

## **Beginners' Guide to using the Ecosystem Approach**

### **1. Introduction**

This guide provides a brief introduction on how to apply the ecosystem approach to a project or issue. Further information can be found under the Advanced User Guide.

There is no single way to deliver the three objectives of the Convention on Biological Diversity. However, there are a number of actions which can be taken which can help this process. Much can be learnt from the experiences of others when attempting to use the ecosystem approach. The searchable component of the ecosystem approach sourcebook can be used to find information on case studies and tools which have met some or all of ecosystem approach principles.

The ecosystem approach is a tool; it provides a framework that can be used to implement the objectives of the Convention on Biological Diversity, including the work on, inter alia, protected areas and ecological networks. There is no single correct way to apply the ecosystem approach to management of land, water, and living resources. The principles that underlie the ecosystem approach can be translated flexibly to address management issues in different social, economic and environmental contexts. Already, there are sectors and governments that have developed guidelines that are partially consistent, complementary or even equivalent to the ecosystem approach (e.g. the Code for Responsible Fisheries, the Sustainable Forest Management approach, adaptive forest management).

There are a number of options for implementing the ecosystem approach. For example, the principles can be included in national and regional policies, planning processes and sectoral plans. The principles can also be applied at a local level to smaller projects.

### **2. Steps to using the ecosystem approach**

#### **Problem Definition**

The first task is to define the problem or problems that need to be addressed. For example, the control of an invasive non-native species on an island. If the problem is very complex it might be necessary to break it down into several smaller problems so that each can be addressed more easily. For example, to conserve a wetland ecosystem while facilitating its sustainable use, it might be necessary to address (i) ecological degradation resulting from unsustainable use of wetland resources, and (ii) community well-being such as health, education, food security, and cultural values.

Having identified the issues, the next step is to ascertain what tasks would allow the problem to be addressed. The problem can be assessed against the tasks listed below as an initial step towards identifying a plan of action. This process can also be used to prioritise the actions to be undertaken.

### **3. Identifying the tasks to meet the problems identified**

The tasks below have been drawn from the principles of the ecosystem approach. In each case the ecosystem approach principle has been rephrased into a question which can be asked in relation to the problem(s) being addressed. The tasks are not listed in order of importance, they should be used in a way which best fits the problem. For more information on how to answer the questions posed by the tasks

and the rationale behind each please refer to the Advanced User Guide.

**Task 1:** *How do you involve all members of society in decisions associated with the management of land, water and living resources?*

**Task 2:** *How do you ensure management is decentralised to the lowest appropriate level?*

**Task 3:** *How do you ensure the effects of management actions (potential or actual) on adjacent and other ecosystems are taken into account?*

**Task 4:** *How can the economic context be understood so that market distortions that affect biological diversity are reduced, incentives are developed to promote biodiversity and sustainable use, and ecosystem costs and benefits are externalized?*

**Task 5:** *What measures could be used to conserve ecosystem structure and functioning so as to maintain ecosystem services?*

**Task 6:** *What measures can be taken to ensure ecosystems are managed within the limits of their functioning?*

**Task 7:** *What actions can be taken so that the problem(s) is (are) addressed at the appropriate temporal and spatial scales?*

**Task 8:** *How can varying temporal scales and lag-effects be taken into account when considering the sustainable use of ecosystems?*

**Task 9:** *How can adaptive management be used to address the problem(s) identified?*

**Task 10:** *How can an appropriate balance be sought between, and integration of, conservation and use of biological diversity?*

**Task 11:** *How do you ensure all forms of relevant knowledge including, scientific, indigenous and local knowledge, innovations and practices are included?*

**Task 12:** *What measures can be taken to facilitate the involvement of all stakeholders including all sectors of society and scientific disciplines?*

It is important to remember that whilst there is no single correct way to implement the ecosystem approach, it should be stressed that all its principles need to be considered in a holistic way, and appropriate weight given to each, according to individual circumstances.

### ***Cross-cutting issues***

In addition to the individual tasks identified above there are a number of cross-cutting issues that need to be considered when applying the ecosystem approach.

#### ***Capacity-building and participation***

Community partnerships, stakeholder engagement, political and institutional willingness to participate and empower, and the commitment of other donors and sponsors is crucial for successful outcomes. Capacity building through financial and infrastructure support are important requirements for success.

