouring government and commercial land/water users but ***only some cooperation*** on management |
| 1. There ***is regular contact*** between the Management Committee/managers and neighbouring government and commercial land/water users, but only ***some co-operation*** on management |
| 1. There is ***regular contact*** between the Management Committee/managers and neighbouring government and commercial land/water users, and ***substantial (or full) co-operation*** on management |
| **27. Commercial tourism operators**  Do commercial tour operators **cooperate and contribute to protected area management** and provide benefits to the community? | 1. There is ***little or no contact*** between the Management Committee/ managers and tourism operators using the protected area |
| 1. *There* ***is contact*** between the protected area Management Committee/managers and tourism operators, and this is confined largely to administrative or regulatory matters, with ***few benefits to the customary landowners*** |
| 1. There is ***contact and limited co-operation*** between the Management Committee/managers and tourism operators to enhance visitor experiences, maintain protected area values and provide ***some benefits*** to the customary landowners |
| 1. There is ***contact and good co-operation*** between the Management Committee/managers and tourism operators to enhance visitor experiences, maintain protected area values and provide ***long-term benefits*** to the customary landowners |
| **28. Fees**  If fees (i.e. entry fees or fines) are applied, **do they help protected area management**? | 1. Although fees can be ***applied, they are not collected*** |
| 1. Fees are ***collected, but*** *make* ***no contribution*** to the protected area or its surroundings |
| 1. Fees are ***collected, and make some contribution*** to the protected area and its surroundings |
| 1. Fees are ***collected and make a good contributio****n* to the protected area and its surroundings |
| **29. Visitor facilities and services**  Are visitor facilities and services **adequate**? | 1. There are ***no*** visitor facilities and services despite an identified need |
| 1. Visitor facilities and services are ***poor*** - they ***do not meet the needs*** of current visitor levels |
| 1. Visitor facilities and services are ***good –*** they ***meet the needs of the*** current visitor levels ***but could be improved*** |
| 1. Visitor facilities and services are ***very good*** for current levels of visitation |
| **30. Customary landowners**  Do customary landowners, who reside in or regularly use the protected area, **have input into management decisions**? | 1. Customary landowners have ***no input*** into decisions relating to the management of the protected area |
| 1. Customary landowners have ***some input*** into discussions relating to management, but ***no direct role in management*** |
| 1. Customary landowners ***directly contribute*** *to some relevant decisions* relating to management, but their ***involvement could be improved*** |
| 1. Customary landowners ***fully participate in all relevant decisions*** relating to management, (e.g. outright ownership or co-management arrangement) |
| **31. Local communities and others with access or user ‘rights’**  Do local communities and other rights’ holders living in or near the protected area, **have input into relevant management decisions**? | 1. Local communities and others with ‘access/user rights’ have ***no input*** into decisions relating to the management of the protected area |
| 1. Local communities and others with ‘access/user rights’ have ***some input into discussions*** relating to the management of the protected area, ***but no direct role in management*** |
| 1. Local communities and others with ‘access/user rights’ contribute to some relevant decisions relating to the management of the protected area, but their involvement could be improved |
| 1. Local communities and others with ‘access/user rights’ ***directly participate*** in all relevant decisions relating to the management of the protected area, e.g. co-management |
| **31a. Proportion of women involved in decision making related to the protected area**  What **percentage of women** in the protected area community are involved in decision making about the protected area? | 1. Very few (less than 25%) |
| 1. Some (25-50%) |
| 1. Many (51-75%) |
| 1. Most (more than 75%) |
| **31b. Participation of women in the full range of protected area decisions** | **Women** are involved in protected area decision making in relation to ***all issues*** relevant to protected area management (Y or N) |
| **31c. Influence of women in decision making**  **How much influence** do women have on protected-area related decisions? | 1. Women have ***no influence*** on any protected area-related decisions |
| 1. Women have a ***small influence*** on protected area decisions |
| 1. Women can ***often influence*** protected area decisions |
| 1. Women are ***fully effective in influencing*** protected area decisions |
| **31d. Participation of young people in the full range of protected area decisions** | **Young people** (under 20 years of age) are involved in protected area decision making in relation to ***all issues*** relevant to protected area management (Y or N) |
| **31e. Influence of young people in decision making**  How much influence do young people (under 20 years of age) have on protected-area related decisions? | 1. Young people (under 20 years of age) have ***no influence*** on any protected area-related decisions |
| 1. Young people have a ***small influence*** on protected area decisions |
| 1. Young people can ***often influence*** protected area decisions |
| 1. Young people are ***fully effective in influencing*** protected area decisions |
| **31f. Overall participation of people in the full range of protected area decisions** | There is opportunity for **any person or group** in the protected area and wider community to become involved in protected area decision making (Y or N) |
| **31g. Communication and trust** | There is ***open communication and trust*** between the customary landowners in the protected area and: (answer in relation to 1-6 below) (Y or N) |
| 1. **CEPA** (Y or N) |
| 1. **Provincial Government** (Y or N) |
| 1. **Local Level Government** (Y or N) |
| 1. **District representatives** (e.g. District Development Authority) (Y or N) |
| 1. **Ward representatives** (e.g. Ward Development Committee) (Y or N) |
| 1. **NGOs** (Y or N or NA – there are no NGOs) |
| **31h. Community welfare** | **Programmes are being implemented** to improve community/customary landowners’ **welfare,** while conserving protected area resources (Y or N) |
| **31i. Level of support** | ***The local community and customary landowners*** ***actively support*** the protected area (Y or N) |
| **32.** **Livelihood benefits**  Are the **protected area and related conservation and development projects providing sustained livelihood benefits** to local communities/customary landowners, e.g. income/ employment? | 1. The protected area ***does not deliver any*** livelihood benefits to local communities/ customary landowners ***(no people benefit)*** |
| 1. ***Benefits*** to local communities/customary landowners from the protected area and related conservation and development projects exist, but are ***not significant contributors to livelihoods (only a few people benefit)*** |
