Supplementary materials for

Impacts of glacier changes on precipitation in the Tibetan Plateau

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This file includes:

Figures S1 to S8
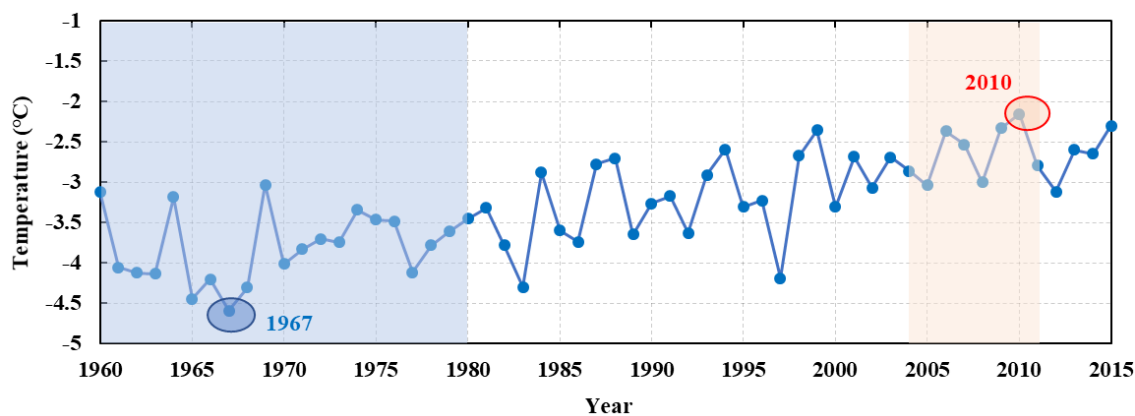
Figure S1. Regional mean temperature of the Tibetan Plateau from 1960 to 2015 calculated based on ERA5 data.
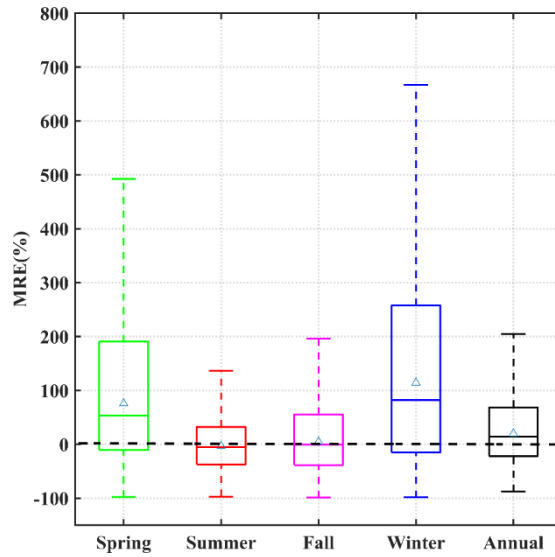
Figure S2. Boxplot of mean daily precipitation MREs for 2010-GI2 in four seasons and the whole year of 2010, calculated based on the GPM. The triangles denote the mean values.
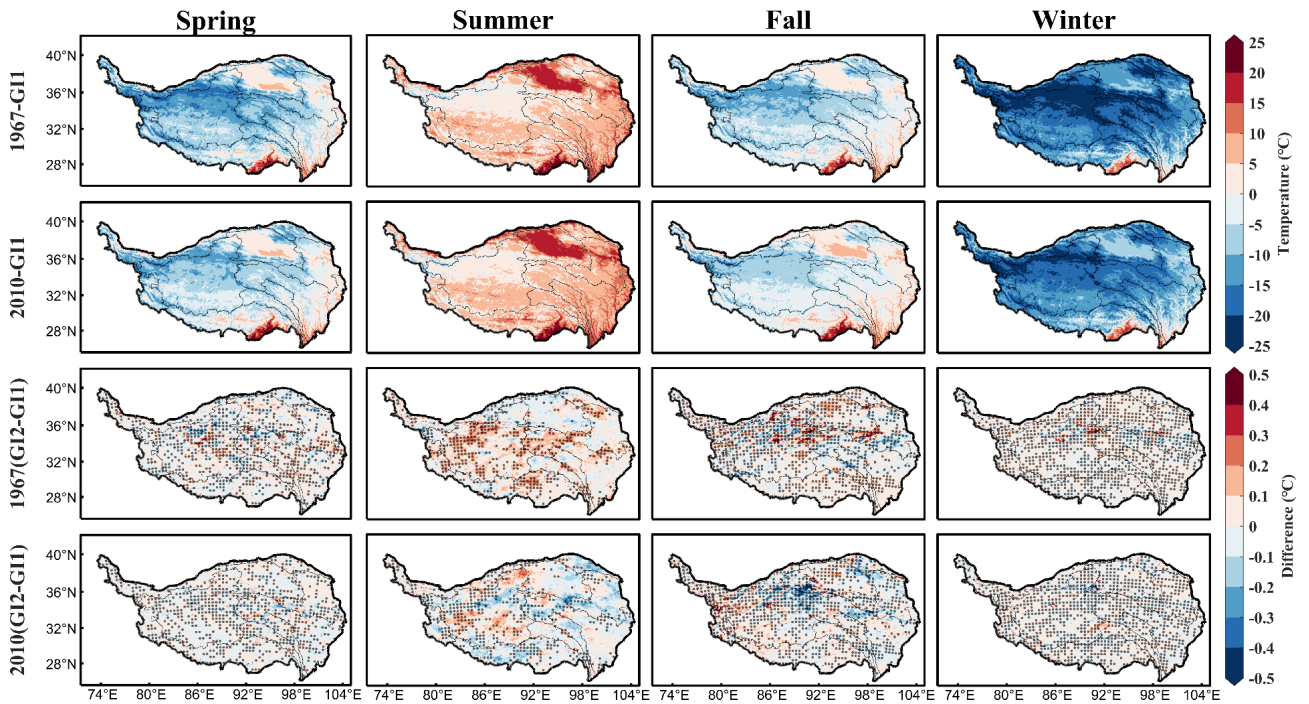
