

Supplement of

Mass loss of the Greenland ice sheet until the year 3000 under a sustained late-21st-century climate

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Tables

| # | Scenario | GCM | aST 2091–2100 (°C) | caSMB 2015–2100 (m ice equiv.) |
|----|----------|---------------|-----------------------|-----------------------------------|
| 5 | RCP8.5 | MIROC5 | 6.2000 | −27.385 |
| 6 | RCP8.5 | NorESM1-M | 5.0206 | −18.387 |
| 7 | RCP2.6 | MIROC5 | 1.4073 | −10.391 |
| 8 | RCP8.5 | HadGEM2-ES | 8.3467 | −23.132 |
| 9 | RCP8.5 | MIROC5 | (same as Exp. #5) | |
| 10 | RCP8.5 | MIROC5 | (same as Exp. #5) | |
| A1 | RCP8.5 | IPSL-CM5A-MR | 6.3040 | −27.454 |
| A2 | RCP8.5 | CSIRO-Mk3.6.0 | 5.0795 | −12.083 |
| A3 | RCP8.5 | ACCESS1.3 | 5.9924 | −18.392 |
| B1 | SSP5-8.5 | CNRM-CM6-1 | 7.6037 | −31.615 |
| B2 | SSP1-2.6 | CNRM-CM6-1 | 1.8968 | −12.941 |
| B3 | SSP5-8.5 | UKESM1-0-LL | 10.0087 | −49.421 |
| B4 | SSP5-8.5 | CESM2 | 6.7026 | −48.311 |
| B5 | SSP5-8.5 | CNRM-ESM2-1 | 7.2940 | −30.458 |

Table S1: Surface temperature anomaly (aST, 2091–2100 mean) and cumulative SMB anomaly (caSMB, 2015–2100), spatially averaged over the present-day Greenland ice sheet, for all future climate experiments of this study. The anomalies are relative to the 1960–1989 means of the reference climatology. See also Table 1 of the main paper.

Note (2022-05-17):

In the original version of this document, the values for “aST 2091–2100” in Table S1 were wrong. This has been corrected here.

| # | Scenario | GCM | SLC 2100 (m) | SLC 2300 (m) | SLC 3000 (m) |
|----|----------|---------------|-----------------|-----------------|-----------------|
| 5 | RCP8.5 | MIROC5 | 0.1212 | 0.5486 | 1.6305 |
| 6 | RCP8.5 | NorESM1-M | 0.0892 | 0.3697 | 1.0492 |
| 7 | RCP2.6 | MIROC5 | 0.0406 | 0.0803 | 0.1705 |
| 8 | RCP8.5 | HadGEM2-ES | 0.1010 | 0.4534 | 1.2424 |
| 9 | RCP8.5 | MIROC5 | 0.1407 | 0.5872 | 1.6810 |
| 10 | RCP8.5 | MIROC5 | 0.1086 | 0.5229 | 1.5992 |
| A1 | RCP8.5 | IPSL-CM5A-MR | 0.1207 | 0.5292 | 1.5874 |
| A2 | RCP8.5 | CSIRO-Mk3.6.0 | 0.0743 | 0.2749 | 0.7207 |
| A3 | RCP8.5 | ACCESS1.3 | 0.0934 | 0.3743 | 1.0500 |
| B1 | SSP5-8.5 | CNRM-CM6-1 | 0.1428 | 0.7535 | 2.2911 |
| B2 | SSP1-2.6 | CNRM-CM6-1 | 0.0525 | 0.1663 | 0.4068 |
| B3 | SSP5-8.5 | UKESM1-0-LL | 0.2086 | 1.0614 | 3.0782 |
| B4 | SSP5-8.5 | CESM2 | 0.1963 | 1.1498 | 3.5473 |
| B5 | SSP5-8.5 | CNRM-ESM2-1 | 0.1381 | 0.6721 | 2.0060 |

Table S2: Sea-level contribution (SLC) by 2100, 2300 and 3000 relative to the projection control run (ctrl-proj) for all future climate experiments of this study. See also Table 1 of the main paper.