ipcc
INTERGOVERNMENTAL PANEL ON climate change

Our ref.: 5151-15/IPCC/AR5

Annex(es): 2

To designated IPCC Focal Points and
Ministries of Foreign Affairs (MFAs)
(if no focal point has been designated)

COPY

Geneva, 30 January 2015

Sir/Madam,

I wish to bring to your attention two errors found in Figure 2.5 of the Synthesis Report (SYR) of the IPCC Fifth Assessment Report approved at the 40th Session of the Panel. The IPCC Chair was informed and agreed on the draft errata constructed by the Co-Chairs of Working Group II (WGII). Thereafter, in line with Step 5A of the Error Protocol, the draft errata were approved by the IPCC Bureau at its Forty-eight Session held in Geneva on 27 January 2015.

The original approved version of the figure is contained in **Annex 1** and the revised version as approved by the IPCC Bureau is contained in **Annex 2**. The changes are:

1) In panel a, change "most rodents, primates and molluscs" to "most rodents and primates". The figure is based on data in WGII Figure 4-5 and WGII SPM Figure SPM.5. Both of the underlying figures are correct. The markers are positioned correctly for the range-shift potential of rodents and primates, indicating rates of climate change at which most cannot keep up. The markers are, however, at a level where the underlying data indicate that most molluscs can keep up. Deleting molluscs from the list fixes the error.

2) In panel b, change "pH 8.07" to "pH 8.11"; shift the corresponding black diamond from 380 ppm down to 362 ppm. A pH value of 8.07 and a CO2 concentration of 380 ppm both occur after the 1986-2005 time period described as “recent” throughout the report (see WGI Figure SPM.7 for pH and WGI Figure 6.3 for CO2). Based on these two figures, plus WGI Section 6.4.4, the best estimates for average pH and CO2 during this time period are pH = 8.11 and CO2 = 362 ppm. Changing the pH and CO2 aligns them accurately with the reference period.

Neither influences the figure’s main messages, but both are inconsistent with the information in the underlying WGII report and should be fixed through the IPCC Error Protocol.

Appendix A to the Principles Governing IPCC Work, ANNEX 3 - *IPCC Protocol for addressing possible errors in the IPCC Assessment reports, Synthesis Reports, Special Reports and Methodology Reports* (referred to below as “Error Protocol”), lays down the procedures to address alleged errors in a Synthesis Report. Section 3, Step 5A, of the Error Protocol stipulates that “*Following IPCC Bureau approval, the proposed erratum is submitted to the Panel for approval. To allow for rapid response, the Panel may delegate this approval step to the Executive Committee, which can decide that the erratum be posted on the IPCC and WG or TF websites and that the claimant be informed, or can decide to defer to the next session of the IPCC Bureau or of the Panel.”*

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WMO UNEP

The immediate correction of the errors as described in Annex 1 and Annex 2 would be highly desirable before the Forty-first session of the Panel (Nairobi, 24-27 February 2015) in order to allow for the timely printing of the report. Consistent with the Error Protocol, we suggest using the option foreseen for rapid response and in particular to submit the corrigendum, as constructed by the WGII Co-Chairs and approved by the IPCC Bureau, to the IPCC Executive Committee for approval.

The Synthesis Report in its final form including copyedits and the correction of these errors would be made available for download from the IPCC web site as well as in its printed version together with a notice in the form of an erratum stating that the errors have been corrected.

I sincerely hope that you agree with the proposed way forward, which will enable us to distribute a fully accurate version of the Synthesis Report of IPCC Fifth Assessment Report. Unless we hear any objections by **Tuesday 3 February 2015**, **18:00 p.m**. CET Geneva time, we will proceed as suggested.

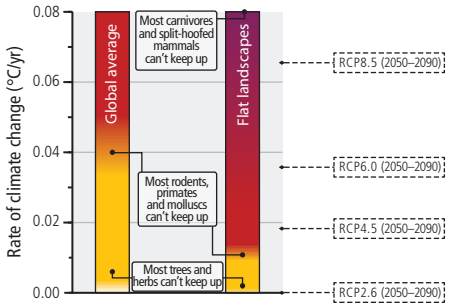
A copy of this letter is being sent for information to the Ministry of Foreign Affairs and to the Permanent Representatives from your country to the World Meteorological Organization (WMO) and to the United Nations Environment Programme (UNEP).

Yours sincerely,

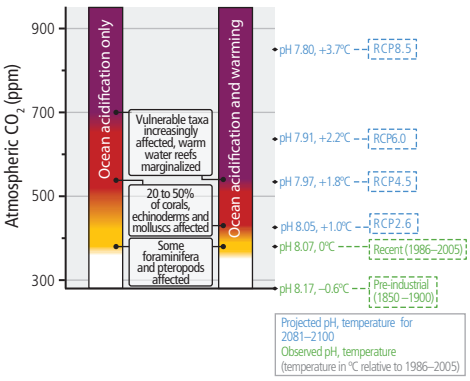
(Carlos Martin-Novella)
Deputy Secretary of the IPCC

Increasing risk from RCP2.6 to RCP8.5

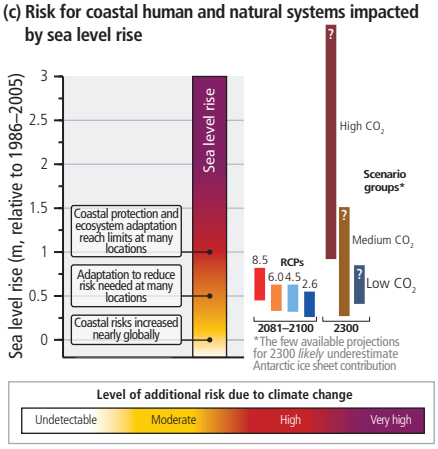
(a) Risk for terrestrial and freshwater species impacted by the rate of warming

