Corrigendum: Mitigation choices impact carbon budget size compatible with low temperature goals (2015 Environ. Res. Lett. 10 075003)

J Rogelj1,2, A Reisinger1, D L McCollum1, R Knutti, K Riahi1,4 and M Meinshausen5,6

1 Energy Program, International Institute for Applied Systems Analysis (IIASA), Schlossplatz 1, A-2361 Laxenburg, Austria
2 Institute for Atmospheric and Climate Science, ETH Zurich, Universitätstrasse 16, CH-8092 Zürich, Switzerland
3 New Zealand Agricultural Greenhouse Gas Research Centre, Private Bag 11008, Palmerston North 4442, New Zealand
4 Graz University of Technology, Inffeldgasse, A-8010 Graz, Austria
5 Australian-German College of Climate and Energy Transitions, School of Earth Sciences, The University of Melbourne, 3010 Melbourne, Victoria, Australia
6 PRIMAP Group, Potsdam Institute for Climate Impact Research (PIK), PO Box 60 12 03, D-14412 Potsdam, Germany

E-mail: rogelj@iiasa.ac.at

Correction

Figures 2(b), S4(b), S5(b), and S6(b) were incorrectly labelled to show cumulative CO2 emissions from 2011 to 2100 in GtCO2. Instead, the panels show cumulative greenhouse gas emissions from 2011 to 2100 in CO2-equivalence, computed with 100-year Global Warming Potentials from the IPCC Second Assessment Report (IPCC 1996). The vertical label should be updated to reflect this correction.

Figure 2. Integrated influence of costs and technologies on CO2 budgets consistent with limiting warming below 2 °C with 50% chance between 2011 and 2050 (panel a) and between 2011 and 2100 (panel b). Each symbol represents one unique scenario case. Symbols are grouped with coloured features based on the future energy-demand assumptions that underlie the scenarios (based on the Global Energy Assessment—GEA, Riahi et al 2012). Coloured features in the figures are visual guides to highlight data points which are grouped together, but do not represent quantitative data. Costs are provided as year-2020 carbon prices discounted back (discount rate 5%) to 2011. Total mitigation costs are given in figure S4. For clarity only 2 °C scenarios with 50% chance are shown, but consistent features can be seen for other probability levels in spite of a lower amount of scenarios being available (figures S5 and S6).
The first sentence of the captions of figures 2 and S4 should read: Integrated influence of costs and technologies on CO₂ budgets consistent with limiting warming below 2 °C with 50% chance between 2011-2050 (panel a) and on greenhouse gas budgets between 2011 and 2100 (panel b).

The first sentence of the captions of figures S5 and S6 should read: Integrated influence of costs and technologies on CO₂ budgets consistent with limiting warming below 2 °C with 50, 66 and 75% chance between 2011 and 2050 (panel a) and on greenhouse gas budgets between 2011 and 2100 (panel b).
This error does not further affect any of the discussion or conclusions of the paper.

In the following pages, additional alternative figures have been included showing how figures 2, S4, S5, and S6 would look like when showing cumulative CO$_2$ emissions instead of cumulative greenhouse gas emissions for panel b of each figure.
Figure S6. Integrated influence of costs and technologies on CO₂ budgets consistent with limiting warming below 2 °C with 50, 66 and 75% chance between 2011–2050 (panel a) and between 2011–2100 (panel b). Each symbol represents one unique scenario case. Symbols are grouped with coloured features based on the future energy-demand assumptions that underlie the scenarios (based on the Global Energy Assessment—GEA, Riahi et al 2012). Coloured features in the figures are visual guides to highlight data points which are grouped together, but do not represent quantitative data. Costs are provided as total discounted mitigation costs (see main text). Carbon prices are given in figure S5. Different probability levels are identified by the intensity of the symbols.

References

IPCC. Climate Change 1995: The Science of Climate Change. Contribution of WGI to the Second Assessment Report of the Intergovernmental Panel on Climate Change ed J T Houghton et al 1996 (Cambridge, UK: Cambridge University Press) p 572

Riahi K et al 2012 Global Energy Assessment - Towards a Sustainable Future (Cambridge: Cambridge University Press; Luxenbourg: International Institute for Applied Systems Analysis) pp 1203–306