

CORRIGENDUM • OPEN ACCESS

Corrigendum: Attribution of extreme rainfall from Hurricane Harvey, August 2017 (2017 *Environ. Res. Lett.* [12 124009](#))

To cite this article: Geert Jan van Oldenborgh *et al* 2018 *Environ. Res. Lett.* **13** 019501

View the [article online](#) for updates and enhancements.

Environmental Research Letters



CORRIGENDUM

OPEN ACCESS

RECEIVED
20 December 2017

ACCEPTED FOR PUBLICATION
20 December 2017

PUBLISHED
9 January 2018

Original content from
this work may be used
under the terms of the
[Creative Commons
Attribution 3.0 licence](#).

Any further distribution
of this work must
maintain attribution to
the author(s) and the
title of the work, journal
citation and DOI.



Corrigendum: Attribution of extreme rainfall from Hurricane Harvey, August 2017 (2017 *Environ. Res. Lett.* **12** 124009)

Geert Jan van Oldenborgh^{1,8} , Karin van der Wiel¹ , Antonia Sebastian^{2,3} , Roop Singh⁴, Julie Arrighi⁴ , Friederike Otto⁵ , Karsten Haustein⁵ , Sihan Li⁵ , Gabriel Vecchi⁶ and Heidi Cullen⁷

¹ Royal Netherlands Meteorological Institute (KNMI), R&D Weather and Climate Models, De Bilt, Netherlands

² Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, Netherlands

³ Department of Civil and Environmental Engineering, Rice University, Houston, TX, United States of America

⁴ Red Cross Red Crescent Climate Centre, The Hague, Netherlands

⁵ School of Geography and the Environment and Department of Physics, University of Oxford, Oxford, United Kingdom

⁶ Princeton University, Princeton, NJ, United States of America

⁷ Climate Central, Princeton, NJ, United States of America

⁸ Author to whom any correspondence should be addressed.

E-mail: oldenborgh@knmi.nl

Updated EC-Earth results

In the computation of the EC-Earth results, we accidentally included all grid boxes and not only the land points as we intended. We redid the calculations using the land points only. This implies an update to figure 6 (given below), but it makes only a slight differences to the EC-Earth results. The comparison with the observed fit for the model evaluation is somewhat better in the dispersion parameter σ/μ and now good in the shape parameter, although the model now requires a bias correction of 18%. The increase in intensity for land points only is $\Delta I = 17\%$ (11% ... 23%), compared to the $\Delta I = 17\%$ (10% ... 23%) for all points. The risk ratio is a bit higher, 2.5 (1.8 ... 6.7) instead of the 2.2 (1.5 ... 4.1) reported in the article.

Updated synthesis and conclusions

This changes figure 7 slightly as well, but does not affect the conclusions. The change in increase remains 15%

with an uncertainty range 8%–19%. The change in risk ratio stays the same, a factor of three, but with a slightly higher uncertainty range, 1.6–6 rather than 1.5–5. This strengthens our conclusions by a negligible factor.

ORCID iDs

Geert Jan van Oldenborgh <https://orcid.org/0000-0002-6898-9535>

Karin van der Wiel <https://orcid.org/0000-0001-9365-5759>

Antonia Sebastian <https://orcid.org/0000-0002-4309-2561>

Julie Arrighi <https://orcid.org/0000-0003-4714-4514>
Friederike Otto <https://orcid.org/0000-0001-8166-5917>

