



LIVING PLANET REPORT 2020 : INDIA FACTSHEET

The Living Planet Report 2020 (LPR) is the thirteenth edition of WWF's biennial flagship publication. The Report is a comprehensive study of trends in global biodiversity and the health of the planet. By providing an overview of the state of the natural world, human impacts and potential solutions, it aims to support governments, communities, businesses and organizations to make informed decisions on valuing, using and protecting nature and the planet's resources.

As the world inevitably enters a period of greater turbulence, volatility and change, the Living Planet Report 2020 brings together information and knowledge that we hope will inspire action to address the critical global ecological, social and economic challenges of our time.

Our World in 2020

Nature is essential for human existence and a good quality of life, providing us with services on which we all depend. However, overexploitation of nature is increasingly eroding its ability to sustain humanity into the future.

In the last 50 years, our world has been transformed by an explosion in global trade, consumption and human population growth, as well as an exponential move towards urbanisation. Our natural world is being transformed more rapidly than ever before. So much so that we are seen to be entering a new geological epoch - the Anthropocene. A recent series of catastrophic events – wildfires, floods, locust plagues and the COVID-19 pandemic – have shaken the world's environmental conscience.

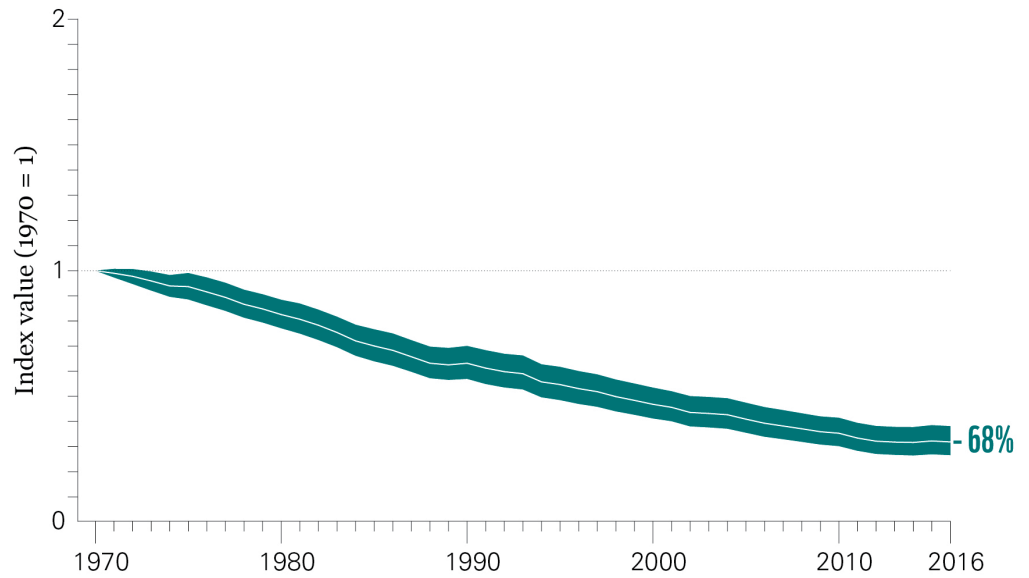
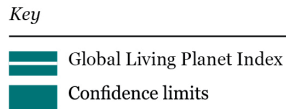
According to The Living Planet Index (LPI) the populations of fish, birds, mammals, amphibians and reptiles have fallen by an average of 68% in less than 50 years (1970 –2016). The Freshwater Living Planet Index shows that our freshwater biodiversity is declining far faster than that in our oceans or forests, with a record 84% decline in freshwater species, which is equivalent to 4% per year since 1970.

The Living Planet Index (LPI) is a measure of the state of the world's biological diversity based on population trends of vertebrate species from terrestrial, freshwater and marine habitats.

Figure 1: The global Living Planet Index: 1970 to 2016

Average abundance of 20,811 populations representing 4,392 species monitored across the globe declined by 68%. The white line shows the index values and the shaded areas represent the statistical certainty surrounding the trend (range: -73% to -62%).

Source - WWF/ZSL (2020).



DRIVERS OF DECLINE

The Living Planet Report 2020 has identified two key drivers, globally, for the decline of our planet’s biodiversity: **overexploitation of resources & land-use change**.

