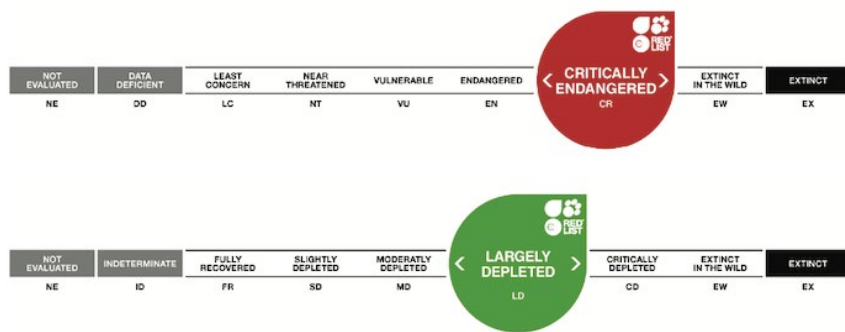


# Measuring the Recovery of Species: Using the IUCN Green Status of Species index to track progress towards Target 4 and Goal A

**Extinction is what we want to avoid, recovery is what we want to achieve.** The IUCN Green Status of Species (GSS) is a simple, science-driven metric that assesses the conservation state of a species in terms of progress towards recovery. The Green Status of Species is an integral part of the IUCN Red List, and its development was led by an international team under the auspices of the IUCN Species Survival Commission.



The Red List categorizes how close to extinction a species is, the IUCN Green Status of Species categorizes how close to fully recovered a species is

An index based on the GSS is currently proposed for inclusion as a headline indicator for Target 4 (and also has relevance to Goal A), but because it is in development, it does not currently meet all the assessment criteria. Specifically, although the Green Status of Species method has undergone extensive testing and validation, and been peer-reviewed, currently only 37 assessments are available on the IUCN Red List website. Hence, there is a need for substantial and rapid investment to rapidly grow the number of GSS assessments. Further, the methodological approach for tracking genuine change in species recovery over time to produce the Green Status of Species Index remains to be peer-reviewed and fully tested. Nonetheless, it will be a powerful and complementary indicator to the well-established Red List Index once available.

**Please support the inclusion of the IUCN Green Status of Species Index as a headline indicator for Target 4 and a component indicator for Goal A.**

## Relevance to Goal A

While extinctions and extinction risk can be measured by metrics based on the IUCN Red List of Threatened Species, and abundance based on the Living Planet Index, the health and resilience of species' populations (or viability) and the recovery of a species is best measured by metrics based on the new GSS Index.

## Relevance to Target 4

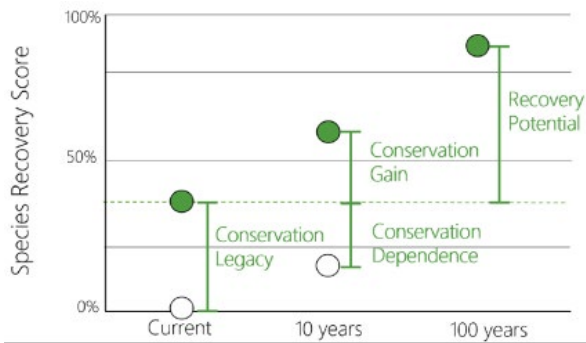
The extinction of some species can only be prevented through implementing urgent and targeted species-specific

conservation actions. The recovery of species' populations and their ecological functionality across their range require even more ambitious species-specific conservation actions. The GSS Index will allow the contribution of such actions to species recovery over time to be measured and quantified.

## Overview of the Green Status of Species

The GSS assesses the state of species in nature by defining a fully recovered state and comparing the species' current state to it. To be assessed as fully recovered, a species must be viable and ecologically functional in all parts of its indigenous range, including those areas occupied prior to human impacts. Species are assigned a "Green Score", ranging from 0-100%, where 100% equates to fully recovered. Green Scores are calculated by dividing a species' indigenous range into subunits. The species state is then assessed as either absent, present, viable or functional within each spatial subunit. These are appropriately weighted and used to calculate a score. Green Scores ensure that viability, functionality and representation are considered in assessing the recovery status of a species. See guidelines and testing paper.