Figure S3. Spatial distributions of mean daily T2 for 1967-GI1 (top row), 2010-GI1 (second row), and differences between GI1 and GI2 in 1967 (cold year, third row) and 2010 (warm year, bottom row). Stippled regions indicate statistically significant differences at the 10% significance level.
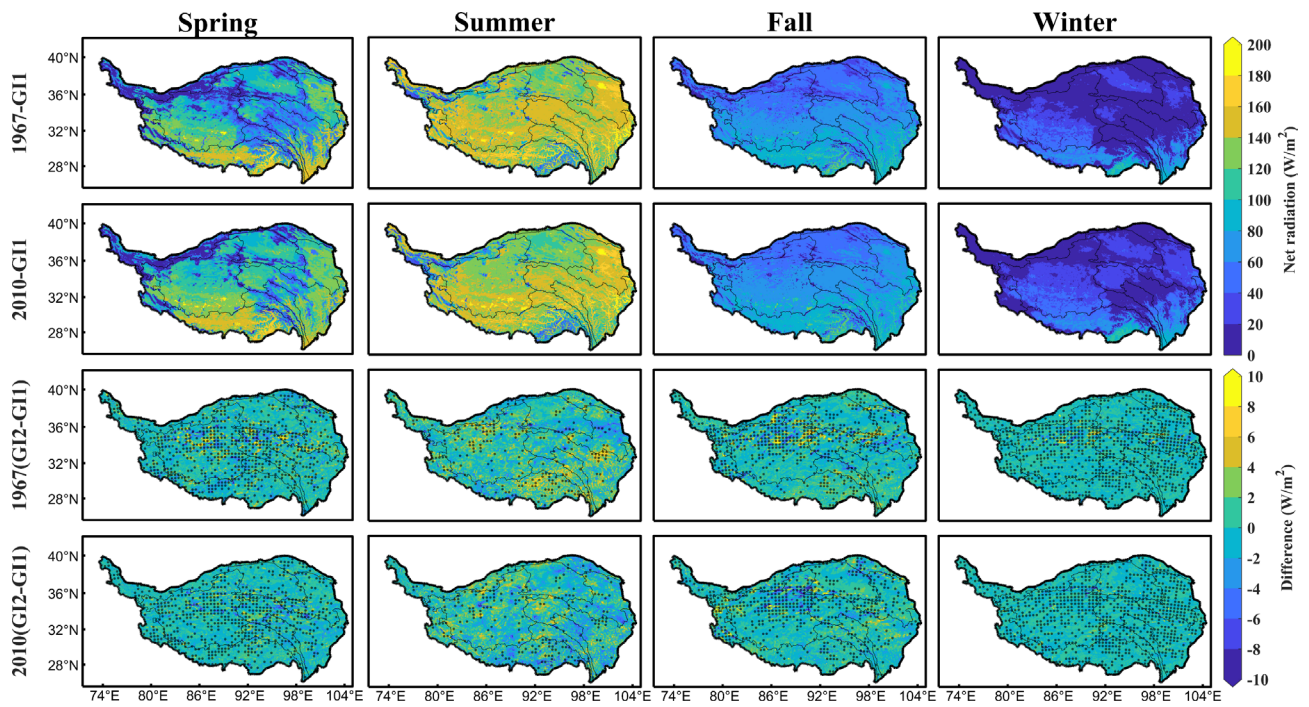
Figure S4. Spatial distributions of mean daily net radiation of 1967-GI1 (top row), 2010-GI1 (second row), and differences between GI1 and GI2 in 1967 (cold year, third row) and 2010 (warm year, bottom row). Stippled regions indicate statistically significant differences at the 10% significance level.
