



SDG 15: LIFE ON LAND



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Marketing
Gate

End extreme poverty. Fight inequality and injustice. Fix climate change. Whoa. The Global Goals are important, world-changing objectives that will require cooperation among governments, international organizations and world leaders. It seems impossible that the average person can make an impact. Should you just give up?

No! Change starts with you!

On 1 January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development — adopted by world leaders in September 2015 at an historic UN Summit — officially came into force.



The graphic features a large circular logo on the left composed of 17 colored segments. To its right, the text "Sustainable Development Goals" is written in a white serif font, with "COLLABORATION PLATFORM" in a larger, bold, white sans-serif font below it. The main body of the graphic is a grid of 17 colored squares, each representing a goal. The goals are arranged in four rows: the first row has 5 goals, the second and third rows have 5 goals each, and the fourth row has 2 goals. The 11th goal square is replaced by a larger white square containing the circular logo, the text "THE GLOBAL GOALS", and "For Sustainable Development".

1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 
6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 
11 SUSTAINABLE CITIES AND COMMUNITIES 	 THE GLOBAL GOALS For Sustainable Development			12 RESPONSIBLE CONSUMPTION AND PRODUCTION 
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE AND JUSTICE STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 

Goal 15: Facts and figures

- Of the 8,300 animal breeds known, 8 per cent are extinct and 22 per cent are at risk of extinction;
- Of the over 80,000 tree species, less than 1 per cent have been studied for potential use;
- Fish provide 20 per cent of animal protein to about 3 billion people. Only ten species provide about 30 per cent of marine capture fisheries and ten species provide about 50 per cent of aquaculture production;
- Over 80 per cent of the human diet is provided by plants. Only three cereal crops – rice, maize and wheat – provide 60 per cent of energy intake;
- As many as 80 per cent of people living in rural areas in developing countries rely on traditional plant -based medicines for basic healthcare, and
- Micro-organisms and invertebrates are key to ecosystem services, but their contributions are still poorly known and rarely acknowledged.



GOAL 15: Targets

- By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements
- By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally
- By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world
- By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development
- Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species
- Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed;
- Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products;
- By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species;
- By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts;
- Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems;

GOAL 15: Targets

- Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation, and
- Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities.

**The Earth
has music
for those
who**

listen





PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

BEFORE COVID-19

THE WORLD IS FALLING SHORT ON 2020 TARGETS TO HALT BIODIVERSITY LOSS



OVER 31,000 SPECIES ARE THREATENED WITH EXTINCTION

WHICH IS

27% OF OVER 116,000 ASSESSED SPECIES IN THE IUCN RED LIST



FOREST AREAS CONTINUE TO DECLINE AT AN ALARMING RATE, DRIVEN MAINLY BY AGRICULTURAL EXPANSION

EACH YEAR, 10 MILLION HECTARES OF FOREST ARE DESTROYED (2015-2020)

COVID-19 IMPLICATIONS

WILDLIFE TRAFFICKING DISRUPTS ECOSYSTEMS AND CONTRIBUTES TO THE SPREAD OF INFECTIOUS DISEASES



PANGOLINS ARE POSSIBLY THE INTERMEDIARY ANIMAL THAT TRANSFERRED THE CORONAVIRUS

THE EQUIVALENT OF 370,000 PANGOLINS WERE SEIZED GLOBALLY (2014-2018)



TWO BILLION HECTARES OF LAND ON EARTH ARE DEGRADED, AFFECTING SOME 3.2 BILLION PEOPLE, DRIVING SPECIES TO EXTINCTION AND INTENSIFYING CLIMATE CHANGE

