

IUCN Red List of Ecosystems



The Status of our Planet

Everyone knows that coral reefs are in danger, and that the rainforests are disappearing – or do we? What do we actually know in scientific terms? How much of these ecosystems¹ are left, and how likely are they to disappear? IUCN, the International Union for Conservation of Nature is developing a new tool to provide answers to these questions – the IUCN Red List of Ecosystems.



¹ An ecosystem refers to an area of land/water, the biodiversity that lives there and the associated physical environment (air, water, rocks etc.) that interact together. Examples of ecosystems include lakes, mountains, riverine systems, coral reefs.

What is the Red List of Ecosystems?

The IUCN Red List of Ecosystems will be a global standard for how we assess the status of ecosystems (Box 1), applicable at local, national, regional and global levels. We will be able to say whether an ecosystem is not facing imminent risk of collapse, or whether it is vulnerable, endangered, or critically endangered. This will be measured by assessing losses in area, degradation or other major changes such as conversion.

Box 1: The IUCN Red List of Ecosystems will be:

1. Easily understood by policy-makers and the public.
2. Consistent with, and complementary to the IUCN Red List of Threatened Species™, which measures extinction risk.
3. Transparent, objective, and scientifically rigorous.
4. Applicable to terrestrial, marine, freshwater and subterranean systems.
5. Applicable from local to global, and from very small (fine resolution) to very large (coarse resolution) scales.
6. Able to use historic and present-day data.
7. Clear about how risk assessments can inform conservation, land use and investment priorities.
8. Defined by criteria that reflect varying levels of risk and loss of function, and which are easily quantified and monitored.
9. A standard method for comparing ecosystem risk of collapse.



How can the IUCN Red List of Ecosystems be important for you?

We anticipate that the Red List of Ecosystems will be of great value to a number of different sectors, including:

- **Conservation:** to help prioritise action, for example, in terms of ecosystem restoration and land use practices, and as a means to reward good and improved ecosystem management.
- **Land Use Planning:** to highlight the risks faced by ecosystems and ecosystem services as important components of land use planning, for example, clean water, maintenance of soil fertility, pollination, and natural products.
- **improvement of governance and livelihoods:** to link ecosystems services and livelihoods, and explore how appropriate governance arrangements can improve ecosystem management and livelihood security.
- **Macro-economic planners:** to provide a globally accepted standard that will enable planners to evaluate the risk and related economic costs of losing ecosystem services, and, conversely, the potential economic benefits of improved management.

How will the Red List of Ecosystems be developed?

A standardized system will allow for objective, transparent and repeatable assessments of ecosystem risk, and losses of ecosystem functions and services. Such assessments would be comparable between regions and time periods. At the global level, IUCN will determine the conservation status of the world's terrestrial, freshwater, marine and subterranean ecosystems, aiming to achieve complete coverage by 2025. Criteria for determining threat categories will be based on extent, historical and present day decline, and the reasons for decline.



A similar process will take place at the national and regional levels, but led, for example, by IUCN Members and Commissions, and their networks of collaborators. Red List of Ecosystems assessments at the local, national or regional level will be freely available in an on-line database, as a comprehensive collection of case studies in the three official IUCN languages (English, French, and Spanish), as appropriate for the countries concerned.

The IUCN Red List of Ecosystems is working towards five major targets:

1. Classify and list the world's ecosystems and document their status.
2. Focus not only on threatened ecosystems but also on those that are in good condition as a result of active management, and so highlight best practices in ecosystem management.
3. Establish a "secretariat" to manage the Red List of Ecosystems process in collaboration with the IUCN Red List of Threatened Species.
4. Enhance technical and institutional capacity for ecosystem red-listing at national, regional and global levels.
5. Develop strong linkages between good ecosystem management and sectors which are not necessarily focused on conservation (e.g. national and economic planning, livelihood improvement, and the private sector).



Shaping the IUCN Red List of Ecosystems – a collaborative and adaptive process.

The Red List of Ecosystems is developed and implemented jointly by the IUCN Commission on Ecosystem Management (CEM) and the IUCN Ecosystem Management Programme (EMP), in collaboration with the IUCN Species Survival Commission (SSC) and the IUCN Global Species Programme (GSP). They collaborate in building and promoting the Red List of Ecosystems at global, regional and national levels. This involves engaging with partners on the ground, and awareness-raising among policy-makers.

The Red List of Ecosystems will complement the IUCN Red List of Threatened Species² and other IUCN knowledge products. When used together, ecosystem and species red lists will provide the most informative indicator of the status of biological and abiotic diversity at national, regional and global levels. The Red List of Ecosystems will inform indicators used to assess ecosystem health and support arguments for non-degraded ecosystems as a core component of human well-being, land use management, governance and macro-economic planning.

With climate change and increased risks of disasters, we urgently need criteria at the ecosystem level to not only raise awareness about their threats, but to also demonstrate how improved ecosystem management can reduce risks, enhance resilience, and be a means for adaptation.

² Since 1963, The IUCN Red List of Threatened Species started a process for having specific criteria to evaluate the risk of extinction of thousands of species, and assess conservation efforts. It is the world's most comprehensive inventory of the global conservation status of biological species, which is used by government agencies, NGOs and policy makers. (www.iucnredlist.org).