Since 1970, our ecological footprint has exceeded the earth’s rate of regeneration. **Humanity’s ecological footprint, estimated from UN statistics, has increased by about 173% over the past 60 years and now exceeds the planet’s biocapacity by 56%.** This means that the human enterprise currently demands 1.56 times more resources than the amount that the earth can regenerate.

While the Living Planet Index indicates that **India’s ecological footprint per person is lesser than 1.6 global hectares/person** (which is the lowest bracket and is smaller than that of many large countries), its high population levels make it likely for the country to face a widening ecological deficit even if current per-capita levels of resource consumption remain the same.

*According to the National Footprints Accounts (2014), India has a biocapacity of approximately 0.45 gha per person which means it is a ‘biocapacity debtor’ or an ‘ecologically deficit country’ with a 148% more demand than supply on its natural resources.¹

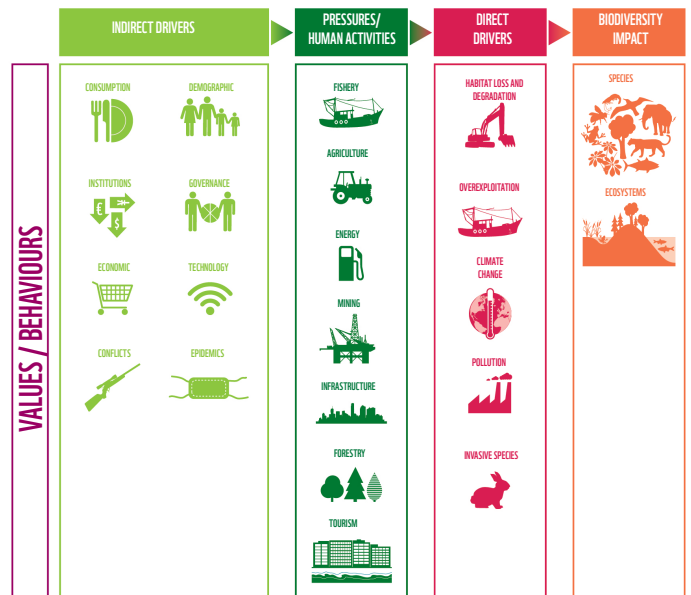


Figure 2: Threats to nature and the drivers and pressure behind them

Values underpin changes in societies, which lead to the direct drivers on nature. Habitat loss and degradation is the major direct driver on land and overexploitation the major one in the oceans.

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All information marked with * is not from the Living Planet Report 2020 but are facts related to India, curated from information available in the public domain. All sources of information have been mentioned at the end of the document.

What's at stake:

1. DECLINING PLANT DIVERSITY



According to the LPR, recent reviews report nearly **600 seed plant species globally have become extinct or 'extinct in the wild'**. Seed plant extinctions are occurring up to 500 times faster than in pre-industrial times. Agriculture, including expansion or intensification of crop or livestock farming, plantations and aquaculture, is the most frequently identified threat to plants.

*India is a megadiverse country holding over 45,000 species of plants in only 2.4% of the world's land area. In India, The IUCN Red List highlights six plant species that have become extinct or 'extinct in the wild' in the recent years. ²



2. THE TRUE COST OF OUR FOOD



One-third of the food produced globally goes to waste - this amounts to about 1.3 billion tonnes every year. **Food loss and waste also contributes to climate change. It is responsible for at least 6% of total global greenhouse gas emissions, three times more than the global emissions from aviation.** Almost a quarter - 24% - of all emissions from the food sector comes from food that is lost in supply chains or wasted by consumers.

Drivers linked to food production cause 70% of terrestrial biodiversity loss and 50% of freshwater biodiversity loss. Like climate change, food loss and waste can be characterized as a multiplier of environmental, social and economic impacts.