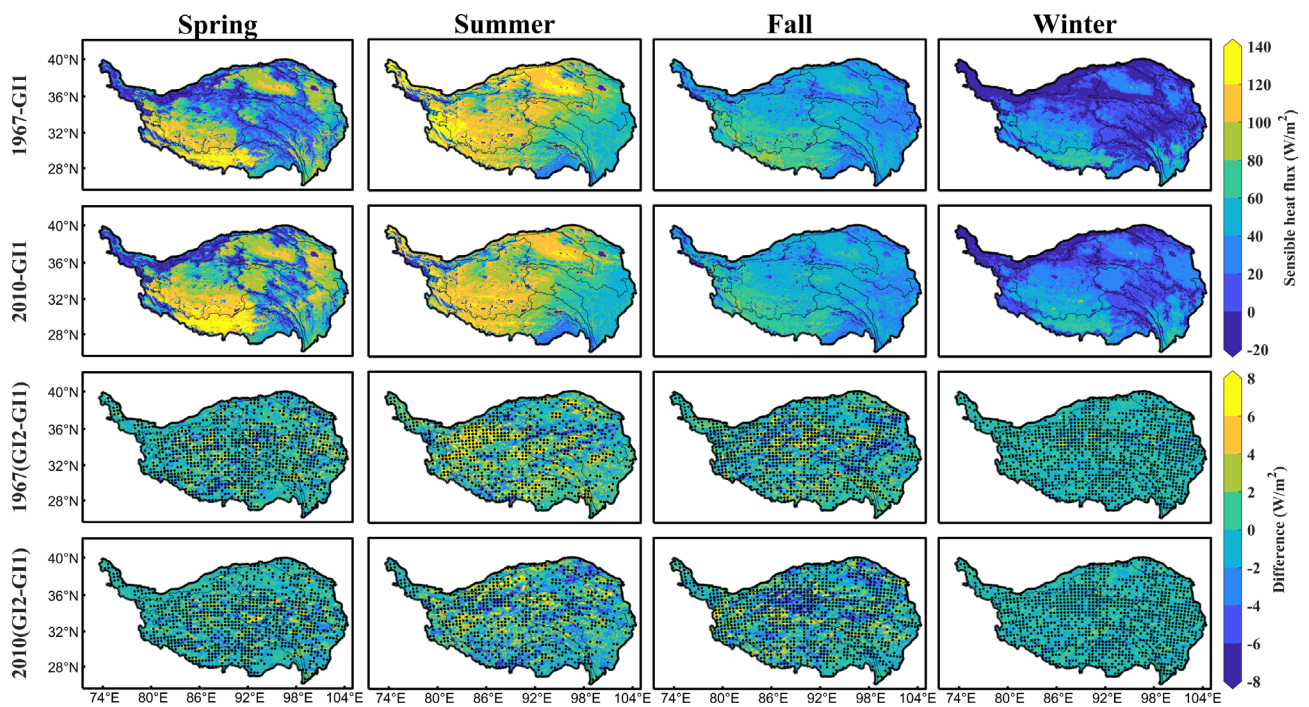
Figure S5. Spatial distributions of mean daily sensible heat flux for 1967-GI1 (top row), 2010-GI1 (second row), and differences between GI1 and GI2 in 1967 (cold year, third row) and 2010 (warm year, bottom row). Stippled regions indicate statistically significant differences at the 10% significance level.