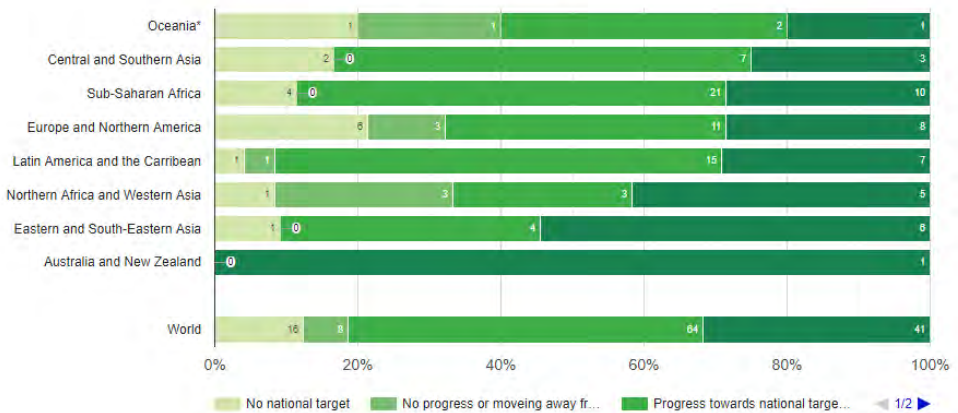


ONLY A THIRD OF 113 COUNTRIES WERE ON TRACK TO ACHIEVE THEIR NATIONAL TARGET TO INTEGRATE BIODIVERSITY INTO NATIONAL PLANNING

Conservation of terrestrial ecosystems is not trending towards sustainability. Forest areas continue to decline at an alarming rate, protected areas are not concentrated in sites known for their biological diversity, and species remain threatened with extinction. Moreover, surging wildlife crime, land use changes such as deforestation, and habitat encroachment are primary pathways of transmission for emerging infectious diseases, including COVID-19, threatening public health and the world economy.

Valiant efforts are being made to turn the tide. These include the expansion of sustainable forest management and gains in protected area coverage for terrestrial, freshwater and mountain areas. Countries are making progress in implementing programmatic, legislative and accounting principles to protect biodiversity and ecosystems. In order to build back better following the global pandemic, these gains need to be solidified and reinforced.

Progress towards national targets established in accordance with Aichi Biodiversity Target 2 of the Strategic Plan for Biodiversity, 2011–2020



*Excluding Australia and New Zealand.

Recognizing the importance of biodiversity in supporting economies, food production and human health, many national and local development plans and national accounting and reporting systems have integrated the values reflected in international treaties and strategic plans on biodiversity. As of January 2020, 129 parties (including the EU) had submitted their sixth national reports under the Convention on Biological Diversity, and 113 parties had assessed progress towards national targets related to Aichi Biodiversity Targets. 50% have made progress, but not enough to meet the targets by 2020; and 7% reported that they are making no progress or moving away from their targets.

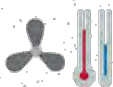
A DANGEROUS GAME



There are **1,7 million** different species together, they form our **ecosystems** on earth.



ECOSYSTEMS POSSES QUALITIES ESSENTIAL TO MANKIND



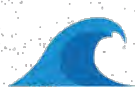
Regulate local climate



Decompose waste



Storage of carbon



Buffer against natural hazards



Maintain soil fertility



Regulate pests and diseases



Pollination of plants & crops

THE BUILDING BRICKS OF ECOSYSTEMS ARE BEING THREATENED



only **52,000** of all species are assessed



80% of all the species contribute to the effective functioning of an ecosystem

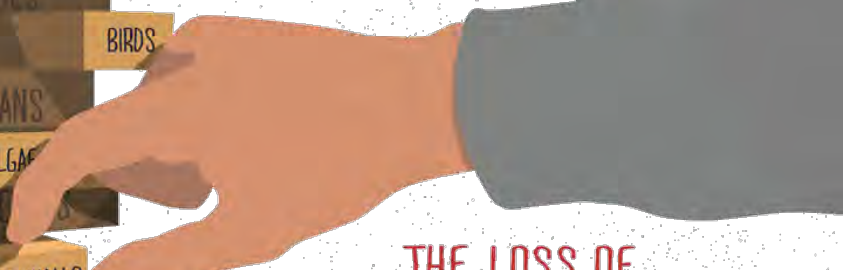
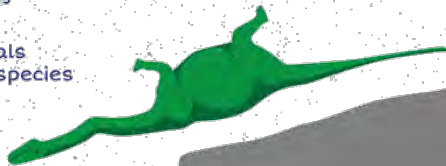


