

كيفية اجراء تقييم متكامل لمحمية في الاراضي الرطبة

1- المرحلة الاولى: التحضير والتوجه *planning* preparation and orientation تتضمن توضيح المستفيدين stakeholders واهداف الادارة والموازنة بين المحافظة على البيئة والتنمية

2- المرحلة الثانية: *Field data collection*: التقييم لحالة التنوع الاحيائي للاراضي الرطبة ومستوى الضغط عليها للمحافظة على الانواع

3- المرحلة الثالثة: *Analysis and presentation*: التحليل للمعلومات المجمعَة وتقديمها للادارة والمخططي الادارة للربط بين التنوع الاحيائي والاقتصاد ومعبشة السكان المحليين.

لتنفيذ المراحل الثلاثة

- 1- Identify the management concerns, objectives or issues to be addressed and the questions to be answered
تعرف على اهتمامات واهداف و المواضيع للادارة التي يجب التعامل معها ال
- 2- Form the multi-disciplinary team and allocate roles and responsibilities
تشكيل فريق متعدد الكفاءات والاختصاصات وتحديد مسؤولية كل عضو بالفريق
- 3 Review current state of knowledge and focal issues
معرفة الابحاث والدراسات السابقة والحالية عن المنطقة المطلوبة
- 4 Plan the field sampling programmed and complete a planning matrix
وضع خطة للعمل الحقلّي واكمال الجداول المسح المطلوبة
- 5 Plan data collection according to opportunities and constraints
وضع خطة لجمع المعلومات بناءً على الوقت المتاح والصعوبات الموجودة
- 6 Pilot evaluation of field methods
تقييم شامل لخطة العمل الحقلّي
- 7 Implement the main field assessment
تطبيق التقييم الاساسي في الحقل
- 8 Data management
ادارة النتائج المستحصلة
- 9 Data analysis and write-up
تحليل النتائج وكتابة التقرير
- 10 Presentation of results: spatial presentation employing a GIS-based approach
عرض النتائج للمنطقة باستخدام طريقة نظام المعلومات الجغرافي
- 11 Feedback and policy engagement
استرجاع المعلومات والتعشيق مع الخطة .

management questions الاسئلة الادارية المطلوبة

1- Biodiversity Assessment تقييم التنوع الاحيائي

Which areas of wetland have the highest diversity of globally threatened resident and migrant bird species?

Which areas of the wetland provide seasonally flooded habitats?

2-Economic Valuation التقييم الاقتصادي

What is the total economic value of birds harvested from the wetland?

What would it cost to provide the flood-control services supplied 'for free' by riparian wetlands?

3-Livelihoods Analysis تحليل المعيشة

What role does bird-hunting play in household subsistence and income generation?

How effectively do participatory institutions for wetland resource use represent the interests of the poor?

Integrated management questions الاسئلة الادارية المتكاملة

In the face of plans for alternative use of the wetland, how can we comprehensively document the current value of wetland resources to livelihoods, highlighting the potential loss of biological and livelihood value if the development activities proceed unmitigated?

How can the wetland harvest activities of the poor be regulated to maintain or enhance their contribution to livelihoods without threatening important species or damaging wetland functions?

How can the trade in wetland products be sustained and organized to bring greater benefits to those who actually live in wetlands and depend on them for a livelihood?

A3 Review current state of knowledge and focal issues

Identify and gather existing information
Review information

A4 Plan the field sampling programme and complete a planning matrix

This step involves:

- defining the geographic boundary for the survey
- defining a temporal boundary for the survey
- selecting species groups to survey
- identifying the wetland values to quantify
- defining the socio-economic boundaries – which groups to interview
- completing a planning matrix

1- تكوين فريق متعدد الاختصاصات و المهارات -1

Ideal focus taxonomic groups might include those that are:

- Most easily identified given the skills available
- Most highly utilized, especially by poorer members of the communities within the project area
- Those where the most information already exists

2 Planning a field survey

Sampling intensity and duration

For some groups such as birds or dragonflies and damselflies, timed searches may be an appropriate survey approach. Ideally the time given to survey should be chosen by sampling a small number of sites intensively and recording how many species are located per unit of time. The number of species found over accumulated time can be plotted as species discovery curve (see Figure 14). In this example, after 10 minutes 75% of species have been located, so you might choose to sample for 10 minutes at each location, or for 20 minutes to find more than 90% of species present. The decision will depend on the available time and the extent of the area to be sampled. This information can be used to decide the best use of available time to obtain sufficient data for the maximum number of sites.

To calculate abundance, it is important that the same amount of sampling effort (in this case time given to searching) is applied at each location.

3 Conducting species surveys

BIODIVERSITY DATA COLLECTION

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Records

Name of recorder	Date	Wetland Habitat Type	Taxonomic group(s) being sampled	Sampling methods used	Time/effort put in

ID/ no	Location GPS Lat/Long /Way Point no.	Species identified?	Specimen collected?	Photo(s) taken?	Species name OR Specimen no	Habitat where found and notes on ecology	Local name(s) for species, habitat, location	Notes on use, value, any other information

B4 Fish survey sampling methods

Fish are relatively easily surveyed for and are vital to nutrition and livelihoods across many parts of the world. Fish form the most important wetland product on a global scale providing the primary source of protein for nearly one billion people worldwide (FAO 2002).

A range of survey techniques will need to be used to obtain a complete inventory of the fish species present in the survey area. Local fishermen and women can be employed to conduct the initial survey, for instance by recording their catches, or by collecting examples (voucher specimens) of the species caught by the fishing community. This is an efficient way of making an inventory of local fish species. Gaps in the area surveyed can be filled later using additional methods (for example capturing less commercial species) and in additional locations, possibly fishing at times not normally fished by local fishers (e.g. at night). Fish need be collected only if immediate identification is not possible and specimens can be stored in either alcohol or formalin. The methods below have been largely drawn from

Backiel and Welcomme (1980).

B4.1 Market surveys

Visiting markets in the area provides a good opportunity to collect integrated data, such as which species are being traded, where the species come from and who the fishers are, and the value of different fish species (see Chapter B9). Photographs

ID/

no.

Location

GPS Lat/Long

/Way Point no.

Species

identified?

Specimen

collected?

Photo(s)

taken?

Species name

OR Specimen no.

AND/OR no.s

Habitat where found

and notes on ecology

Local name(s) for

species, habitat,

location

Notes on use, value,

any other information

Records

Taxonomic group(s) being sampled Sampling **methods** used and time/effort put in:

Name of recorder Date Wetland Habitat Type

Suitable for use if there are

few species at each location **BIODIVERSITY DATA COLLECTION SHEET** Sheet no.

4 Fish survey sampling methods

5 Mollusc sampling methods

6 Dragonfly and damselfly sampling methods

7 Sampling methods for non-fish vertebrates associated with wetlands: amphibians, birds and mammals

8 Plant survey methods

9 Market surveys

10 Assessing threats to freshwater species and ecosystems

11 Assessing the conservation status of species

12 Alternative methods for biodiversity assessment