Ecological integrity refers to the ability of an ecosystem to support and maintain ecological processes and a diverse community of organisms. Ecological integrity is measured as the degree to which a diverse community of index organisms is maintained and is used as a proxy for ecological resilience, described as the capacity of an ecosystem to adapt to the forces of stressors, while maintaining the functions of interest.

For example, the presence of a diverse portfolio of species increases the probability that at least some of those species have the traits required to survive and maintain a suite of ecosystem functions in the face of climate change. Such is the case for an intact coral reef system that can better withstand the effects of ocean acidification than an degraded reef, while maintaining functions such as productivity.

**HOW WAS IT MEASURED?**

The Ocean Health Index measures Ecological Integrity as the relative condition of assessed species in a given location. This was calculated as the weighted sum of the International Union for Conservation of Nature (IUCN) assessments of species. Weights used were based on the scale of extinction for the following: "Critically endangered" = 0.0, "Endangered" = 0.5, "Vulnerable" = 1.0, "Near Threatened" = 1.5, and "Least Concern" = 2.0. For primarily coastal goals, the spatial average of these per-pixel scores was based on a 500 m buffer for goals derived from all near-shore metrics; the spatial average was computed for the entire ECL.

IUCN periodically reports the results of assessments of new species and the Ocean Health Index incorporates the latest information available. Newly reported population trends produced by IUCN for more than 3,000 species were added in 2012 and approximately 1,000 species were added in 2015.

**Ecological Integrity** is a Resilience measure used in calculating scores for Box 1 of the Goals. The Goals that Influence are Food Provision (Fishing), Habitat Firing Opportunity, Natural Products, Beauty of Place (Energy Sources), and Biodiversity (all outputs except Species).

**See Raw Data**

**REFERENCES**


IUCN Gaps.
