Electronic Supplementary Material to: The Warming of the Tibetan Plateau in Response to Transient and Stabilized 2.0°C /1.5°C Global Warming Targets*

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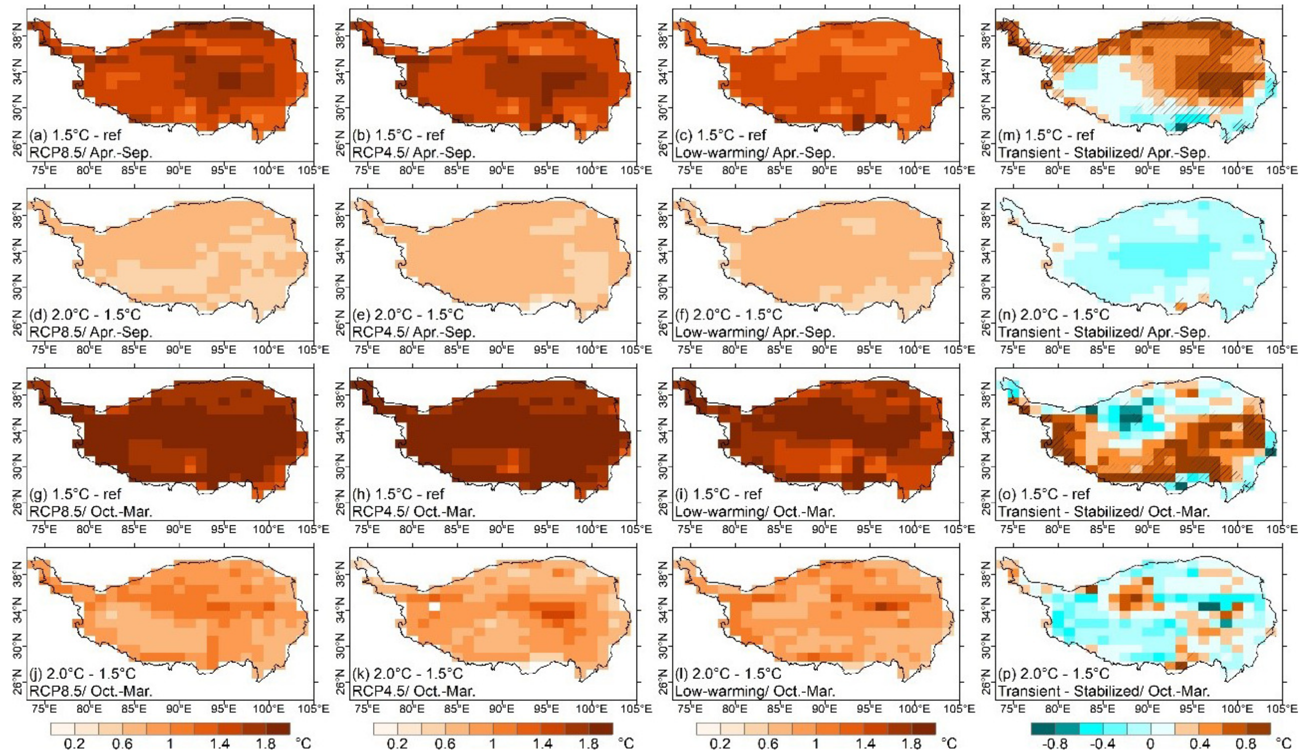

Fig. S1. Spatial patterns of seasonal mean near-surface air temperature changes on the TP. Similar to Fig. 4, but for seasonal changes: (a–f) depict the summer half-year and (g–l) the winter half-year. A white mask in (a–l) is applied for areas where changes are not statistically significant according to the Wilcoxon Rank Sum test (α = 0.05). The difference between the results derived from transient simulations and stabilized simulations are displayed in (m–p): (m, o): 1.5°C scenario versus the reference period; (n, p): 2.0°C scenario versus the 1.5°C scenario; (m–n) for the summer half-year and (o–p) for the winter half-year. "Transient" refers to the averaged results from the RCP8.5 and RCP4.5 simulations, whereas "Stabilized" refers to the low-warming simulations. Hatching in (m–p) is applied for areas where the differences are statistically significant according to Wilcoxon Rank Sum test (α = 0.05).

