

# The state of our planet

Today we are not only facing a devastating pandemic but new heights of global warming, new lows of ecological degradation, and also new setbacks in the work towards global goals for sustainable development. According to recent reports, the state of our planet is broken: while the overall environmental situation is deteriorating globally, the window for action is closing rapidly. In brief, we are getting closer to a climate catastrophe and by now, the indications of this can be observed all over our environment.

With land use change, habitat overexploitation, and climate change, biodiversity is on the brink of collapse and almost one million species are at risk of extinction, including pollinators. These factors significantly threaten the ecological integrity of the Earth and its ability to meet human needs. In addition, our planet's ecosystems are constantly disappearing from our sight and new deserts are forming as a result of the degraded ecosystems. The associated soil degradation is one of the greatest challenges of our time, especially for those who depend most on land productivity. As soil degradation hotspots cover about 29 percent of land worldwide, the lives of up to 3.2 billion people are at risk. Globally, the soil is degraded by a number of factors, such as poor land management, overgrazing, and deforestation. Because of the latter, we lose more than 10 million hectares of forest every year, which is a waste of the unique potential of our forests to help us tackle the climate crisis.

Agricultural activities not only put enormous pressure on the soil but also on the Earth's freshwater supplies. As climate change is making floods and droughts more frequent and severe, instability in agriculture increases the risk of land and water conflicts. This is due to the fact that these events have major impacts on farm productivity, therefore on the livelihoods of rural communities and the habitats of indigenous communities as well. It is estimated that today 40% of the world's population lives in areas of water scarcity, which is getting worse due to the current rates of agricultural production and climate change. As hydrological cycles change and water sources become more unpredictable, some 1.8 billion people could be forced into living in regions with absolute water shortages by 2025. In addition to our freshwater reserves, our oceans are also in a very vulnerable state. It is estimated that more than 150 million tonnes of plastics have accumulated in our oceans, therefore they are effectively choked with plastic waste due to human activities. On the other hand, in addition to overfishing, the warming of the oceans puts enormous pressure on the health of marine ecosystems. Today, temperatures of the world's oceans are at record levels and more than 80 percent of them experienced marine heatwaves last year. One of the most apparent effects of this is that by now, most of the world's coral reefs have either been bleached or have died.

In December 2020, in a landmark speech, UN Secretary-General António Guterres summed up the current state of the planet as follows: 'Humanity is waging war on nature. This is suicidal. Nature always strikes back - and it is already doing so with growing force and fury.' As humans encroach further into animal habitats and disrupt wild spaces, the number of

animal-to-human infectious diseases and viruses is steadily increasing. This will also ring alarm bells about contaminants in our freshwater systems, including antibiotics, as the resulting antimicrobial resistance could become one of the main causes of premature deaths in the future. Nevertheless, water pollution is not only a problem of the future. Up to 1.4 million people die each year from preventable diseases (such as diarrhoea) associated with inadequate sanitation or drinking water contaminated with pathogens. Furthermore, if we add air pollution to these figures, the death toll jumps to 9 million a year, which is almost three times greater than the number of fatalities caused by the current pandemic.

While some causes of air pollution – regular cycles, sudden or seasonal temperature changes – are completely natural, most of them are due to human activities. The long-term effects of the latter on our planet and our health are increasingly worrying for researchers, as our emissions are 62 percent higher now than they were when the international climate negotiations began in 1990. In 2019, carbon dioxide levels reached 148 percent of pre-industrial levels, a trend that continued in 2020 despite the pandemic. In addition, atmospheric methane levels rose even higher (260 percent), while nitrous oxide gas, which also harms the ozone layer, increased to 123 percent. This is a huge problem, given that the changes in the composition of the atmosphere affect every segment of the United Nations Sustainable Development Goals. (Figure 1)



Direct linkages are shown with bold arrows, indirect linkages with light arrows.

Figure 1. Linkages between changes in atmospheric composition and achievement of the Sustainable Development Goals

Emissions of these greenhouse gases (GHGs) also play a key role in the global temperature rise. We have now reached 1.2 degrees Celsius of warming, the effects of which can be felt worldwide. The past decade has been the hottest in human history. In the Arctic, the temperatures have risen to more than 3 degrees Celsius above average – and more than 5 degrees in northern Siberia. While record low ice levels in the Arctic could be measured, the Greenland ice is losing an average of 278 gigatons a year. Despite this critical situation, climate policy has not yet risen to the challenge. Contrary to the 1.5 degree Celsius temperature target set by the Paris Climate Agreement, according to current data, we are heading for a temperature increase of 3-5 degrees Celsius. This level of increase already has disastrous consequences such as the emergence of unsaturated areas, malnutrition, and a significant increase in water scarcity.

However, the current environmental policy alone is not sufficient to address these challenges. Therefore, a comprehensive, whole-of-society approach is needed for us to be able to move on to a more sustainable and secure path as soon as possible. To achieve sustainable development, for global climate policy to combine resource efficiency goals with ecosystem-based management is the only way forward. On the other hand, it is also important to note that future objectives must be based on the knowledge of both scientific and local, and indigenous communities to eradicate social inequality and injustice.

a Summary made by Anna Koch

*based on the recent environmental reports and evaluations of international organizations*

London, June 2021

THE UN SECRETARY-GENERAL ADDRESS AT COLUMBIA UNIVERSITY: “THE STATE OF THE PLANET”  
2 DECEMBER 2020

**The State of the Planet**

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UN Environment Programme Annual Report, 2019 in Review

<https://www.unep.org/annualreport/2019/index.php>

GEO 6 –Global Environment Outlook; UN Environment Programme 6, 2019

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GEO 6 – State of the Global Environment:

<https://www.unep.org/resources/assessment/part-state-global-environment>

Green Facts: State of the Environment (reports in period 2005 - 2021:

<https://www.greenfacts.org/en/digests/state-of-the-environment.htm>

Columbia University: State of the Planet (2021):

<https://blogs.ei.columbia.edu/category/ecology/>