

BIODIVERSITY

The Web of Life

Exploring Earth's incredible diversity of species, ecosystems, and the urgent need for conservation.

Every species matters. Every ecosystem counts.

What is Biodiversity?

GENETIC DIVERSITY

Variation in genes within a species — the raw material for adaptation and evolution.

SPECIES DIVERSITY

The variety of different species in a given area — from microbes to megafauna.

ECOSYSTEM DIVERSITY

The range of different habitats and ecological communities across the planet.

"Biodiversity" = the variety of life on Earth at all its levels, from genes to ecosystems.

Biodiversity By the Numbers

8.7M

Estimated species on Earth

Only 1.2M formally described

50%

Of species live in tropical forests

Covering just 6% of Earth's surface

1M+

Species face extinction

Many within decades

1,000×

Current extinction rate

vs. pre-human natural rate

Earth's Major Ecosystems

 Tropical Rainforest

50%

of all species

 Ocean & Marine

250K+

marine species

 Coral Reefs

25%

of marine life

 Grasslands

40%

of Earth's land

 Wetlands

40%

of freshwater fish

 Mountains

25%

of terrestrial species

⚠ Threats to Biodiversity

Habitat Loss



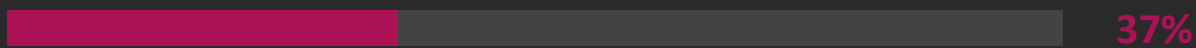
of threatened species affected by habitat destruction & fragmentation

Climate Change



of species at risk of extinction from climate change alone

Overexploitation



of assessed species threatened by hunting, fishing, or harvesting

Invasive Species



of recent animal extinctions attributed to invasive species

Why Biodiversity Matters

Biodiversity underpins all life on Earth and provides essential services that human civilization depends upon.

Without diverse ecosystems, we lose the foundation of food, medicine, climate stability, and clean water.



Food Security

Pollinators support 75% of global food crops



Medicine

50% of drugs derived from natural compounds



Clean Water

Watersheds filter trillions in water annually



Climate Balance

Forests absorb ~2.6B tons of CO₂ per year

Conservation Solutions

Protected Areas

Currently 17% of land and 8% of ocean is protected. The 30x30 goal aims to expand this.

Habitat Restoration

Reforestation and wetland restoration can bring back lost biodiversity.

Policy & Law

International agreements like the CBD and CITES regulate trade and set conservation targets.

Community Action

Indigenous-led conservation is among the most effective approach worldwide.

Science & Research


Genetic banks, species monitoring, and ecological research drive informed action.


Sustainable Choices


Consumer choices — food, travel, products — directly impact biodiversity globally.


ISO 14001:2026 | Why Biodiversity Matters NOW

WHAT'S NEW IN ISO 14001:2026

 Biodiversity & ecosystem health now explicitly required in organizational context analysis (Clause 4.1)


 Pollution levels, natural resource availability & biodiversity woven into risk & opportunity planning


 Life cycle perspective strengthened — impacts assessed from raw material to end-of-life


 Scope extended to externally provided processes, products & services (supply chain)


 Publication: April 2026 · Transition deadline: May 2029 (3-year window)


HOW OPERATIONS HARM BIODIVERSITY

 **Manufacturing:** Chemical runoff & wastewater discharge kill aquatic species and contaminate soil ecosystems

 **Construction:** Land clearing destroys habitats; impermeable surfaces disrupt water cycles and wildlife corridors





 **Agriculture / Food:** Pesticide use eliminates pollinators; monocultures reduce soil biodiversity by up to 50%

 **Logistics:** Transport noise and light pollution disrupt breeding cycles; roads fragment wildlife habitats

 **Tech / Data Centers:** Massive water use for cooling depletes local freshwater ecosystems and aquifer biodiversity

MSI helps organizations transition to ISO 14001:2026 — integrating biodiversity into your EMS with confidence.

Act Now for a **Biodiverse Future**

-  Support conservation organizations and protected areas
-  Choose sustainable products — look for eco-certifications
-  Advocate for strong environmental policies at every level
-  Plant native species and reduce lawn & pesticide use

"In every walk with nature, one receives far more than they seek." — John Muir