## All point is homeostasis. structure of an ecosystem



All ecosystems, even the ultimate biosphere are open systems.

There is necessarily at least an inflow and outflow of energy. Balance of ecosystem means balance of autotrophy and heterotrophy in an ecosystem, to maintain an even distribution of sustainable energy through food chain without any external interference. Any disturbance in autotrophicheterotrophic balance leads to ecosystem imbalance, more the imbalance more externals are required to balance. Bigger the ecosystems lesser is the imbalance.

Balance infect designates to greater primary producers than consumer. Stability of Ecosystem: An ecosystem which has attained maturity is by and large is a very stable system. It is controlled by feedback mechanic who may be either positive or negative. A simple feedback mechanism is shown below: Here A produces B; B produces C and C produces D by the catalysis of X1 X2, X3 respectively and may be a component which is needed in a little amount. When D is produced in large amount it inactivates X1 and the reaction stops proceeding.

Again D gets exhausted, simultaneously accumulation of A starts, resulting in activation of X1. Many such feedback mechanisms occur in ecosystem to resist change. Their abilities to resist unfavourable changes have been termed as homeostatic mechanisms or, ability to return to a balanced point is homeostasis. Structure of an Ecosystem An ecosystem has two types of components:- 1. Abiotic 2. Biotic.

 Abiotic component includes :- (A) Physical (1) Sunlight (for photosynthesis)
Water (essential for living beings) (3) Temperature (necessary to get https://assignbuster.com/all-point-is-homeostasis-structure-of-an-ecosystem/ survive) (4) Soil (provide base and nutrients) (B) Chemical (1) Proteins (2) Carbohydrates (3) Fats (4) Minerals etc. 2. Biotic component (1) Producers/Autotrophs (2) Consumer/heterotrophs 3. Decomposers Producers: They are chlorophyll bearing, self nourishing organisms, which prepare organic compounds from inorganic raw materials, through the processes of photosynthesis e. g. all green plants.

Consumers: They depend on the energy, produced by the producer. Different categories of consumer are herbivores, carnivores and omnivores. Decomposers: They attack on dead animals, producers etc. and convert the complex organic compounds, locked in to them in to, simpler compounds (by the process of decomposition and disintegration) and then recycle all the nutrients back. For example bacteria and fungi.