*India is the world's largest producer of milk, pulses and jute, and ranks as the second-largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruits and cotton. It is also one of the leading producers of spices, fish, poultry, livestock and plantation crops. However, according to the FAO estimates, nearly 40% of the food produced in India is lost or wasted. Other sources, such as the Food Corporation of India, report a share of losses ranging from 10 to 15 percent of the total production. ³

*The Ministry of Food Processing Industries (MFPI) estimate losses of 23 million tonnes of grains, 12 million tonnes of fruits and 21 million tonnes of vegetables for a total approximate value of about 4.4 billion USD while total value of food loss and waste generated is supposedly 10.6 billion USD. ⁴



3. DISAPPEARING WILDERNESS



The latest human footprint map clearly shows the spatial extent of humanity's environmental footprint, with 58% of the land's surface under intense human pressure. In recent decades, the world has seen a significant loss of tropical and subtropical grasslands, savannah and shrubland ecosystems, and the rainforests of Southeast Asia. **Only 25% of terrestrial Earth can be considered 'wilderness'**. The global land-use model projections show that without changes in diet, food production (including food loss & waste) is a major driver of changes in land-use.



*The India State of Forest Report 2019 released in December 2019 shows an increase of 5,188 square kilometres of forest and tree cover across the country compared to the ISFR 2017. However, the report also highlights that northeast India continues to lose forests when compared to ISFR 2017 and previous reports. The report also reveals that the forest area under the category “recorded forest area” (land notified as forest by the government) in tribal districts, which are home to about 60% of India’s forests, is decreasing as well. ⁵

*According to an August 2019 analysis of the Legal Initiative for Forest and Environment, a Delhi-based advocacy, in the first six months of 2019, of the 240 proposals seeking diversion of forest land, 98.99 percent of forest land considered for diversion was allowed to be put to non-forestry uses. About 43 percent of forest land recommended for diversion in 2019 falls in ecologically sensitive wildlife habitats. ⁶

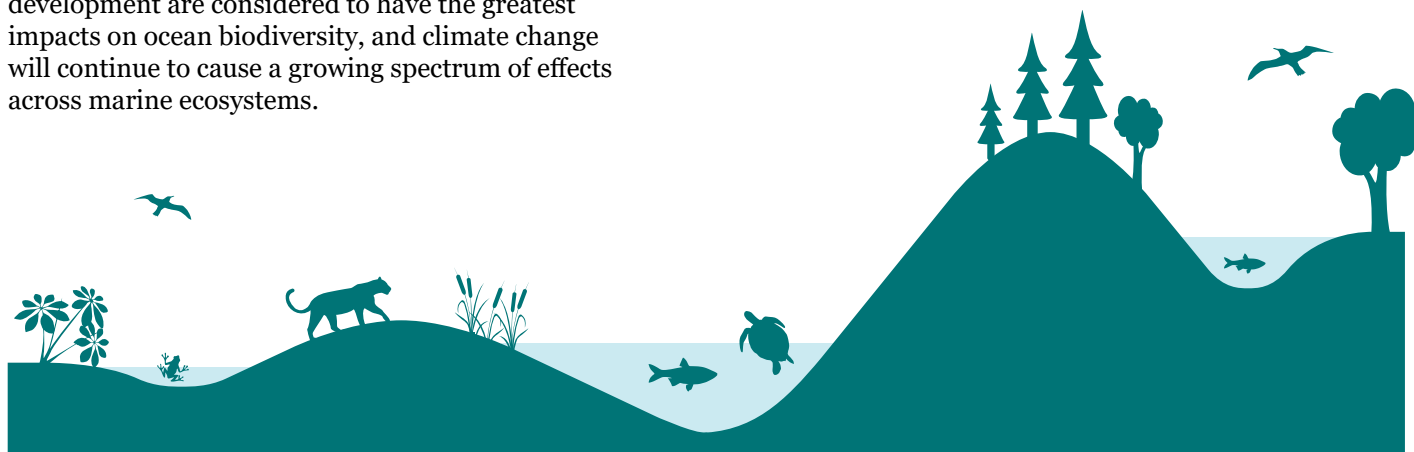


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4. OCEANS IN ‘HOT WATER’



A 2°C global temperature rise will result in the almost complete eradication (a 99% loss) of coral reefs, as per the IPCC report. According to the LPR, only 13% of the ocean is considered to be wilderness and nowhere is it entirely unaffected by humans; waste and marine litter are found even in deep ocean trenches. Overfishing, pollution and coastal development are considered to have the greatest impacts on ocean biodiversity, and climate change will continue to cause a growing spectrum of effects across marine ecosystems.



