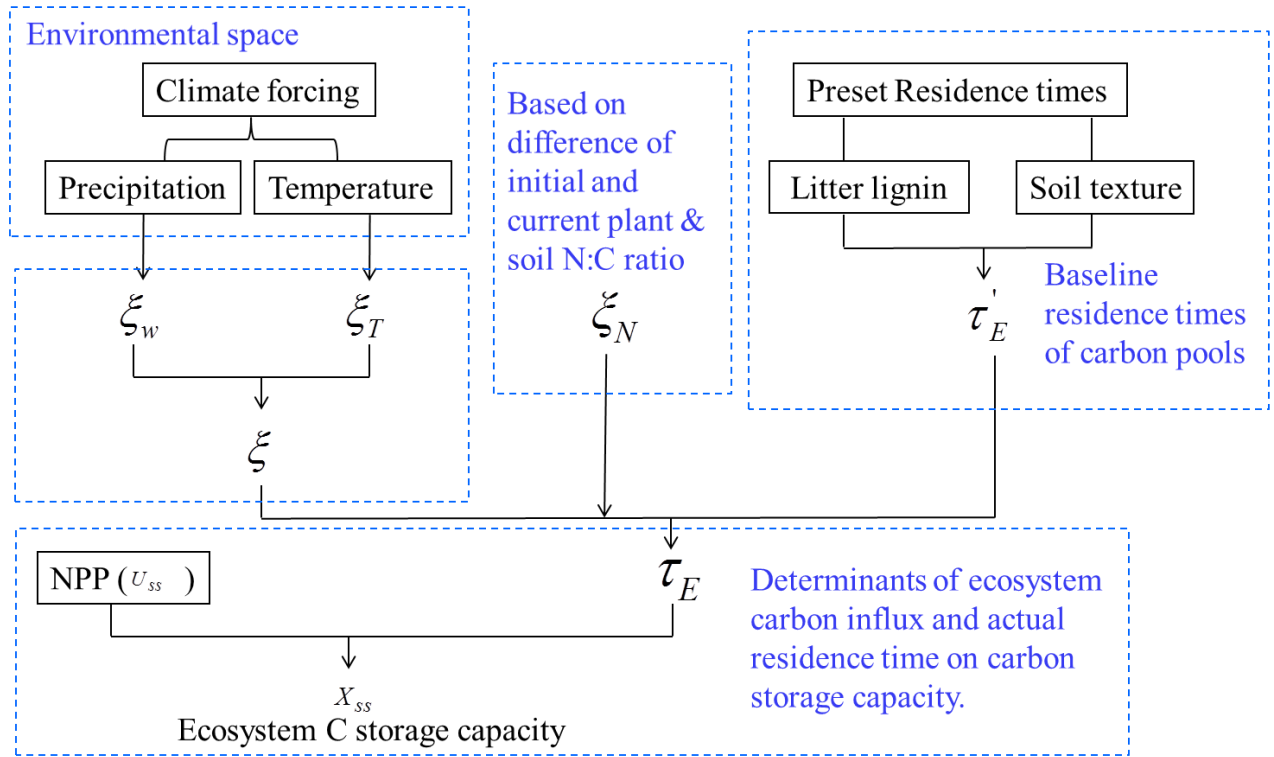1   **Supplemental information**

2   **Figure S1**

3

4   **Figure S1.** Schematic diagram of the traceability analysis framework. X_{ss}, ecosystem carbon
5   storage capacity; τ_E, ecosystem carbon residence time; τ'_E, baseline carbon residence time; ξ_N,
6   nitrogen scalar; ξ, environmental scalar; ξ_T, temperature scalar; ξ_W, water scalar.

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