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**ALLEGED ERRORS IN THE SUMMARY FOR POLICYMAKERS OF THE
WORKING GROUP III CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT**

(Submitted by the IPCC Secretariat)

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ALLEGED ERRORS IN THE SUMMARY FOR POLICYMAKERS OF THE WORKING GROUP III CONTRIBUTION TO THE FIFTH ASSESSMENT REPORT

Since the approval of the Summary for Policymakers of the Working Group III (WGIII) contribution to the IPCC Fifth Assessment Report at the 12th Session of Working Group III and acceptance at the 39th Session of the Panel several potential errors were identified by the WGIII Technical Support Unit.

In line with Section 2, Step 4A of the Error Protocol, decisions on and posting of typographical errors were handled by the Technical Support Unit of WGIII under the supervision of its Co-Chairs. The WGIII Bureau was informed, the IPCC Secretariat was informed and then it informed the Executive Committee, posted the errata and closed the case.

For other potential errors procedures were launched in line with Section 2, Step 5A of the Error Protocol. The WGIII Co-Chairs as well as the Coordinating Leading Authors (CLAs) of the relevant chapters of the underlying report evaluated the errors. Then the WGIII Co-Chairs and relevant CLAs constructed errata statements for the Summary for Policymakers and submitted them to the WGIII Bureau for approval. Following WGIII Bureau approval, the Secretariat wrote on September 15, 2014 to the National Focal Points seeking agreement for the Panel to delegate the approval of the proposed errata to the Executive Committee. No objection was raised by the established deadline of September 22, 2014 and the Rapid Response procedure was launched. On September 23 an objection was received from one country and the Executive Committee stopped the Rapid Response procedure and decided to defer the decision on the errata to the next session of the Panel.

In line with Section 2, Step 5A of the Error Protocol the proposed errata statements for the Summary for Policymakers of WGIII contribution to the Fifth Assessment Report contained in Annex 1 are submitted to the Panel for approval.

Proposed errata statements for the Summary for Policymakers of WG III contribution to the Fifth Assessment Report

The following errors have been evaluated according to Section 2 of the Error Protocol and consistent with Step 5A submitted to the Panel for approval.

Main text

Page 9, last paragraph, line 4, and Page 12, Table SPM.1, footnote 2: The text erroneously refers to the median as a range. Instead it is a range based on the median transient climate response estimate. This is corrected in both instances.

Current text, page 9: Baseline scenarios, those without additional mitigation, result in global mean surface temperature increases in 2100 from 3.7 to 4.8°C compared to pre-industrial levels (**median values**; the range is 2.5°C to 7.8°C when including climate uncertainty, see Table SPM.1).

Suggested correction, page 9: Baseline scenarios, those without additional mitigation, result in global mean surface temperature increases in 2100 from 3.7 to 4.8°C compared to pre-industrial levels (**range based on median transient climate response**; the range is 2.5°C to 7.8°C when including climate uncertainty, see Table SPM.1).

Current footnote 2, page 12: Together with the baseline scenarios in the >1000 ppm CO₂eq category, this leads to an overall 2100 temperature range of 2.5–7.8°C (**median**: 3.7–4.8°C) for baseline scenarios across both concentration categories.

Suggested correction, footnote 2, page 12: Together with the baseline scenarios in the >1000 ppm CO₂eq category, this leads to an overall 2100 temperature range of 2.5–7.8°C (**range based on median transient climate response**: 3.7–4.8°C) for baseline scenarios across both concentration categories.

Page 12, Table SPM.1

Footnote 5: The current footnote wrongly refers to GHG concentrations instead of CO₂eq concentrations. CO₂eq concentrations represent full radiative forcing including GHGs, tropospheric ozone, aerosols and albedo change.

Current footnote: To evaluate the **GHG** concentration and climate implications of these scenarios, the MAGICC model was used in a probabilistic mode (see Annex II).

Suggested correction: To evaluate the **CO₂eq** concentration and climate implications of these scenarios, the MAGICC model was used in a probabilistic mode (see Annex II).

Footnote 12: The last sentence of footnote 12 erroneously refers to exceedance probabilities, while Table SPM.1 shows probabilities of keeping warming below certain temperature thresholds during the 21st century. Replace “exceed” and “exceeding” by “stay below” and “staying below” respectively.

Current footnote: The latter type of scenarios, in general, have an assessed probability of *more unlikely than likely* to **exceed** the 2 °C temperature level, while the former are mostly assessed to have an *unlikely* probability of **exceeding** this level.

