



## ***Corrigendum to*** **“Extreme wind return periods from tropical cyclones in Bangladesh: insights from a high-resolution convection-permitting numerical model” published in Nat. Hazards Earth Syst. Sci., 21, 1313–1322, 2021**

**Hamish Steptoe<sup>1</sup> and Theodoros Economou<sup>2,1</sup>**

<sup>1</sup>Met Office, FitzRoy Road, Exeter, EX1 3PB, UK

<sup>2</sup>College of Engineering, Mathematics and Physical Sciences, University of Exeter, Exeter, UK

**Correspondence:** Hamish Steptoe ([hamish.steptoe@metoffice.gov.uk](mailto:hamish.steptoe@metoffice.gov.uk))

Published: 3 August 2022

The following changes correct mistakes introduced by the authors during the writing of the article.

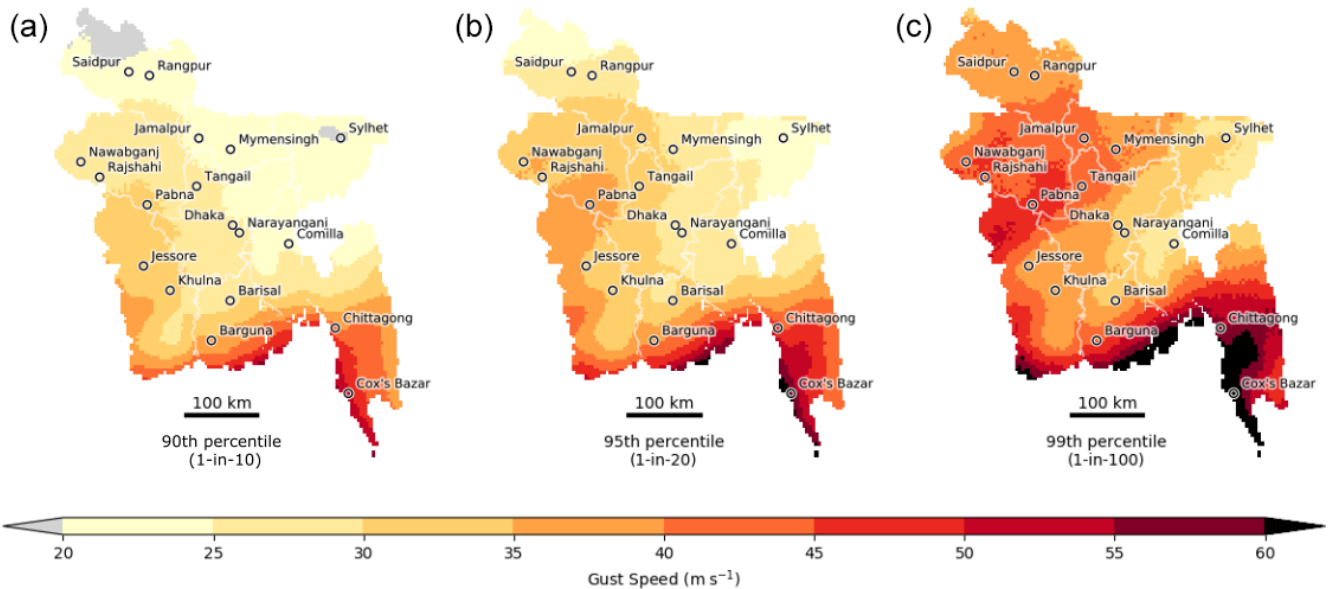
1. The first panel in Fig. 3a is incorrectly labelled as “1-in-2 (50th percentile)” when it should be labelled as “1-in-10 (90th percentile)”.
2. The first two sentences of the associated caption for Fig. 3 should read as follows:

Gust speed exceedance thresholds for the 90th (a), 95th (b) and 99th (c) percentile credible intervals. The 90th, 95th and 99th percentiles represent the maximum gust speeds expected from a 1-in-10, 1-in-20 and 1-in-100 event respectively (conditional on a tropical cyclone making landfall over Bangladesh).

3. The first part of the first paragraph of Sect. 3 should read as follows:

Aggregating the 12 historical tropical cyclones ensembles, Fig. 3 shows the 90th, 95th and 99th percentiles of the posterior predictive maximum gust speed distribution across Bangladesh. Based on historical cases, the provinces of Chittagong, Barisal and Khulna are most exposed to high wind speed associated with tropical cyclone gusts, whilst Sylhet and Rajshahi are least exposed. The cities of Chittagong and Cox’s Bazar are particularly at risk of maximum tropical cyclone gust speeds exceeding  $45 \text{ m s}^{-1}$  (87 kn) and  $60 \text{ m s}^{-1}$  (116 kn) respectively in 5 % of events making landfall. Maximum gust speeds in Dhaka are likely to reach  $35 \text{ m s}^{-1}$  (68 kn) in 1 % of events and  $25 \text{ m s}^{-1}$  (48 kn) in 5 % to 10 % of events.

The authors wish to thank Alison Peard for bringing these errors to their attention.



**Figure 3.** Gust speed exceedance thresholds for the 90th (a), 95th (b) and 99th (c) percentile credible intervals. The 90th, 95th and 99th percentiles represent the maximum gust speeds expected from a 1-in-10, 1-in-20 and 1-in-100 event respectively (conditional on a tropical cyclone making landfall over Bangladesh). These credible intervals are based on the posterior model distribution derived from all 12 named tropical cyclones, conditional on a tropical cyclone making landfall in Bangladesh. The 20–60  $\text{m s}^{-1}$  gust speed range roughly corresponds to a range of 39–117 kn, equivalent to the cyclonic to super cyclonic storm classification used in Bangladesh. Province boundaries are outlined in white, with the 18 most populated towns and cities marked by circles.