

Implications of the Steady-state Assumption for the Global Vegetation Carbon turnover

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Figures S1

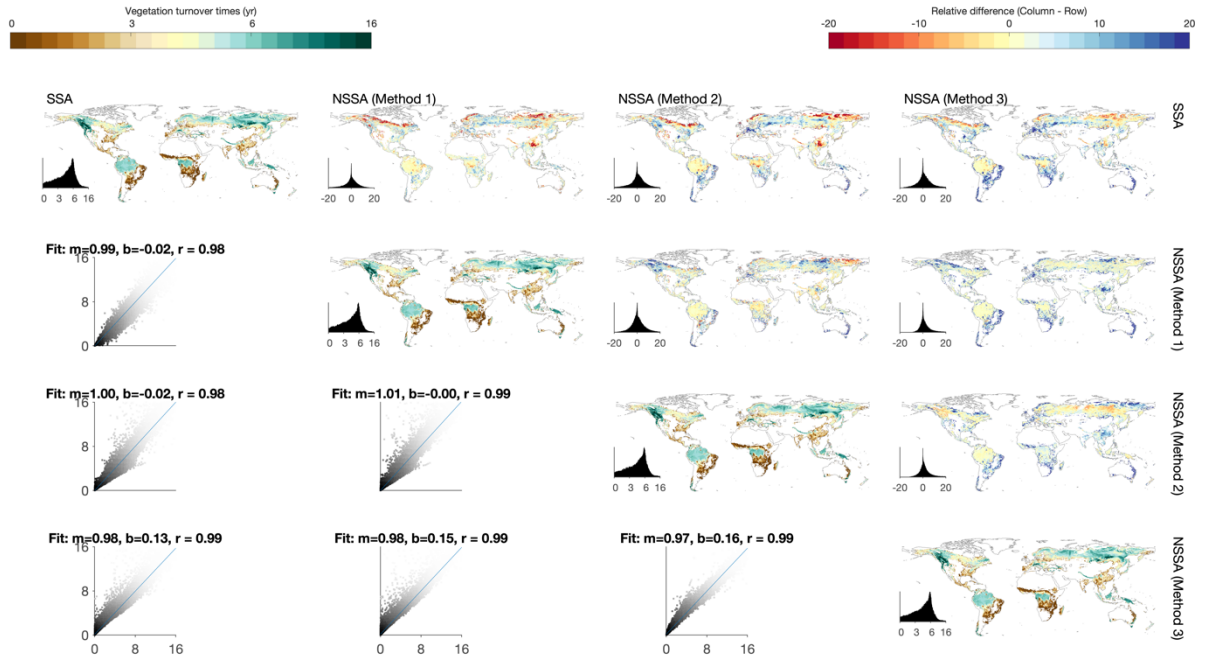


Figure S1. Comparison of τ under SSA and NSSA using different methods. The upper off-diagonal subplots show the relative difference between each pair of datasets (column/row). The bottom off-diagonal subplots show the density plots and major axis regression line between each pair of datasets (m : slope, b : intercept, r : correlation).