| 1. ***Benefits*** to local communities/customary landowners from the protected area and related conservation and development projects make a ***moderate*** ***contribution to livelihoods (many people benefit)*** |
| 1. There is a ***major flow*** ***of sustained livelihood benefits*** to local communities/customary landowners from activities associated with the protected area ***(most people benefit)*** |
| **32a. Benefit-sharing arrangements - effectiveness**  **How effective** are benefit-sharing arrangements in delivering benefits to all in the protected area? | 1. There are ***no*** benefit-sharing arrangements in place |
| 1. Benefits have been received, but they are ***much less than what was decided*** |
| 1. Benefits have been received, but they are ***less*** than what was decided |
| 1. Benefits have been received and they are ***fully in line with, or even better*** than what was decided |
| **32b. Distribution of livelihood benefits**  Are the livelihood benefits from the protected area **equitably shared**? | 1. The livelihood benefits provided by the protected area ***are not shared*** ***equitably*** by the local communities/customary landowners |
| 1. Livelihood benefits from the protected area ***are shared equitable among only some groups and individuals* in the** local communities/ customary landowners |
| 1. Livelihood benefitsfrom the protected area are ***shared equitably among most groups and individuals*** in the local communities/customary landowners |
| 1. Livelihood benefits from the protected area are ***shared equitably among all groups and individuals*** in the local communities/customary landowners |
| **32c Change in livelihoods over the past five years** | There has been an improvement in livelihood outcomes for the community over the past five years (Y or N) |
| **33.** **Threats**  Are the threats to the main values of the protected area being **effectively addressed?** | 1. The threats to the main values are ***not being addressed by management*** |
| 1. The ***threats to the main values*** are only being ***managed at a minimal level*** |
| 1. ***Most of the significant threats*** to the main values are being ***substantially addressed by management*** |
| 1. ***All the significant threats*** to the main values are being ***substantially addressed by management*** |
| **34. Connectivity (linkages to other natural systems)**  Have the requirements for connectivity (i.e. direct linkages to other natural ecosystems) been **assessed and implemented**? | 1. The requirements for connectivity ***have not been assessed*** |
| 1. The requirements for connectivity ***have been assessed but necessary actions have not been taken*** |
| 1. The requirements for connectivity ***have been assessed and some actions have been taken, but not sufficient to achieve functional connectivity*** |
| 1. The requirements for connectivity ***have been assessed and necessary actions have been taken to achieve functional connectivity*** |
| **35. Condition of natural values**  What is the condition of the important natural values of the protected area, as compared to five to ten years ago? | 1. ***Many*** important natural values are being ***severely degraded*** |
| 1. ***Som****e* natural values are being ***severely degraded*** |
| 1. ***Some*** natural values are being ***partly degraded,*** but the ***most important natural values have not been significantly impacted*** |
| 1. Natural values are ***predominantly intact*** |
| **35a.Condition of natural values - assessment based on research and/or monitoring and evaluation** | The assessment of the condition of natural values is ***based on research and/or monitoring*** *(this includes both western science and traditional methods)* (Y or N) |
| **35b. Management programmes** | ***Specific*** management programmes or approaches are being implemented to address threats to natural values (Y or N) |
| **35c. Actions implemented as routine part of management** | Activities to maintain natural values are a ***routine part*** of protected area management (Y or N) |
| **36. Condition of cultural values**  What is the condition of the important cultural values of the protected area, as compared to five to ten years ago? | 1. ***Many*** important cultural values are being ***severely degraded*** |
| 1. ***Som****e* cultural values are being ***severely degraded*** |
| 1. ***Some*** cultural values are being ***partly degraded,*** but the ***most important cultural values have not been significantly impacted*** |
| 1. Cultural values are ***predominantly intact*** |
| **36a*.* Condition of cultural values - assessment based on research and/or monitoring and evaluation** | The assessment of the condition of cultural values is ***based on research and/or monitoring*** *(this includes both western science and traditional methods)* (Y or N) |
| **36b. Management programmes for cultural values** | ***Specific*** management programmes or approaches are being implemented to address threats to cultural values (Y or N) |
| **36c. Actions implemented as routine part of management to protect cultural values** | Activities to maintain cultural values are a ***routine part*** of protected area management (Y or N) |
| **37. Conservation status of key plant or animal species**  Has the status of key species changed over the **last five (5) years**? | 1. The conservation status of key species is **undesirable and has worsened** over the last five years |
| 1. The conservation status of key species is **undesirable and has remained unchanged** over the last five years |
| 1. The conservation status of key species is **undesirable, but has improved** over the last five years |
| 1. The conservation status of key species is **desirable or has significantly improved** over the last five years |
| **38. Conservation status of habitats**  Has the status of habitats changed over the **last five (5) years**? | 1. The conservation status of habitats is **undesirable and has worsened** over the last five years |
| 1. The conservation status of habitats is **undesirable and has remained unchanged** over the last five years |
| 1. The conservation status of habitats is **undesirable but has improved** over the last five years |
| 1. The conservation status of habitats is **desirable or has significantly improved** over the last five years |
| **39a. Level of support – CEPA**  What support has CEPA provided to enhance the management effectiveness of the protected area over the last five years? | 1. None |
| 1. A little |
| 1. Some |
| 1. Sufficient |
| **39b. Level of support – Provincial Government(s)**  What support has/have the provincial government(s) provided to enhance the management effectiveness of the protected area over the last five years? | 1. None |
| 1. A little |
| 1. Some |
| 1. Sufficient |
| **39c. Level of support – District(s)**  What support has/have the District(s) provided to enhance the management effectiveness of the protected area over the last five years? | 1. None |
| 1. A little |
| 1. Some |
| 1. Sufficient |
| **39d. Level of support – LLG(s)**  What support has/have the LGG(s) provided to enhance the management effectiveness of the protected area over the last five years? | 1. None |
| 1. A little |
| 1. Some |
| 1. Sufficient |
| **39e. Level of support – NGOs**  What support have NGOs provided to enhance the management effectiveness of the protected area over the last five years? | 1. None |
| 1. A little |
| 1. Some |
| 1. Sufficient |

