

Preventing extinction and advancing the recovery of species using The IUCN Red List of Threatened Species



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The IUCN Red List of Threatened Species™ is the world's most comprehensive source of information on species and will be used to deliver globally agreed targets on the conservation of biodiversity by 2030.

The IUCN Red List Partnership has identified the work needed to comprehensively implement and track actions to stabilize the global decline in biodiversity by 2030 using The IUCN Red List of Threatened Species.

The high-level targets needed to achieve this goal are summarized in this document.

Aim

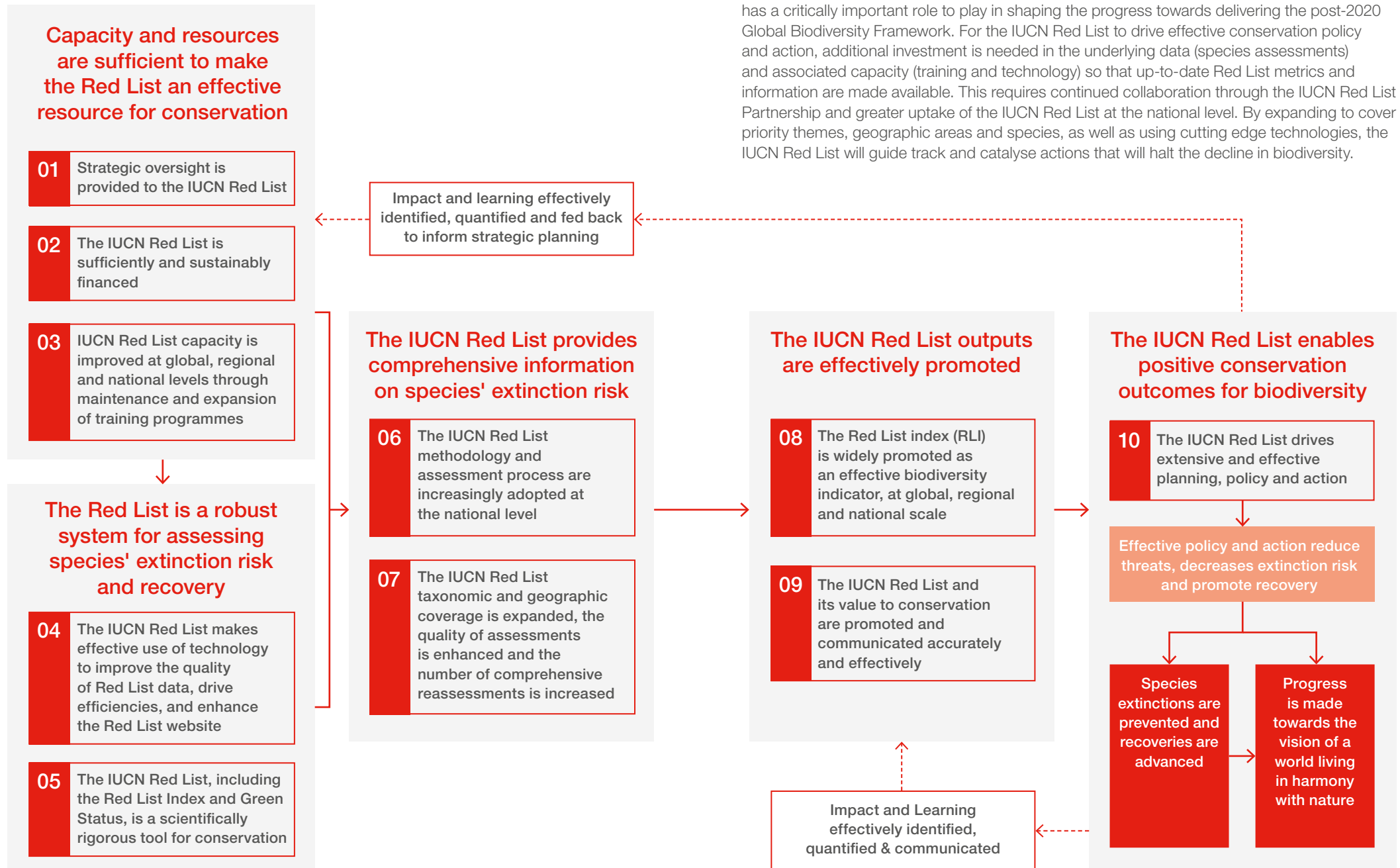
The IUCN Red List of Threatened Species (IUCN Red List) will drive extensive and effective planning, policy and action that leads to the abatement of threats to species and the recovery of populations and habitats.

