# **Errata**

## Climate Change 2013: The Physical Science Basis The Working Group I Contribution to the IPCC Fifth Assessment Report Errata

Page	Item	Correction			
ii	Frontmatter	Insert the following text: The designations employed and the presentation of material on maps do not imply the express of any opinion whatsoever on the part of the Intergovernmental Panel on Climate Change concerning the legal status of any country, territory, city or area or of its authorities, or concern the delimitation of its frontiers or boundaries.			
viii	Preface	Paragraph 7, Line 22, replace '2007' with '2013'			
20	Summary for Policymakers Section E.1	Paragraph 4, Line 3, replace ' <i>more likely than not</i> to exceed 2°C for RCP4.5 ( <i>high confidence</i> )' with ' <i>more likely than not</i> to exceed 2°C for RCP4.5 ( <i>medium confidence</i> )'			
28	Summary for Policymakers Section E.8	Paragraph 6, Line 5, replace ' $CO_2$ concentration that is above 700 ppm but below 1500 ppm,' with ' $CO_2$ -equivalent concentration (in 2100) that is above 700 ppm, but below 1500 ppm'			
38	Technical Summary Figure TS.1	Replace Figure TS.1 with Errata Figure TS.1. The glacier mass balance unit ' $10^{15}$ GT' has been corrected to read ' $10^{3}$ GT'			
39	Technical Summary Section TS.2.3	Paragraph 2, Line 12, replace '10 <sup>15</sup> W' with '10 <sup>12</sup> W'			
40	Technical Summary Section TS.2.5.1	Paragraph 1, Lines 10-11, replace '(TFE.1, Figure 1)' with '(TFE.1, Figure 2)' Paragraph 2, Line 6, replace '{2.4.4, 2.5.5, 2.5.6}' with '{2.4.4, 2.5.4, 2.5.5}' Paragraph 3, Line 4, replace '{2.5.7}' with '{2.5.6}'			
41	Technical Summary Figure TS.3	Replace Figure TS.3 with Errata Figure TS.3 to be consistent with Errata Figure 4.25 (bottom panel).			
41	Technical Summary Figure TS.3	Figure caption, Line 3, replace '4.3.4' with '4.3, 4.4'			
43	Technical Summary TFE.1, Figure 1	Replace TFE.1, Figure 1 with TFE.1, Errata Figure 1. Panel c, 'PSS78 per decade' has been corrected to read 'PSS78 per 50 years'			
46	Technical Summary Section TS.2.5.4	Paragraph 2, Line 4, replace 'low confidence' with 'medium confidence'			
46	Technical Summary Section TS.2.6	Paragraph 5, Line 8, replace '-0.007' with '0.007'			
74	Technical Summary Figure TS.12	Figure caption, Line 3, delete ', together with the corresponding ensemble means (dark blue and dark red respectively)' Figure caption, Line 7, delete 'and precipitation panels'			
76	Technical Summary Box TS.4, Figure 1	Figure caption, Line 3, delete repeated word 'some'			
86	Technical Summary Figure TS.13	Figure caption, Line 1, replace 'several' with 'two' Figure caption, Line 3, replace 'three' with 'two'			
88	Technical Summary Section TS.5.4.5	Paragraph 2, Lines 6-7, replace 'and decades when this circulation increases are also to be expected.' with 'and there may be decades when increases occur.'			
91	Technical Summary Section TS.5.5.4	Paragraph 3, Line 9, replace ' <i>very likely</i> ' with ' <i>likely</i> '			
92	Technical Summary Section TS.5.5.4	Paragraph 1, Line 3, insert ', southwest USA' after 'Mediterranean'			
100	Technical Summary Section TS.5.7.2	Paragraph 1, Lines 7-8, replace ' $CO_2$ concentration that is above 700 ppm but below 1500 ppm,' with ' $CO_2$ -equivalent concentration (in 2100) that is above 700 ppm, but below 1500 ppm' Paragraph 2, Line 5, replace '0.43 m' with '0.41 m'			
108	Technical Summary Figure TS.26	Figure caption, Line 6, replace 'denoted X' with 'denoted insf. d'			