*Central Marine Fisheries Research Institute (CMFRI) reported a 9% decline in India’s marine fish production in 2018 as compared to 2017. The decline has been attributed to climate change which has reduced the Indian oil sardine population and reported a 54% decline in fish landings. Likewise, there is a considerable reduction in the number of fishing days in West Bengal, Odisha, Andhra Pradesh, Tamil Nadu, and Puducherry due to cyclonic storms. Fisheries along the north-eastern coastline reported a 49% reduction compared to the fish landings in 2017. ⁷

*In 2017, a report by the CMFRI surveyed 254 beaches along the Indian coastline with regard to the prevalence of marine litter along Indian beaches. Goa followed by Karnataka, reported the highest incidence of marine litter, in the form of lost or abandoned fishing gear, plastics such as carry bags, PET bottles, containers, footwear, styrofoam and packaging material. Odisha reported the lowest incidence of beach litter. ⁸

*All four reef zones in India (Gulf of Mannar, Gulf of Kutch, Lakshadweep Atolls, and Andaman and Nicobar Islands) report coral bleaching. Terrestrial activities of deforestation, sand mining and discharge of PIPs (Persistent Inorganic Pollutants) and POPs (Persistent Organic Pollutants), catastrophic events like tsunamis, climate change and invasive species have all contributed to reef collapse in India. ⁹



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5. LOSS OF FRESHWATER ENVIRONMENT AND SPECIES



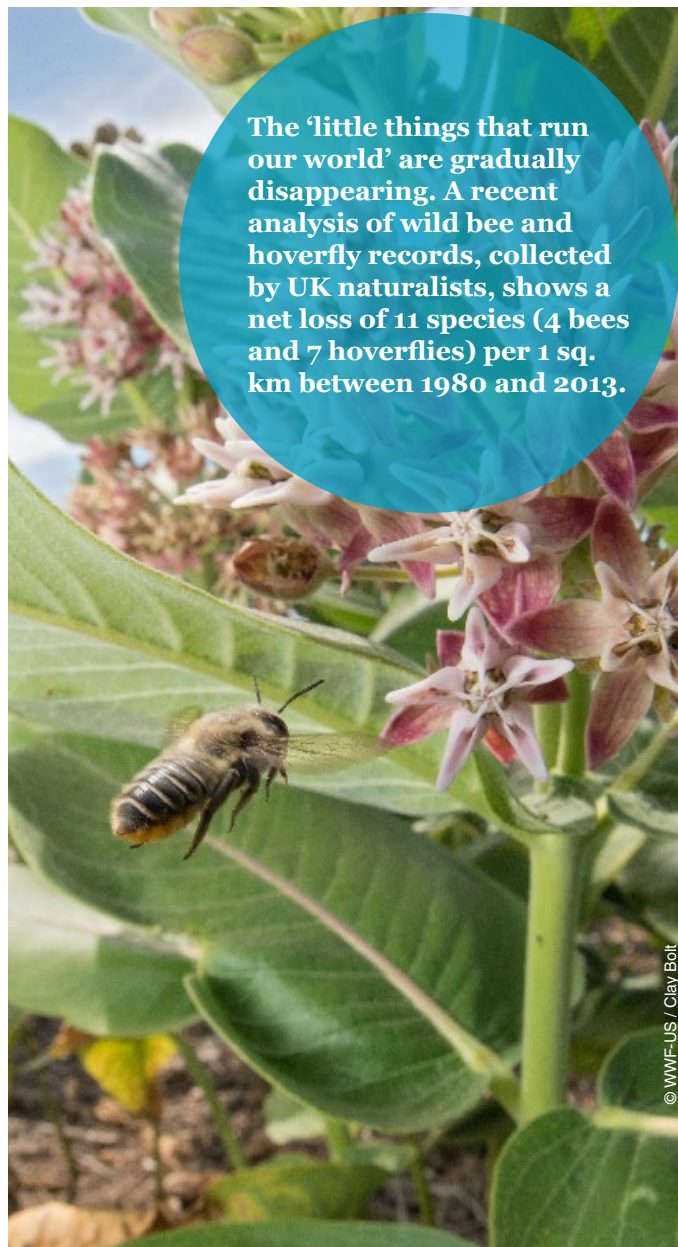
Freshwater biodiversity is declining far faster than that in oceans or forests. Based on available data, we know that **almost 90% of global wetlands have been lost since 1700**; and global mapping has recently revealed the extent to which humans have altered millions of kilometres of rivers. **The Freshwater Living Planet Index reports a decline of species by an average of 84 % (range: -89% to -77%), equivalent to 4% per year since 1970.**

