

Table S1 Previous studies on the dominant climatic factors of vegetation productivity variations at different time scales on the Qinghai–Tibet Plateau ('-' represents no study results).

| Vegetation Types or Entire Area | Dominant Climatic Factor | Dominant Period | References |
|------------------------------------|-----------------------------|-----------------------|--------------------------|
| QTP/TRH | Precipitation | Annual/Growing season | [18,20,95,96,140,141] |
| | Temperature | Annual/Growing season | [17,22,70,92–94,142,143] |
| | | Spring | [23,142,144] |
| | | Summer | [23,142] |
| Meadow | Precipitation | Fall | [142] |
| | | Annual/Growing season | [141,145] |
| | | Spring | [141] |
| | | Summer | [141] |
| | Temperature | Fall | - |
| | | Annual/Growing season | [19,22,29,142] |
| | | Spring | [15,19,142] |
| | | Summer | [22,29,142] |
| Steppe | Precipitation | Fall | [22,142] |
| | | Annual/Growing season | [19,22,146] |
| | | Spring | [19,142] |
| | | Summer | [15,29] |
| | Temperature | Fall | [15] |
| | | Annual/Growing season | [22] |
| | | Spring | [142] |
| | | Summer | [29,142] |
| Shrub | Precipitation | Fall | [22] |
| | | - | - |
| | Temperature | Annual/Growing season | [22] |
| | | Spring | [22] |
| | | Summer | [22] |
| | | Fall | [22] |