Page	Item	Correction				
115	Technical Summary Section TS.6.4	Bullet 2, Line 1, replace 'medium confidence' with 'low confidence'				
162	Chapter 2 Executive Summary	Paragraph 10, Line 10, replace '{2.6.2.2}' with '{2.6.2.3}'				
192	Chapter 2 Section 2.4.3	Paragraph 3, Line 14, reference to 'Supplementary Material 2.SM.4.3.4' should be to 'Supplementary Material 2.SM.4.3.3'				
199	Chapter 2 FAQ 2.1, Figure 2	Replace FAQ 2.1, Figure 2 with FAQ 2.1, Errata Figure 2. The glacier mass balance unit '10 <sup>15</sup> GT' has been corrected to read '10 <sup>3</sup> GT'				
206	Chapter 2 Section 2.5.5.1	Paragraph 1, Line 7, reference to 'Supplementary Material 2.SM.6.1' should be to 'Supplementary Material 2.SM.6.2'				
218	Chapter 2 FAQ 2.2, Figure 1	Replace FAQ 2.2, Figure 1 with FAQ 2.2, Errata Figure 1. The values '10' and '5' on the horizontal axis were reversed and the order has been corrected.				
270	Chapter 3 FAQ 3.2, Figure 1	Replace FAQ 3.2, Figure 1 with FAQ 3.2, Errata Figure 1. Panel c, 'PSS78 per decade' has been corrected to read 'PSS78 per 50 years'				
297	Chapter 3 FAQ 3.3	Paragraph 6, Line 5, replace 'Table 1' with 'FAQ 3.3, Table 1'				
298	Chapter 3 FAQ 3.3, Figure 1	Replace FAQ 3.3, Figure 1 with FAQ 3.3, Errata Figure 1. The years '1998' and '1996' on the horizontal axis were reversed and the order has been corrected.				
318	Chapter 4 Table of Contents	The page number for FAQ 4.2 should be given as 435				
320	Chapter 4 Executive Summary	Paragraph 9, Line 8, delete 'duration'				
330	Chapter 4 Section 4.2.2.9	Paragraph 1, Line 15 replace '1910' with '2010'				
336	Chapter 4 Table 4.2	Column 4, Row 20, replace '13,2267.4' with '132,267.4'				
337	Chapter 4 Figure 4.8	Figure caption, Line 1, replace '(diameter of the circle)' with '(area of the circle)'				
342	Chapter 4 Table 4.4	Column 2, Row 6, replace 'Greenland periphery' with 'Greenland'				
367	Chapter 4 Figure 4.25	Replace Figure 4.25 with Errata Figure 4.25. The representation of the uncertainty range for the glaciers contribution to sea level rise (bottom panel) has been corrected to be consistent with the uncertainties given in Table 4.5.				
		Replace "Snow cover: between 1967 and 2012, satellite data show decreases through the year, with largest decreases (53%) in June. Most stations report decreases in now, especially in spring." by "Snow cover: between 1967 and 2012, satellite data show decreases through the year, with largest decreases (53%) in June. Most stations report decreases in snow, especially in spring."				
393	Chapter 5 FAQ 5.1	Paragraph 2, Line 2, replace 'Figure 1a' with 'FAQ 5.1, Figure 1a'				
443	Chapter 5 References	Insert 'Hurtt, G. C., et al., 2011: Harmonization of land-use scenarios for the period 1500–2100: 600 years of global gridded annual land-use transitions, wood harvest, and resulting secondary lands. <i>Clim. Change</i> , <b>109</b> , 117–161.'				
456	Chapter 5 Table 5.A.1	Section 'PMIP3/CMIP5 Experiments' Column 3, Row 'HadCM3', replace reference '51' with '53' Column 3, Row 'MPI-ESM-P', replace reference '51' with '53'				
456	Chapter 5 Table 5.A.1 Notes	Section '[5] Land use, land cover:' '[51]' replace 'Pongratz et al. (2009) spliced to Hurtt et al. (2006)' with 'Pongratz et al. (2008) spliced to Hurtt et al. (2011)' '[52]' replace 'Kaplan et al. (2011)' with 'Kaplan et al. (2011) spliced to Hurtt et al. (2011)'				