*According to a recent NITI Aayog Report, 820 million people in 12 river basins in India face high to extreme water stress. With irrigation, drinking and energy sectors likely to grow, the water demand is estimated to be 1498 billion cubic metres as against an availability of 744 billion cubic metres. This will aggravate the groundwater situation as well as put more stress on rivers.¹⁰

*India has lost nearly one-third of its natural wetlands to urbanisation, agricultural expansion and pollution over the last four decades.¹¹

*WWF India's report on Water Stewardship for Industries revealed that 14 out of 20 river basins in India are already water stressed and will be moving to extreme water scarcity by 2050.¹²

*The 2030 Water Resources Group has stated that by 2030, India's water demand is projected to be twice the available supply.¹³



The 'little things that run our world' are gradually disappearing. A recent analysis of wild bee and hoverfly records, collected by UK naturalists, shows a net loss of 11 species (4 bees and 7 hoverflies) per 1 sq. km between 1980 and 2013.

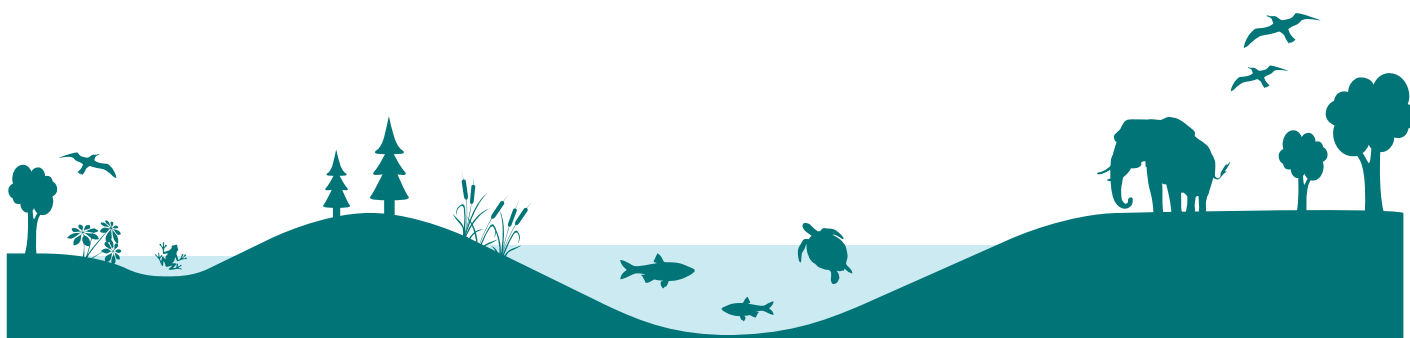
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*According to the Tamil Nadu Agricultural University, 150 million bee colonies are needed to meet the pollination requirement of around 50 million hectares of agricultural land in India but there are only 1.2 million colonies present.¹⁴

*With The Fauna of British India (FBI), published in the early 20th century, being the only comprehensive document on Indian insects till date, scientists rue the lack of adequate information and documentation on insects in India.¹⁵



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Bending the Curve: For a healthy planet and healthy people

Biodiversity is fundamental to human life on earth, and today it is being destroyed at a rate unprecedented in history. Our economies are embedded within nature, and it is only by recognising and acting on this reality that we can protect and enhance biodiversity and improve our economic prosperity. COVID-19 is nature sending us a message. It reads like an SOS signal for the human enterprise, bringing into sharp focus the need to live within the planet's 'safe operating space'.

Pioneering modelling has provided the 'proof of concept' that we can halt, and reverse, terrestrial biodiversity loss from land-use change. With an unprecedented and immediate focus on both conservation and a transformation of our modern food system, the 'Bending the Curve Initiative' (a consortium of almost 40 universities, conservation organizations and intergovernmental organizations) gives us a roadmap to restore biodiversity and feed a growing human population.

This year has shown us that biodiversity conservation should be a non-negotiable and strategic investment to preserve our health, wealth and security.

Bolder conservation efforts are key to bending the curve. Only an integrated approach, combining ambitious conservation with measures targeting the drivers of habitat conversion – such as sustainable production and consumption interventions – will succeed in bending the curve of biodiversity loss.



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YEARS IN INDIA

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