Suggested correction: The latter type of scenarios, in general, have an assessed probability of *more unlikely than likely* to **stay below** the 2 °C temperature level, while the former are mostly assessed to have an *unlikely* probability of **staying below** this level.

Page 13, 2nd paragraph, last sentence, lines 8-9: The last sentence unintentionally and erroneously uses uncertainty language and does so in an incomplete way (only qualification of degree of evidence, but not agreement). Suggest to replace “only limited evidence on” by “uncertainty about”.

Current sentence: There is **only limited evidence on** the potential for large-scale deployment of BECCS, large-scale afforestation, and other CDR technologies and methods.

Suggested correction: There is **uncertainty about** the potential for large-scale deployment of BECCS, large-scale afforestation, and other CDR technologies and methods.

Page 13, footnote 16: This footnote erroneously refers to “net negative emission technologies”. However, there are only “negative emission technologies”, which are referred to as carbon dioxide removal technologies in the context of this report. Suggest to replace “net negative emission technologies” by “Carbon Dioxide Removal (CDR) technologies”; consequently, a small editorial correction is made in the subsequent sentence.

Current footnote: In addition, a large proportion of the new scenarios include **net negative emissions technologies** (see below). Other factors include the use of 2100 concentration levels instead of stabilization levels and the shift in reference year from 2000 to 2010. Scenarios with higher emissions in 2050 are characterized by a greater reliance on **Carbon Dioxide Removal (CDR) technologies** beyond mid-century.

Suggested correction: In addition, a large proportion of the new scenarios include **Carbon Dioxide Removal (CDR) technologies** (see below). Other factors include the use of 2100 concentration levels instead of stabilization levels and the shift in reference year from 2000 to 2010. Scenarios with higher emissions in 2050 are characterized by a greater reliance on **CDR technologies** beyond mid-century.

Page 14, 1st paragraph, lines 1-2: There are two problems with the referencing in this sentence. 1) Figure SPM.4 (top panel) does not support any statement on the role of CDR technologies in the context of scenarios with delay in mitigation (2030 emission levels >55GtCO₂eq). The reference to Figure SPM.4 therefore should be deleted. 2) Incomplete reference to Table SPM.2. Only parts of Table SPM.2 relate to scenarios with delayed mitigation. Therefore “orange segment” should be added to the reference.

Current sentence: [...]; a larger reliance on CDR technologies in the long-term (**Figure SPM.4, top panel**); and higher transitional and long-term economic impacts (**Table SPM.2**).

Suggested correction: [...]; a larger reliance on CDR technologies in the long-term; and higher transitional and long-term economic impacts (**Table SPM.2, orange segment**).

Page 17, 1st paragraph, last sentence, lines 4-6: The sentence is erroneous. Scenarios within the studies (rather than the studies themselves) are consistent with this goal.

Current sentence: The limited number of published studies **consistent with** this goal **produces scenarios that** are characterized by (1) immediate mitigation action; (2) the rapid upscaling of the full portfolio of mitigation technologies; and (3) development along a low-energy demand trajectory.

Suggested correction: **Scenarios associated with** the limited number of published studies **exploring** this goal are characterized by (1) immediate mitigation action; (2) the rapid upscaling of the full portfolio of mitigation technologies; and (3) development along a low-energy demand trajectory.

Page 17, footnote 20: The carbon budgets were calculated during the plenary given a request by the delegates. Note that these scenarios are not part of the AR5 database, but from a limited set of studies that explored low CO₂eq concentrations below 430 ppm). Only limited information was available during the approval process for these calculations. Considering full information from the studies cited in the report, the budget numbers adjust slightly. Note that the statistics for the emissions reductions in GtCO₂eq were not affected.

Current footnote: In these scenarios, the cumulative CO₂ emissions range between 655 and 815 GtCO₂ for the period 2011–2050 and between 90 and 350 GtCO₂ for the period 2011–2100.

Suggested correction: In these scenarios, the cumulative CO₂ emissions range between 680 and 800 GtCO₂ for the period 2011–2050 and between 90 and 310 GtCO₂ for the period 2011–2100.

Page 25, Footnote 26: This footnote says that in many models carbon price is used as a proxy for the level of effort in mitigation policies. The second half of the sentence talks about this “subset” of models that use this proxy. The word “often” is erroneous and is suggested for deletion.

Current footnote: In many models that are used to assess the economic costs of mitigation, carbon price is often used as a proxy to represent the level of effort in mitigation policies (see WGIII AR5 Glossary).

Suggested correction: In many models that are used to assess the economic costs of mitigation, carbon price is used as a proxy to represent the level of effort in mitigation policies (see WGIII AR5 Glossary).