Biodiversity is the foundation of life, the many benefits of which include supporting human health. The IUCN Red List empowers governments, businesses and civil society to protect nature and is the most extensive and widely used global knowledge platform that does this.

The IUCN Red List is mainstreamed into how the world measures biodiversity and provides a global species currency that is trusted and used by all sectors: global average temperature is used to track climate change, Gross Domestic Product is used to measure national productivity and the IUCN Red List is used to measure species' extinction risk and conservation status.

Theory of Change

The strategic plan is built around a theory of change which recognizes that the IUCN Red List has a critically important role to play in shaping the progress towards delivering the post-2020 Global Biodiversity Framework. For the IUCN Red List to drive effective conservation policy and action, additional investment is needed in the underlying data (species assessments) and associated capacity (training and technology) so that up-to-date Red List metrics and information are made available. This requires continued collaboration through the IUCN Red List Partnership and greater uptake of the IUCN Red List at the national level. By expanding to cover priority themes, geographic areas and species, as well as using cutting edge technologies, the IUCN Red List will guide track and catalyse actions that will halt the decline in biodiversity.



The IUCN Red List enables positive conservation outcomes for biodiversity

The IUCN Red List drives extensive and effective planning, policy and action Target 10

The IUCN Red List is fundamental for informing policy, planning and action in delivering positive outcomes for biodiversity. This is made possible through the use of species extinction and recovery assessments on the IUCN Red List. For example, the Red List Index (RLI) tracks extinction risk over time and the Species Threat Abatement and Restoration (STAR) metric supports the establishment of science-based targets for achieving global biodiversity targets using the IUCN Red List. The RLI and STAR are important for all sectors of society, including national and local governments, international conventions, the private and financial sectors, civil society conservation organisations, and donors. The IUCN Red List is also used to identify Key Biodiversity Areas, thereby guiding conservation action and policy to the most important sites for conservation at the global level.

This will be achieved by

- Governments, the conservation sector, multinational agreements, business and the finance sector all implementing policies and actions that are effectively informed by the IUCN Red List

The IUCN Red List outputs are effectively promoted

The IUCN Red List and its value to conservation are communicated effectively and accurately to strengthen its credibility as the world's most authoritative measure of species' conservation status Target 9

The IUCN Red List is IUCN's flagship product. It represents much of what IUCN is respected for in one product: reliable data built on scientific evidence, developed in partnership with respected institutions, produced with rigour and crucial for understanding the state of biodiversity. The IUCN Red List brand is understood by the media and provides high-impact opportunities for communicating about biodiversity. It is also used as a data source in hundreds of influential scientific publications and derivative products each year. Going forwards, communication about the IUCN Red List must be increasingly aimed at target audiences so that the fundamental role of the IUCN Red List is better understood and its potential to influence is maximised.

This will be achieved by

- Effective communication to target audiences of the IUCN Red List's contribution to conservation
- Communicating the collective impact of the IUCN Red List Partnership
- Maintaining the IUCN Red List's scientific credibility and public reputation

The Red List index (RLI) is widely promoted as an effective biodiversity indicator, at global, regional and national scale Target 8

Indicators are essential for assessing progress towards targets addressing biodiversity loss, such as those in the post-2020 Global Biodiversity Framework and the United Nations Sustainable Development Goals. The Red List Index (RLI) is a biodiversity indicator that measures the extinction risk of sets of species. RLIs are used by the United Nations' biodiversity-related conventions and a range of regional and national policy fora. However, the global index needs strengthening by including a wider range of taxonomic groups (particularly invertebrate, freshwater, marine, plant and fungi species), allowing it to be disaggregated thematically and nationally to produce increasingly policy-relevant and robust indices. This will require reassessment of groups that have previously been comprehensively assessed, assessment and reassessment of new groups, and reassessment of sampled groups, in parallel with the production and application of appropriate guidelines.