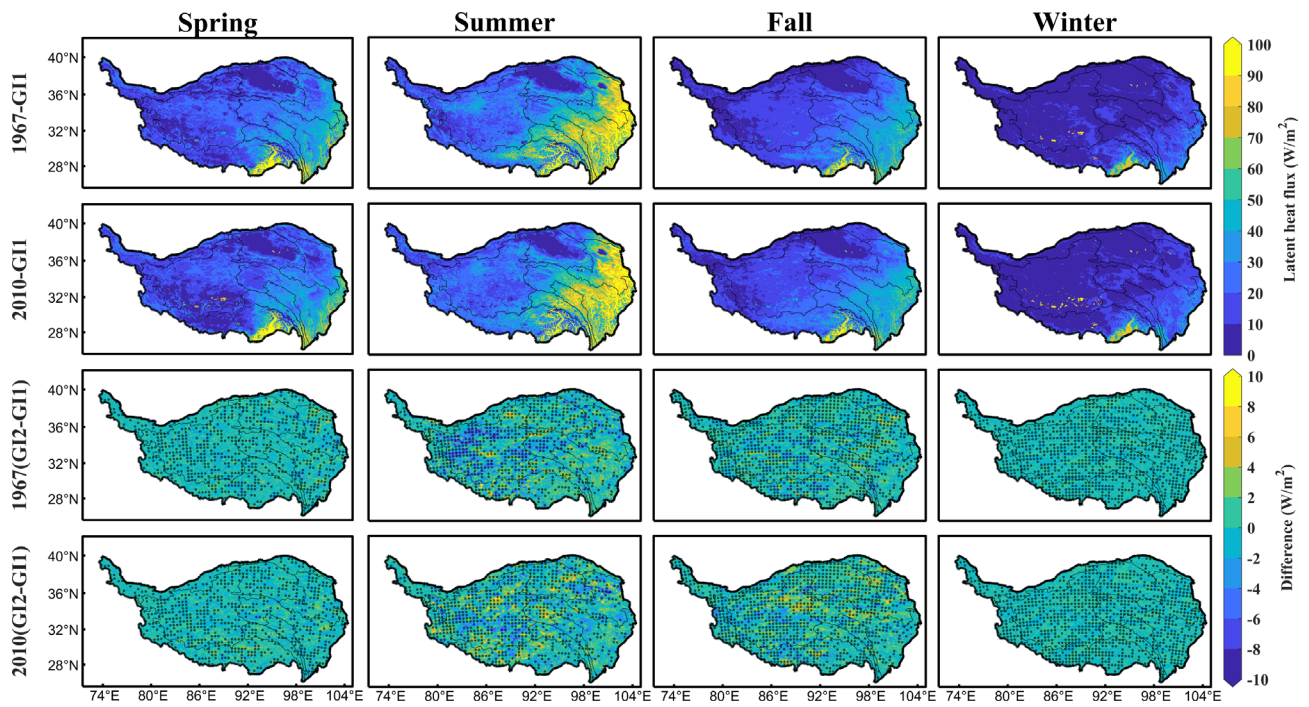
Figure S6. Spatial distributions of mean daily latent heat flux of 1967-GI1 (top row), 2010-GI1 (second row), and Differences between GI1 and GI2 in 1967 (cold year, third row) and 2010 (warm year, bottom row). Stippled regions indicate statistically significant differences at the 10% significance level.