Figures and figure captions

All figures and figure captions in the SPM of WG III were approved by the Panel subject to final quality check and copy edit. The changes shown below are presented to ensure complete transparency of the process.

Page 9, Figure SPM.3 and caption: All data contained in this figure are correct, but the x-axis and y-axis labels are modified as described below. To be consistent with the correction of the y-axis label, the figure caption is suggested to be adjusted accordingly. Figure and caption with suggested modifications are shown below:

The time reference on the x-axis leaves out the changes between year “0” and “1” of the four decades considered (1970–2010). Note that this figure shows results from a decomposition analysis, which refers to changes between start and end year.

Current x-axis label: “1971–1980, 1981–1990, 1991–2000, 2001–2010”

Suggested x-axis label: “1970–1980, 1980–1990, 1990–2000, 2000–2010”

The y-axis label erroneously identifies decadal changes in emissions and lacks a time reference in the unit description (in GtCO₂), whilst the figure reports the changes in levels of annual CO₂ emissions during the decade (in GtCO₂/yr).

Current y-axis label: “Decadal Change in Emissions [GtCO₂]”

Suggested y-axis label: “Change in Annual CO₂ Emissions by Decade [GtCO₂/yr]”

Current caption: Decomposition of the decadal change in total global CO₂ emissions from fossil fuel combustion by four driving factors; population, income (GDP) per capita, energy intensity of GDP and carbon intensity of energy.[...] Total decadal changes are indicated by a triangle. Changes are measured in gigatonnes (Gt) of CO₂ emissions per decade; income is converted into common units using purchasing power parities.

Suggested caption: Decomposition of the change in total annual CO₂ emissions from fossil fuel combustion by decade and four driving factors; population, income (GDP) per capita, energy intensity of GDP and carbon intensity of energy. [...] Total emission changes are indicated by a triangle. The change in emissions over each decade is measured in gigatonnes of CO₂ per year [GtCO₂/yr]; income is converted into common units using purchasing power parities.

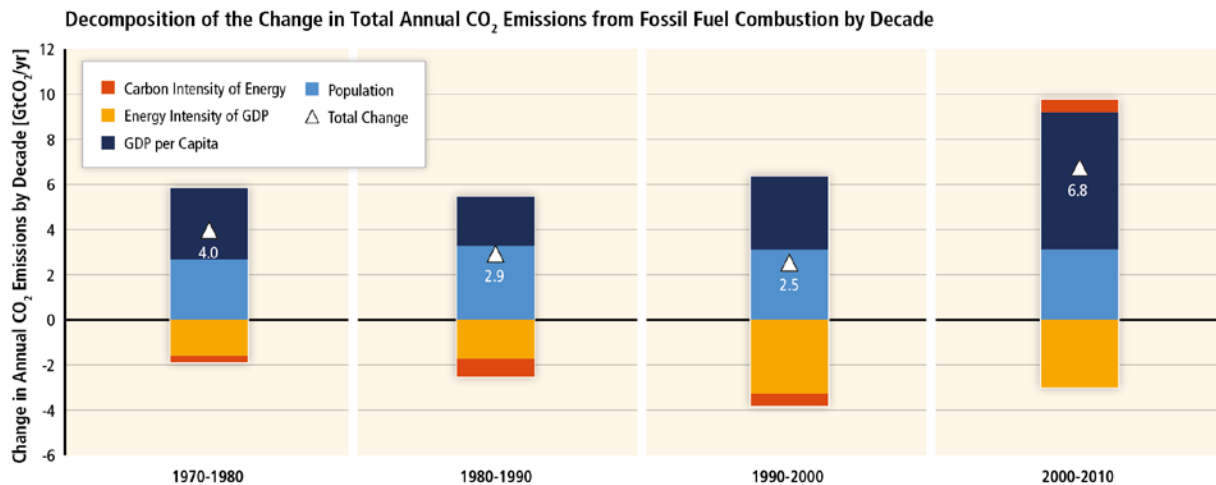
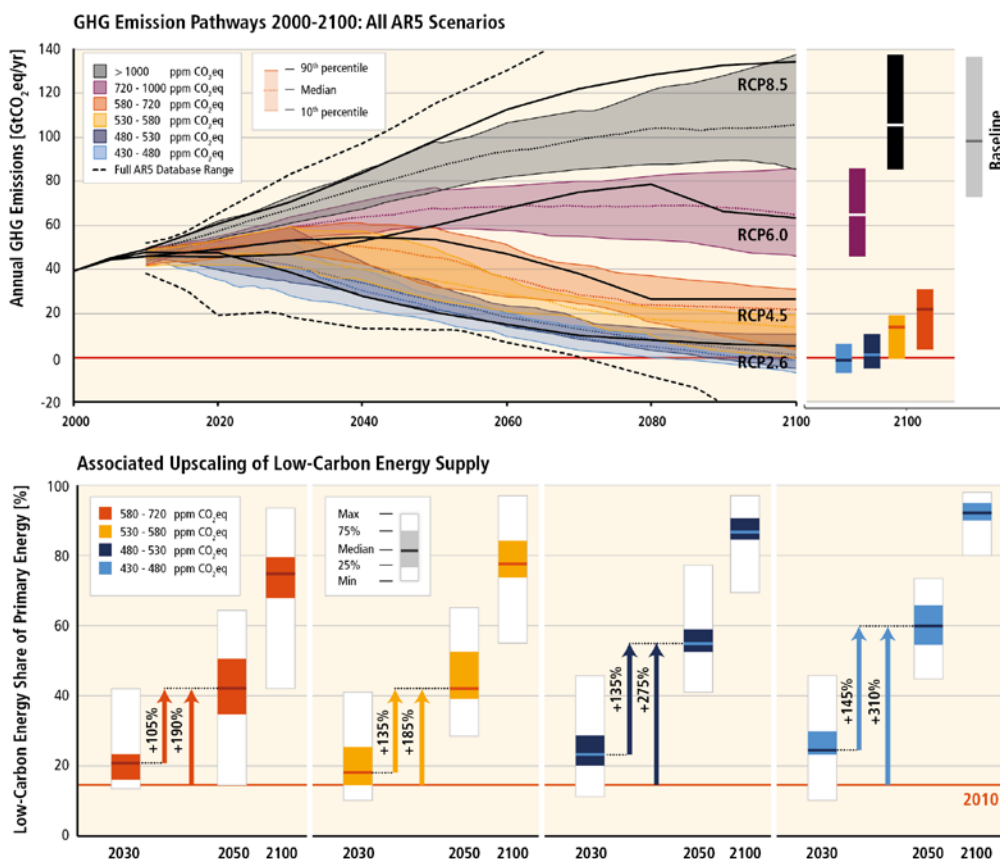