This will be achieved by

- Completing 137,000 re-assessments of species on the IUCN Red List
- Disseminating the RLI widely through appropriate web platforms
- Use of RLIs (global, regional, national and thematic) as indicators by biodiversity-related conventions, the Sustainable Development Goals, global and regional assessments (e.g. GEO, IPBES), national reporting processes (e.g. CBD, etc.), relevant institutions, sectors (e.g. fisheries) and other policy fora

The IUCN Red List provides comprehensive information on species' extinction risk

The IUCN Red List taxonomic and geographic coverage is expanded, quality of assessments enhanced, and the number of comprehensive re-assessments expanded Target 7

As the only standardised global measure of assessing species' extinction risk, it is important that the taxonomic composition of the IUCN Red List is broadly representative of biodiversity. The long-term aim is therefore to increase the number of plants, invertebrates and fungi on the IUCN Red List. This effort needs to be targeted to deliver a meaningful set of new assessments and therefore needs to be aligned to geographies that are currently underrepresented and groups that have a direct policy relevance or play important ecosystem functions or are informative biological indicators. New species recovery assessments, using the IUCN Green Status of Species, will incentivize effective conservation actions and allow recognition of the many successes that global conservation has achieved.

This will be achieved by

- Adding 129,000 species to the IUCN Red List
- Completing Green Status of Species assessments

The IUCN Red List methodology and assessment process are increasingly adopted at the national level **Target 6**

Given the very high proportions of plant and invertebrate species that are national endemics, the assessment of extinction risk of as-yet-unassessed species in these groups can proceed most efficiently through national assessments. Moreover, direct interventions at the national level are an effective means for rapidly advancing both knowledge on threatened species, and for implementing action to safeguard threatened species. To accelerate this knowledge on species' extinction risk both nationally, regionally, and globally, will require direct engagement, expansion of Red List assessment training and data compilation support to national governments and associated stakeholders (e.g. civil society).

This will be achieved by

- A minimum of ten pilot countries developing national Red Lists following IUCN methodology supported by IUCN Species Survival Commission's National Species Specialist Groups
- At least 25 countries producing a national Red List Index following IUCN Red List standards
- Completing regional Red List assessments for Europe, the Mediterranean and selected FAO Fishing Areas
- Linking the National Red List Database to the IUCN Red List

The Red List is a robust system for assessing species' extinction risk and recovery

The IUCN Red List including, the Red List Index and Green Status, is a scientifically rigorous tool for conservation **Target 5**

The credibility and scientific rigour of the IUCN Red List is built upon the collation of expert-reviewed data and the careful and qualified application of the IUCN Red List guidelines. It is essential that all documentation, review and validation of assessments are fully compliant with the appropriate, and regularly updated, guidelines. By ensuring that all assessments on the IUCN Red List fully comply with the minimum supporting information requirements, and fostering as far as possible careful application of the IUCN Red List Categories and Criteria and IUCN Green Status of Species Standard, IUCN seeks to ensure that assessments are transparent, defensible and repeatable, and thereby avoid criticisms to the contrary. Priorities for the next decade include updating existing guidance and producing guidance on new processes and products.