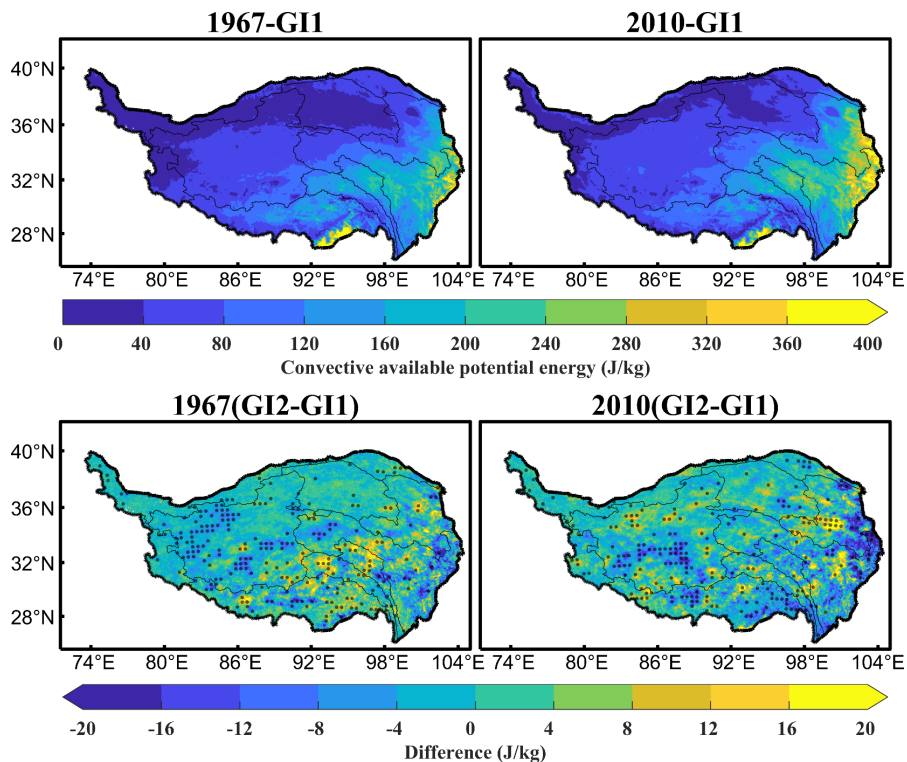
Figure S7. Spatial distributions of summer mean daily convective available potential energy (CAPE) for 1967-GI1, 2010-GI1, and differences between GI1 and GI2 in 1967 (cold year) and 2010 (warm year). Stippled regions indicate statistically significant differences at the 10% significance level.
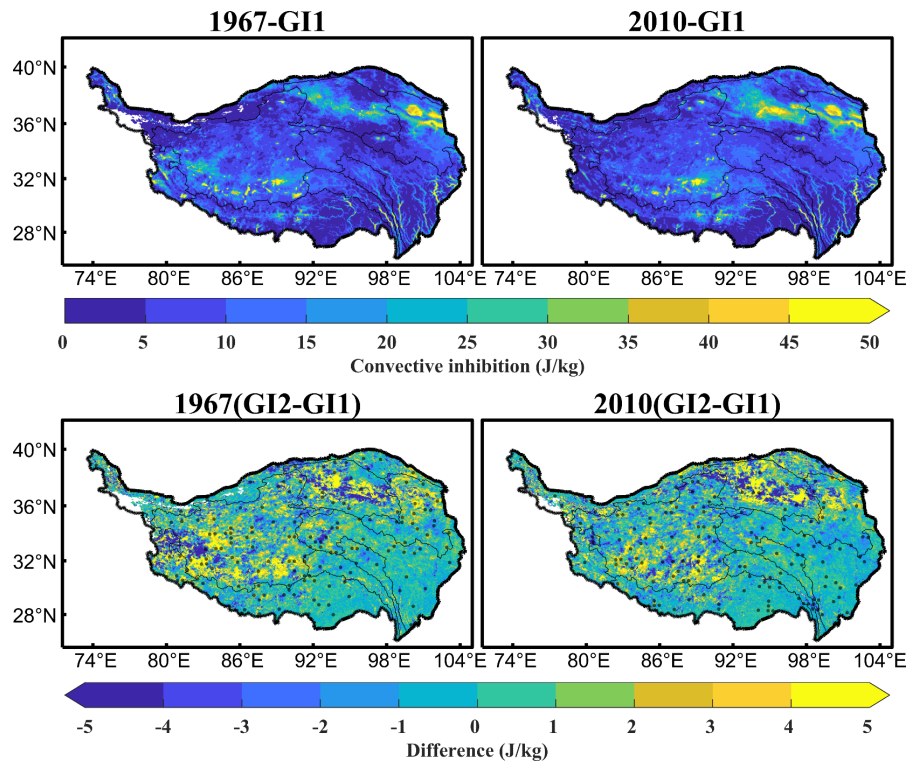
Figure S8. Spatial distributions of summer mean daily convective inhibition (CIN) for 1967-GI1, 2010-GI1, and differences between GI1 and GI2 in 1967 (cold year) and 2010 (warm year). Stippled regions indicate statistically significant differences at the 10% significance level.