Figure SPM.3 Decomposition of the change in total annual CO₂ emissions from fossil fuel combustion by decade and four driving factors; population, income (GDP) per capita, energy intensity of GDP and carbon intensity of energy. The bar segments show the changes associated with each factor alone, holding the respective other factors constant. Total emission changes are indicated by a triangle. The change in emissions over each decade is measured in gigatonnes of CO₂ per year [GtCO₂/yr]; income is converted into common units using purchasing power parities. [Figure 1.7]

Page 11, Figure SPM.4, top panel: The RCP emission pathways erroneously exclude fluorinated gases in the current version of the figure and therefore do not represent all GHG emissions (Kyoto basket). The suggested correction adds f-gases to the four RCP lines in Figure SPM.4 (upper panel). The addition leads to a minor adjustment of the four RCP lines in the figure. The ranges for the different CO₂eq concentration scenario categories are not affected. The updated figure is included below.



Page 14, caption Figure SPM.5

Lines 1-2: The first sentence erroneously implies that the middle and right panels of Figure SPM.5 refer to the period 2030-2050. While this is true for the middle panel, the right panel refers to the period 2030-2100. Also, the word “about” needs to be added before “500” to make clear that this refers to a broader concentration category (i.e. 480-530 ppm CO₂eq and not a single concentration level).

Current sentence: The implications of different 2030 GHG emissions levels (left panel) for the rate of CO₂ emissions reductions (middle panel) and low-carbon energy upscaling **from 2030 to 2050** (right panel) in mitigation scenarios reaching about 450 **to** 500 (430 – 530) ppm CO₂eq concentrations by 2100.

Suggested correction: The implications of different 2030 GHG emissions levels (left panel) for the rate of CO₂ emissions reductions **from 2030 to 2050** (middle panel) and low-carbon energy upscaling **from 2030 to 2050 and 2100** (right panel) in mitigation scenarios reaching about 450 **to about** 500 (430 – 530) ppm CO₂eq concentrations by 2100.

Line 6: This sentence erroneously states that the grey bar of the figure shows the average annual emission growth over 20 year periods since 1900. However, this is not the case for 2000-2010 where annual average emissions over a decade are shown.

Current sentence: Annual rates of historical emissions change (sustained over a period of 20 years) are shown in grey.

Suggested correction: Annual rates of historical emissions change **between 1900-2010** (sustained over a period of 20 years) **and the average annual emissions change between 2000-2010** are shown in grey.