20% Off those **52,000** is endangered

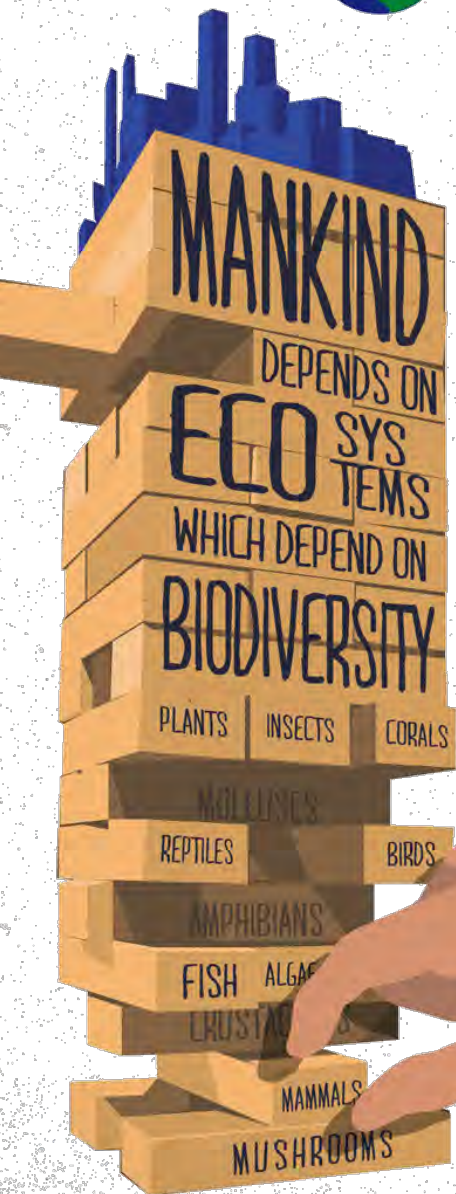
while mankind is on track to lose **75%** of all species in just a few centuries



that equals **325,000** species on earth



THE LOSS OF BIODIVERSITY WILL BE THE DOWNFALL OF MANKIND





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Human activity has altered

ALMOST 75 PER CENT OF THE EARTH'S SURFACE

SDG 15: LIFE ON LAND

You**ABLE**

15
OF
THE LAND



Life on land

Challenges

**EVERY MINUTE
23 HECTARES
OF ARABLE LAND**

ARE LOST
to drought and
desertification



**EVERY YEAR WE LOSE
13 MILLION HECTARES**

OF FOREST that are home to
more than 80% of all land-based
species and provide livelihood to
1.6 billion people



**The WORLD IS LOSING its
PRECIOUS BIODIVERSITY**

at an alarming rate, pushing
22% of animals to the
brink of extinction



Solutions



**COMBAT
DESERTIFICATION,**
and restore degraded
land and soil



HALT DEFORESTATION
and restore degraded
forests to **PROTECT
HABITATS**



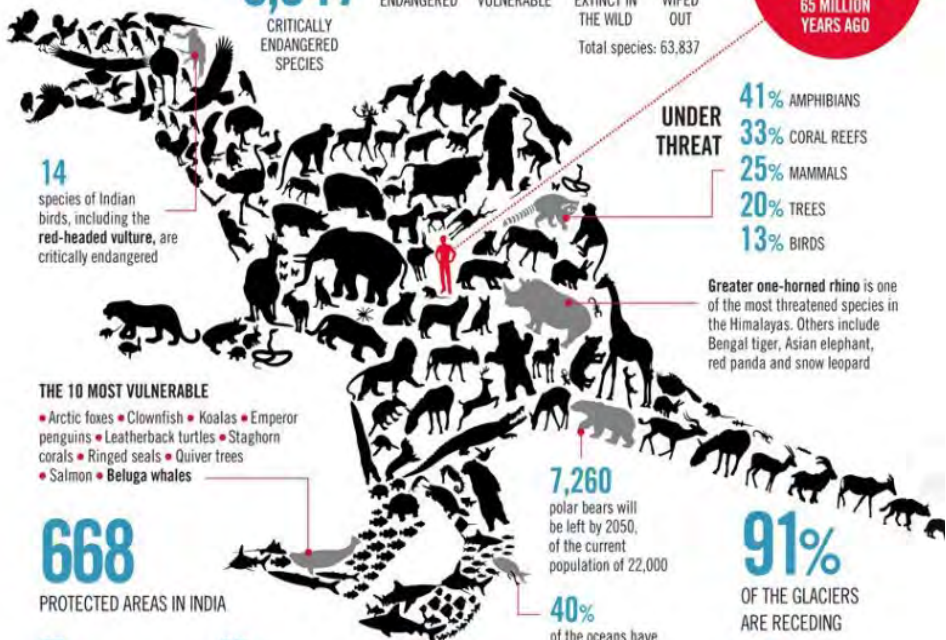
Take urgent action to
**END POACHING
AND TRAFFICKING**
of protected species