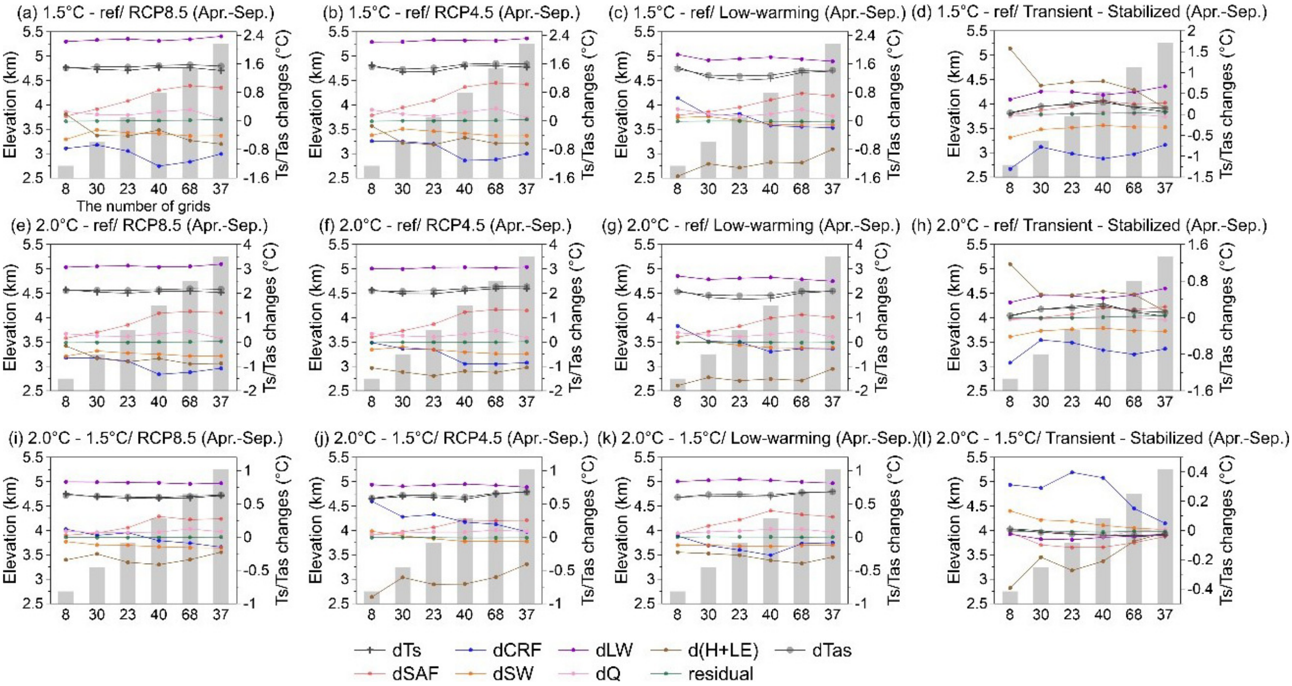

Fig. S2. Elevation profiles of factors influencing seasonal temperature changes on the TP. Similar to Fig. 7, but for the summer half-year mean changes. Changes in surface temperature (dTs) and the seven decomposition terms given in Eq. 1, as well as changes in near-surface air temperature (dTas) are displayed (see legend). (a–d) 1.5°C scenario versus the reference period. (e–h) 2.0°C scenario versus the reference period. (i–l) 2.0°C scenario versus 1.5°C scenario. Panels (a), (e), and (i) are the transient responses derived from the RCP8.5 scenario; Panels (b), (f), and (j) are the transient responses derived from RCP4.5 simulation; Panels (c), (g), and (k) are stabilized responses derived from the low-warming simulation; Panels (d), (h), and (l) are the differences between transient and stabilized response, among them, "Transient" refers to the averaged results from RCP8.5 and RCP4.5 simulations, whereas "Stabilized" refers to the low-warming simulations.

