

BirdLife calls for an ambitious response as IPCC finds greater certainty of human influence on climate change

Title

In its fifth assessment report (AR5), launched today, the Intergovernmental Panel on Climate Change states with greater confidence and authority than ever that climate change is happening, and that human influence on climate is clear. The evidence is stronger, thanks to more and better observations, an improved understanding of the climate system's response, and improved climate models [1, 2]. The Intergovernmental Panel on Climate Change (IPCC) was established by the [United Nations Environment Programme \(UNEP\)](#) and the [World Meteorological Organization \(WMO\)](#) to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts. The first part of AR5 is published as [Climate Change 2013: The Physical Science Basis](#). The IPCC re-emphasises that warming in the Earth's climate system is unequivocal. Each of the last three decades has been successively warmer at the Earth's surface than any preceding decade since 1850. In the Northern Hemisphere, 1983-2012 was probably the warmest 30-year period of the last 1400 years. As a result, the atmosphere and oceans have warmed, the area of land and sea covered by ice has diminished, and sea level has risen. Climate change poses new challenges to BirdLife's main approaches to conserving species, Important Bird and Biodiversity Areas and habitats. Biodiversity and climate are closely interlinked. Observed changes in climate have already adversely affected biodiversity at the species and ecosystem level. Plant and animal ranges are shifting, often in a poleward and upward direction, increasing the threat of extinction to species in places with geographic limits to such shifts. Studies suggest that many more species will not be able to keep up with shifts in the location of suitable climate. An increase in extreme weather events is already damaging coastal and island communities, and biodiversity, with some bird species now facing extinction because of an increase in the frequency and strength of hurricanes. The IPCC predicts that global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850-1900 [3]. Heat waves are very likely to occur more frequently and last longer. Wet regions of the earth will get wetter, and dry regions will receive less rainfall. As the ocean warms, and glaciers and ice sheets reduce, global mean sea level will continue to rise, at an ever faster rate. Human influence is detectable in all these changes. CO₂ concentrations have increased by 40% since pre-industrial times, primarily from fossil

fuel emissions and secondarily from net land use change emissions. The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification. The IPCC warns that continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions. "Once again, we see a profound mismatch between the level of action demanded by our best scientific knowledge and the current level of ambition of the world's governments to reduce greenhouse gas emissions", said Melanie Heath, BirdLife's Head of Policy. But as a result of our past, present and expected future emissions of CO₂, the Earth is already committed to climate change, and the effects will persist for many centuries even if emissions of CO₂ stop. "In the face of this now inevitable change to the Earth's climate, healthy, bio-diverse ecosystems have a vital role to play in maintaining and increasing the resilience, and reducing the vulnerability, of human communities", Melanie Heath added. "That is why BirdLife is calling for the importance of healthy ecosystems to be effectively written into national, regional and international climate change and development policy."

NOTES: [1]The IPCC Working Group I assessment comprises some 2,500 pages of text and draws on millions of observations and over 2 million gigabytes of numerical data from climate model simulations. Over 9,200 scientific publications are cited, more than three quarters of which have been published since the last IPCC assessment in 2007. A total of 209 Lead Authors and 50 Review Editors from 39 countries and more than 600 Contributing Authors from 32 countries contributed to the preparation of Working Group I AR5. More than one thousand expert reviewers worldwide contributed their expertise in preparation of this assessment. [2] Climate models have improved since the AR4. Models reproduce observed continental-scale surface temperature patterns and trends over many decades, including the more rapid warming since the mid-20th century and the cooling immediately following large volcanic eruptions [3] Global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850 to 1900 for all RCP scenarios except RCP2.6. It is likely to exceed 2°C for RCP6.0 and RCP8.5, and more likely than not to exceed 2°C for RCP4.5. Warming will continue beyond 2100 under all RCP scenarios except RCP2.6. Warming will continue to exhibit interannual-to- decadal variability and will not be regionally uniform.