Carbon Balance of the Southeastern U.S. Forest Sector as Driven by Recent Disturbance Trends

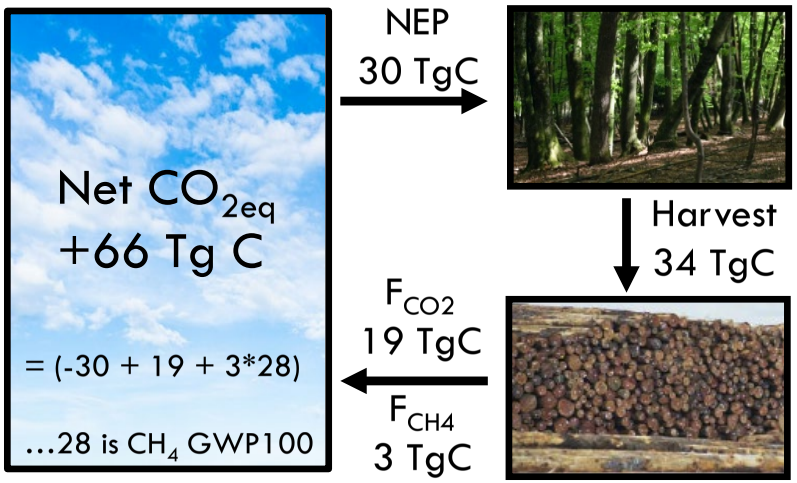
Gu H, Williams CA et al. (2019) JGR-Biogeosciences, https://doi.org/10.1029/2018jg004841

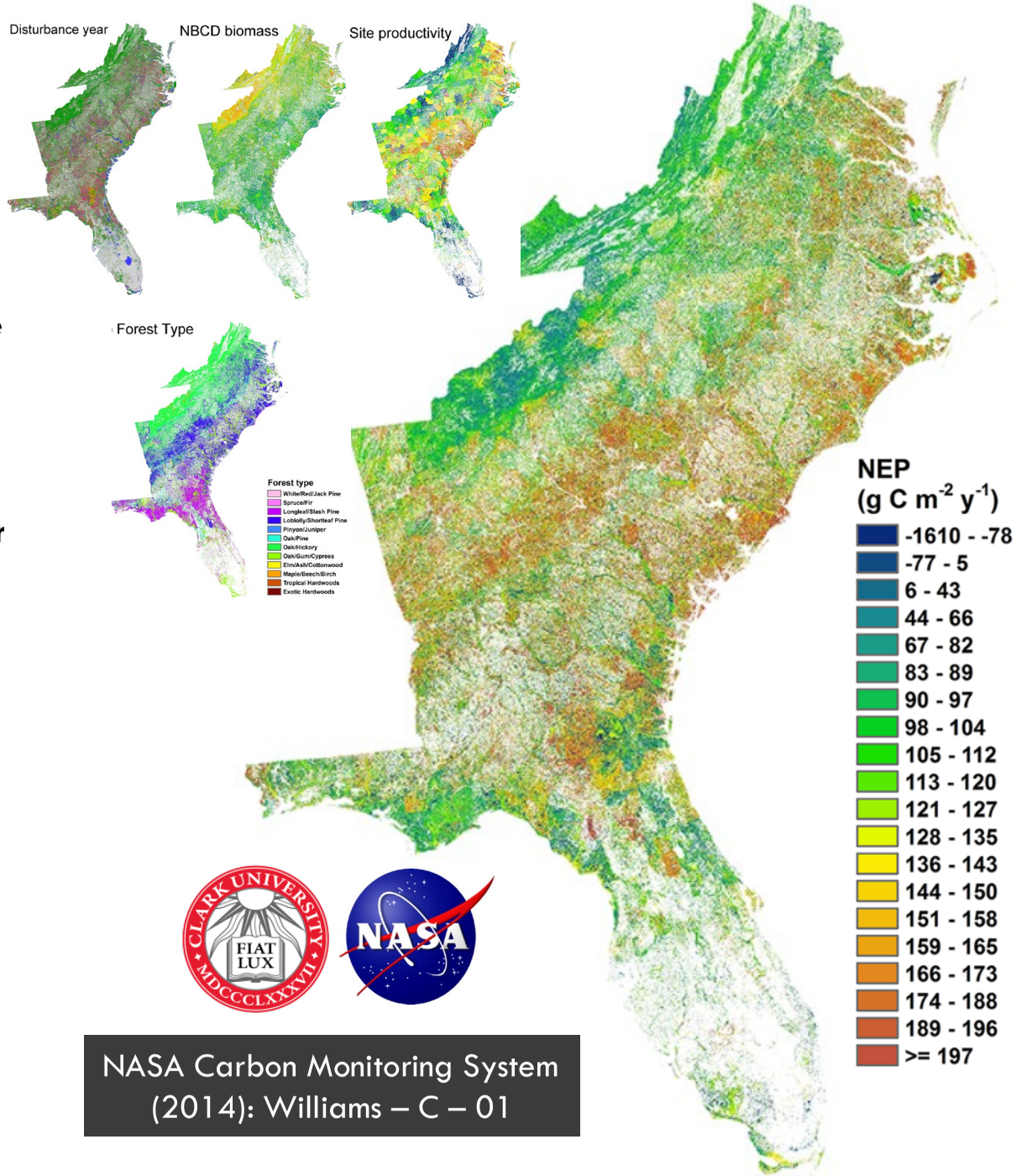
Net Ecosystem Productivity decreased by 27% from 1986 to 2010 **due to a 30% increase in annual harvesting** and associated in-forest disturbance emissions. (avg. NEP 97 g C m^{-2} y^{-1})

Average annual **biomass growth largely balanced harvest removals,** with region-wide live biomass stocks varying little over time.
(avg. AGB 5.0 kg C m^{-2} or 1780 Tg C)

Two-thirds of harvest removals are emitted within 50 years, 8% as methane, so that the **forest sector was a large CO_2-equivalent source of carbon to the atmosphere.**

Estimates for Year 2010





NASA Carbon Monitoring System (2014): Williams – C – 01