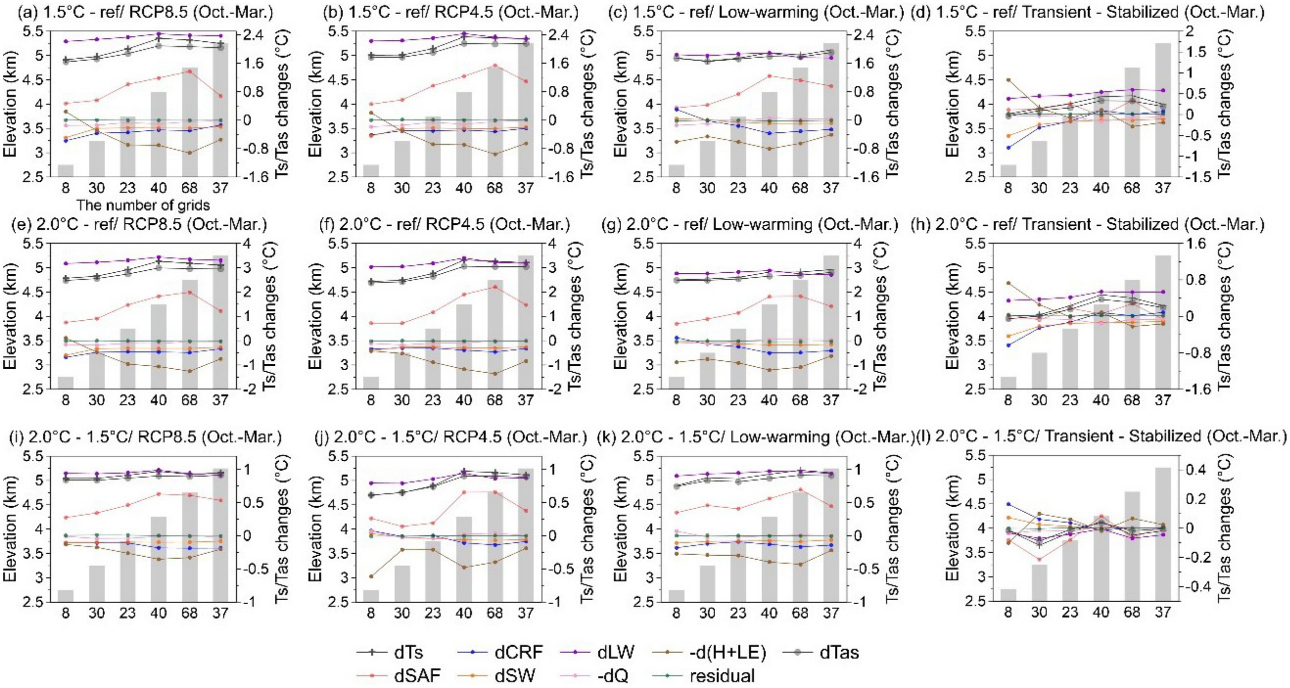

Fig. S3. Elevation profiles of factors influencing seasonal temperature changes on the TP. Similar to Fig. 7, but for the winter half-year mean changes. Changes in surface temperature (dTs) and the seven decomposition terms given in Eq. 1, as well as changes in near-surface air temperature (dTas) are displayed (see legend). (a–d) 1.5°C scenario versus the reference period; (e–h) 2.0°C scenario versus the reference period; (i–l) 2.0°C scenario versus the 1.5°C scenario. Panels (a), (e), and (i) are the transient responses derived from the RCP8.5 scenario; Panels (b), (f), and (j) are the transient responses derived from the RCP4.5 simulation; Panels (c), (g), and (k) show the stabilized responses derived from the low-warming simulation; Panels (d), (h), and (l) show the differences between the transient and stabilized responses, among them, "Transient" refers to the average of the results from RCP8.5 and RCP4.5 simulations, whereas "Stabilized" refers to the low-warming simulations.