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Page	Item	Correction					
471	Chapter 6 Figure 6.1	Replace Figure 6.1 with Errata Figure 6.1. Figure 6.1 has been updated to correct the numbers given for cumulative changes of anthropogenic carbon for 'Fossil fuel reserves' and terrestrial reservoirs ('Vegetation' and 'Soils').					
486	Chapter 6 Table 6.1	Column 2, Row 5, replace '30 $\pm$ 45' with '20 $\pm$ 45'					
487	Chapter 6 Section 6.3.1	Paragraph 2, Line 14, replace '30 $\pm$ 45' with '20 $\pm$ 45'					
501	Chapter 6 Table 6.6	Column 2, Row 5, replace '0.9' with '0.21' Column 3, Row 5, replace '±0.2' with '±0.07'					
507	Chapter 6 Table 6.8	Column 2, Row 32, replace reference '38' with '39'					
535	Chapter 6 Figure 6.30	Figure caption, Line 2, replace 'µmol m <sup>-3</sup> ' with 'mmol m <sup>-3</sup> '					
549	Chapter 6 Table 6.15	Column 5, Row 5, replace '15–60 PgC' with '32–126 PgC'					
574	Chapter 7 Executive Summary	Paragraph 3, Line 11, replace footnote reference '4' with '5' Paragraph 3, Line 15, delete footnote reference '5'; insert footnote: 'The RFari from biomass burning emissions is made up of a positive black carbon RFari and a negative organic carbon RFari.'					
684	Chapter 8 FAQ 8.2, Figure 1	Figure caption, Line 1, delete 'black'					
782	Chapter 9 Figure 9.17	Replace Figure 9.17 with Errata Figure 9.17. In panel b of Figure 9.17, the CMIP5 mean curve was erroneously copied from panel a. The correct curve is shown in Errata Figure 9.17. Minor inconsistencies in the time axes have also been corrected.					
848	Chapter 9 References	Replace 'Stevens, B., et al., 2012: The atmospheric component of the MPI-M Earth System Model: ECHAM6. <i>J. Adv. Model. Earth Syst.</i> , doi:10.1002/jame.20015.' with 'Stevens, B., et al., 2013: The atmospheric component of the MPI-M Earth System Model: ECHAM6. <i>J. Adv. Model. Earth Syst.</i> , <b>5</b> , 146–172.'					
862	Chapter 9 Table 9.A.1	Column 3, Rows 3-5, replace 'Stevens et al. (2012)' with 'Stevens et al. (2013)'					
925	Chapter 10 Figure 10.20	Figure caption, Line 2, replace ' <i>very likely</i> range' with ' <i>likely</i> range' Figure caption, Line 3, replace '<3' with '>3'					
935	Chapter 10 Table 10.1	Column 2, Row 4, replace text with 'Observed pattern of decrease in oxygen content from the 1960s to the 1990s is, in part, attributable to anthropogenic forcing.'					
949	Chapter 10 References	<ul> <li>Replace 'Seidel, D. J., Y. Zhang, A. Beljaars, JC. Golaz, A. R. Jacobson, and B. Medeiros, 2012:</li> <li>Climatology of the planetary boundary layer over the continental United States and Europe.</li> <li><i>J. Geophys. Res. Atmos.</i>, <b>117</b>, D17106.' with 'Seidel, D. J., M. Free, and J. S. Wang, 2012:</li> <li>Reexamining the warming in the tropical upper troposphere: Models versus radiosonde observations. <i>Geophys. Res. Lett.</i>, <b>39</b>, L22701.'</li> </ul>					
956	Chapter 11 Executive Summary	Paragraph 8, Line 1, replace 'medium confidence' with 'low confidence'					
988	Chapter 11 Section 11.3.2.4.1	Paragraph 4, Line 1, replace 'medium confidence' with 'low confidence'					
1140	Chapter 13 Executive Summary	Paragraph 4, Line 9, replace 'that corresponds to above 700 pm $CO_2$ -eq but below 1500 ppm,' with 'that in 2100 corresponds to above 700 pm $CO_2$ -eq, but below 1500 ppm $CO_2$ -eq'					
1187	Chapter 13 Section 13.5.4	Paragraph 1, Line 6, replace 'the 22nd century' with '2100' Paragraph 1, Line 8, replace 'CO <sub>2</sub> ' with 'CO <sub>2</sub> -eq' Paragraph 1, Line 10, replace '700 ppm.' with '700 ppm but below 1500 ppm CO <sub>2</sub> -eq as in RCP8.5.					
1192	Chapter 13 Section 13.6.1	Paragraph 3, Line 3, replace 'region between Japan and Korea' with 'Sea of Japan'					
1196	Chapter 13 Figure 13.21	Replace Figure 13.21 with Errata Figure 13.21. Figure 13.21b has been updated to correct an error in the calculation of the uncertainty in the printed version.					

