Supplementary Materials

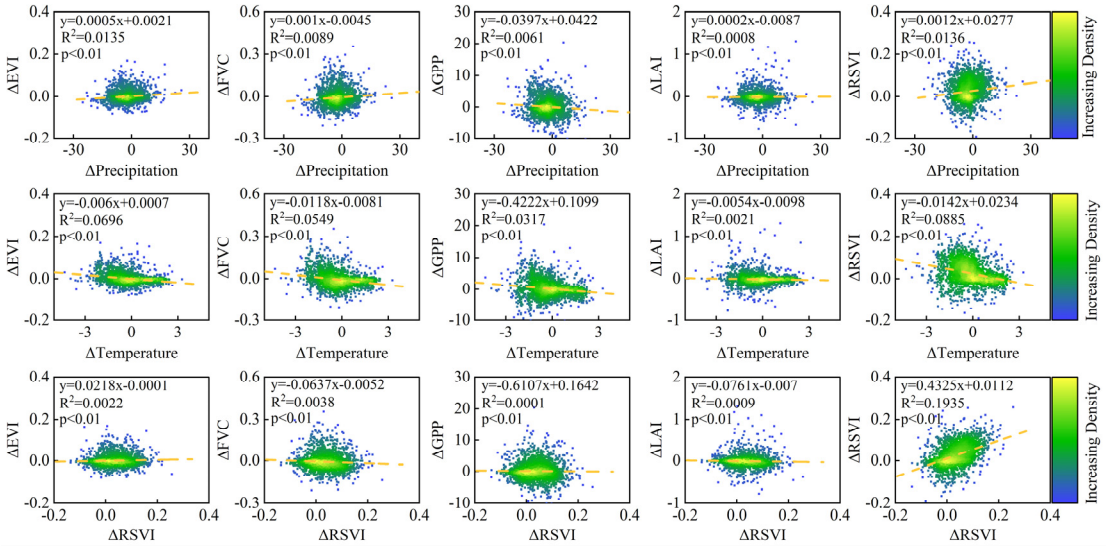


Figure S1. Two-dimensional scatter plots of vegetation in the 2019 Central Asian region within grids affected by drought in relation to temperature, precipitation, and TVDI changes: ΔVI represents the difference between the average vegetation index (VI) during the 2019 growing season and the reference year (average VI from 2018 to 2020). Similarly, ΔTVDI represents the difference between the average temperature vegetation dryness index (TVDI) during the 2019 growing season and that during the reference year (the average TVDI from 2018 to 2020). Additionally, ΔPre and ΔTem represent the differences between the average precipitation and temperature in 2019 and those in the reference year (average precipitation and temperature from 2018 to 2020).

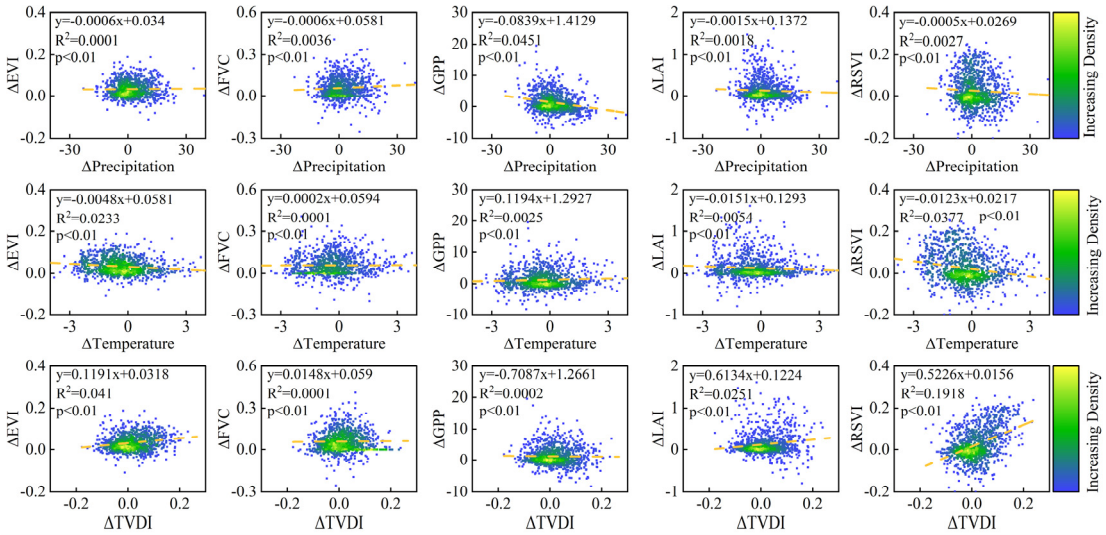


Figure S2. Two-dimensional scatter plots of vegetation in grids in the 2019 Central Asian region where no drought occurred in relation to temperature, precipitation, and TVDI changes: ΔVI represents the difference between the average vegetation index (VI) during the 2019 growing season and the reference year (average VI from 2018 to 2020). Similarly, ΔTVDI represents the difference between the average temperature vegetation dryness index (TVDI) during the 2019 growing season and that during the reference year (the average TVDI from 2018 to 2020). Additionally, ΔPre and ΔTem represent the

differences between the average precipitation and temperature in 2019 and those in the reference year (average precipitation and temperature from 2018 to 2020).