This will be achieved by

- Updating or creating key documents for supporting global Red List and Green Status assessments
- Red List classification schemes are being reviewed, updated, fully documented and technological changes implemented

The IUCN Red List makes effective use of technology to improve the quality of Red List data, drive efficiencies, and enhance the Red List website **Target 4**

As the IUCN Red List continues to expand taxonomically, geographically and in terms of content (e.g. addition of Green Status assessments), as well as needing to keep existing assessments current, there are opportunities to use world-class information technologies to: improve the quality and consistency of Red List data; facilitate the assessment and reassessment process, including data entry and capture; support the management and storage of the underlying data; and facilitate and promote public use of IUCN Red List data via improved and enhanced online search, download and analytical functionalities. In this regard, a particularly important advancement will be the need for the SIS to integrate, under one umbrella, both spatial and tabular data (requiring GIS technologies to be mutually compatible with tabular ones).

This will be achieved by

- Using new technologies to make Red List assessments more efficient, consistent and rigorous
- Improving the architecture and performance of the IUCN Red List species database
- Disseminating the IUCN Red List through an improved digital experience
- Integrating IUCN Red List species database with external platforms

Capacity & resources are sufficient to make the Red List an effective resource for conservation

IUCN Red List capacity is improved at global, regional and national levels through maintenance and expansion of training programmes **Target 3**

Given the highly important role that the IUCN Red List plays in national, regional, and global conservation, it is essential that the people involved fully understand the methodology and the information required for high-quality assessments. IUCN has already developed a range of training resources, including an online course, a training workshop curriculum, and a network of certified Red List Trainers. These resources require regular updating and development to ensure that they reflect advances in Red List guidance and tools. Given the distribution of global biodiversity, there is a particular need to increase Red List capacity in 'megadiverse' developing countries. This means translating the training resources and Red List tools into a wider range of languages, expanding the Red List trainer network, and developing more training opportunities to allow Red List specialists to share their knowledge and experience in an effective and sustainable way.

This will be achieved by

- Increasing the number of people trained to conduct IUCN Red List assessments
- Increasing the number of qualified Red List Trainers
- Expanding, updating and translating IUCN Red List training resources

The IUCN Red List is sufficiently and sustainably financed **Target 2**

For over 50 years, the IUCN Red List has served as the global leader in providing standardised information on species to guide decision-making. This information is fundamental to governments, the private sector, regions, cities, communities, and civil society groups. However, at current funding levels, IUCN is unable to guarantee the long-term future of the IUCN Red List.

The chronic under-funding of the IUCN Red List needs to be addressed in the next decade and it is estimated that at least \$83 million is needed to implement the Red List Strategic Plan 2021-2030. Key elements to mobilising the resources required include a new endowment fund, enhanced income generated from the business and finance sector through increased reliance on the data in the IUCN Red List, and a stronger collaborative approach to philanthropic sources.

This will be achieved by

- Securing the IUCN Red List as a strategic priority for IUCN and Red List Partners
- Increasing collective fund raising capacity by the Red List Partnership
- Generating income from fund raising campaigns run collaboratively by the IUCN Red List Partnership
- Endowment fund established by 2023 generates \$5 million annually for the IUCN Red List

Strategic oversight is provided to the IUCN Red List **Target 1**

The IUCN Red List Partnership is convened by IUCN and draws on the taxonomic expertise and institutional commitments from the Partners to deliver the IUCN Red List and its key products. The IUCN Red List Partners are institutions that have made a strategic and long-term commitment to the IUCN Red List. Each Partner contributes a specific expertise so that implementation of the strategic plan is shared across the partnership. A Red List Committee serves as the mechanism for providing strategic oversight to, and governance of, the IUCN Red List. The composition of the IUCN Red List Partnership needs to reflect the needs of the IUCN Red List Strategic Plan so that all areas of implementation are adequately covered.

This will be achieved by

- The Red List Partnership containing an appropriate suite of institutions that collectively have the capacity, skills and reach to implement the IUCN Red List strategic plan
- Each Red List Partner is accountable for delivering one or more specific components of the Red List Strategic Plan
- Efficient and streamlined governance and delegated responsibility to working groups
- Timely renewal of Red List Partnership agreement





Image credits: Barbie Pagoda Fungus (*Podoserpula miranda*) © Christian Laudereau

Approximately 280,000 Red List assessments are needed in the next decade for the IUCN Red List to effectively influence and inform actions, decisions and policy that lead to stabilizing the global decline in biodiversity by 2030.



