**Supplementary materials**

**Disentangling the effects of atmospheric CO2 and climate on intrinsic water-use efficiency in South Asian tropical moist forest trees**

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Table S1. DBH and height of the trees included in the δ13C, Δ13C, Ci and iWUE chronologies from a South Asian tropical moist forest.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Species | Sampled trees | DBH | Height | Canopy position |
| *C. tabularis* | Tree 1 | 28 | 25 | 5 |
| Tree 2 | 20.9 | 18 | 3.5 |
| Tree 3 | 22.4 | 21.5 | 5 |
| Tree 4 | 29.2 | 25.5 | 4.5 |
| Tree 5 | 25 | 16 | 5 |
| Tree 6 | 30.7 | 23 | 5 |
| *T. ciliata* | Tree 1 | 12.8 | 18 | 1 |
| Tree 2 | 20 | 16 | 3.5 |
| Tree 3 | 20 | 22 | 4.5 |
| Tree 4 | 18 | 12 | 4.5 |
| Tree 5 | 21 | 17 | 4 |
| *L. speciosa* | Tree 1 | 20.1 | 18.7 | 3.5 |
| Tree 2 | 31.9 | 9 | 5 |
| Tree 3 | 11.5 | 9 | 3 |
| Tree 4 | 19 | 11.8 | 3 |
| Tree 5 | 24.3 | 16 | 3 |

Table S2. Inter-series correlation (rbal.bt) and expressed population signal (EPS) of the tree-ring δ13C chronologies of three South Asian tropical moist forest tree species.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Species | Statistical parameters | δ13C (Before detrending individual series) | δ13C (After detrending individual series) | No of trees |
| *C. tabularis* | rbar.bt | 0.44 | 0.15 | 6 |
| EPS | 0.82 | 0.52 |
| *T. ciliata* | rbar.bt | 0.18 | 0.07 | 5 |
| EPS | 0.52 | 0.26 |
| *L. speciosa* | rbar.bt | 0.07 | 0.07 | 5 |
| EPS | 0.26 | 0.26 |



Figure S1. Annual variability and long-term trends in carbon discrimination (Δ13C), and inter-cellular CO2 concentration (Ci) of three South Asian tropical moist forest tree species.