#### *Information, research and development*

Resource, biophysical, social, and economic information is important to the successful completion of a project using ecosystem approach. Research and development might be required to target gaps in knowledge. Information should be readily accessible to all stakeholders, to allow more transparent decision making and empowerment.

#### *Monitoring and review*

Monitoring and review are crucial components of any programme using the ecosystem approach framework. They allow a responsive and adaptive management capability to be developed, and for reporting on performance and outcomes.

#### *Governance*

Good governance is essential for successful application of the ecosystem approach to a problem. Good governance includes sound environmental, resource and economic policies and administrative institutions that are responsive to the needs of the people.

Having identified what tasks need to be undertaken to meet the issues raised the next step is to create a management plan.

### **4. Creating a Management Plan**

There is no correct way to create a plan, every situation is different and it is important to modify the plan to fit the circumstances under which the project will operate. The Advanced User Guide provides further information on how to create a management plan.

The following steps are thought key to the development of the management plan.

#### *Identifying the issues*

Issue identified and the project plan developed can be difficult to separate. The use of the ecosystem approach should begin with an issue. Having identified the issue (or several) it can be assessed against the tasks set out above in Section 3.

#### *Creating a Draft management plan*

The draft management plan sets out the tasks, determines who should be involved and creates a draft timetable for action.

#### *Timing*

Choosing the right time to set up a project can be important. Opportunities or circumstances which can help or hinder the project's success include:

Political stability

New government policies and strategies

Re-organisation of government departments and institutions

The time taken to restore or maintain ecosystems should not be underestimated. Stakeholders should be given realistic timings so that they do not become disillusioned or frustrated by the time taken to put plans into action and for results to be achieved.

#### *Key actors*

A primary task is to decide which organisation should lead the project's development

and implementation. Reliance should not be placed on one organisation as this can jeopardise its success. Successful projects often have one fully-committed organisation (either governmental or non-governmental) which works with other partner organisations.

#### Engaging with stakeholders

Engage with the stakeholders as early as possible. Initial consultations are vital for ensuring people feel they can contribute to the development of the management plan, especially if it might impact on their activities. Stakeholders can provide ideas and reactions to help develop the project.

#### Setting Objectives

All projects need well-defined and readily identifiable objectives. These and any actions should be agreed through discussions with stakeholders so that an understanding of the issues and actions necessary to address them can be agreed and understood.

#### Project design

The development of the project plan should consider

Adaptive management

Long-term viability

The ultimate aim for any project should be the continuation of the objectives beyond the project's lifespan. Financial stability is also key to long-term viability.

#### Defining the boundaries, scope and time scale

Although boundaries lead to limitations these can be necessary for managing ecosystems.

#### Producing the project work plan

The first task of the core work team is to produce a work plan, which should be done in a participatory and collaborative manner, using logical framework techniques to facilitate problem analysis and planning.

#### Reducing risk to project outcomes

Risk analysis should be used to identify critical issues/risks to the project.

#### Monitoring and evaluation

Monitoring can be used to assess progress and determine how future management can be developed to meet the project's goals. The monitoring of activities, aims and objectives should not be fixed but remain adaptable to changing conditions as knowledge, understanding and issues are raised and resolved.

#### Project Implementation

Key concerns in implementing natural resource management projects include  
Length of time required. Habitat restoration may require 10-15 years of work before results become apparent.

Staff competence and commitment is vital to project success

The creation of a network of partner agencies and interest groups, which will progressively take on the implementation of the project activities are vital.

Political, institutional and community support must be secured to fulfill the project goals and objectives.

Project implementation generally follows a series of stages, some of which overlap

and can include several steps. For example

**Stage 1**

- a. build project team
- b. produce work plan and develop links with local community
- c. establish advisory committees

**Stage 2**

- a. determine project activities
- b. desk-based actions
- c. capacity-building
- d. review project (adapting monitoring and research as required)

**Stage 3**

- a. putting agreed plan into action

**Stage 4**

- a. continuation and forward planning
- b. strategic plan for future initiatives

For further information on the application of the ecosystem approach please see the Advanced User Guide.