Page	ltem	Correction								
1198	Chapter 13 Figure 13.23	Replace Figure 13.23 with Errata Figure 13.23. The time series in Figure 13.23 included a GIA component that used a starting point of zero at 2006. The correct time series starting at 1996 is used in Errata Figure 13.23.								
1227	Chapter 14 Figure 14.2	Figure caption, Line 1, replace 'global land monsoon domain' with 'global monsoon domain'								
1245	Chapter 14 Section 14.5.1	Paragraph 3, Line 13, delete 'would'								
1273	Chapter 14 Section 14.8.12	Paragraph 2, Line 5, delete 'eastern'								
1278	Chapter 14 Table 14.1	Table caption, Line 6, replace 'Northern Australia (NAS)' with 'Northern Australia (NAU)'								
1338–1341	Annex I Figures Al.24-Al.27	Figure caption, region 'Central America', replace '116.3°W' with '118.3°W'								
1346–1349	Annex I Figures AI.32-AI.35	Figure caption, region 'southeastern South America', replace '66°W' with '66.4°W'								
1358–1361	Annex I Figures AI.44-AI.47	Figure caption, region 'East Africa', replace '11.3°S' with '11.4°S'								
1386–1389	Annex I Figures AI.72-AI.75	Figure caption, region 'Southern Topical Pacific', replace '5°S to 5°N, 155°E to 150°W' with '25°S to 5°S, 155°E to 130°W'								
1401	Annex II Table All.1.1a	Column 'CH <sub>4</sub> ', Row '1964', replace '319' with '1314'								
1402	Annex II Table All.1.1a	Delete duplication of years from 2005 to 2008								
1403	Annex II Table All.1.1b	Column 'CH <sub>3</sub> Br', Row '1970', replace '0.0' with '7.0'								
1417	Annex II Table All.2.18	Replace Table All.2.18 with Errata Table All.2.18								
1426	Annex II Table All.4.13	Column 'RCP2.6', Row '2100', replace '1.43' with '0.50' Column 'RCP4.5', Row '2100', replace '1.28' with '0.25' Column 'RCP6.0', Row '2100', replace '1.42' with '0.45' Column 'RCP8.5', Row '2100', replace '1.56' with '0.64' Column 'A2', Row '2100', replace '2' with '60' Column 'B1', Row '2100', replace '2' with '36'								
1429–1432	Annex II Tables All.5.3-All.5.7	Column 'Year', replace '1180d' with '1880d'								
1458	Annex III Glossary	'Mole Fraction', Line 5, replace 'fmol mol <sup>_1</sup> ' with 'pmol mol <sup>_1</sup> '								
8SM-7	Chapter 8 Supplementary Material	Table 8.SM.1 Notes, replace '(MN)0.75' with '(MN) <sup>0.75</sup> '								
8SM-13	Chapter 8 Supplementary Material	Table 8.SM.6 caption, Lines 3-4, insert 'in determining the associated $CO_2$ forcing' after 'taken into account'								
14SM-16– 14SM-32	Chapter 14 Supplementary Material	Tables 14.SM.1a-14.SM.1c caption, Line 7, replace '(NAS)' with '(NAU)'								
14SM-18	Chapter 14 Supplementary Material	Table 14.SM.1a, Region 'Caribbean (land and sea)', 'Annual' rows should read:         Annual       2035       0.4       0.5       0.6       0.7       1.1       -11       -3       -1       2       8         Annual       2065       0.4       0.7       0.8       1.0       1.6       -9       -5       0       2       15         Annual       2100       -0.1       0.6       0.8       1.1       1.7       -25       -4       1       3       8								
14SM-22	Chapter 14 Supplementary Material	Table 14.SM.1a, Region 'South Australia/New Zealand', insert missing row:           DJF         2035         0.3         0.5         0.9         1.3         -17         -4         -1         1         8								
AISM-48– AISM-55	Annex I Supplementary Material	Figures AI.SM.44-AI.SM.51 caption, region 'Central America', replace '116.3°W' with '118.3°W'								

