

Produced every two years by WWF, the *Living Planet Report* (LPR) is a comprehensive study of trends in global biodiversity and the health of the planet, providing an overview of the state of the natural world, human impacts and potential solutions.

LPR 2018 is the twelfth edition of the report and provides the scientific evidence to what nature has been telling us repeatedly: **unsustainable human activity is pushing the planet's natural systems that support life on Earth to the edge.** 

#### THE STATE OF OUR NATURAL WORLD

Measuring the health of our planet and biodiversity is complex, which is why LPR 2018 looks at six different indicators detailed below. The full report includes contributions from 59 authors from 26 institutions working in academia, policy, international development and conservation.

**Living Planet Index (LPI)** – The LPI tells us how species are faring, by measuring trends in 16,704 populations representing 4,005 vertebrate species. It is not a census of all wildlife, but reports how wildlife populations have changed in size – as opposed to the specific number of animals that have been lost or gained.

**Species Habitat Index (SHI)** – The SHI is an aggregate measure of the extent of suitable habitat available for each species. It captures changes in species range and includes information about species habitat preferences, observed or modelled data on habitat loss and restoration, habitat fragmentation and climate change.

**IUCN Red List Index (RLI)** – Using information on life-history traits, population and distribution size and structure, and their change over time, the RLI assesses the extinction risk of nearly 100,000 species classifying them into one of eight categories (Extinct, Extinct in the Wild, Critically Endangered, Endangered, Vulnerable, Near Threatened, Least Concern or Data Deficient).

**Biodiversity Intactness Index (BII)** – The BII estimates how much of a region's originally present biodiversity remains, relative to if the region were still covered with primary vegetation and facing minimal human pressures. The Index ranges from 100–0 per cent with 100 representing an undisturbed or pristine natural environment with little to no human footprint.

**Planetary boundaries** – The Planetary Boundaries concept delineates safe boundaries for nine critical Earth system processes (biosphere integrity, climate change, ocean acidification, land-system change, freshwater use, biogeochemical flows, atmospheric aerosols, pollution and stratospheric ozone depletion) within which humanity can develop and thrive.

**Ecological Footprint** – The Ecological Footprint measures how much demand human consumption places on the biosphere. It is measured in standard units called global hectares.

## WHAT THE INDICATORS ARE TELLING US

- From 1970 to 2014, there was a 60 per cent overall decline in vertebrate population sizes i.e. the population abundance of mammals, birds, reptiles, amphibians and fish have, on average, dropped by more than half in little more than 40 years.
- Freshwater populations in particular, have seen an 83 per cent decline since 1970.
- Species' population declines are especially pronounced in the tropics, with South and Central America suffering the most dramatic decline at 89 per cent compared to 1970.
- The SHI for mammals, that is the extent of suitable habitat, declined by 22 per cent from 1970 to 2010, with the greatest declines observed in the Caribbean where it surpassed 60 per cent.
- The RLI, a measure of extinction risk, available for five taxonomic groups – birds, mammals, amphibians, corals and cycads (an ancient group of plants) – shows declines for all groups, indicating that species are moving towards extinction more rapidly.
- BII has fallen from 81.6 per cent in 1970 to 78.6 per cent in 2014. The actual impact on the ground could however be higher as the estimates do not incorporate the effects of climate change or the impacts of land-use change since global land-use data does not distinguish plantations from natural forest.
- Current analysis suggests that humans have already pushed four planetary boundaries beyond the limit of a safe operating space; these are climate change, biosphere integrity, biogeochemical flows (nitrogen and phosphorus) and land-system change.

Even though each indicator measures distinct aspects of the natural world, they all point to a singular finding: globally, planetary health, nature and biodiversity are in steep decline, undermining the health and well-being of people, species, societies and economies everywhere.



Populations of the critically endangered Gharial across its range in India and Nepal declined by approximately 58 per cent between 1997 and 2006 due to exploitation such as over-hunting for skins and trophies and egg-collection.

## THE FACTORS DRIVING THE DECLINES



Habitat loss and degradation



Overexploitation



Pollution



Invasive species and diseases



Climate change



Almost 6 billion tonnes of fish and other seafood have been taken from the world's oceans since 1950.



MANKIND: POWERED BY NATURE, YET OVERPOWERING NATURAL SYSTEMS Runaway human production and consumption are impacting the very web of life that powers and sustains our lives, industries and countries: nature and biodiversity.



Rainforests are shrinking: almost 20 per cent of the Amazon has disappeared in just 50 years.



Today, 90 per cent of the world's seabirds are estimated to have fragments of plastic in their stomach; in 1960 it was 5 per cent.

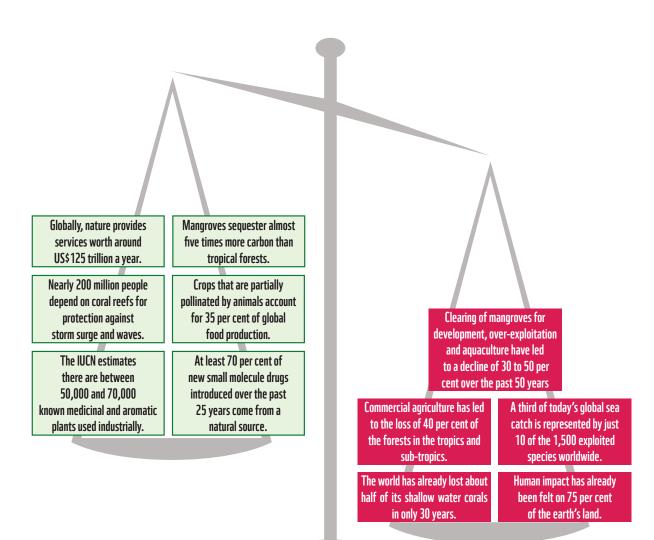


In the 20th century, freshwater fish have had the highest extinction rate worldwide among vertebrates.



In the last 50 years, global average temperature has risen at 170 times the background rate.

Nature and different ecosystem services provide us with the food we eat, the water we drink and use for our societies and industries, the clean air we breathe and yet, we are pushing nature to the brink.





Current trends could see less than 10 per cent of the planet's land being free of human impact by 2050.



# THE TIME NOW!

### A NEW GLOBAL DEAL FOR NATURE AND PEOPLE

It is time we rethink how we value nature – culturally, economically and on our political agendas.

As the world looks toward the promise of 2020, a year that will see global leaders coming together on climate, biodiversity and sustainable development, governments, communities, businesses and organizations must come together to deliver a comprehensive framework agreement for nature and people under the Convention on Biological Diversity (CBD). The CBD is the only international legal instrument that explicitly seeks to protect the natural wealth of the planet.

**▶** Together, we must mobilize public and private actors to show greater action and ambition to reverse the devastating trend of biodiversity loss.

THE SCIENCE IS CLEAR. WE MUST PROTECT AND RESTORE GLOBAL BIODIVERSITY AND NATURE NOW.

Is a 'Paris Agreement for Nature' the answer? It is time the world comes together to deliver an urgent, ambitious and effective global agreement for nature, as the world did for climate in Paris in 2015. A set of collective actions are needed, together with a roadmap for targets, indicators and metrics for reversing nature loss, including for example, scenarios for land use change, dietary shifts, sustainable harvesting as well as traditional conservation approaches such as protected areas.



Working to sustain the natural world for people and wildlife

together possible panda.org

All facts and figures contained in this document have been extracted from the Living Planet Report 2018 and the authors have fully referenced their original sources. For more information, including names of authors and complete references, please download the full report on www.panda.org/lpr/

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