# Part 5: Condition and trend of protected area values

Key values for the protected area should be copied from Table 2 on p.1.

**Please consider the current state of the protected area values you have identified and rate them using the scale below:**

**Very good**: there is no problem; it is doing well

**Good**: things are okay although there are minor problems; the value could recover with a bit of help and time

**Fair:** there are some serious problems affecting the value, and it will need quite a lot of work and time to recover

**Poor**: the value is really suffering, and it will not recover, at least without a really major effort and intervention.

**Don’t Know**: we have no information or knowledge about the value and cannot assess the condition or trend.

**Now please consider the trend (or change over time) in relation to each protected area value. Please use the rating scale below:**

**I Improving**: Getting better / recovering

**S Stable:** Staying about the same

**D Deteriorating**: Getting worse

**Table 7: Condition and trend of protected area values**

| **Key value**  (from Table 2) | ***Condition*** | | | | | ***Trend*** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Very good** | **Good** | **Fair** | **Poor** | **Don’t know** | **I** | **S** | **D** | **Don’t know** |
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# Recommendations or ways forward

As the final task, I would like you to think about all the values, threats and issues that have been raised and to list three things that would help you to make your protected area better in the future.

**1.**

**2.**

**3.**

***Thank you for your participation in this protected area management assessment process. We value the time and knowledge that you have contributed to this important task.***

# Attachment 1: Threat flow chart

**VH** – widespread; throughout PA

**H** – widespread; at many locations

**M** – localised; at some locations

**L** – localised; at limited locations

**VH** – likely to destroy some PA value(s)

**H** – seriously degrade PA values

**M** – moderately degrade PA values

**L** – slightly impact on PA values

Figure 1. Flow chart for assessing threats to the protected area