The Green Status of Species reports not only a species' current recovery category, but also how conservation actions have affected the current status, what we might expect if conservation actions are halted, and how a species' status could improve in the future with conservation action. The past or potential impact of conservation action is captured in a set of conservation impact metrics, based on Green Scores calculated for different times and scenarios.



The IUCN Green Status of Species Conservation Impact Metrics

## Developing a Green Status of Species Index (GSSI)

Conceptually, the derivation of the IUCN Green Status of Species Index will be similar to the IUCN Red List Index. Just as it is possible to track genuine deteriorations and improvements in the extinction risk of species over time by means of the Red List Index, it will be possible to track genuine changes in species' recovery over time by means of the Green Status of Species Index.

The index is calculated for a point in time by first assessing the Green Status of each species at that time point according to the IUCN Green Status of Species global standard (IUCN 2021), and then averaging the Species Recovery Score and the Conservation Impact metrics (defined in IUCN 2021) across the group of species considered. A Green Status of Species Index would track the average species recovery scores of a group of species across multiple time points—e.g., 2025, 2030, 2040, and 2050 - providing information on whether we are globally moving closer or further away from recovery goals. It should also be possible to backcast scores to relevant dates in the past to avoid the need to wait for future reassessments to demonstrate trends. This methodological approach has been used successfully in producing Red List Indices for some species groups (e.g. amphibians and corals).

A Green Status of Species Index (GSSI) can be developed in two ways: 1) using comprehensively assessed groups of species (which initially will be possible for only small taxonomic groups), or 2) using a sampled approach similar to that developed for the IUCN Red List. Development of the GSSI will be guided by the methods used to develop Red List Indexes to ensure comparability across all Red List metrics.

## Strengths of the Green Status of Species

- Considers species in terms of their contributions to ecosystem function.
- The ambitious definition of recovery set by the GSS combats shifting baseline syndrome.
- The GSS Conservation Impact Metrics (Conservation Legacy, Recovery Potential, Conservation Dependence and Conservation Gain) can be used as benchmarks against which achievement towards recovering nature is assessed.
- By using a Species Recovery Score incremental changes in status can be detected and tracked over short periods of time.

- By explicitly covering the whole range of a species, the GSS recognises variation in species status across its range and guards against recovery of small highly protected populations masking range-wide declines.
- Suitable for tracking the status of both widespread and abundant species and narrowly endemic or threatened species.
- As an IUCN metric that is incorporated into a globally-respected IUCN Knowledge Product, the GSS is internationally recognized.
- Simple yet robust methodology, extensively tested and peer-reviewed.
- Fully integrated with the IUCN Red List of Threatened Species and Species Action Planning processes.

## Scale of Use

The GSSI is possible at the national scale with guidelines pertaining to the application of the method at national levels forthcoming.

The GSSI can be available for taxonomic groups and can be developed to achieve appropriate taxonomic and geographic coverage. With time, and uptake in Green Status of Species assessments, it should be able to develop a global GSSI.

## Time frame

The GSSI could be fully developed and available by 2025.

## Next Steps to develop the GSSI

1. CBD Parties adopt the GSSI as headline indicator for Target 4 and a component indicator for Goal A.
2. Develop a global sampled GSSIs for 2025 and 2030 as well as a back-cast assessment for 2020 and perhaps earlier time-periods, permitting a time series to be in place to evaluate progress of the GBF by 2030. This can be done for both at the global scale and for self-selected pilot countries.
3. Develop a sampled GSSI for global species groups such as trees, sharks, and amphibians.

## How can you help?

- Consider funding the development of the GSSI as a CBD indicator.
- Consider partnering with us by nominating your country to pilot a national-level GSSI.

Please contact the Green Status of Species Working Group for more information and to find out how you can help.

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