

# Composition of an Ecosystem

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- An **ecosystem** (short for ecological system) is an ecological community together with its environment, functioning as a unit.
  - Climate
  - Soils
  - Vegetation
  - Wildlife
  - People
- All ecosystems are "open" systems in the sense that energy and matter are transferred in and out.
- A combination of **biotic**, **abiotic**, and **cultural** factors lead to many different types of ecosystems.
  - Grassland
  - Rainforest
  - Desert
  - Coniferous Forest
  - Deciduous Forest
- **Biotic Factors**
  - Plants
  - Animals
  - Microorganisms
- **Abiotic Factors**
  - Air
  - Water
  - Rocks
  - Energy
- **Cultural Factors**
  - People
- Lined up in a spectrum, a **tropical rainforest** is at one end and a **desert** is at the other end
  - **Rainforest** = high temperature + high precipitation
  - **Deciduous Forest** = warm temperature + high precip.
  - **Coniferous Forest** = cool temperature + high precip.
  - **Grasslands** = warm temperature + moderate precip.
  - **Desert** = any temperature + low precip.
- There are also several types of localized ecosystems that may not appear to fit with their surrounding dominant ecosystem.
  - Wetlands
  - Caves
  - Mountains