Karsten Haustein <https://orcid.org/0000-0003-3126-7851>

Sihan Li <https://orcid.org/0000-0002-2479-8665>

Gabriel Vecchi <https://orcid.org/0000-0002-5085-224X>

Heidi Cullen <https://orcid.org/0000-0002-6976-2631>

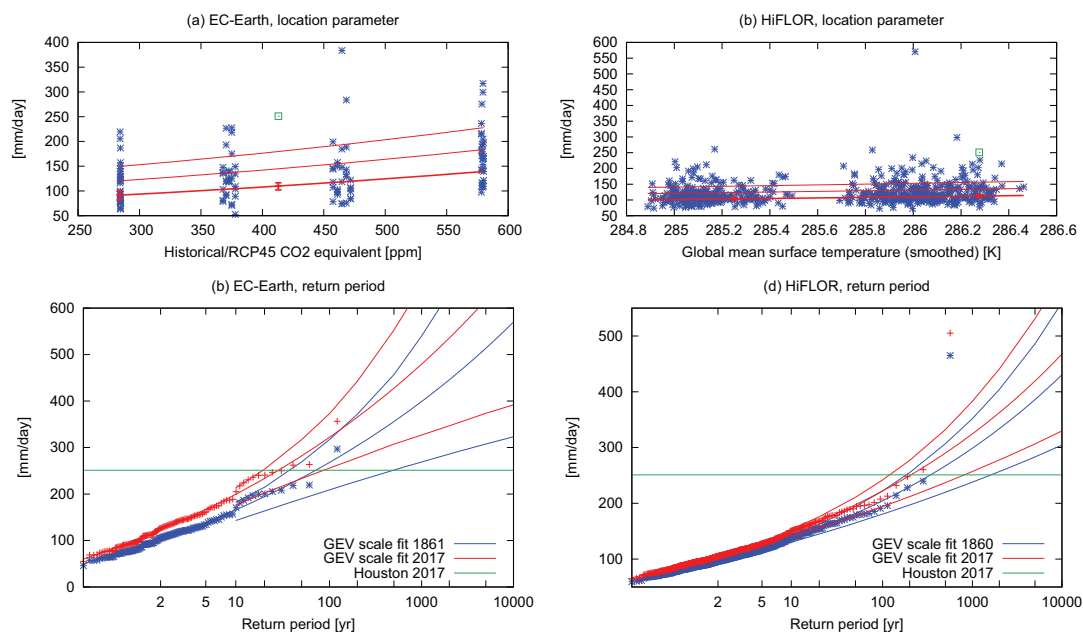


Figure 6. The same as figure 4, but for (a)–(c) the four EC-Earth T799 experiments and (b)–(d) the four static forcing HiFLOR experiments. For EC-Earth, the fit of the annual and spatial maximum three-day average precipitation on the US Gulf Coast to a GEV that scales with the RCP4.5 equivalent CO₂ concentration. For HiFLOR, the fit is to a GEV that scales with the modelled GMST.

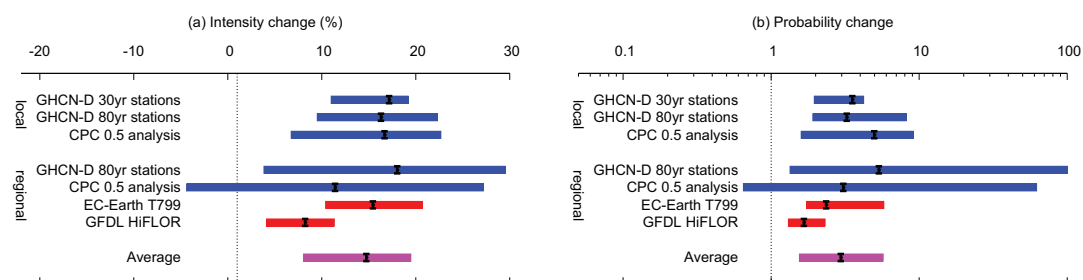


Figure 7. Synthesis of the results. (a) Intensity changes 1880–2017 for local and regional extreme three-day precipitation events along the US Gulf Coast (%). Observations are shown in blue, models in red. The magenta line is the average of the three estimates from local observations (with smaller uncertainties) and the two regional model analyses (that can only reproduce these more extreme events reliably). (b) Same for the risk ratios (changes in probability).