- NUTRIENT UPTAKE

$$F_N = K a_R N_S$$

- NET CARBON UPTAKE

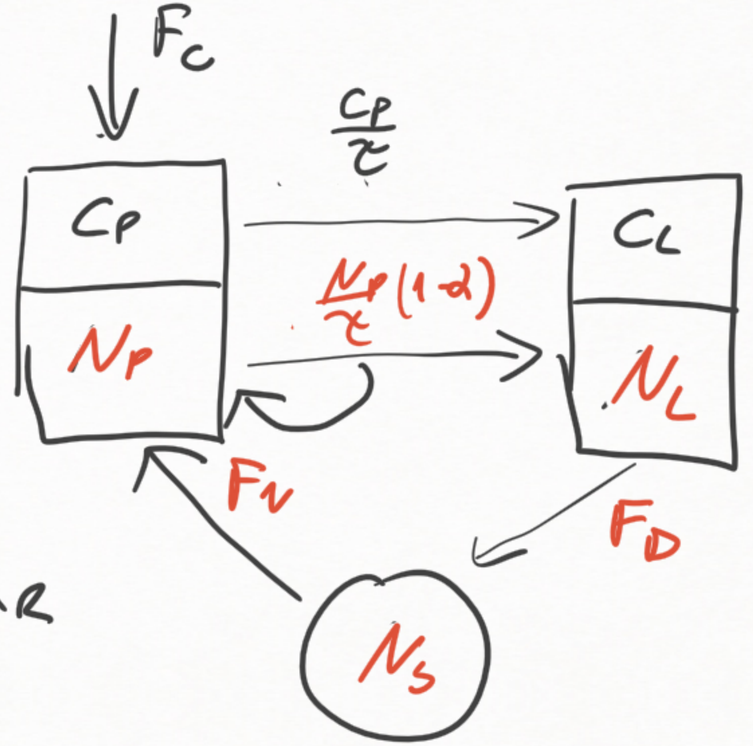
$$F_C = \left(A_c(V_{c,max}) - r_L\right) a_L - r_R a_R$$

- PLANT CARBON BUDGET

$$NPP = F_C - \overbrace{\frac{\omega}{\tau_L} LMA\, a_L - \frac{\omega}{\tau_R} RMA\, a_R}^{\text{TISSUE TURNOVER}}$$

- STOICHIOMETRY CONSTRAINT

$$\eta_P F_N = F_C$$



$$\eta_P = \frac{N_P}{C_P}$$

$$\eta_L = \frac{N_L}{C_L}$$

$$\gamma = \frac{a_L}{a_R}$$