

Changes Made to Ecosystems and Their Cycles :

- Most ecosystems are “open” ecosystems (things move in and out, bringing effects and causing changes).
- Things that move in and effect change are called external factors (things like pollution, new species, weather, industry, etc)
- Changes that are made to ecosystems can be **short term** (moments, weeks, months, or even a few years, like a really dry summer, or hunting season, or seasonal activity like farming or logging) and the ecosystem can generally adjust itself to repair or compensate for these changes (populations change in size, individuals change behaviors for a little bit)

Or...

Long term (years, decades, centuries - like climate change), where the system has undergone serious significant change, and the natural balance is lost, so time is needed for the ecosystem to rebound and develop into a similar or even a new climax community. (Ex. A forest is clear cut for pulp and paper needs)

How do ecosystems react ?

- biotic factors change (go up or down, move around, change behavior, grow differently, reproduction changes, etc) to make up for the disturbance to cycles or the whole ecosystem. Species may come or go, amount of competition changes, so all of these factors cause communities to change.
- abiotic factors like weather and climate might change, amount of sunlight, soil chemistry, bioaccumulation may occur, erosion, deposition, etc.
- since biotic and abiotic impact each other, change is a very complex process sometimes, and somewhat unpredictable.

How Have Humans Impacted The Water, Nitrogen, and Carbon Cycles ?