

Warnings from the natural world must influence Durban outcomes

Call to action

Earth's natural systems will change significantly with the degree of climate change that looks likely from the current level of global mitigation ambition, and may no longer support much of life on Earth as we know it today.

This means risking losing not just wildlife and nature, but essential services from the environment that support human lives and livelihoods – food and fabric, water and timber, and protection from drought and storm – as well as many cultural and spiritual needs.

Time is running out to prevent dangerous climate change. Recent research shows that to keep global temperature rise below 2°C global emissions must peak around 2016 and reduce by 3% annually thereafter. This is a great and urgent challenge, but not as great as the challenge of surviving in a world of dangerous climate change.

These findings come from a conference of leading climate change and ecosystem experts at the Royal Society in London on 9 November 2011, which was organised by RSPB, Natural England and WWF-UK. This communiqué has been drafted by BirdLife International/RSPB and WWF.

Climate change is a real and urgent threat to life systems on Earth as we know them

- ❖ The abundance, diversity and distribution of wildlife, and seasonal timings, are changing in ways consistent with a warming climate across the globe. This is documented by a large body of evidence that has grown significantly since the IPCC's Fourth Assessment Report. Climate change also compounds other existing threats to wildlife and ecosystems, further affecting the benefits they bring to people.
- ❖ The Amazon rainforest is at increasing risk of major ecosystem change. Growing evidence from monitoring, experiments and modelling shows that warmer, drier conditions increase tree mortality, pushing forests from being a carbon sink to a greenhouse gas source.
- ❖ Marine ecosystems are responding more sensitively and more rapidly than terrestrial ecosystems. Warm water pelagic species are moving north rapidly - by up to 50 kilometres per decade in UK waters. Plankton locations are moving even faster, shifting 23 kilometres annually. Coral reefs are showing extreme stress and bleaching is dramatic in many regions.
- ❖ A third of the Arctic sea ice has been lost in 30 years, producing conditions that are self-reinforcing, stimulating further melting. The waters of the Antarctic peninsular have seen around a 10-fold loss of krill, the key food resource of the Southern Ocean.

We cannot rely on adaptation alone

Many species and many people have limited capacity to adapt to climate change. Above 2°C average global temperature increase there will be a point at which we would enter a new environment to which the Earth's biodiversity - and humans - have not evolved. The scale and pace of climate change are far faster than the background rate of change to which most species

are able to adapt naturally. This is likely to lead to a fundamentally different planet from that of the last hundreds of thousands of years.

Global average temperature rise masks significant regional variation. Even at lower global averages, regional temperatures and climate related impacts will be extreme in some places and adaptation may not be possible.

The most vulnerable people are most at risk

Changes to natural systems and resources caused by climate change are already having major consequences for many people across the world, both directly and through compounding existing threats. People living in poverty are often more directly dependent on the natural environment and more severely affected by climate related impacts.

Losing biodiversity undermines nature's resilience to change and reduces its capacity to supply ecosystem services for people. Ensuring healthy ecosystems and maintaining natural species diversity and abundance can contribute to adaptation for both people and nature. Achieving this effectively and fairly has local to global importance in our interconnected world.

Climate change is the challenge that will define this generation

We are currently on a path towards a world of 3°C to 5°C of global climate change this century. Durban must address the profound mismatch between the scientific evidence and the ambitions of the world's governments to reduce greenhouse gas pollution. Failing this we jeopardise much biodiversity and vital natural resources that people depend upon, like coral reefs and the Amazon rainforest.

At the Durban UNFCCC meeting, these concerns should be addressed through:

- Agreeing emissions reduction targets and action to meet UNFCCC Article 2, to stabilise atmospheric greenhouse levels to allow natural adaptation of ecosystems, including a global emissions peak consistent with current climate science.
- Within the Shared Vision, inclusion of scientific assessment of safe levels of climate change for retaining biodiversity and ecosystem functions and services.
- Adaptation guidance that recognises the security value of protecting and managing biodiversity and ecosystems for present and future generations, including to cope with existing shocks and stresses.
- Developing an international mechanism to address loss and damage associated with the adverse effects of climate change, including impacts related to extreme weather events and slow onset events, building on the Cancun Agreement.
- Maintaining headline ambitions for REDD+ through agreeing modalities and guidance for halting emissions from deforestation and degradation by 2020, whilst safeguarding biodiversity and livelihoods.
- Follow up at Rio+20 to ensure sustainable climate smart solutions are part of a new green global economy that benefits all and protects the world's natural life support systems.