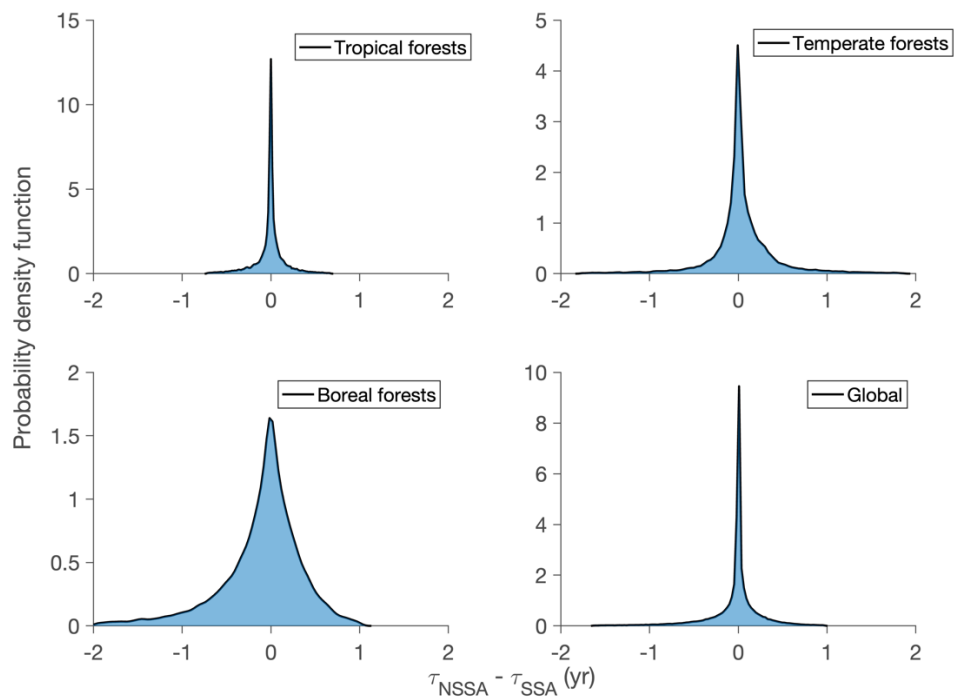


Figure S2. Spatial distribution of the relative difference (in percent) between τ_{NSSA} and τ_{SSA} . The histograms show the probability distribution of $\tau_{\text{NSSA}} - \tau_{\text{SSA}}$ (in years) in tropical forest, temperature forest and boreal forest. The τ_{NSSA} shown here was estimated using Method 1. The estimations using Method 2 and Method 3 are shown in Figure S5 and Figure S6 in the Supplementary Information.

Table S1. Statistics of carbon turnover estimations at different biomes (associated with Figure S2).

SSA_TAU	NSSA_TAU	CORR	DIFF_25	DIFF_75	MEAN
4.09	4.02	1.00	-4.49	3.53	4.01
3.09	3.10	0.99	-8.47	12.40	10.44
5.04	4.97	0.97	-13.32	7.52	10.42
2.66	2.60	0.99	-11.97	8.46	10.21

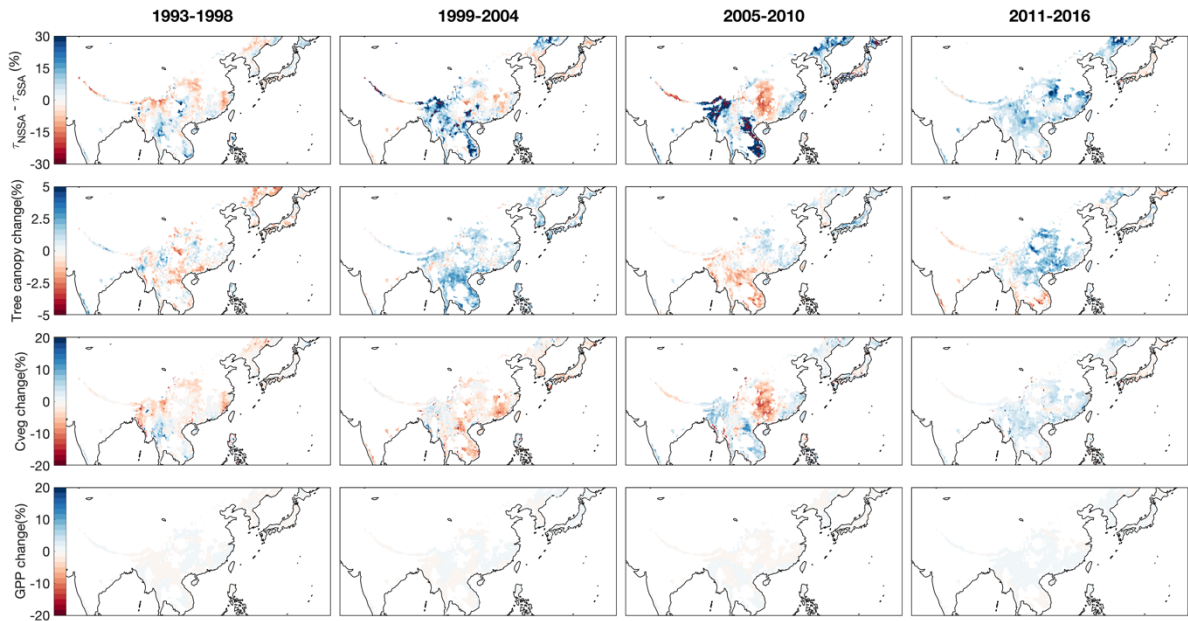


Figure S3. Regional changes in the relative difference between τ_{NSSA} and τ_{SSA} ($(\tau_{\text{NSSA}} - \tau_{\text{SSA}}) / \tau_{\text{SSA}} * 100$), row 1, forest cover change (%), row 2, vegetation biomass change (%), row 3, GPP change (%), row 4 at different time periods in Southern China.