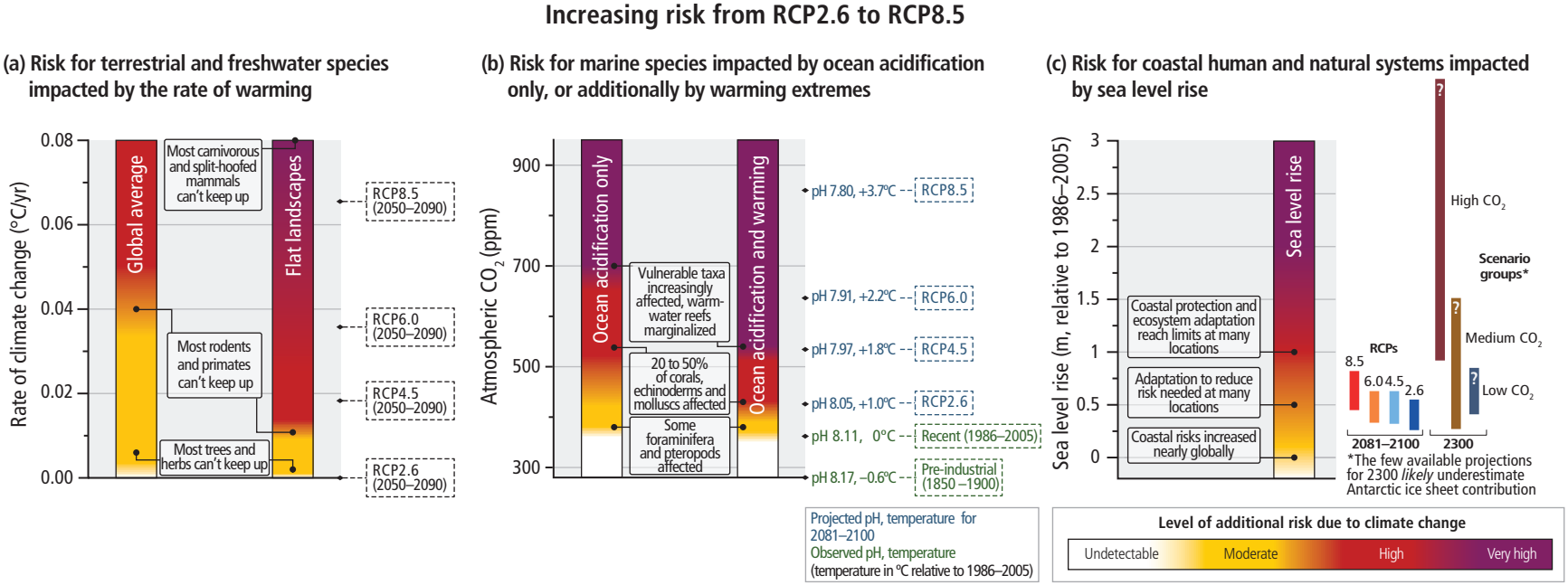


(b) Risk for marine species impacted by ocean acidification only, or additionally by warming extremes



(c) Risk for coastal human and natural systems impacted by sea level rise




Increasing risk from RCP2.6 to RCP8.5
(a) Risk for terrestrial and freshwater species impacted by the rate of warming
Rate of climate change (°C/yr)
0.08
0.06
0.04
0.02
0.00
Global average
Flat landscapes
Most carnivorous and split-hoofed mammals can't keep up
Most rodents and primates can't keep up
Most trees and herbs can't keep up
RCP8.5 (2050–2090)
RCP6.0 (2050–2090)
RCP4.5 (2050–2090)
RCP2.6 (2050–2090)
(b) Risk for marine species impacted by ocean acidification only, or additionally by warming extremes
Atmospheric CO2 (ppm)
900
700
500
300
Ocean acidification only
Ocean acidification and warming
Vulnerable taxa increasingly affected, warm-water reefs marginalized
20 to 50% of corals, echinoderms and molluscs affected
Some foraminifera and pteropods affected
pH 7.80, +3.7°C
pH 7.91, +2.2°C
pH 7.97, +1.8°C
pH 8.05, +1.0°C
pH 8.11, 0°C
pH 8.17, –0.6°C
RCP8.5
RCP6.0
RCP4.5
RCP2.6
Recent (1986–2005)
Pre-industrial (1850 –1900)
Projected pH, temperature for 2081–2100
Observed pH, temperature
(temperature in °C relative to 1986–2005)
(c) Risk for coastal human and natural systems impacted by sea level rise
Sea level rise (m, relative to 1986–2005)
3
2.5
2
1.5
1
0.5
0
Sea level rise
Coastal protection and ecosystem adaptation reach limits at many locations
Adaptation to reduce risk needed at many locations
Coastal risks increased nearly globally
RCPs
8.5
6.0
4.5
2.6
2081–2100
2300
High CO2
Medium CO2
Low CO2
Scenario groups*
*The few available projections for 2300 likely underestimate Antarctic ice sheet contribution
Level of additional risk due to climate change
Undetectable
Moderate
High
Very high