All amphibians (currently c. 8,000 species) **are reassessed in 2021 and 2030, with selected groups reassessed in 2026** (total = 20,000 assessments)



All birds (11,100 species) **are reassessed by 2022, 2026 and 2030** (total = 33,000 assessments)



All freshwater fishes (17,800 species) **are assessed by 2022 and reassessed by 2029** (total = 20,300 assessments)



Fungi species, including groups important for soil health, nutrient cycling and human livelihoods are added to the IUCN Red List by 2030
(total = 23,500 assessments)



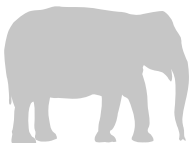
All cacti, cycads, oaks and conifers (3,700 species) are reassessed by 2030 and a further 56,500 species (including trees, medicinal plants and orchids) are added to the IUCN Red List by 2030



Invertebrates, including reassessments of all 6,300 dragonflies by 2025 and 2030 and swallowtail butterflies (500 species) by 2030; groups of beetles, butterflies, bumblees, fireflies, grasshoppers, hoverflies, molluscs and mayflies, added to the IUCN Red List by 2030 (total = 77,400 assessments)



All reptiles (9,400 species) are reassessed by 2030, and selected species with highest probability of category are reassessed by 2027 (total = 10,900 assessments)



Selected mammal species are reassessed by 2026, and all species by 2030
(total = 6,900 assessments)



All sharks & rays (1,500 species) are reassessed by 2030



Marine fishes (1,600 species including all blennies, snappers, groupers and tunas) are reassessed by 2028 and a further 8,700 species are added to the IUCN Red List by 2030



Selected invertebrates, including: reassessments of all 6,300 dragonflies by 2025 and all swallowtail butterflies (500 species) by 2030. Selected groups of beetles, butterflies, bumblees, fireflies, grasshoppers, hoverflies, molluscs and mayflies added to the IUCN Red List by 2030 (total = 77,400 assessments)

Species for which Green Status of Species assessments should be undertaken are scoped by 2022 and assessments undertaken by 2030.

Resources Required to Implement the IUCN Red List Strategic Plan 2021-2030

It is a complex task to maintain, update and expand the IUCN Red List. Significant resources are needed to implement this strategic plan.

The IUCN Red List Partnership has estimated the cost of full implementation of the strategic plan to be USD 83 million over ten years. A minimal viable product would costs approximately US\$ 57 million over the same period.

Target Results	Required Budget US\$
10 The IUCN Red List informs policy and action	865,000
09 The IUCN Red List is communicated effectively	3,227,000
08 The Red List Index is strengthened and widely promoted	30,431,000
07 The IUCN Red List is expanded and improved	33,527,000
06 The IUCN Red List is used at the national and regional level	6,398,000
05 The IUCN Red List is a scientifically rigorous tool	741,000
04 The IUCN Red List makes effective use of technology	1,730,000
03 The IUCN Red List training programmes are expanded	2,805,000
02 The IUCN Red List is sustainably financed	1,805,000
01 The IUCN Red List receives strategic oversight	3,150,000
GRAND TOTAL (2021-2030)	83,814,000

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The IUCN Red List of Threatened Species™ is produced by the Red List Partnership, currently:

ABQ BioPark, Arizona State University, BirdLife International, Botanic Gardens Conservation International, Conservation International, International Union for Conservation of Nature (IUCN), Missouri Botanical Garden, NatureServe, Re:Wild, Royal Botanic Gardens Kew, Sapienza University of Rome, IUCN Species Survival Commission, Texas A & M University and Zoological Society of London.



Contact

To find out how you can support the IUCN Red List please contact:
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To donate to the IUCN Red List, please use:
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THE IUCN RED LIST
OF THREATENED SPECIES™

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