The Losing World

Even as India bats for biodiversity investments at a UN convention of experts from 193 countries, the planet is staring at an imminent crisis that could wipe out life as we know it

WE ARE IN THE MIDDLE OF THE BIGGEST EXTINCTION CRISIS SINCE DINOSAURS WERE WIPE OUT 65 MILLION YEARS AGO

3,947 CRITICALLY ENDANGERED SPECIES
5,766 ENDANGERED
10,104 VULNERABLE
63 EXTINCT IN THE WILD
801 WIPE OUT
 Total species: 63,837



14 species of Indian birds, including the red-headed vulture, are critically endangered

UNDER THREAT
41% AMPHIBIANS
33% CORAL REEFS
25% MAMMALS
20% TREES
13% BIRDS

Greater one-horned rhino is one of the most threatened species in the Himalayas. Others include Bengal tiger, Asian elephant, red panda and snow leopard

THE 10 MOST VULNERABLE

- Arctic foxes • Clownfish • Koalas • Emperor penguins
- Leatherback turtles • Staghorn corals • Ringed seals • Quiver trees
- Salmon • Beluga whales

668 PROTECTED AREAS IN INDIA

17% of mangrove species face extinction due to coastal development, climate change and agriculture

25% of marine fish species are found at coral reefs, which cover less than 1% of the earth's surface

4.7 GtC
 Amount of carbon (gigatonnes) captured by natural ecosystems in a year

\$2.4 billion is the estimated annual yield of South-east Asia's coral reef fisheries

58% OF THE CORAL REEFS ARE POTENTIALLY THREATENED BY HUMAN ACTIVITY

7,260 polar bears will be left by 2050, of the current population of 22,000

40% of the oceans have been affected by human activities such as fishing and pollution

\$500 billion is the contribution of ocean-based businesses to the global economy. Half of the world's population lives in the coastal zone

91% OF THE GLACIERS ARE RECEDING
0.8% of the world's oceans are protected, and 0.08% constitute marine reserves

340 sq. km is India's protected ocean area, a mere 6.44% of the total 778,883 sq. km

GRAPHIC: SAJEEV KUMARAPURAM

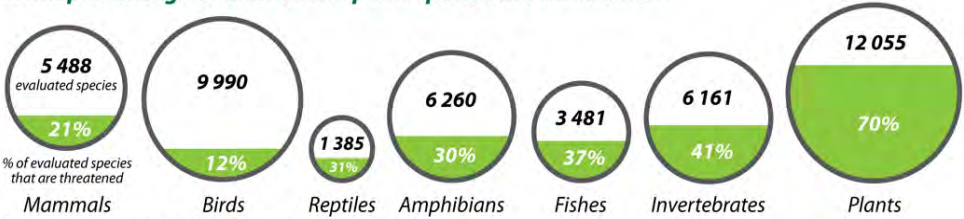
Sources: International Union for Conservation of Nature, World Wide Fund for Nature, Ministry of Environment and Forests