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Page	Item	Correction
AISM-64– AISM-71	Annex I Supplementary Material	Figures AI.SM.60-AI.SM.67 caption, region 'southeastern South America', replace '66°W' with '66.4°W'
AISM-88– AISM-95	Annex I Supplementary Material	Figures AI.SM.84-AI.SM.90 caption, region 'East Africa', replace '11.3°S' with '11.4°S'
AISM-144– AISM-151	Annex I Supplementary Material	Figures AI.SM.140-AI.SM.147 caption, region 'Southern Topical Pacific', replace '5°S to 5°N, 155°E to 150°W' with '25°S to 5°S, 155°E to 130°W'

#### Tables

#### Errata Table All.2.18 | Anthropogenic NO<sub>X</sub> emissions (TgN yr<sup>-1</sup>)

Year	RCP2.6	RCP4.5	RCP6.0	RCP8.5	A2	B1	IS92a
2000 <sup>d</sup>	38.2	38.2	38.2	38.2	32.0	32.0	37.0
2010 <sup>d</sup>	38.8	37.9	38.0	39.5	39.2	36.1	43.4
2020 <sup>d</sup>	36.5	35.9	35.7	41.5	50.3	39.9	49.8
2030 <sup>d</sup>	32.2	34.7	33.7	41.0	60.7	42.0	55.2
2040 <sup>d</sup>	30.1	32.5	32.7	37.2	65.9	42.6	59.6
2050 <sup>d</sup>	28.9	29.3	30.6	33.8	71.1	38.8	64.0
2060 <sup>d</sup>	27.1	25.7	28.2	31.8	75.5	34.3	67.8
2070 <sup>d</sup>	24.1	22.4	24.0	30.3	79.8	29.6	71.6
2080 <sup>d</sup>	20.9	19.5	20.3	29.0	87.5	25.7	75.4
2090 <sup>d</sup>	18.6	18.6	18.1	27.4	98.3	22.2	79.2
2100 <sup>d</sup>	16.4	18.1	16.4	26.4	109.2	18.7	83.0

Year	MFR	CLE	REFL	REF <sup>U</sup>	POL <sup>L</sup>	POL <sup>u</sup>
2000 <sup>d</sup>	38.0	38.0	29.1	41.6	29.1	41.6
2010 <sup>d</sup>			26.0	50.2	23.9	50.1
2020 <sup>d</sup>			26.3	60.4	21.6	59.2
2030 <sup>d</sup>	23.1	42.9	24.4	71.8	16.5	67.4
2040 <sup>d</sup>			21.5	86.3	14.1	75.3
2050 <sup>d</sup>			17.0	101.7	11.6	83.3
2060 <sup>d</sup>			13.2	115.7	11.4	89.8
2070 <sup>d</sup>			12.0	127.5	10.5	94.6
2080 <sup>d</sup>			11.5	137.2	9.6	97.2
2090 <sup>d</sup>			12.0	146.2	8.8	100.1
2100 <sup>d</sup>			13.0	155.0	8.0	104.0

Notes:

Odd nitrogen (NO<sub>x</sub>) emissions occur as NO or NO<sub>2</sub>, measured here as Tg of N.

### Figures

Errata Figures are available from www.climatechange2013.org and www.ipcc.ch