

1. Firstly, we changed the order of 3 figures.

1) In lines 460,461,462,465,466,473, we changed Figure 6 to Figure 4.

2) In line 503, we changed Figure 7 to Figure 5.

3) In lines 495 and 505, we changed Figure 8 to Figure 6.

2. Secondly, we compiled the figures that have multiple panels into one figure, that is Figure 4, Figure 6, Figure S1, Figure S3, Figure S4. We also changed these 5 figures with the new version in our manuscript and supplementary information.

3. Thirdly, in line 636-644, we changed from “**Acknowledgment:** The research presented in this paper was funded in part by the China Scholarship Council (grant no.202004910427). The authors would like to thank Virtual Mobility Grant from HARMONIOUS project. We are grateful for the freely available data at GEE, and the in-situ data from ISMN.” to “**Acknowledgment:** The research presented in this paper was funded in part by the China Scholarship Council (grant no.202004910427). The authors would like to thank Virtual Mobility Grant from HARMONIOUS project. This research has been funded by The Netherlands Organisation for Scientific Research (NWO) KIC, WUNDER project (grant no. KICH1.LWV02.20.004), Netherlands eScience Center, EcoExtreML project (grant ID. 525 27020G07) and Water JPI project “iAqueduct” (Project number: ENWWW.2018.5). In addition, this study was supported in part by the ESA ELBARA-II/III Loan Agreement EOP-SM/2895/TC-tc and the ESA MOST Dragon IV Program. We also thank the National Natural Science Foundation of China (grant no. 41971033), Fundamental Research Funds for the Central Universities, CHD (grant no. 300102298307), MIUR PON R&I 2014-2020 Program (project MITIGO, ARS01_00964). We are grateful for the freely available data at GEE, and the in-situ data from ISMN.”