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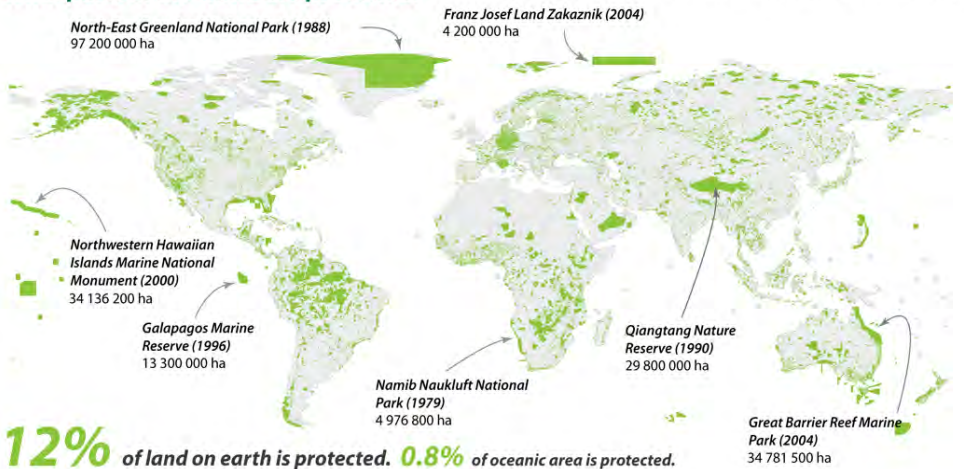
What percentage of animal and plant species are threatened?



Sources: UNEP GEO Data Portal, compiled from IUCN/SSG; IUCN 2008; The IUCN Red List of Threatened Species

What parts of the world are protected?

IUCN National Protected Areas, Categories I-VI and Unclassified Areas



12% of land on earth is protected. **0.8%** of oceanic area is protected.

Source: UNEP GEO Data Portal, compiled from UNEP-WCMC

What are some of the benefits of protected areas?

Source: Secretariat for the Convention on Biological Diversity, 2008. The Value of Nature: Ecological, Economic, Cultural and Social Benefits of Protected Areas.

Provide Coastal Protection

\$300,000

Amount of money saved per km of coastline due to protection by mangroves.

\$9 billion

Money saved globally every year due to storm protection by coral reefs.

Increase Local Incomes

35%

Percent increase in local incomes due to a tripling of fish catches in a locally-managed marine protected area in Fiji.

Provide Jobs

1,200 jobs

Number of jobs created by establishment of South Luangwa National Park in Zambia. In 2004 the park cost \$1.2 million, but raised \$4.1 million in tourism and had a total value of \$16 million.



Improve Fisheries

10-fold

300 kg

Increase in fish catches in areas surrounding Apo Island MPA in the Philippines.

Increase in monthly fish catches for local communities, almost double the previous amount.

Preserve Freshwater Sources

875,000 households

Number of rural rice-farming households in Madagascar that depend on freshwater from protected areas.

Regulate Global Warming

4.43 gigatonnes

Amount of carbon sequestered in Canada's national parks.

20 - 25%

Percent of greenhouse gas emissions resulting from conversion of forests and other ecosystems.

What are some of the threats to protected areas?

Climate change • Poaching • Conflict • Fossil fuel extraction • Fires
High population pressure • Illegal logging • Unregulated tourism • Natural and anthropogenic disasters • Invasive species

Adapt, migrate or die!

Climate change and biodiversity

YEAR **1900**

Habitats were intact without the influences of climate change.



Surface warming

0°C

Robin population

50,000

Modern threats to biodiversity

GLOBAL WARMING
FORCES SPECIES
MIGRATION

URBANISATION
REDUCES
POPULATION
SIZE

PREDATORS
REDUCE
POPULATION
SIZE

AGRICULTURE
REDUCES
POPULATION
SIZE

YEAR **2000**

Habitats were diminishing due to climate change and pressures of human population density.



Surface warming

0.8°C

Robin population

20,000

How a species can survive

ADAPTATION
SPECIES ADAPT
TO THE NEW
ENVIRONMENT

MIGRATION
SPECIES ESCAPE UNFAVOURABLE
ENVIRONMENTS VIA WILDLIFE CORRIDORS
TO NEW HABITAT OPPORTUNITIES

Surface warming
2-4°C

Robin population
0



No action Habitats reduced due to climate change with no routes to alternative habitat. Leads to local extinction.

YEAR **2100**

Surface warming
2-4°C

Robin population
10,000



Action Species survives. Habitats reduced due to climate change with biodiversity corridors leading to alternatives.



IF A MAN OWNS LAND, THE LAND OWNS HIM

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YOU  **u** **ABLE**